



Market power assessments in the European airports sector

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Glossary

ACCC	Australian Competition and Consumer Commission
ACD	Airport Charges Directive
ACM	Netherlands Competition Authority (previously the NMa)
ANS	Air navigation services
ANSP	Air navigation service providers
ATCOs	Air traffic control operators
ATMs	Air traffic movements
BAA	British Airports Authority
BEREC	Body of European Regulators for Electronics Communications
BETTA	British Electricity Trading and Transmission Arrangements
CAA	UK Civil Aviation Authority
CAPEX	Capital expenditure
CEER	Council of European Energy Regulators
CMA	UK Competition and Markets Authority
DfT	UK Department for Transport
DTTaS	Irish Department of Transport, Tourism and Sport
EBITDA	Earnings before interest, tax, depreciation and amortisation
ECAA	European Common Aviation Area
FSC	Full service carrier
GAL	Gatwick Airport Limited
GAP	German Airport Performance
HAL	Heathrow Airport Holdings Limited
HHI	Herfindahl–Hirschman Index
HMT	Hypothetical monopolist test
IFR ATMs	Instrumental flight rules air traffic movements
ISA	Independent supervisory authority
KPIs	Key performance indicators
LCC	Low-cost carrier
LNG	Liquefied natural gas
MAG	Manchester Airports Group
MCA	Maltese Competition Authority
mpa	Million passengers per annum
NMa	Netherlands Competition Authority (now the ACM)
NSL	NATS Services Limited
NERL	NATS En Route
NETA	New Electricity Trading Arrangements
O&D	Origin and destination
Offer	GB Office of Electricity and Regulation (now Ofgem)

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OPEX	Operating expenditure
OTT	Over the top
RAB–WACC	Regulatory asset base–weighted average cost of capital
SDG	Steer Davies Gleave
SES	Single European Sky legislative package
SES II	Second Single European Sky legislative package
SIEC	Significant impediment of effective competition
SLEFs	Six large energy firms
SMP	Significant market power
SSNIP	Small but significant and non-transitory increase in price
STAL	Stansted Airport Limited
SVTs	Standard variable tariffs
TANS	Terminal Air Navigation Services
TFEU	Treaty of the Functioning of the European Union
VFR	Visiting friends and relatives
VoIP	Voice over Internet Protocol

Executive summary

The Airport Charges Directive (ACD) was introduced in 2009 to establish a common European framework for regulating features of airport charges, airports' operations and airports' interactions with airlines. The ACD covers airports with more than 5 mppa, as well as the largest airport in each EU member state.

There is a case for regulating airports that do not face effective competition and that have a high degree of market power in order to ensure that the interests of passengers are protected. However, where regulation is not needed, or where there is more regulation than required, it can be costly and can lead to poor outcomes for customers.

The ACD covers approximately 80 airports. Given the extent of competition that exists between airports—as demonstrated, for example, in the recent Oxera report 'The continuing development of airport competition in Europe'¹—there will be many airports that face effective competition but are nonetheless subject to the ACD and, in some cases, additional price and service quality regulation at a national level.

It is important that regulation is not applied where it is not required and that it does not obstruct the development of competition. One way to ensure more targeted regulation is to apply market power assessments. A useful threshold for regulatory intervention that could be applied to airports is that of SMP, as applied in a number of other regulated sectors and consistent with the concept of dominance in competition law.

This report sets out a process developed by Oxera and CMS, on behalf of ACI EUROPE, for the implementation of market power assessments for European airports. The ACD already makes allowance for this at a national level, though only few such assessments have been undertaken. This report is intended to contribute to the discussion as to how best apply market power assessments in the European airport sector by analysing the issues that need to be considered and setting out a process for the implementation of market power assessments for European airports should the ACD be revised. Elements of the process could also be used within the framework of the current ACD.

This process involves a two-stage SMP test followed by a remedies stage. It provides a practical way for member states to determine which airports face effective competition and could therefore be subject to reduced degrees of regulatory intervention. In the second stage, it also identifies those airports that are not (yet) facing significant competitive constraints and for which some form of regulation may be required. Regulation can be calibrated to the degree of market power identified. Such a process is more aligned with those in other sectors and will lead to better outcomes for customers.

This report introduces the concept of the 'safeguard ACD'. Even if an airport is determined to be unlikely to have SMP, it may still make sense from a public-policy perspective to subject the airport to a number of requirements of the ACD, such as transparency, non-discrimination and consultation. These conditions would ensure that there are some 'rules of the game' set out for interactions between airlines and airports that are common across member states. In this report, we refer to the ACD with only the provisions of transparency, non-discrimination and consultation as the 'safeguard ACD'.

¹ Oxera (2017), 'The continuing development of airport competition', 26 September.

Our proposed process has three stages, as follows:

- Stage 1: apply three screening criteria to airports above a de minimis threshold as an initial assessment of whether an airport has and/or is likely to acquire SMP. Airports that are unlikely to have or acquire SMP according to these criteria would not be considered further, and instead only subjected to the safeguard ACD.
- Stage 2: undertake a more detailed SMP assessment for airports that do not meet the above screening criteria, following established principles for market power assessments, and looking ahead to how the market may evolve as well as at how it has performed in the past.
- Stage 3: determine the appropriate form of economic regulatory oversight for those airports found to have SMP after stage 2, calibrating this to the degree of SMP found for individual airports and the costs and benefits of intervention in each case.

We consider that the Commission could also use certain elements of this framework should it wish to provide more guidance to Member States regarding the implementation of the ACD—for example, using the market power guidelines we propose in relation to the application of Article 6(5)b of the (current) ACD. Should market and regulatory outcomes point to the need to revise the Directive, the Commission could incorporate this framework in total, or in part. The latter might involve, for example, the use of the screening criteria methodology to determine a revised de minimis threshold for the application of the ACD that is more consistent with the extent of competition in the airports market.

Overall, our proposed approach should assist in fostering the continuing development of airport competition and ensuring that regulation is applied only where needed and in a manner proportionate to the degree of market power and the risk of adverse effects from it. It also provides a practical process which should make the application of market power tests tractable for individual national regulators while maintaining a common framework of principles and safeguards at a European level.

1 Introduction: towards a process for assessing significant market power for airports

This report analyses the issues involved in the application of market power assessments and sets out a process developed by Oxera and CMS, on behalf of ACI EUROPE, for their implementation for European airports. Elements of the proposed approach could be used to assist in the implementation of the current ACD or, in whole or in part, to assist in an eventual revision, to ensure that the ACD is fit for purpose.

The ACD currently applies to European airports² with more than 5 mppa, as well as the largest airport in each EU member state. It establishes a common European framework for regulating features of airport charges, airport operations and airport interactions with airlines. The ACD requires non-discriminatory and cost-related airport charges, regular consultation between airports and users, and transparency on how airport charges are calculated.³ It also provides for the establishment of independent supervisory authorities (ISAs), which can intervene in disagreements between airports and users over decisions on airport charges. Further details are set out in the box below.

Box 1.1 Overview of the ACD

The ACD sets out a number of requirements, for example:

- **ISA—Article 11.** Member states must establish an independent regulatory authority.
- **Non-discrimination—Article 5.** Airport charges must not discriminate among users. Charges can be differentiated for issues of public and general interest, including environmental issues, but they should be based on relevant, objective and transparent criteria.
- **Consultation and remedy—Article 6.** There must be regular consultation (at least once a year)¹ between the airport and airport users (or representatives / associations of airport users) with respect to the system and level of airport charges, and the quality of service. In the event of a disagreement over a decision on airport charges, either party may seek the intervention of the ISA, unless:
 - there is a mandatory procedure under national law whereby airport charges, or their maximum level, are determined or approved by the ISA (Article 6(5)a); or
 - there is a mandatory procedure whereby the ISA examines whether the airport is subject to effective competition. Whenever justified on the basis of this examination, the member state can decide that airport charges or their maximum level should be determined or approved by the ISA (Article 6(5)b).²
- **Transparency—Article 7.** The airport must provide each user (or representatives / associations of users) with information on the components that are the basis for determining the system or the level of charges. Airport users should also submit information to the airport before every consultation, in particular in relation to forecasts regarding their traffic and fleet, development projects and requirements at the relevant airport.

The ACD also addresses other topics, such as ensuring that the airport consults with airport users before plans for new infrastructure projects are finalised, and allowing the airport and users to form service-level agreements regarding the quality of service provided at the airport.

Note: ¹ Unless agreed otherwise in the latest consultation; an agreement between the airport managing body and the airport users states otherwise; or the EU country decides to request more frequent consultations. ² With this last condition (Article 6(5)), the European legislator wants to ensure that in those member states that decide not to use the ISA to arbitrate on the

² Specifically, airports in the European Union, European Economic Area and Switzerland.

³ European Commission (2009), 'Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges', *Official Journal of the European Union*, OJ L 70/11, 14 March.

level of charges, there is either a national mandatory procedure for determining airport charges or a mandatory procedure for their regular review.

Source: European Commission (2009), 'Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges', *Official Journal of the European Union*, OJ L 70, 14 March.

Given the extent of competition that now exists between airports in Europe—as demonstrated, for example, in the recent Oxera report, 'The continuing development of airport competition in Europe', hereafter Oxera (2017)⁴—there will be many airports that face effective competition but are nonetheless subject to the ACD and, in some cases, additional price and service quality regulation.

There is a case for regulating airports that do not face effective competition and have a high degree of market power that is likely to result in detriment to consumers. Regulation can help to ensure fair prices, sufficient investment, high service quality, and efficient costs. However, where regulation is not needed, or where there is more regulation than required, it can be costly (in terms of both direct and indirect costs) and can lead to poor outcomes for customers. Many regulators and government bodies have acknowledged that effective competition can deliver significant benefits.⁵ The European Commission itself has recently stated that there is no need for regulation if airports are subject to effective competition.⁶ Therefore, it is important that regulation is not applied where it is not required and that it does not obstruct the development of competition.

Market power assessments could enable more targeted regulation for airports. A useful threshold for regulatory intervention that could be applied to airports is that of significant market power (SMP), as applied in a number of other regulated sectors and consistent with the concept of dominance in competition law.

SMP assessments can be quite detailed and resource-intensive exercises. Therefore, if a market power test were to be included in determining whether to apply the ACD, it would need to take account of the fact that airports representing just under 80% of EU passenger traffic fall within the scope of the Directive⁷ and that these airports, and their regulators, are of very different sizes, face different market conditions, and have different capacities.

In this report we propose a two-stage SMP test, followed by a remedies stage that could be incorporated into the ACD. We consider that the Commission could use certain elements of this framework should it wish to provide more guidance to Member States in relation to the implementation of the ACD—for example, the use of the market power guidelines we propose in relation to the application of Article 6(5)b of the ACD.

Should market and regulatory outcomes point to the need to revise the ACD, the Commission could also incorporate this framework in total, or in part, into a revised Directive. This could involve, for example, the use of the screening criteria methodology to determine a revised de minimis threshold for the application of the ACD that is more consistent with the extent of competition in the airport market.

⁴ Oxera (2017), 'The continuing development of airport competition in Europe', prepared for ACI EUROPE, 26 September.

⁵ See Civil Aviation Authority (2015), 'Guidance on the Application of the CAA's Competition Powers', CAP 1235; Department of Transport, Tourism and Sport (2017), 'National Policy Statement on Airport Charges Regulation.'

⁶ European Commission (2015), 'An Aviation Strategy for Europe'.

⁷ As at 1 September 2016. European Commission (2016), 'Evaluation of the Directive 2009/12/EC on Airport Charges', 1 September.

This proposed process is similar to the European Commission's mergers procedure, which has two phases. Phase 1 involves an initial examination of whether the merger could negatively affect competition, while phase 2 involves a more detailed assessment of the effects on competition (in the case that satisfactory commitments have not been presented by the notifying firm(s) in phase 1). Our proposed approach also draws on the process that the European Commission applies in the electronics communications sector in EU member states.

The remainder of this report is structured as follows:

- section 2 presents an overview of relevant case studies reviewed in developing the process. More detail on each of these case studies is included in Appendix 1;
- section 3 explains the overall process for the two-stage SMP and remedies process, while sections 4 to 6 set out more detail on each of the stages;
- section 7 describes other relevant elements of the process;
- section 8 concludes.

Appendix 2 includes market power assessment guidelines to accompany stage 2 of the process in performing market power tests.

2 Insights from SMP assessments across sectors

2.1 Introduction

We have conducted a detailed review of sectors that have recently been subject to SMP assessments, or similar investigations, that consider the market power of operators. These assessments have been initiated by regulators, governments or competition authorities to determine whether regulatory oversight is required, and, if so, to tailor it to the degree of market power found. These assessments provide useful insights that we have taken into account in developing the proposed SMP process for airports.

2.2 Overview of case studies

The SMP assessments that we have reviewed have been undertaken to determine whether regulation should be applied, or whether existing regulation should be removed. For example, in both the electronic communications and the terminal air navigation services (TANS) sectors, there is a European Commission framework set out for undertaking these assessments and for determining whether there should be any form of economic oversight applied.

We have also considered assessments from the aviation sector, including from the UK, Australia, Ireland and the Netherlands, and an SMP assessment for Malta Post. We have reviewed two case studies from the energy sector—from the UK and Australia. While these are not explicitly SMP assessments, these market investigations did take account of several features that would typically be considered in an SMP assessment, and made recommendations for the design of regulation going forward.

The European Commission's merger process and state aid guidelines are also relevant to this study, but we do not review them in detail here. Instead, we identify the relevant elements as we describe our proposed process in the following sections.

The table below summarises each of the case studies reviewed. It highlights the key lessons about the process for undertaking the assessment, the factors reviewed as part of the determination of SMP, and considerations with respect to the form of economic regulatory oversight according to the outcome of the assessment. Appendix 1 provides more detail on each of these case studies.

Table 2.1 Overview of market power assessments across sectors

	Process	Factors considered in determining whether there is SMP	Form of economic regulatory oversight
Electronic communications sector	The European Commission applies three cumulative criteria to determine whether a market 'is susceptible to ex ante regulation'. National regulators must then review the markets susceptible to ex ante regulation to determine whether there are firms that possess SMP in these markets. Only if there are firms with SMP do these markets become subject to regulation. This varies by country, according to national market conditions. The Commission can veto national regulators' decisions on market definition or SMP if it has serious doubts about compliance with European law. There is a group of national regulators (BEREC) that advises the Commission and national regulators, and disseminates best practice. National regulators must conduct reviews of the markets susceptible to ex ante regulation every three years (although there is currently a proposal to extend this to five years). Separately, the Commission may undertake reviews of the entire regulatory framework. There is no specified timetable for this review (although there is currently one underway).	The Commission uses three criteria for determining whether a market is susceptible to ex ante regulation. If a national regulator wants to review a market that is not on the Commission's list of markets susceptible to ex ante regulation, it needs to show that the three criteria apply. Once it has done this, it then needs to undertake an SMP assessment to determine whether regulation should be applied. The Commission has established guidelines that set out the factors to consider when assessing SMP, including: market share, economies of scale, countervailing buyer power, and potential competition. The three criteria for determining whether to regulate focus on: • barriers to entry; • market structure tending towards effective competition in the relevant time horizon; • whether competition law is sufficient to address market failures.	The Commission sets out a range of remedies that can be applied when an operator is found to have SMP, including: monitoring, non-discrimination, and price caps. It notes that regulation should only be applied in cases where the operator has SMP, and remedies should be proportionate to the market failure(s) identified.

	Process	Factors considered in determining whether there is SMP	Form of economic regulatory oversight
TANS	The European Commission sets out five criteria that all need to be met in order for the TANS market to be determined to be contestable. National regulators undertake assessments of the TANS market at airport(s) in their member states, consult with users, and then submit a report to the Commission. Within four months the Commission must determine whether it agrees with the conclusion. New assessments are undertaken when market conditions change. The UK CAA recently assessed the TANS market and weighed the balance of evidence, rather than taking a 'tick-box' approach to the application of the criteria.	It is important that there are other providers in the market that could potentially provide services, that switching costs are not significant, and that there is transparency of costs. Profitability of TANS providers and the potential cost for airports associated with a loss of service provision in switching providers were considered as part of the CAA's assessment.	Even if the market is determined to be contestable, there is a residual degree of regulation applied, with targets set in areas such as capacity, safety and environment. Targets on cost efficiency only need to be applied if the market is determined not to be contestable. In applying regulation when the market is not contestable, the CAA suggested that regulation should encourage rather than hinder competition.
Heathrow, Gatwick and Stansted airports	There is a three-part test undertaken by the UK CAA in order to determine whether to regulate. The first test determines whether the airport has SMP. If SMP is found, the UK CAA proceeds to the second test to consider whether competition law is sufficient to constrain the behaviour of the operator. If this is not the case, then the CAA assesses whether the benefits of regulation outweigh the costs. The UK CAA recently undertook assessments for each of Heathrow, Gatwick and Stansted airports before deciding whether to regulate, and the appropriate form of regulation. Therefore, even if SMP is found, it could be the case that no regulation is imposed because competition law is sufficient or because the benefits of regulation do not outweigh the costs.	The UK CAA considered a number of different market segments as part of its analysis (e.g. LCCs vs FSCs). It ultimately considered constraints both inside and outside the market. The assessments considered the degree of countervailing buyer power of airlines, switching costs, capacity constraints at the focal airport and competing airports, and outcomes such as prices at the airports.	The UK CAA ultimately came to different decisions on regulation for each airport, based on the degree of market power found. Stansted was determined not to have SMP and no longer requires an economic licence. Heathrow was found to have SMP and the benefits of price-cap regulation were determined to outweigh the costs. Gatwick was found to have SMP, but the regulatory regime was set to allow commercial relationships between the airport and airlines to develop.

	Process	Factors considered in determining whether there is SMP	Form of economic regulatory oversight
Dublin, Cork and Shannon airports	A review of regulation of Irish airports was initiated by the DTTaS. As part of this review, there was an independent assessment of the SMP of Dublin, Cork and Shannon airports to determine the appropriate form of regulation. The report suggests that SMP assessments should be undertaken when market conditions change.	The assessment focused on the ability of airlines to switch, and the extent to which there had been switching in the market. It also looked at outcomes, but noted that the level of profitability and pricing below the cap is not definitive in terms of indicating SMP. It suggested that looking at quality and capacity utilisation would be more useful.	The report suggests that regulation should only be imposed where an operator has SMP. This is because there are costs of regulation, such as the creation of inappropriate incentives. If regulation needs to be imposed, it should be tailored, maximise benefits and minimise costs. It is also important to ensure that it does not distort any existing competition in the market. DTTaS has noted that 'in circumstances where there is competition between service providers and where this results in choice and good value for the consumer there is no legitimate basis for independent economic regulation.' ¹ DTTaS has determined that Dublin has SMP and should be price regulated, whereas Shannon and Cork face effective competition and should not be price regulated.
Amsterdam Schiphol Airport	The Netherlands Competition Authority (formerly the NMa, now the ACM) requested an independent review of the SMP of Amsterdam Schiphol Airport ahead of implementing a new regulatory framework.	In defining the market, a distinction was made between O&D and transfer passengers, but this did not affect the conclusion on SMP. The assessment also noted that intermodal competition should be accounted for, particularly for shorter journeys. The report distinguished between LCCs and legacy carriers. It noted that capacity availability at nearby airports is important in order for airlines to be able to exercise countervailing buyer power. The assessment also examined the degree of route overlap between Schiphol and nearby airports.	No discussion about the form of regulation.

	Process	Factors considered in determining whether there is SMP	Form of economic regulatory oversight
Australian airports	While not a formal market power assessment process, the Productivity Commission undertakes periodic reviews of how well the current system of regulation is working, which includes considering the market power of Sydney, Melbourne, Brisbane and Perth airports. In addition, the ACCC undertakes annual price and service monitoring of the airports.	The assessments consider the buyer power of airlines, the airports' commercial incentives, and whether charges, revenues, costs and profits are broadly comparable to levels at international airports.	Although it was initially determined that the four largest airports had market power, the ACCC determined that there were sufficient constraints to ensure that the airports would not abuse their market power in 2001. Therefore, the degree of regulatory intervention was reduced from price caps to price monitoring, which has continued since.
Malta Post	The MCA reviews market conditions every three years. It undertakes a three-step process to determine whether to impose regulation: • market definition; • market analysis; • the application of regulatory obligations.	The MCA considers whether market conditions are likely to change in the next three years. It looks at market share, countervailing buyer power, barriers to entry and potential competition from innovation in other modes of communication. It also suggests that market maturity could be considered as a barrier to entry as the absence of growth might limit the incentive for a new entrant to invest.	The MCA assesses the appropriate regulatory obligations that should be imposed given the findings of SMP.
UK energy market review	The CMA undertook an ex post market investigation of the energy sector.	Analysis of excessive pricing and profit benchmarking was conducted in order to determine the extent of SMP. The degree of switching among different customer groups was also considered as part of the assessment.	The CMA found that some rules and regulations in the wholesale electricity market were negatively affecting competition and suggested removing those rules. It also determined that benefits of price caps on standard tariffs might be outweighed by the negative effects that this would have on competition in the market.
Australian gas pipelines	While not a formal SMP assessment, an inquiry by the ACCC considered whether the current degree and form of regulation of gas pipelines was appropriate, based on the degree of market power in the sector.	The assessment looked at a number of outcomes, including pricing, service quality and rates of return. It also considered the degree of countervailing buyer power and competition from alternative energy sources.	The ACCC recommended that a new test should be implemented for regulating gas pipelines, where regulation could be introduced if three criteria are met: the pipeline has SMP, it is likely that the pipeline will continue to have SMP in the medium term, and coverage will or is likely to contribute to the achievement of the National Gas Objective.

Note: ¹ Department of Transport, Tourism and Sport (2017), 'National Policy Statement on Airport Charges Regulation', 20 September, p. 8.

Source: Oxera.

2.3 Main insights

There are a number of insights that can be drawn from the case studies reviewed. We note that some of these assessments have been undertaken in sectors that differ from the airports sector. Therefore, in some cases, there are specific elements about how competition functions (such as technological advantages in the telecoms sector) that are not directly relevant to airports. In some instances these assessments were also carried out some time ago and market circumstances may have changed.

Nevertheless, some key messages can be drawn from the case studies, as follows.

- There are several factors that are commonly considered in assessments of market power, including: countervailing buyer power, market share, barriers to entry, and outcomes (of the firm itself and compared to other firms in the industry) in terms of price, service quality, profitability and investment. Authorities consider multiple factors together in coming to a conclusion about SMP rather than treating any individual factor as definitive.
 - The European Commission has established EU-wide assessments for electronic communications and TANS. In both sectors, the Commission has established a set of criteria that are applied cumulatively and therefore all need to be met in order for regulation to be applied (in the case of the communications sector) or withdrawn (in the case of TANS).
 - Where SMP is found, the authority does not automatically introduce regulation. For example, in both the electronics communications and the UK airports sectors, there is an additional test of whether competition law would be sufficient to constrain the SMP of the operator. In the UK, there is also an assessment of whether the benefits of regulation outweigh the costs—the regulation must be proportionate to the competition concerns identified. In Australia, even though certain airports were found to have SMP, it was determined that there were sufficient competitive constraints (mainly countervailing buyer power) to ensure that the operators were not able to exercise their market power.
 - If authorities determine that some form of regulatory oversight is required, they tend to consider different types of remedies—ranging from transparency to price reviews—depending on the degree of market power and the type of competition problem found.
 - The market power assessments for regulatory purposes are forward-looking. They take account of trends and developments in the industry that could affect the degree of market power going forward. On the basis of forward-looking developments, it may be determined that the operator is unlikely to retain (or acquire) market power and therefore that limited, or no, regulatory oversight would be appropriate.
 - SMP assessments are often undertaken at regular intervals (e.g. every three years in the Maltese postal sector) or when market conditions materially change (e.g. in the UK airports sector).
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3 A proposed staged SMP assessment process

3.1 Introduction

The European Commission's 2007 impact assessment, which accompanied the proposal for the ACD, recognised that 'airport competition takes places on different levels' and found that in general there was relatively limited competition among EU airports, with the main competition taking place at the level of large regional airports (i.e. airports with between 1 mppa and 5 mppa).⁸ In 2007, the Commission also noted that one of the objectives of establishing common airport charges rules was to improve the countervailing bargaining power of airport users, especially when dealing with airports with market power.

In 2017 the Commission conducted an evaluation of the ACD⁹ and the previous impact assessment, in particular the considerations on airports market power,¹⁰ to determine whether it has achieved its objectives and whether such objectives are still relevant.¹¹ The evaluation was meant to 'assess to what extent EU regulation of airport charges as foreseen by the Directive is still relevant to the current needs.'¹² The evaluation was also meant to consider the role of market power assessments, as set out in the Commission's 2015 Aviation Strategy.¹³ The Commission has also noted that:¹⁴

The evaluation is aimed to provide not only an up-to-date overview of the application of the Directive in the member states and to enquire into the benefits it delivered, but should seek to identify areas of concern in its implementation (if any), based on existing evidence and taking into account the current market reality.

As identified in Oxera (2017),¹⁵ which covers the period from the time the ACD was implemented across member states, there has been a significant increase in competition at European airports, particularly for those with more than 5m passengers. Therefore, the market reality is quite different from what existed at the time the Directive was introduced. It would be possible to implement a minimal change to the ACD to reflect this, for example raising the passenger threshold, to remove airports now subject to effective competition from its coverage.

In this section and the rest of this report, we set out a process developed by Oxera and CMS for adopting a more targeted approach to the application of the ACD. This is composed of a two-stage SMP test and a remedies stage.

We have been guided by a number of principles when designing this process, as follows:

⁸ European Commission (2007), 'Commission staff working document – Accompanying document to the Proposal for a Directive of the European Parliament and of the Council on airport charges – Full Impact Assessment', 24 January.

⁹ At the time of publication of this report, the Commission's evaluation was not yet published.

¹⁰ European Commission (2016), 'Evaluation of the Directive 2009/12/EC on Airport Charges', 1 September.

¹¹ This follows a previous evaluation conducted in 2013, which concluded that it was too early to consider a recast of the Directive or a move to Regulation.

¹² European Commission (2016), 'Evaluation of the Directive 2009/12/EC on Airport Charges', 1 September.

¹³ European Commission (2015), 'An Aviation Strategy for Europe', COM/2015/0598, 7 December.

¹⁴ *ibid.*, para. A.1.

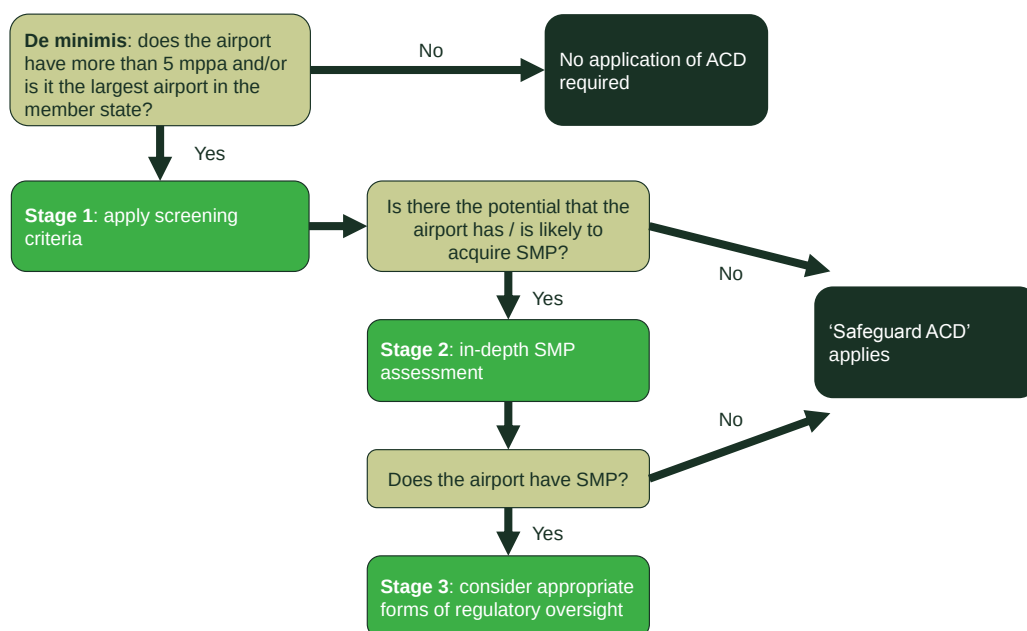
¹⁵ Oxera (2017), 'The continuing development of airport competition in Europe', prepared for ACI EUROPE, 26 September.

- ensure that regulation is applied where required to protect users, in this case passengers;
- limit the burden of applying market power assessments for airports, regulators, airlines and other stakeholders;
- ensure that the process can be easily applied across airports of different sizes, based on readily available data;
- encourage consistency and harmonisation across airports;
- tailor regulation to the nature of competition concerns and the degree of market power held by the airport.

3.2 Description of the proposed staged process

The overall process that could be included in a revised ACD is set out in Figure 3.1. The process is further described below and each stage is discussed in more detail in the following sections of this report.

Figure 3.1 Staged SMP assessment process



Note: we refer to the ACD with only the provisions of transparency, non-discrimination and consultation as the 'safeguard ACD' in this report. See Section 4.2.

Source: Oxera and CMS.

The process set out above is similar to that introduced by the Commission for the electronic communications sector. As explained in section 2, the Commission sets out three cumulative criteria for '[limiting] the number of markets within the electronic communications sector where ex ante regulatory obligations are imposed.'¹⁶ It assesses different markets against these three criteria, and then each national regulator undertakes its own assessment if it wants to regulate additional markets or remove regulation from certain markets.

This process also draws on the Commission's merger procedure, which has two phases. Phase 1 involves an initial examination of whether there is the potential

¹⁶ European Commission (2014), 'Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/12/EC', 9 October.

that the merger could lead to a significant impediment of effective competition (SIEC). If the Commission has serious doubts about whether the merger could lead to an SIEC, and if no satisfactory commitments have been presented by the notifying firm(s) in phase 1, then there is a more detailed assessment as part of phase 2.¹⁷

The ACD applies to all airports above the 5 mppa threshold, and/or the largest airport in the member state (which may have less than 5 mppa). Therefore, the ACD requires that all airports above this threshold apply these conditions regardless of whether they face effective competition. While there is a provision in Article 6(5)b allowing for Member States to have a process in place to conduct SMP tests to determine whether ISA intervention is appropriate, very few member states have undertaken such assessments.¹⁸

There is a similar 'de minimis' condition included as part of the Commission's guidelines on contestability assessments for the TANS market.¹⁹ The 2014 guidelines on state aid also refer to a passenger threshold of 5 mppa in the context of the maximum size of an airport for the grant of investment aid. For operational aid, the guidelines use a threshold of 3 mppa.²⁰ These thresholds are based on an assessment that airports above these passenger thresholds compete. Also, although the nature of the concerns may differ, there is some similarity to the Commission merger process, whereby there is a threshold set on the turnover of the merging parties for determining whether the Commission would investigate.²¹

While the size of an airport does not necessarily indicate its market power, there may be a question about the proportionality of regulating small airports. For practical reasons, we therefore propose retaining the current de minimis threshold as part of the revised process for determining whether to apply the ACD. These airports would therefore not be subject to the requirements of the ACD, consistent with the current approach.

However, going forward, the Commission could also potentially use the Stage 1 screening criteria to help determine whether the level of this threshold should be revised. Indeed, the 5 mppa threshold was put in place at the time the ACD was introduced in 2009. As noted above, and in Oxera (2017), the levels of competition previously identified for airports with under 5 mppa in ACI's 2012 report have now extended to larger airports. This may suggest that a higher threshold is appropriate.

In addition, there has been significant growth in passenger traffic across European airports over the last few years, so the number of airports now above the 5 mppa threshold is greater than the number of airports that were covered by the ACD when it was introduced in 2009.²²

¹⁷ Council of the European Union (2004), 'Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation)', *Official Journal of the European Union*, Article 6, 1(c), 29 January.

¹⁸ We are aware of three member states: the UK, Ireland and the Netherlands.

¹⁹ National regulators of TANS can undertake assessments of the TANS market at (all or only some) airports with over 70,000 IFR ATMs per year.

²⁰ European Commission (2014), 'Guidelines on State aid to airports and airlines', *Official Journal of the European Union*, OJ C 99, 4 April.

²¹ Council of the European Union (2004), 'Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation)', *Official Journal of the European Union*, Article 2, 29 January. If the merger does not meet the Commission's thresholds, then a national authority could decide to initiate proceedings itself according to its own defined thresholds (which are typically lower than those of the Commission).

²² Eurostat data in 2009 showed that there were 62 airports above 5mppa in 2009. Data from 2015 indicates that there were 78 airports above the 5mppa threshold.

The remainder of this report describes each of the stages and the overall process in more detail.

4 Stage 1: screening criteria

4.1 Introduction

Market power assessments are detailed exercises that can require a great deal of data and resources and which can take many months to complete. Due to the significant burden that these assessments can impose on airports, ISAs and other stakeholders, and the fact that there are approximately 80 airports covered by the ACD, we do not think it is appropriate for detailed SMP assessments to be undertaken at all airports with more than 5 mppa. For this reason, we consider that it is relevant to first consider a set of 'screening criteria' to determine whether a more detailed SMP assessment may be required.

4.2 Purpose of the screening criteria

There are a number of factors that can be analysed at a high level in order to provide an indication of whether an airport is likely or unlikely to have SMP. We have therefore devised a set of screening criteria that take account of several elements that would typically be considered as part of a market power assessment, but which can be applied with limited data and resources. These criteria are also designed to be applied to airports with different market positions and to accommodate the varying technical capacities of airports, ISAs and other stakeholders. Such criteria also make sense in light of the fact that a number of elements are necessary but not sufficient for market power to arise. For example, if market shares are low, competition is likely to be strong regardless of whether there are barriers to entry.

Therefore, these screening criteria should be treated as initial indications of whether an operator could have and/or is likely to acquire SMP. They are not a 'full' competition assessment. A number of additional factors—for example, the outcomes at the airport in terms of pricing, service quality, investment and profitability—as well as more detailed market share and critical loss analysis, would be considered as part of a detailed SMP assessment, but are not included in the screening criteria.

As these criteria are therefore necessarily high-level, they also need to be set on a conservative basis. In other words, the application of the screening criteria should minimise the possibility that an operator with SMP would be found not to have market power at this stage in the process (when a full market power assessment would lead to the opposite conclusion)—i.e. stage 1 would aim to minimise false negatives. The screening criteria are therefore only intended to identify the potential for an airport to have or acquire SMP, not to confirm the existence of SMP. If it is determined that an operator potentially has SMP at this stage, a more detailed assessment in stage 2 would be used to determine if this is in fact the case. Therefore, we consider that errors in this direction (i.e. false positives where stage 1 determines that the airport may have SMP, but stage 2 determines the airport does not have SMP) are less of a concern.

However, at the same time, it is important to ensure that the more detailed stage 2 assessments are not undertaken across all airports. Therefore, the criteria, and the thresholds at which they are applied, need to be reasonable.

As described below, even if an airport is determined to be unlikely to have market power at stage 1, it may still make sense from a public-policy perspective to subject the airport to a number of requirements of the ACD, such as transparency, non-discrimination and consultation. These conditions would ensure that there are some 'rules of the game' set out for interactions between

airlines and airports that are common across member states. A number of these provisions—e.g. consultation with customers—are also consistent with the behaviours that we would expect in a competitive market. However, the remedy procedure before the ISA (as foreseen in Article 6(3) and 6(4) of the ACD) and regulation beyond these ACD principles would not be appropriate. **We refer to the ACD with only the provisions of transparency, non-discrimination and transparency as the ‘safeguard ACD’ in this report.**

The criteria focus on passengers and passenger airlines rather than cargo, on the basis that most cargo is carried as belly-hold on passenger flights. This is also consistent with the current focus of the ACD. The criteria also focus on aeronautical rather than non-aeronautical activities, as we consider that the discussion of non-aeronautical activities can be left to a decision about the appropriate till regime at the airport. This is also consistent with the current ACD, which states that ‘such a framework should be without prejudice to the possibility for a Member State to determine if and to what extent revenues from an airport’s commercial activities may be taken into account in establishing airport charges.’²³

It would seem feasible and desirable that assessments of airports against the criteria should be undertaken within a two-month period, including one month for consultation. The ISA would lead on the assessment against the stage 1 criteria, although data would need to be provided by the airport, and validated by the ISA.

An airport needs to meet all of the criteria in order to be considered to ‘pass’ (i.e. unlikely to have / acquire SMP) at stage 1.²⁴ This is consistent with the contestability assessments in the TANS market, where there are five criteria that all need to be met, and the electronic communications sector, where there are three cumulative criteria taken into account by the Commission.

4.3 What if an airport meets all of the stage 1 screening criteria?

If an airport meets all of the criteria, then it is unlikely to have or acquire market power. In this case, a detailed market power assessment in stage 2 would not be undertaken. However, this does not mean that no regulation would be applied at the airport. As noted in the previous section, the safeguard ACD could still apply. In addition to the conditions included in the safeguard ACD, airlines, other airports and other stakeholders would also have recourse to competition law.

From the perspective of public policy and procedural efficiency, we do not consider that there should be a formal approval process whereby the Commission is required to approve each national ISA decision for each airport on the stage 1 criteria. While this formal approval process exists for the SMP assessments in the TANS and electronic communications sectors (as set out in section 2), we consider that this is not required in this case as the application of the criteria we propose is quite straightforward.

Therefore, we suggest that instead there should be a process set out whereby the ISAs send their draft decisions to the Commission. (These draft decisions may also be made available to the ISAs of the other member states so that they can also exchange between themselves information necessary for their assessments.) The Commission would be provided with a one-month deadline

²³ European Commission (2009), ‘Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges’, *Official Journal of the European Union*, OJ L 70, 14 March.

²⁴ Where there are sub-criteria within a criterion which are applied as an OR condition, the airport would just need to meet one of the sub-criteria.

by which it needs to respond to the ISAs to highlight any disagreement. If the Commission does not respond by this deadline, it is taken as an approval, in principle, of the ISA's decision. This avoids the regulatory burden associated with the Commission approving all decisions, but also tries to ensure some degree of uniformity across ISAs. If the Commission disagrees, it would need to provide grounds for its disagreement, such as inconsistency across European airports (e.g. similar airports being treated differently). If the Commission disagrees, the Commission's decision prevails. This is similar to the process that currently exists for decisions taken by the national competition authorities when acting under Article 101 or Article 102 of the TFEU.

After the one-month Commission deadline, the ISA would notify the airport of its assessment against the criteria and publish it. If member states provide for appeals of ISA decisions, an appeal can be lodged at this stage.

The stage 1 criteria proposed in this report have been developed so that they can be applied easily, objectively (e.g. based on numerical cut-offs) and with readily available data. This is intended to minimise the requirements on ISAs, reduce the scope for, and uncertainty associated with appeals, and provide a clear framework. However, we recommend that a regulators' network could also be created in order to assist national ISAs where they do not consider that they have the capabilities to undertake this analysis alone or require guidance (see section 7.1).

4.4 What if an airport does not meet all the stage 1 screening criteria?

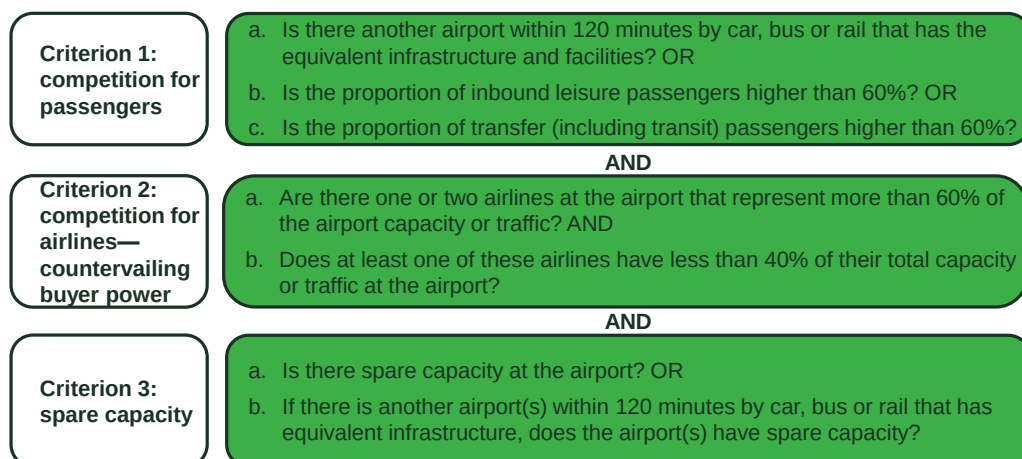
If an airport does not meet all of the criteria in stage 1, then there is the potential that the airport has or is likely to acquire SMP, and the assessment would proceed to stage 2. Given that the screening criteria are necessarily high-level and have been set on a conservative basis, we consider that more detailed stage 2 assessments will show that a number of these airports do not have and are unlikely to acquire SMP, and therefore will not require regulation beyond the safeguard ACD.

If the airport does not meet all of the criteria, the ISA would publish a short notice that it is proceeding to stage 2. However, we would not foresee the potential for appeals at this stage as this does not constitute a final decision affecting the parties' rights.

4.5 Screening criteria for stage 1

Figure 4.1 below sets out three stage 1 screening criteria that could be included by the Commission in a revised ACD. The criteria are designed to take account of the different ways in which airports compete—as explained in Oxera (2017)—and elements that would typically be considered as part of an SMP assessment to determine whether airports are subject to effective competition.

Figure 4.1 Stage 1 screening criteria



Source: Oxera and CMS.

The sub-sections below explain the rationale for each criterion and the choice of thresholds in more detail.

4.5.1 Criterion 1: competition for passengers

There are a number of ways in which airports compete with each other for passengers, and which in turn can also influence competition between airports for airlines, as follows.²⁵

- Where two or more airports serve a particular catchment area, passengers may switch between these airports based on their respective price/service offerings.
- Airports may compete beyond their local catchment areas for passengers transferring between flights.
- Airports may compete for passengers who do not have particular destinations in mind, but who are seeking ‘beach holidays’ or ‘city breaks.’

These different factors are incorporated into this criterion through three sub-conditions, which are applied as ‘or’ conditions. Therefore, only one of the three conditions (a, b, or c) needs to be met in order to be determined to meet criterion 1.

We consider that this is appropriate, as different factors will be relevant to determining whether an airport faces competitive constraints depending on the circumstances and business model of the airport. It would not be reasonable to expect that all of these conditions would hold for a given airport. For instance, a small regional airport may not have a significant amount of transfer traffic, but it may compete with another airport nearby for O&D traffic. Therefore, competition for passengers in the local catchment may constrain the behaviour of the airport. On the other hand, an airport with a significant amount of transfer traffic is likely to compete with airports beyond its local catchment area, and therefore regardless of whether there is another airport nearby, the airport may face competitive constraints. Each of the sub-conditions is therefore intended to

²⁵ See also Oxera (2017), ‘The continuing development of airport competition in Europe’, prepared for ACI EUROPE, 26 September.

identify different competitive constraints that could apply to an airport, depending on its characteristics.

Each of the sub-criteria are described in more detail below.

Condition a: is there another airport within 120 minutes by car, bus or rail that has equivalent infrastructure and facilities?

The first condition (a) considers whether there is at least one other airport in an airport's catchment area (i.e. in close geographic proximity) that is equivalent in terms of infrastructure and facilities, and therefore whether there is local competition from a nearby airport. This would allow for O&D passengers to choose between airports, putting the airports in competition with one another for local passengers or passengers seeking to travel to that particular destination.

There are no clear-cut thresholds for distance or travel time, so a number of thresholds have been tested in different cases. In previous cases the Commission has used a catchment area of 100km around regional airports, and 300km for international airports,²⁶ or a 60-minute drive time.²⁷ However, the Commission ultimately defines the catchment area on a case-by-case basis. A 60-minute drive time is also used in the Commission's 2014 aviation state aid guidelines.²⁸ The CAA used 60-, 90- and 120-minute drive times in its SMP assessments for Gatwick, Stansted and Heathrow airports.²⁹

Using a catchment area based on distance (e.g. kilometres or miles) is likely to be less appropriate than a catchment area based on drive time, as, for example, driving 100km in a mountainous area can take much longer than driving 100km in a well-connected area.

A one-hour drive-time catchment area, as has been used by the Commission in some cases, seems too narrow for a 'one size fits all' criterion in stage 1. This would imply that two airports that are a 70-minute drive away from each other would not be considered to be competing, even though the majority of customers might live between the airports and are within less than one hour's drive from each airport.

It is important to take account of the drive time from the perspective of customers, as well as the drive time between the airports themselves. Given that this is likely to be a detailed exercise, which would be more appropriate to undertake as part of stage 2, we consider that a catchment area of 120 minutes by car, bus or rail centred around the airport would be appropriate to use as part of the screening criteria. If customers are distributed equally between the airports, this would indicate that the average customer would have a one-hour drive time to each airport. This catchment area is applicable across national borders (i.e. airports in two different countries may be in the same geographic market). As part of stage 2, alternative, more specific, catchment areas could be used based on an assessment of the type of traffic at the airport (e.g. short-haul versus long-haul)—see section 5.

²⁶ European Commission (2005), 'Commission Decision of 08.08.2005 referring case No COMP/M.3823 – MAG/Ferrovial Aeropuertos/Exeter Airport to the competent authorities of the United Kingdom pursuant to Article 9 of Regulation (EC) No 139/2004', C(2005)3144, 8 August, para. 18.

²⁷ European Commission (2013), 'Case No COMP/M.6663 – RYANAIR/ AER LINGUS III, Regulation (EC) No 139/2004 Merger Procedure', C(2013) 1106 final, 27 February, para. 80.

²⁸ European Commission (2014), 'Guidelines on State aid to airports and airlines', Official Journal of the European Union, 2014/C 99/03, para. 25(12).

²⁹ Civil Aviation Authority (2012), 'Heathrow: Market Power Assessment - Non-confidential Version', The CAA's Initial Views, February.

In cases where airports are part of the same group³⁰ (and/or if there are traffic distribution rules in place), we consider that this will need to be taken into account in applying this condition. For instance, if the only other airport in the catchment area is under the same ownership or management, then this airport would not be considered to be a relevant competitor within the catchment area. This is because, if the airports are commonly owned, they are less likely to be competing with one another than if the airports are under separate ownership.

In terms of equivalent infrastructure, a high-level assessment should be undertaken to consider whether there are runway and airfield limitations for certain types of traffic.

We consider that determining whether there is equivalent infrastructure and facilities is more appropriate for stage 1 than looking at whether there are overlapping routes or destinations served from the airports. This is because it may be the case that, in addition to competition in the market for routes to different destinations, there is competition for the market for a particular service. For instance, an airline may have one new aircraft that it can allocate to serving a particular airport. Airports may compete with one another—for example, in terms of the incentives or marketing support offered—to get this airline to operate from its airport. Therefore, even if neighbouring airports do not serve the same routes, this does not necessarily indicate that they are not competing with one another. However, we consider that the degree of route overlaps can be an important indicator of the degree of competition between airports and that it should be taken into account in the more detailed SMP assessment in stage 2.

Condition b: is the proportion of inbound leisure passengers higher than 60%?

The second condition (b) considers that there are a number of passengers who may be willing to substitute between airports that are not in the same catchment area, as these passengers are simply seeking a ‘beach holiday’ or a ‘weekend break.’ This is most likely to apply to leisure passengers, as passengers on business or VFR are more likely to want to travel to a particular airport/city. This is not about such passengers being more prone to making last-minute decisions (although they may be) but about their willingness at any point in their decision making to consider a variety of destinations. Therefore, if there is a significant proportion of inbound leisure passengers at the airport, we consider that this airport would face a significant competitive constraint.

In the Commission's decision-making practice, dominance normally arises in the case of undertakings with market shares of over 40% or 50% (although in some cases the Commission may have concerns about dominance even with lower market shares). Therefore, if there is more than 40% of traffic that is theoretically captive to the airport, there could potentially be concerns about its dominance. Considering this another way, concerns about dominance are less likely to arise where 60% of a market is contestable. We therefore use a threshold of 60% as part of this criterion as this would indicate that the airport competes with other airports for at least 60% of its traffic (i.e. at least 60% of traffic is contestable).

Condition c: is the proportion of transfer (including transit) passengers higher than 60%?

The third condition (c) considers whether a significant proportion of the airport's traffic is composed of transfer (or transit) passengers. As transfer passengers can originate from any country, their choice set of airports is likely to be wider

³⁰ For example, Fiumicino and Ciampino airports are both part of Aeroporti di Roma.

than for point-to-point passengers, provided that travelling through an alternative airport does not significantly increase travel time and it offers flights to the same/similar destinations. For example, in its assessment of the geographic market for Berlin Airport, the Commission found that airports that lie within a two-hour flight time can be considered as part of the same geographic market (for hub functions).³¹ As explained above for the condition about leisure passengers, we consider that 60% is a relevant threshold to use in stage 1 as this indicates that the airport competes with other airports for at least 60% of its passengers.

4.5.2 Criterion 2: competition for airlines—countervailing buyer power

In some cases, an airport may have a degree of market power, but it may be mitigated by the countervailing buyer power of airlines. If an airline(s) represents a large share of the airport's traffic, and if in response to a price increase the airline(s) can shift at least some capacity away from the airport, a price increase may not be profitable. The degree to which an airline is able to switch away from an airport will depend on a number of factors, such as the extent to which it operates an interdependent network of routes from a given airport and other switching costs. Oxera's study has found that route churn rates are consistently between 15% and 20% across Europe, demonstrating that airlines are willing and able to reallocate capacity on a regular basis. This reflects the pan-European nature of many airlines' networks and the competition that airports face from (often) geographically distant airports. Oxera (2017) also shows that modest degrees of airline switching in response to attempts to increase charges can render such increases unprofitable.³²

Buyer power is more likely to play a significant role at airports where a small number of airlines make up the majority of capacity. This is because the switching of just some of the aircraft of one, or a few airlines, could have a significant effect on the airport's profitability. Therefore, actual switching, or even just the credible threat of switching some capacity away from the airport, may be sufficient to constrain the behaviour of the airport.

At the same time, if one airline has most of its capacity at an airport, then it may be that the airline is dependent on the airport. This does not mean that the airline is unable to switch, but it may be less likely to do so than an airline that has multiple bases at different airports. It may also reflect the fact that the airline uses this airport to operate an interdependent network of flights, where the economics of one flight are tied to the operation of others, so removing just one flight could affect the viability of other routes, making it less likely to shift any capacity. Therefore, it is also important to consider the co-dependence of airlines on airports as part of this criterion.

Consistent with the threshold established in criterion 1, we consider that this criterion should be applied based on one airline alone, or two airlines taken together, having 60% of capacity at the airport. To take account of the ease with which an airline is likely to be able to switch some of its capacity, and therefore its likelihood of doing so, at least one of these airlines must also have less than 40% of its total capacity at the airport (and not at airports that are under common ownership or management). This means that it has significant options for reallocation of capacity. While we refer to capacity, this criterion can be applied based on seat capacity or passenger traffic, depending on which metric is readily

³¹ European Commission (1999), 'Decision regarding regulation number 4064/89, M.1255 Case M.1255 Flughafen Berlin', 21 May.

³² Oxera (2017), 'The continuing development of airport competition in Europe', prepared for ACI EUROPE 26 September.

available (and in any event, these two measures can be expected to be highly correlated).

In applying this criterion, it will be important to determine whether each airline should be accounted for individually or based on airline groups. We consider that this will depend on whether the different airline members of the group have the same base airport(s). For instance, Transavia is a wholly owned subsidiary of the KLM group, and also has a base at Schiphol, and therefore would be considered together with KLM in assessing Schiphol Airport. On the other hand, each of British Airways, Iberia and Aer Lingus would be considered separately rather than accounting for them together as part of IAG. In other words, even if IAG has 60% of its capacity at airports other than Heathrow, this does not necessarily provide a good indication of the extent to which British Airways could move capacity to Madrid or Dublin. However, these airlines may have stronger negotiating power as part of a group, and may be able to shift capacity more easily to other airports. Therefore, considering these airlines separately is a conservative approach.

While we only consider the capacity of the top two airlines at the airport, if there are two airlines at the airport with over 60% of capacity, then in principle this is likely to affect an airport's ability to exercise any market power that it does have with respect to other, smaller airlines as well. This is due to the non-discrimination requirement of the ACD, which means that the airport would not be able to provide significantly different offerings to two otherwise similar airlines.

Also, this criterion is applied in combination with criterion 1, which accounts for other ways in which there may be choice between airports for passengers and, in turn, airlines. For example, if there are two airports within a two-hour drive time, an airline could potentially shift its capacity to the alternative airport and continue to serve the same destination and passengers.

4.5.3 Criterion 3: spare capacity

If an airport is congested or slot-constrained, this is not necessarily an indicator that it has market power. For example, it could be that there is a regulated price that is set below the competitive price, creating excess demand in the market. If price regulation were removed, the price would rise and the market would clear.

While it is therefore not necessarily an indicator of market power, if an airport is capacity-constrained it may have reduced incentives to compete strongly with other airports (e.g. to win airline business). The bargaining power of airlines may also be weakened, as there are other airlines willing to serve that airport if current airlines leave—in other words, there are other airlines that would enter quickly to fill the capacity at the airport.

Importantly, the extent to which capacity constraints affect competition also depends on the capacity constraints at other airports to which airlines and/or passengers could switch some of their capacity. For example, if a given airport is capacity-constrained, but there are other airports in the catchment area that have additional capacity, then airlines and/or passengers may be able to switch. In contrast, if other airports in the catchment area are also capacity-constrained, then airlines and passengers may be less able to switch.

Therefore, in cases where an airport passes criterion 1 solely because there is another airport in its catchment area (i.e. condition 1a), an airport needs to pass either criterion 3a **or** 3b. In other words, either the focal airport needs to have spare capacity or the other airport in the catchment area needs to have spare capacity in order to pass this criterion. If both of these airports are capacity-

constrained, this may limit the extent to which O&D passengers, and airlines seeking to serve a given destination, are able to switch. If there are multiple airports in the catchment area then only one would need to be shown not to be capacity-constrained in order to meet this criterion.³³

However, as noted above, passengers and airlines do not just consider airports in a particular local catchment area when deciding which airport to use. Airlines may switch capacity between airports, for example in Paris and Prague, and passengers may consider destinations in different countries to be substitutes for one another. It would not be practical to look at the capacity of competing airports on this basis. Also, if this is the main way in which a particular airport competes for passengers/airlines then there are likely to be other competing airports (e.g. rather than just one other airport in the local catchment), and therefore at least one of these is likely to have spare capacity.

If there is no other airport within the catchment area, then the focal airport would have passed criterion 1 because it competes for transfer traffic or inbound leisure traffic. In this case, it would not be practical to consider the capacity constraints of all competing airports, and it is likely that at least one of these airports has capacity available. However, there may be some O&D passengers who would only be willing to travel to/from this city (e.g. business passengers). Therefore, the focal airport itself needs to have capacity available in order to pass—i.e. condition 3a needs to be met and 3b does not apply.

In terms of measuring capacity, IATA identifies three levels of airports:³⁴

- Level 1 Non-coordinated Airport: a Level 1 airport is one where the capacity of the airport infrastructure is generally adequate to meet the demands of airport users at all times.
- Level 2 Schedules Facilitated Airport: a Level 2 airport is one where there is potential for congestion during some periods of the day, week or season, which can be resolved by schedule adjustments mutually agreed between the airlines and facilitator.
- Level 3 Coordinated Airport: a Level 3 airport is one where:
 - demand for airport infrastructure significantly exceeds the airport's capacity during the relevant period;
 - expansion of airport infrastructure to meet demand is not possible in the short term;
 - attempts to resolve the problem through voluntary schedule adjustments have failed or are ineffective;
 - as a result, a process of slot allocation is required whereby it is necessary for all airlines and other aircraft operators to have a slot allocated by a coordinator in order to arrive or depart at the airport during the periods when slot allocation occurs.

We consider that Level 1 and Level 2 airports would be classified as having spare capacity. Level 3 airports may only be classified as Level 3 during particular seasons or times of the day. Therefore, we consider that for Level 3 airports, additional analysis should be undertaken to consider whether they, on

³³ If the airport passes on conditions 1a and 1b, for example, then it would not need to meet test 3b to pass overall.

³⁴ IATA (2017), available at: <https://www.iata.org/policy/slots/Documents/wsg-annex-11.12.xlsx>, 28 August.

average, operate at more than 80% of slot/runway utilisation/terminal capacity (i.e. if the airport is over 80% on any of these metrics then the airport would be considered to be capacity-constrained.) Different parts of the airport can have different capacity limits, so the relevant metric for this criterion is the part of the airport that has the least available capacity. We consider that 80% is a reasonable threshold, as this indicates that there is still some potential for increased traffic at the airport. Also, even if an airport is at 80% slot utilisation, it may still be able to grow traffic in other ways (e.g. through an increase in load factors and/or larger aircraft).

4.6 Summary of the stage 1 criteria

This section has set out the three screening criteria that would be applied as part of stage 1 of the two-stage SMP test. These criteria are as follows:

- **criterion 1: competition for passengers**

- a) Is there another airport within 120 minutes by car, bus or rail that has the equivalent infrastructure and facilities? OR
- b) Is the proportion of inbound leisure passengers higher than 60%? OR
- c) Is the proportion of transfer (including transit) passengers higher than 60%?

- **criterion 2: competition for airlines—countervailing buyer power**

- a) Are there one or two airlines at the airport that represent more than 60% of the airport capacity or traffic? AND
- b) Does at least one of these airlines have less than 40% of their total capacity or traffic at the airport?

- **criterion 3: spare capacity**

- a) Is there spare capacity at the airport? OR
- b) If there is another airport within 120 minutes by car, bus or rail that has equivalent infrastructure and facilities, does the airport have spare capacity?

As noted above, we consider that because these criteria are necessarily high-level, they also need to be set on a conservative basis. We therefore propose that if an airport meets all of the criteria, then it is unlikely to have / acquire SMP. If the airport does not meet all of the criteria, however, then the existence or absence of SMP cannot be definitively determined based on these criteria alone. Therefore, a more detailed SMP assessment as part of stage 2 would be required.

5 Stage 2: SMP assessment

5.1 Introduction

As set out in the previous section, if an airport meets all of the screening criteria in stage 1, the Commission does not raise any objection and there are no successful appeals against this decision, then a detailed assessment as part of stage 2 would not be necessary. Conversely, if an airport does not meet the screening criteria in stage 1, then a more detailed SMP assessment in stage 2 would be necessary to determine whether i) the airport does not have and is unlikely to acquire SMP; or ii) the airport has or is likely to acquire SMP.

The SMP assessment could be based on the guidelines set out by the Commission, as in the electronics communications sector. These guidelines would also be useful for member states for the application of Article 6(5)b of the current ACD if the ACD is not revised. However, some aspects of the process described in this section can only apply should the ACD be revised.

The level of detail of the assessment required in stage 2 may depend on the extent to which the airport does not pass the screening criteria in stage 1. For example, if the airport only fails to meet the criteria due to terminal capacity constraints, and there is a terminal extension that is planned to open in a few months' time, then a less detailed examination may be required than if, for example, an airport fails to meet all of the criteria by significant margins.

This section provides more detail on stage 2, including a summary of the SMP guidelines. The SMP guidelines are included in Appendix 2.

5.2 Defining SMP

SMP is often defined as the equivalence of dominance in European competition law. Dominance has been defined by the EU Court of Justice as:

a position of economic strength enjoyed by an undertaking, which enables it to prevent effective competition being maintained on a relevant market, by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately consumers.³⁵

This notion of independence is related to the degree of competitive constraint exerted on the undertaking in question. Dominance implies that these competitive constraints are not sufficiently effective and hence that the undertaking in question enjoys SMP over a certain period of time. In general, a dominant position derives from a combination of factors which, taken separately, are not necessarily determinative. For example, in the United Brands case of 1978 regarding a possible abuse of a dominant position (currently Article 102 of the TFEU), the Court of Justice stated that:

The context of Article [102] shows that what is meant is such a position in the market as enables an undertaking to engage in unfair and anti-competitive practices. Accordingly, a "dominant position" assumes that a market in which a particular undertaking operates lacks that degree of competitiveness which could be relied upon to exercise restraint upon the activities of the undertaking and in particular to prevent or restrict any significant, unfair or anticompetitive behaviour.³⁶ To assess whether an undertaking has significant market power ('SMP'), a framework will be set out. This takes into account several criteria that

³⁵ See Case 27/76 United Brands Company and United Brands Continental v Commission [1978] ECR 207, para. 65; and Case 85/76 Hoffmann-La Roche & Co. v Commission [1979] ECR 461, para. 38.

³⁶ Case 27/76 United Brands v Commission [1978] ECR207.

could point to SMP, including market shares, entry barriers, countervailing buyer power and other market characteristics.

5.3 Focus of the SMP assessment

SMP assessments can be quite detailed exercises. While there are various guidance documents providing information on how to undertake these assessments and the factors to take into account, these are general guidelines or specific to individual sectors, and are often not specific to the airports sector.³⁷

We have therefore set out proposed SMP assessment guidelines specific to airports, which are included in Appendix 2. These guidelines are intended to provide ISAs, airports and other stakeholders with an overview of the steps of an SMP assessment, and the analysis that needs to be undertaken to determine whether an airport has the ability to 'behave to an appreciable extent independently of competitors, its customers and ultimately of consumers.'³⁸

The guidelines follow competition law principles and methodologies, but are tailored specifically to the airports sector. They draw on the Commission's guidance and decision-making practice, as well as SMP assessments undertaken at individual airports. In cases where there are established national guidelines for SMP assessments, we would expect these to be broadly consistent with the principles set out in Appendix 2.

Unlike the screening criteria in stage 1, which are necessarily high-level and applied uniformly across all airports, the particular analysis undertaken as part of a full SMP assessment in stage 2 may vary by airport. Therefore, while the guidelines provide a framework of relevant considerations to take into account, each case should be assessed individually. As suggested above, that will include the level of detail to which an assessment should be conducted, dependent on the outcome of stage 1.

We consider that it is relevant to focus on aeronautical activities as part of the SMP assessment given that the airport's primary function is to provide access to the infrastructure for aircraft to transport passengers. This is also the reasoning used by the Commission in its airport-related cases (mergers and abuse of dominance) as aeronautical and non-aeronautical services are considered as separate markets. However, to the extent that an airport has (any) SMP, it may have less of an incentive to exercise this SMP (e.g. increase prices, reduce quality) owing to the potential negative impact on its non-aeronautical revenues. For instance, if an airline or passengers switch away from the airport, the airport would lose both aeronautical and non-aeronautical revenue. It is therefore relevant to take account of non-aeronautical revenue in this way as part of the SMP assessment (e.g. in the critical loss analysis).

In order to undertake the SMP assessment, the airport, and other stakeholders (e.g. airlines) will need to provide data and information to the ISA. Data and information may also be drawn from public domain sources, such as national statistics databases. Both qualitative and quantitative evidence should be considered.

³⁷ For example, European Commission (1997), 'Commission Notice on the definition of relevant market for the purposes of Community competition law', *Official Journal of the European Communities*, C 372/5, 9 December; and European Commission (2002), 'Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services', *Official Journal* C 165, 11 July.

³⁸ European Commission (2009), 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings', *Official Journal of the European Union*, 2009/C 45/02, 24 February.

Most of the data required for the SMP assessment will be historical data over the last five years. However, as the key question in stage 2 is whether the airport has and/or is likely to acquire SMP, the analysis also needs to be forward-looking and consider whether the features of the market that may be hindering competition are likely to endure or may be resolved by market developments. For example, one of the three conditions applied by the Commission in the electronic communications sector in deciding whether to regulate is a consideration of whether the market structure tends towards effective competition in the relevant time horizon. The Commission also notes that:

NRAs [National Regulatory Authorities] will conduct a forward looking, structural evaluation of the relevant market, based on existing market conditions. NRAs should determine whether the market is prospectively competitive, and thus whether any lack of effective competition is durable, by taking into account expected or foreseeable market developments over the course of a reasonable period. The actual period used should reflect the specific characteristics of the market and the expected timing for the next review of the relevant market by the NRA. NRAs should take past data into account in their analysis when such data are relevant to the developments in that market in the foreseeable future.³⁹

Therefore, future developments and trends need to be taken into account in coming to a conclusion on the SMP of an airport, as well as in the assessment of the appropriate remedies in stage 3 (see section 6).

5.4 Undertaking SMP assessments

The SMP guidelines in Appendix 2 set out three main steps. These are summarised in turn below, with further detail in the appendix.

In most SMP assessments there is no single definitive piece of evidence: evidence needs to be considered in the round. There is also no single point where an undertaking changes from having no SMP to having SMP. SMP is a matter of degree and may not be sufficient to have an adverse economic effect. Various sources of evidence and assessments of different competitive constraints therefore need to be considered together to reach an overall conclusion.

5.4.1 Market definition

As a first step in assessing SMP, it is necessary to define the markets in which an airport operates. Market definition aims to distinguish close substitutes from more distant substitutes. The relevant market should therefore include all close substitutes, and the analysis in the subsequent stages of the assessment will consider the extent to which these substitutes provide constraints on the focal product.

Market definition therefore provides the context for the assessment of SMP and competitive constraints. However, market definition should be considered as an appropriate frame of reference for analysis of the competitive effects only, not as an end in itself.⁴⁰ Indeed, some competition authorities now often focus more directly on the competitive effects of, for example, a merger, and place less emphasis on market definition.⁴¹

³⁹ European Commission (2002), 'Commission guidelines on market analysis and the assessment of SMP under the Community regulatory framework for electronic communications networks and services', para. 20.

⁴⁰ European Commission (1997), 'Commission Notice on the definition of relevant market for the purposes of Community competition law', *Official Journal of the European Commission*, C 372/5, 9 December.

⁴¹ Niels, G., Jenkins, H. and Kavanagh, J. (2016), *Economics for Competition Lawyers*, second edition, Oxford University Press.

Typically, two dimensions of market definition are relevant to a SMP assessment:

- the **product market**, which ascertains the product or product groups that are considered substitutable by consumers by reason of the products' characteristics, their prices and their intended use;
- the **geographic market**, which comprises the area in which the parties concerned are involved in the supply and demand of products or services, and in which the conditions of competition are sufficiently homogeneous and can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.⁴²

In defining the relevant product (or service) market, it is important to determine whether each of the products offered by the airport could be considered to constitute its own market, or whether multiple products can be aggregated into broader markets or groups of products. The boundaries of the market will be determined by evidence on the extent of substitution between services by airlines (demand-side substitution) and evidence on the flexibility of switching airport capacity between different uses (supply-side substitution). The extent to which the differing demands of customer segments affect the definition of the relevant product market need to be considered. Specifically, it is relevant to consider different airline segments: short-haul versus long-haul; LCC versus FSC; and based versus inbound airlines.

The geographic market definition depends on two main factors: the type of passengers and the type of airlines at the airport. In defining the geographic market from a passenger's perspective, first, the 'local' geographic market can be defined using catchment area analysis. This looks at airports that are located near the focal airport such that inbound/outbound passengers might consider them as substitutes. Second, it is important to consider whether airports that are further away could be viable substitutes for certain passenger groups.

The geographic market definition for passengers will depend, in part, on the type of passengers served. Passengers can be segmented in various ways, such as by journey purpose (business, leisure or VFR), by flight time (short-haul or long-haul), and as O&D or transfer passengers. Each of these passenger groups is likely to have different characteristics and willingness to travel to alternative origin or destination airports. For example, business passengers are likely to be more time-sensitive than leisure passengers, and may therefore not be willing to travel very far to an airport. Therefore, the passengers served by an airport need to be identified to assess the degree of substitutability between airports, as, for example, an airport that primarily serves short-haul business passengers is likely to have a narrower catchment area than an airport that serves long-haul leisure and transfer passengers. However, it is not necessary for all passengers to have a choice between airports; if there are a sufficient number of passengers who can switch airports, this should constrain the airport's behaviour.

It is equally important to consider the geographic market for airlines. This will include airports at which airlines could locate new capacity, move some routes, rotations (i.e. frequencies), or entire bases/operations in light of a price rise at the focal airport. This may depend on airlines' characteristics, such as their business model, and will therefore link to the product market definition. For instance, as LCCs generally have substantial pan-European operations at multiple airports across Europe, they are often able to shift capacity between

⁴² European Commission (1997), 'Commission Notice on the definition of relevant market for the purposes of Community competition law', *Official Journal of the European Communities*, C 372/5, 9 December, pp. 5–13.

geographically distant airports at a relatively low cost. They are also involved in a constant process of route optimisation so as to attain the highest possible yield. In addition, as they run point-to-point services and therefore do not rely on a network to ensure that their flights are viable, they are more likely to consider a wide range of airports when deciding where to allocate new capacity.

5.4.2 Assessment of competitive constraints

Once the market is defined, an assessment of the competitive constraints can be undertaken. SMP (or lack of SMP) can derive from a combination of criteria, which, taken separately, may not necessarily be determinative. There are several factors that should be considered when assessing the extent of competitive constraints faced by an airport, as follows.

- **Countervailing buyer power.** An assessment of the degree of buyer power is an important component of an SMP assessment. If downstream users have, or are likely (within a reasonable timeframe) to acquire, sufficient bargaining strength, this could effectively countervail any SMP held by an airport. The main factors determining the degree of buyer power are the respective outside options of the airport (e.g. other airlines that could use the airport's facilities) and the outside options of the airlines (e.g. other airports to which they could switch capacity, whether individual routes or based aircraft).

Examples of the outside options available to an airline could include moving its services to a different airport, reducing its number of services or allocating growth elsewhere. Airlines' outside options will primarily be affected by switching costs for existing capacity and the existence of appropriate alternatives (potentially across a wide geography) for existing capacity and growth. For airports, outside options will be affected by factors such as the extent of alternative airlines available to take up spare capacity, sunk costs in relatively large-scale infrastructure unsuitable for other uses and the resulting economies of scale in operating that infrastructure. The number and strength of the airlines' outside options relative to the airport is the primary determinant of the relative bargaining strength of the parties.

Airlines can exercise buyer power by threatening to switch, or actually switching, existing capacity and/or allocating growth to other airports. For instance, an airport might not raise its prices if it thinks that this will lead airlines to allocate new capacity to other airports, even if there is no reduction in existing operations. Oxera (2017) and other reports have drawn attention to the degree of route churn, in particular by LCCs, which potentially indicates a readiness to switch routes between airports and the relatively low costs of doing so.

Overall, in assessing countervailing buyer power, it is necessary to analyse whether the airport faces competition at the margin (e.g. whether airlines are able to switch or allocate marginal capacity to other airports), and whether any such competition at the margin is sufficient to constrain the airport's behaviour with respect to its wider customer base. As it can be difficult for airports to differentiate prices between different passenger types, and the non-discrimination principle in the ACD prevents discrimination between different types of airlines, the benefits of this competition at the margin are accrued across the customer base, even where some customers have limited ability to switch themselves.

- **Market shares.** Market shares provide a useful first indication for market power. Although a high market share alone is not sufficient to establish the
-

possession of SMP, it is unlikely that an undertaking without a significant share of the relevant market (e.g. 40%) would have SMP.

- **Capacity.** As noted in section 4.5.3, while it is not necessarily an indicator of SMP, if an airport is capacity-constrained it may indicate that the airport has reduced incentives to compete strongly with other airports (e.g. to win airline business). Also, this may mean that the bargaining power of airlines is weakened as there are other airlines willing to serve that airport if current airlines leave—in other words, there are other airlines that would enter quickly to fill the capacity at the airport.

Capacity constraints need to be considered carefully, however. An airport can be capacity-constrained at a particular point in time, but it may be able to increase capacity relatively easily by innovating to increase throughput within the existing facilities. For example, even without investing in new infrastructure, an airport might be able to increase capacity by incentivising use of larger aircraft or improving the efficiency of its operations to address capacity constraints.

Importantly, the extent to which capacity constraints affect competition also depends on the capacity constraints at other airports to which airlines could switch some of their capacity. For example, if a given airport is capacity-constrained, but there are other airports that have additional capacity, then airlines and/or passengers may be able to switch. In contrast, if other airports are also capacity-constrained, then airlines and passengers may be less able to switch.

- **Barriers to entry.** In competition assessments, if competitors can quickly enter the market following a price increase by the incumbent firm, then the SMP of the incumbent is often considered to be limited. In contrast, if there are high barriers to entry that prevent potential new competitors from entering the market, the incumbent is more likely to maintain its SMP. Entry of an entirely new airport is likely to be difficult, given the significant investment and cost that is required. However, in the context of the airports sector, it is more relevant to consider whether existing airports can add capacity (e.g. piers), appropriate investment or operational improvement.⁴³ In addition, any assessment of the issue of barriers to entry needs to take account of geographic market definition. Where an airport is potentially competing with airports across a wide geographic area for airline business there will be many more opportunities for potential competitors to undertake any necessary improvements to facilities and operations.⁴⁴

5.4.3 Analysis of market outcomes

Looking at market definition and competitive constraints are ‘bottom-up’ approaches in the sense that they deal with the structural building blocks of SMP and therefore its causes. It is also important to consider elements from a ‘top-down’ perspective and identify the presence or absence of SMP by examining market outcomes—i.e. by testing for its effects. This includes analysis of an airport’s service quality, investment, efficiency, pricing and profitability.

While each outcome can be assessed separately, it is important that they are all considered together, and alongside an understanding of the economics of airport

⁴³ The assessment of supply-side substitution as part of market definition will take account of the ability of an airport that serves a particular market segment to shift into other market segments (e.g. a primarily O&D airport starting to serve transfer traffic).

⁴⁴ *ibid.*

operations in assessing SMP. For instance, it could be that prices have risen significantly at an airport over the previous five years. However, if this is due to significant investment to improve service quality performance at the airport in response to customer demands, then this is less likely to be an indicator of SMP than if prices are rising at a time of low investment and poor service quality. In particular, the fixed-cost nature of airports' businesses may often involve periodic, lumpy investments in sizeable facilities with consequences for the profile of prices.

In assessing these factors, in cases where there is regulation in place, it is important to distinguish between the behaviours that are incentivised and likely to be driven by the existing regulatory framework and those that are (or could be) a result of competitive pressures and an airport's own business choices.

5.5 Process for undertaking SMP assessments

From the perspective of procedural efficiency and legal certainty, we consider that the SMP assessment should be undertaken within a period of four months from the publication of the notice on the stage 1 assessment. The ISA can extend this by a further two months, but would need to set out a clear rationale for doing so—for instance to consult with external experts. After this period there would be one month for consultation with users, and the ISA would then have an additional month to take stakeholders' views into account before publishing its final decision.

As previously noted, in order to undertake the SMP assessment, the airport and other stakeholders (e.g. airlines) will need to provide data and information to the ISA. The ISAs will need to analyse this data in detail and stakeholders should engage with the ISAs to help answer questions on the information provided.

As in stage 1, we do not consider that there should be a formal approval process whereby the Commission is required to approve each ISA decision on the stage 2 assessment. Instead, we propose that there should be a process whereby the ISAs send their draft decisions to the Commission. These draft decisions may also be made available to the ISAs of the other member states, and they can exchange information necessary for their assessments. Importantly, ISAs should also have the ability to consult the Commission for advice and input on the stage 2 assessment in case ISAs do not have the capabilities to undertake this analysis themselves or require guidance.

The Commission would be provided with a one-month deadline by which it needs to respond to the ISAs to highlight any disagreement.⁴⁵ If the Commission does not respond by this deadline, it is taken as an approval in principle of the ISA's decision.

If the Commission disagrees, it would need to provide grounds for its disagreement, such as inconsistency across European airports (e.g. similar airports being treated differently). The Commission's analysis would focus on the coherent application of its guidelines rather than on the facts.⁴⁶ In the case of any disagreement, the Commission's opinion would prevail. As noted in section 4, this is similar to the process that currently exists for decisions taken by the national competition authorities when acting under Article 101 or 102 of the TFEU.

⁴⁵ This one month would be part of the six-month period for the publication of the notice.

⁴⁶ Errors in fact would be dealt with by a national court in an appeal.

5.6 Summary

If the airport is determined not to have SMP once the stage 2 assessment is undertaken, and the Commission implicitly or explicitly approves this decision, then the ISA notifies its decision to the airport and publishes it. In this case, the safeguard ACD would apply (as it would to an airport that meets the criteria at stage 1). If member states provide for appeals of ISA decisions, such appeals can be lodged against the decision at this stage.

If the ISA determines that the airport has or is likely to acquire SMP, then it would publish and notify the airport of its decision. There would be no potential for appeals by stakeholders at this stage, as the decision is not final (unless there is a procedure that allows for appeals at this stage in national law). An appeal should occur after a final decision is taken on the appropriate form of economic regulatory oversight given the degree of SMP found, which is described in the following section.

6 Stage 3: determining the appropriate form of regulatory oversight

6.1 Introduction

If it is determined that an airport does not have SMP at stage 2, then the safeguard ACD, as explained in section 4.2, would be the appropriate form of regulation for the member state to apply. However, if there is a finding of SMP at stage 2, then the assessment would proceed to stage 3. As part of stage 3, the ISA would undertake an assessment of whether any additional regulatory oversight would be appropriate, and if so the form of this regulatory oversight.⁴⁷

The outcome of stage 2 is binary—i.e. it determines that an airport has SMP or that it does not. However, even if SMP were found in stage 2, there is still a question about the degree of market power held by the airport. It is therefore important that the outcome of the assessment in stage 2 is used to tailor regulation to the airport's market position and the nature of the competition concerns.

This section sets out the process involved in the stage 3 assessment, and the relevant considerations to be taken into account. It also provides more detail on different forms of regulatory oversight and how they relate to the degree of market power that may be found in stage 2.

6.2 Determining the appropriate form of regulatory oversight

The degree of market power is determined by the nature and strength of competitive constraints. There may be evidence from the assessment in stage 2 that points in different directions. For example, the assessment may show that the majority of an airport's capacity is taken up by an FSC that operates a hub from that one airport. However, over the last five years this airline's share of the airport's capacity has declined significantly, and a number of LCCs that have the ability to move aircraft or routes or allocate new capacity to alternative airports have started operating from the airport and plan to significantly increase their operations at the airport over the next few years. In addition, the other airport in the local catchment area is currently at capacity, but is building a new runway that is set to open next year. In such circumstances, regulators may wish to ensure that their interventions do not impede the development of competition.

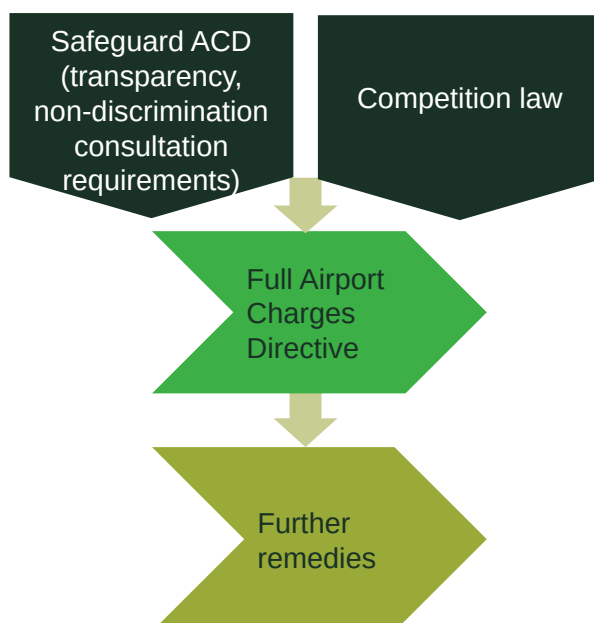
Ultimately, the balance of evidence needs to be weighed in the round when deciding on the appropriate form of regulatory oversight. Broadly, it would be expected that the greater the competitive constraints, the lower the extent of regulatory intervention in decision making. Indeed, as set out in section A1.2, in its assessment of the UK TANS market, the CAA noted that there was evidence pointing in different directions in terms of determining the contestability of the market, and there was the potential that circumstances could change going forward. For this reason, the CAA adopted a less interventionist approach to regulating the market than it would have done if all of the evidence pointed against contestability in the market.

The ISA should start by considering whether effective competition can still be assured by applying the safeguard ACD (as applied if an airport passes at stage 1 or 2), and given the presence of competition law. Only if this is not sufficient to

⁴⁷ We note that this process refers to the case where the ACD is revised. If the ACD is not revised, according to Article 6(5)b, if there is no effective regulation, the ISA intervention is required. If there is no effective competition 'the Member State shall decide that the airport charges, or their maximum level, shall be determined or approved by the independent supervisory authority'.

counter any adverse effects of SMP, should the full ACD (i.e. as it is currently applied with the potential for ISA intervention) and additional forms of regulatory oversight be considered. This is set out in the figure below.

Figure 6.1 Selecting the appropriate form of economic oversight



Source: Oxera and CMS.

It is important to note that the decision about whether to apply any additional regulatory oversight, and the choice about the particular form of regulation, will need to take account of national policy and the ISAs' duties in the relevant jurisdiction. Therefore, it would not be appropriate to propose specific remedies beyond those in the ACD at the European level. The appropriate remedies must be determined at the national level by member states given their knowledge of the national legislation and specificities of the particular market.

In the electronic communications sector, if a market is subject to effective competition, then the national regulatory authority is not allowed to impose obligations on any operator in that market, and must withdraw any regulatory obligations previously imposed.

On the other hand, if a national regulatory authority finds that competition in the relevant market is not effective because a firm has a dominant position, it must impose at least one regulatory obligation on the firm. However, as stated by the Commission, 'any obligation imposed by NRAs must be proportionate to the problem to be remedied.'⁴⁸ Therefore, 'in addition to the market analysis supporting the finding of SMP, NRAs need to include in their decisions a justification of the proposed measure...as well as an explanation of why their decision should be considered proportionate.'⁴⁹ Given that we have proposed that certain provisions of the ACD would apply even if the airport does not have SMP, we do not consider that it is necessary to require that an additional regulatory obligation be automatically imposed if there is a finding of SMP in stage 2.

⁴⁸ European Commission (2002), 'Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services', para. 117.

⁴⁹ *ibid.*

6.3 Application of the safeguard ACD and the presence of competition law

In some cases it may be that regulation beyond the safeguard ACD is not required. For instance, even if an airport has some degree of market power, there may be developments that indicate the market will tend towards effective competition over a reasonably short time period. Therefore, any regulatory intervention beyond the safeguard ACD would be unnecessary, and could potentially hinder the extent to which competition develops. As such, it is important to consider recent developments in the airports sector from Oxera (2017) and how these are likely to influence the extent of airports' market power going forward. For example, further consolidation in the airline market could increase airlines' buyer power and reduce an airport's market power.

In addition to the provisions of the ACD, regulators can also rely on competition law—Articles 101 and 102 of the TFEU—rather than seek to impose additional regulation. For instance, if an airport imposes excessive prices or degrades service quality, then an abuse of dominance claim based on Article 102 TFEU could be brought against the airport before the Commission or the National Competition Authority. While it is not a breach of competition law for an undertaking to have a dominant position, a dominant undertaking has a special responsibility not to use its dominant position to prevent or distort the effective competition in the market.

As noted in section 2, one of the Commission's three cumulative criteria for determining whether an electronics communications market is susceptible to ex ante regulation is an assessment of whether competition law is sufficient to address the identified market failure. It is also one of the three tests used by the CAA for determining whether to regulate—if the CAA determines that an operator has SMP, it is required to consider whether competition law provides sufficient protection against the risk of abuse of that SMP before imposing regulation.⁵⁰

In determining whether competition law would be sufficient, there are three key factors that would need to be considered:

- are airlines or other airports capable, and likely to, bring their claims before the national competition authorities or the Commission?
- is competition law well placed and sufficiently responsive to address problems that may arise due to market power?
- is the available package of remedies sufficient to act as a deterrent and is the nature of remedies that can be imposed appropriate?

If a member state determines that the application of competition law and the safeguard ACD are not sufficient, then it should consider whether further regulatory oversight would be appropriate.

6.4 Further regulatory oversight

Before imposing regulation beyond the safeguard ACD, an assessment of whether the benefits of further regulation outweigh the costs needs to be undertaken. An assessment of the benefits and costs of regulation can help determine whether additional regulation should be applied at all and, if so, to help determine the appropriate form of regulation. This is similar to one of the

⁵⁰ Civil Aviation Authority (2016), 'Market Power Test Guidance', CAP 1433, para. 5.3.

tests applied by the CAA in deciding whether to regulate airports; Test C considers whether the benefits of regulating (by means of a licence) are likely to outweigh the adverse effects.⁵¹

As part of this assessment, the appropriateness and necessity of regulation in dealing with potential issues needs to be considered. Regulation may either not be able to address issues effectively, or may not be necessary where market dynamics are likely to resolve issues within a reasonable timeframe.

There are several costs of regulation that are also relevant to consider. These include direct costs—for example, the time and expenditure of staff at the airport and the ISA—and indirect costs, which may include distortions to an airport's incentives, management distraction and crowding out of a commercial approach. In assessing the benefits of regulation, the potential impact on prices, efficiency, service quality and investment, for example, should be taken into account.

6.5 Application of the 'full ACD'

If it were determined that the safeguard ACD and competition law, which would apply in cases where airports pass at stage 1 and/or 2, are not sufficient, and the benefits of further regulatory oversight outweigh the costs, then the application of the full ACD could be considered. The full ACD refers to the current Directive (2009/12/EC) which is applied to all airports above the 5 mppa de minimis threshold. This has additional provisions (relative to the safeguard ACD), such as a mandatory procedure under national law whereby airport charges are determined or approved by the ISA (unless a market power assessment is undertaken), and allowing the airport and users to form service-level agreements with regard to the quality of service provided at the airport.

Given that many of these additional provisions require decisions about the appropriate method for setting prices and quality, for example, we consider that this is linked to the discussion set out below.

6.6 Additional forms of regulatory oversight

In some member states, ISAs may determine that additional remedies are required. Looking broadly at the economic regulation of network industries, there are a number of different forms that could be applied. These are set out below along with a brief description of how they can be applied in practice. While we do not undertake a full assessment of the advantages and disadvantages of the different forms of regulation, we would expect member states to do so before coming to a final decision.

Broadly, regulation can be applied after the event, to correct any perceived failures of behaviour that have already occurred, or in advance, to prevent such behaviour before it can occur. These are known as 'ex post' and 'ex ante' regulation respectively. Within these two broad types of regulation, there are variations in approaches and the degree of regulatory intervention. These are discussed in turn below.

6.6.1 Ex post regulation

Ex post regulation is designed to protect the degree of competition that already exists within a market, which may not yet be effective competition. Under an ex post approach, the regulator intentionally assumes a less intrusive role than in an ex ante form of regulation, leaving the company to determine the means by

⁵¹ Civil Aviation Authority (2016), 'Market Power Test Guidance', CAP 1433, para. 5.3.

which it arrives at the target outcome(s). That is not to say, however, that such regimes are the same as full deregulation.

Ex post regimes can either be 'reactive' or 'active.' In a reactive ex post regime, the company is required to publish price information, and often service quality and financial information. However, there is no requirement for the regulator to monitor prices formally and there is no explicit sanction mechanism; rather, the regulator will typically intervene in the market only if it, or the government, receives a formal complaint from a market participant about the company's behaviour.⁵² Thus, there is some threat of more intrusive price regulation in the future, if the airport delivers socially undesirable outcomes. This type of regulatory regime is in place at airports in New Zealand (Auckland, Christchurch and Wellington).

In a more active ex post regime, the regulator delegates responsibility for pricing arrangements to the company, and prices are determined by commercial negotiations between the company and its customers. The regulator then monitors price and (usually) service quality outcomes on an ongoing basis, to ensure that the company is not abusing its market power, only intervening if these outcomes are considered to be sub-optimal. While this is an ex post model, there is some ex ante action taken by the regulator in 'setting the rules of the game'. This includes establishing the information requirements and pricing principles that will determine the negotiation process, and whether outturn prices are deemed to be reasonable or excessive. This will generally include a requirement for the prices to be 'cost-reflective'.

There also remains a potential for ex post intervention in the event that an airport's conduct is deemed to be unacceptable (e.g. prices are deemed to have risen excessively). Some ex ante regulatory action may also be necessary to set the sanctions that could be imposed in an ex post intervention.

For these types of regimes to be effective, there needs to be some factor that constrains the ability of the airport to exert its market power. Such a constraint can stem from the countervailing buyer power of airlines, for example if they are sufficiently large to possess a degree of bargaining power. For this reason, as explained in section 3, the ACCC applied this type of regulatory regime at Australian airports (Sydney, Brisbane, Melbourne and Perth).

Another factor that could constrain the airport is the threat of re-regulation or credible sanctions if the company acts against the interests of users. These regimes tend to be accompanied by an explicit threat of re-regulation in the event of price outcomes being deemed to be excessive. Therefore, even in the absence of significant buyer power, these types of regimes can successfully be applied. Indeed, this is the key constraint that is relied upon by Ofcom in regulating Royal Mail, the UK postal provider, as Royal Mail is subject to a monitoring regime with limited regulatory safeguards, but a threat of more intrusive regulation if there is evidence that outcomes are not in the interests of consumers.

6.6.2 Ex ante regulation

Ex ante regulatory approaches are typically used when a company has a significant degree of market power, and in many cases where there is only one company in the industry (which is not the case with airports). In practice, even if

⁵² Under price monitoring, by contrast, the regulator can choose to intervene from its own assessment of the company's performance.

an ex ante regime were adopted, there is a spectrum of options, such that there is scope to tailor the regulatory framework to the degree of market power. For example, aspects such as price, service quality and investment can be determined through airport–airline negotiations where an airport has a lower degree of market power, or by the regulator when there is a significant degree of market power that is likely to endure. These approaches are discussed below.

Airport-led

In this approach, the outcomes are no longer determined by regulators; rather, regulatory authorities establish, guide and approve the process by which the outcomes are determined. This occurs through negotiation and consultation between the regulated company and users (in this context, *both* airlines and passengers), in order to form a consensus with respect to the outputs desired, level of charges, quality of service and other important aspects of the price control. Negotiations could be on the basis of a single contract for all airlines (multilateral contracting), or of separate price and service contracts with different airlines (bilateral contracting).

While this approach is intended to lead to a reduction in the degree of regulation, regulators often continue to have an important role in providing information, as well as specifying and monitoring the review process and timetable. In addition, regulators may delegate only certain types of decisions, while taking the lead on other aspects. Therefore, there is no removal of regulatory oversight altogether, although the regulator should ensure a clear division of responsibilities between itself, the service provider and the regulated firm/users to avoid a duplication of effort.

Regulator-led

In a regulator-led ex ante regime, the regulator will establish regulation of price, profits or revenue at a level that allows the company to recover the efficient level of costs incurred in providing the regulated service plus a fair rate of return. This is based on reviewing information provided by the regulated company (i.e. a business plan) and other stakeholders. It also requires forecasts to be made for the duration of the control period (which is typically five years in length). In some cases, service quality regulation is also applied by the regulator to ensure that the airport meets a certain standard of performance. This type of regime would be appropriate only for those airports that are found to have a high and enduring degree of SMP.

A key issue is whether this is done on a backward-looking or forward-looking basis. Rate of return' (also known as 'cost of service' or 'cost-plus') regulation takes a backward-looking view of costs, and allows a company to earn a rate of return on the investment it has carried out in recent years. That is, prices are periodically updated to reflect historic costs plus an allowed rate of return. A forward-looking approach would forecast the costs for the company and set a price path. The idea behind this form of regulation, often referred to as RPI - X, is that companies have an incentive to outperform the regulator's assumptions. If companies outperform, they keep the additional profits, but if they underperform they bear the costs (until the subsequent price review).

6.7 Summary

The discussion above demonstrates that even where regulatory intervention over and above the safeguard ACD and competition law is determined to be required, there are a variety of approaches available to regulators. Effective regulation does not necessarily require ex ante regulation of price and service.

Indeed, this is usually only appropriate where there is a high degree of SMP. Rather, effective regulation needs to be proportionate to the degree of SMP found and likely to persist into the future.

Based on the process and forms of regulation set out above, at the end of stage 3, an appropriate form of regulation will be recommended for each airport that was found to have SMP in stage 2. After the publication and notification of the decision on stage 3, if member states provide for appeals of ISA decisions, an appeal can be lodged by interested parties as it is a final decision.

7 Other elements of the process

7.1 Regulators' network

We consider that it would be important for a regulators' network to be established in order for regulators to be able to obtain advice and input, and ensure harmonisation across member states. This could be similar to the European Competition Network, which gathers the Commission and all the national competition authorities, the CEER, or BEREC.⁵³

BEREC assists the Commission and national regulatory authorities in implementing the EU regulatory framework for electronic communications. It provides advice on request and on its own initiative to the European institutions, and complements the regulatory tasks performed by the national authorities at a European level.⁵⁴ National authorities and the Commission are required to take account of any opinion, recommendation, guidelines, advice or regulatory best practice adopted by BEREC.

We consider that a similar body for airport ISAs could be set up through a formalisation of the Thessaloniki Forum, which was created in 2014. It is composed of experts from the national ISAs and was set up with the intention of helping national ISAs develop their working methods and knowledge by sharing experience and best practice. We therefore consider that it could have a similar role as part of the process that we have proposed.

7.2 When should new assessments be undertaken?

New assessments against the criteria should be undertaken by ISAs when there is a material change of circumstances that is likely to affect at least one of the screening criteria at stage 1. A material change of circumstances may be caused by, for example, significant new capacity being built at the airport or an airport in the catchment area, or a significant change in airline operations at the airport. Several small changes could be considered to constitute a material change in circumstances overall. An ISA can decide to undertake a new assessment, but it would need to set out its decision before doing so. An airport operator or other person whose interests are likely to be materially affected by the determination can also request for a new determination to be carried out, but it would be at the discretion of the ISA whether to do so. If a stakeholder requests a new determination to be undertaken, the ISA would need to respond within two months as to whether the request is accepted or refused.

Even if an airport is determined to have market power the first time the assessment is undertaken, if there is a material change in circumstances and a new assessment is undertaken, it should start from the stage 1 criteria. Also, even if an airport is currently regulated beyond the ACD, the assessment should start from the stage 1 criteria—i.e. it should not be presumed that an airport that is currently regulated has market power and needs to continue to be regulated (unless this is based on a prior SMP assessment).

⁵³ This replaced the European Regulators Group for electronic communications networks and services, which was established as an advisory group to the Commission in 2002.

⁵⁴ BEREC website, 'What is BEREC?', http://berec.europa.eu/eng/about_berec/what_is_berec/.

8 Conclusions

This report sets out a proposed two-stage market power test and remedies process which could be used to assist in the implementation of the current ACD or to assist in an eventual revision to ensure that the ACD is fit for purpose. This process is in line with similar processes in other sectors, as well as guidelines and decision-making practice from the Commission and other regulators and authorities. The use of a two-stage process makes the task of national regulators more tractable. Regulatory resources can be focused on market power determinations for airports where there is the potential for SMP.

The emphasis we have placed on regulators determining degrees of SMP is important in ensuring that regulation is designed in accordance with the degree of market power held by an airport. In turn, this can lead to significant benefits for consumers by allowing for effective competition, where it exists, and appropriate levels of regulation where competition is not (yet) effective. The proposed process also takes account of the fact that airports, and their regulators, are of different sizes, face different market conditions, and have different capacities.

The Commission could use certain elements of this proposal to improve the implementation of the ACD—for example, using the market power guidelines in relation to the application of Article 6(5)b of the ACD. The full framework could be incorporated if the ACD were to be revised. The Commission could also incorporate selected elements of the framework into a revised ACD. For example, this might involve using the screening criteria methodology to determine a revised de minimis threshold for the application of the ACD that is more consistent with the extent of competition in the airports market.

A1 Detailed review of case studies

A1.1 European electronic communications sector

Key messages

- The Commission has established a three-criteria test to determine which electronic communications markets are susceptible to ex ante regulation. National regulators then determine whether operators in these markets have SMP and therefore whether they should be regulated. Markets not on the list can be regulated, but only if national regulators show that the markets pass the three-criteria test and they find SMP. This process therefore allows for differences in national circumstances to be taken into account but retains a Europe-wide focus on regulating only where SMP can be shown to exist.
- The assessment is forward-looking and considers how developments in the market will affect the degree of competition going forward.
- The Commission has established SMP guidelines that provide guidance on market definition and market power.
- A group of national regulators (BEREC) advises the Commission when the Commission disagrees with a national authority's assessment. This group also assists national regulators and disseminates best practice.
- Remedies should only be applied where SMP is found, and they should be tailored to the nature of the market failure(s) identified.
- There is a regular review of the legislative framework to ensure it reflects market conditions.

A1.1.1 Regulatory framework

Directive 2002/21/EC⁵⁵ established a legislative framework for the electronic communications sector that (in accordance with Directive 2009/140/EC of the European Parliament and the Council) aims to progressively reduce ex ante regulation as competition develops in electronic communications markets.⁵⁶

Article 15(1) of Directive 2002/21/EC requires the Commission to identify markets in the electronic communications sector where regulation should be imposed.⁵⁷ The Directive specifies that ex ante regulation should only be applied to markets that are not effectively competitive. This means markets where there are one or more undertakings with SMP and where national and EU competition law remedies alone are not sufficient to address the competition issues identified.

The Commission undertakes a three-part test to determine which markets are susceptible to ex ante regulation. The forward-looking approach takes existing market conditions as the starting point, but considers whether the market is prospectively competitive and whether any lack of competition is likely to endure.

⁵⁵ European Parliament and the Council of the European Union (2002), 'Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive)', *Official Journal of the European Union*, 7 March.

⁵⁶ European Parliament and the Council of the European Union (2009), 'Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services', *Official Journal of the European Union*, December.

⁵⁷ The Directive asks national regulatory authorities to check that the markets defined by the Commission are appropriate to national circumstances, and to identify other markets if necessary.

In October 2014, the Commission published its recommendations on the relevant markets in the electronic communications sector that are susceptible to ex ante regulation.⁵⁸

National authorities can regulate markets that have been determined to be prospectively competitive by the Commission (i.e. markets that are not on the list of relevant markets susceptible to ex ante regulation). In order to do so, they need to apply the three-criteria test to the relevant market, make a finding of SMP, and notify the Commission. On the other hand, if a national regulator does not want to impose ex ante regulation in a market that the Commission has determined to be susceptible to ex ante regulation, national regulators need to show that there is no SMP.

A1.1.2 The three-criteria test

The Commission assesses three cumulative criteria for determining whether a market is susceptible to ex ante regulation:

- **criterion 1:** presence of high and non-transitory structural, legal or regulatory barriers to entry;
- **criterion 2:** market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of competition behind the barriers to entry;
- **criterion 3:** competition law alone is insufficient to adequately address the identified market failure(s).

These criteria are set out in more detail below.

Criterion 1: barriers to entry

The Commission defines structural barriers to entry as supply and demand conditions that create asymmetric conditions between incumbents and new entrants. The Commission uses examples of high sunk costs, absolute cost advantages, substantial economies of scale or scope, and capacity constraints.

The Commission also notes the need to consider legal and regulatory barriers that can have a direct effect on the conditions of entry. An example of regulatory barriers to entry are price controls or other price-related measures imposed on undertakings that affect entry but also the position of undertakings in the market.

Criterion 2: market structure evolution

The Commission highlights that even with high barriers to entry there could be market dynamics such that a market tends towards effective competition over a given time horizon. Technological developments or the convergence of products may give rise to competitive constraints. The availability of excess capacity may lead to a change in market shares and/or prices.

Criterion 3: competition law

The Commission considers that a reliance on competition law alone is not efficient when market failures are persistent such that intervention would need to

⁵⁸ European Commission (2014), 'Commission recommendations of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services', *Official Journal of the European Union*, 9 October. Those recommendations follow two previous recommendations from the Directive 2002/21/EC and the Commission Recommendations 2007/879/EC.

be extensive or frequent. In these cases, ex ante regulation should be used as a complement to competition law.

A1.1.3 SMP assessment by national regulatory authorities

National regulators review the markets susceptible to ex ante regulation to determine whether there are firms that possess SMP in these markets. Only if there are firms with SMP do these markets become regulated.

If a national regulator wants to review a market that is not on the Commission's list, it needs to show that the three criteria apply. Once it has done this, it then needs to undertake the actual market review to find whether SMP exists.

The Commission's 2002 SMP guidelines set out the criteria that should be used to assess whether an operator has SMP.⁵⁹ The guidelines start with market shares (in value or volume) as a likely indicator of SMP. They highlight that although market shares alone are not sufficient to conclude on SMP, it is unlikely that an undertaking without a significant share of the relevant market would be in a dominant position. The guidelines set the threshold at 25% for an undertaking unlikely to have market power, and at 50% for an operator that may be likely to have SMP.

The guidelines set out a number of factors that can be considered to establish the existence of market power:

- overall size of the undertaking;
- control of infrastructure, which cannot be easily duplicated;
- technological advantages or superiority;
- absence of, or low, countervailing buying power;
- easy or privileged access to capital market/financial resources;
- product/services diversification (e.g. bundled products or services);
- economies of scale or scope;
- vertical integration;
- a highly developed distribution and sales network;
- absence of potential competition;
- barriers to expansion.

The guidelines specify that a dominant position can be derived from a combination of the above criteria, which, taken separately, may not necessarily be determinative.

A1.1.4 Remedies

When there is a finding of SMP in a market, Directive 2002/21/EC sets out some potential obligations to remedy competition concerns, as follows:

- transparency;

⁵⁹ European Commission (2002), 'Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services', *Official Journal of the European Communities*.

- non-discrimination;
- obligations for access to, and use of, specific network facilities;
- price control and cost accounting obligations.

National authorities must impose at least one regulatory obligation on an undertaking that has been designated as having SMP. Conversely, if the national authority finds that the market is effectively competitive then it is not allowed to impose obligations on any operator in that relevant market. However, different remedies can be applied to different identified problems, and remedies should be tailored to the specific problems.

A1.1.5 The role of BEREC

BEREC was established in 2009,⁶⁰ and assists the Commission and national regulatory authorities in implementing the EU regulatory framework for electronic communications. It provides advice on request and on its own initiative to the European institutions, and complements the regulatory tasks performed by the national authorities at a European level.⁶¹

National authorities and the Commission are required to take account of any opinion, recommendation, guidelines, advice or regulatory best practice adopted by BEREC.

In particular, BEREC:

- develops and disseminates regulatory best practice, such as common approaches, methodologies or guidelines on the implementation of the EU regulatory framework;
- on request, provides assistance to national regulators on regulatory issues;
- delivers opinions on the Commission's draft decisions, recommendations and guidelines as specified in the regulatory framework;
- issues reports and provides advice, upon a reasoned request of the Commission or on its own initiative, and delivers opinions to the European Parliament and the Council, when needed, on any matter within its competence;
- on request, assists the European Parliament, the Council, the Commission and the national authorities in relations, discussions and exchanges of views with third parties; and assists the Commission and national regulatory authorities in the dissemination of regulatory best practice to third parties.

A1.1.6 The interaction between national regulators, the Commission and BEREC

The 2002 SMP guidelines state that the national regulatory authorities must notify the Commission of their intended regulatory measures following a market review. The Commission can potentially veto the national authority's market definition and assessment of SMP.

In 2009, a review of the Commission's guidelines extended the Commission's investigative powers to the choice of remedies, albeit without a veto power.

⁶⁰ This replaced the European Regulators Group for electronic communications networks and services, which was established as an advisory group to the Commission in 2002.

⁶¹ BEREC website, 'What is BEREC?', http://berec.europa.eu/eng/about_berec/what_is_berec/.

BEREC has a role in issuing an opinion on the Commission's concerns to assess whether those concerns are justified. If BEREC agrees with the Commission, the national regulatory authority should work closely with BEREC in order to identify the most suitable and effective remedies.

BEREC must adopt the final decision with a two-thirds majority (for decisions on market definition and SMP) or with a simple majority (for decisions on the choice of remedies).

A1.1.7 Engagement with stakeholders in the decision-making process

Before taking any decision that would have a significant impact on the relevant market (e.g. imposition or withdrawal of obligations), national regulatory authorities must hold a public consultation on proposed measures. The Commission considers that two months is a reasonable timeframe for a public consultation. Where the draft measure concerns a decision relating to an SMP designation or de-designation, it should include:

- the market definition used and reasons;
- evidence relating to the finding of dominance;
- full details of the sector-specific obligations that the national regulatory authority proposes to impose, modify or withdraw, together with an assessment of the proportionality of that proposed measure.

A1.1.8 Recent developments

The framework and recommendations for the electronic communications market have been revised several times since 2002.

In 2014, the Commission revised its designation of ex ante regulated markets by reducing the number of regulated markets to only four. The Swedish regulator went even further in 2015 by deregulating one of those four remaining markets. The Commission is now in the process of revising the regulatory framework and SMP guidelines for the sector. These developments are discussed in turn below.

The 2014 recommendations

In the first recommendations in 2003, the Commission found 18 retail and wholesale markets with SMP. In 2014 there were only four wholesale markets where SMP was found, with no more retail markets subject to ex ante regulation.

The removal of the retail markets is based on the presumption that the regulation of wholesale markets is sufficient to enable retail markets to be competitive. Compared with the previous recommendations, the wholesale call origination markets and the call transit markets have now also been deemed not to require sector-specific regulation. The reason for this lies in the development of alternative operators in the fixed access markets as well as OTT substitutions (VoIP, such as Skype).⁶² For these reasons, the second criterion was no longer met.

Revision of the regulatory framework and SMP guidelines

The Commission is currently reviewing the regulatory framework for the sector. The overarching framework of market definition, SMP tests and remedies will remain the same, as will the list of markets susceptible to ex ante regulation. The

⁶² Detecon Consulting (2016), 'The Telecom Markets regulated in Europe', 15 March, <https://www.detecon.com/en/Publications/telecom-markets-regulated-europe>.

Commission has also proposed transforming BEREC into a fully fledged agency and to enhance its role going forward, including some legally binding powers to help ensure that the regulatory framework is applied consistently.⁶³

The Commission is also currently updating the SMP guidelines, partly as a result of developments in EU law in relation to single and collective dominance, in order to further clarify the application of this concept in the electronic communications sector.⁶⁴

In March 2017, the Commission opened a public consultation for three months. Member states, national regulatory authorities, national competition authorities, electronic communications providers, academics in law and economics, and consumers were invited to express their opinion on the theoretical concepts underpinning the market definition, as well as on single and collective dominance in the electronic communications sector.

The Commission is planning to update a number sections of the SMP guidelines, including on market definition, the relevance of the SMP guidelines concerning regulatory obligations, and procedures for consultation and publication of national regulatory authorities' decisions.

A1.2 TANS

Key messages

- Assessments should be undertaken when market conditions change.
- Regulatory interventions that could frustrate competition should be avoided. Instead, regulators should focus on what they can do to enable competition to develop.
- The existence of contestability removes the need for economic ('cost-efficiency') regulation. There is still a residual degree of regulation, in terms of targets on quality, capacity and environment, applied to TANS.
- The assessment against the Commission's criteria has been undertaken 'in the round' by national regulators (e.g. the CAA).

A1.2.1 Background on TANS

TANS are composed of:

- the en route service, which controls traffic during the cruise phase of flights;
- the approach service, which takes over control of the aircraft from the en route/aerodrome service near the airport to prepare the aircraft for landing/departure;
- the aerodrome service, which controls take-off, landing and ground movement at the airport.

TANS normally consist of the approach and the aerodrome services.

A1.2.2 Legislative framework

In most European markets, TANS are provided by publicly owned enterprises with a monopoly. In some markets, (e.g. the UK and parts of Sweden and Spain)

⁶³ European Commission (2016), 'State of the Union 2016: Commission paves the way for more and better internet connectivity for all citizens and businesses', 14 September.

⁶⁴ European Commission website, 'Public Consultation on the Review of the Significant Market Power (SMP) Guidelines', https://ec.europa.eu/info/content/public-consultation-review-significant-market-power-smp-guidelines_en.

TANS providers operate under commercially negotiated private contracts with the airport operator.

In March 2004, the European Parliament and the Council of the European Union adopted the first SES legislative package. This set out the framework for a pan-European approach to the regulation and governance of airspace. In June 2008, this was amended through the second SES legislative package (SES II).

Article 3 of the Charging Regulation includes a provision for the assessment of market conditions that member states can carry out with regard to TANS. Annex 1 of the Commission's Regulation No 391/2013 sets out the criteria for this contestability assessment.⁶⁵ This assessment needs to be undertaken before the start of the regulatory period, or in justified cases during the control period. The assessment needs to include consultation with stakeholders.

National regulators can undertake assessments of the TANS market (at all or only some airports with over 70,000 IFR ATMs per year) against these criteria to determine whether the market is contestable. If contestability is demonstrated, the member state can apply a reduced set of regulatory requirements at the relevant airport(s). The outcome from the assessment determines whether the national regulator can choose to opt out of the requirement to apply cost-efficiency targets for TANS charges. The requirements to establish targets in other key performance areas, such as safety, capacity and environment, still apply regardless of the outcome of the assessment.⁶⁶

The process for undertaking these assessments is that the national regulator submits a report to the Commission with its analysis against the Commission's criteria. Within four months the Commission determines whether there has been consultation with users and whether it agrees with the conclusions.⁶⁷

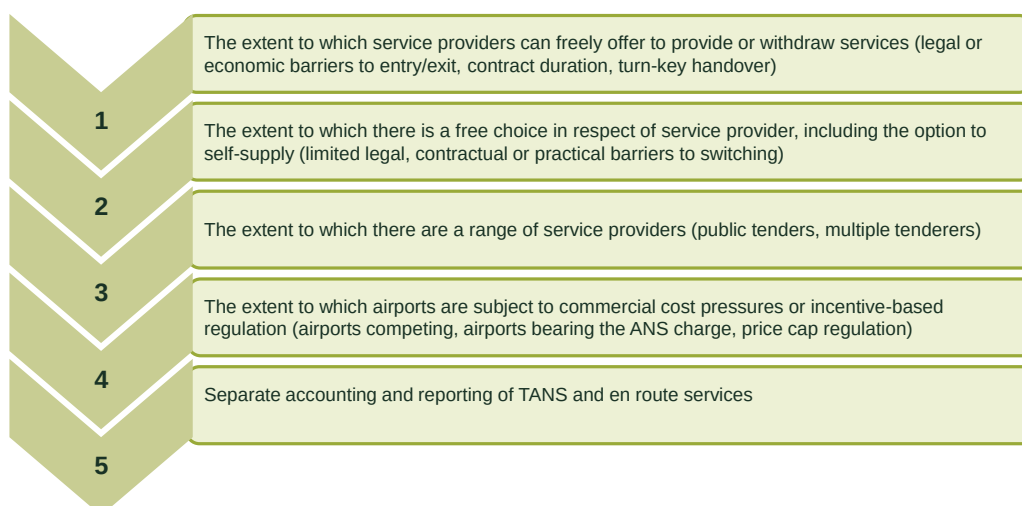
The Commission's criteria are as follows:

⁶⁵ European Commission (2013), 'Commission Implementing Regulation (EU) No 391 / 2013 of 3 May 2013 laying down a common charging scheme for air navigation services', *Official Journal of the European Union*, 9 May.

⁶⁶ *Ibid.*, Article 3.

⁶⁷ The Commission can extend this to six months if it considers that additional evidence is required to determine whether market conditions have been established.

Figure A1.1 Five contestability criteria



Source: European Commission (2013), 'Commission Implementing Regulation (EU) No 391 / 2013 of 3 May 2013 laying down a common charging scheme for air navigation services', *Official Journal of the European Union*, 9 May, Annex 1.

The Commission requires the assessment to be carried out at each airport as appropriate.

As noted by the CAA, this is not a full competition assessment and the criteria do not constitute a test of whether an operator holds SMP. However, some of the criteria might be relevant to such an investigation. It also notes that the criteria establish whether there are conditions for the market process to exist, which is a necessary, but not sufficient, condition for effective competition.⁶⁸

A1.2.3 UK TANS case study

In January 2008, following a request from the Secretary of State, the CAA published its first assessment of market conditions in the TANS market. The CAA concluded that the market was contestable, and that SES initiatives, such as European licensing of ANSPs and ATCOs would further increase contestability of the market.⁶⁹

In 2012, the DfT requested that the CAA provide new evidence to the Secretary of State on the existence of market conditions for TANS in the UK. The CAA consulted with stakeholders on its draft advice before publishing its final advice. It collected quantitative and qualitative evidence, and noted that some evidence was based on stakeholder opinion and perception. Most stakeholders (other than NATS) indicated that they did not perceive that market conditions existed.

The CAA concluded that 'there is evidence pointing in different directions in judging market conditions against the criteria set out in Annex 1 of the Regulation.'⁷⁰ While there are no statutory legal barriers, and airport operators can choose to switch TANS provider, the degree of movement and actual switching has been low. The CAA concluded that airport operators did not

⁶⁸ Civil Aviation Authority (2015), 'Review of advice on SES Market Conditions for Terminal Air Navigation Services in the UK', CAP 1293, April, para. 1.4.

⁶⁹ Civil Aviation Authority (2008), 'Assessment of Contestability under Annex 1 of the Air Navigation Services Charging Regulation (EC) No 1794/2006.' At the time this assessment was undertaken the criteria in Appendix 1 were slightly different from the current criteria.

⁷⁰ Civil Aviation Authority (2013), 'Single European Sky – Market Conditions for Terminal Air Navigation Services in the UK', Advice to the DfT under Section 16(1) of the Civil Aviation Act 1982, CAP 1004, 28 February, para. 4.

perceive alternative operators as credible and were worried about the risk of transition. This, along with economic barriers, had led to a lack of switching. The box below provides more detail on the CAA's assessment against the five criteria.

Box A1.1 CAA assessment against five contestability criteria

The CAA's assessment against the five criteria determined that two criteria (four and five) were broadly met, while three were not, as follows.

1. There are no statutory barriers to service providers being able to provide or withdraw the provision of TANS in the UK, but there are economic barriers that may limit the ability to do so in practice, such as risk and uncertainty around transition, and concern about sunk costs. The CAA highlighted that there were some factors that promote the development of market conditions, including the duration of contracts and arrangements for the transfer of physical and intellectual assets. It also noted that the applicability of competition law to TANS providers at airports generally aids the development of the contestability of such services.
2. There are no statutory barriers preventing an airport from changing its TANS provider or moving to self-supply. However, in practice, there are a number of barriers preventing airports from switching, including an airport operator's tolerance of transitional risks of service provision and transparency of TANS costs. There were no changes in TANS providers at the 16 airports considered since the last study in 2008.
3. There are a range of alternative providers in the UK. However, a lack of competitive tendering processes may reflect a lack of confidence from some airport operators in the credibility of some alternatives.
4. UK airport operators are either subject to competitive pressure or economic regulation that sets incentives aimed at cost efficiency.
5. NSL (the TANS provider) and NERL are separate legal entities and are required to file independent accounts.

Source: Civil Aviation Authority (2013), 'Single European Sky – Market Conditions for Terminal Air Navigation Services in the UK', Advice to the DfT under Section 16(1) of the Civil Aviation Act 1982, CAP 1004, 28 February.

The CAA looked at other elements as part of its assessment, such as profitability. It noted that this is not a perfect indicator of competitive pressure, although it may help indicate whether there are any persistent patterns that should be taken into account. The CAA also undertook some calculations of the cost of a service reduction to the airport operator if there was a loss of service levels and ATMs with a change in provider, and therefore whether this might have an effect on switching providers.

The CAA noted that it assessed evidence against each of the criteria, but in coming to its judgement, it weighed the balance of evidence in the round rather than adopting a tick-box approach.

The CAA ultimately determined that the market was not contestable. It noted that a number of these conclusions could evolve over time, and given the uncertainties in the evidence and the forthcoming expiry of most contracts in the next few years, the DfT should request that the CAA undertake a further assessment of market conditions at a later date if circumstances change significantly. The CAA suggested that 'this would ensure any decisions on regulation consider the most up to date and complete information base.'⁷¹ The CAA also commented that greater transparency of TANS costs might help in

⁷¹ Civil Aviation Authority (2013), 'Single European Sky – Market Conditions for Terminal Air Navigation Services in the UK', Advice to the DfT under Section 16(1) of the Civil Aviation Act 1982, CAP 1004, 28 February, para. 11.

developing market conditions by enhancing the confidence of airport operators and enabling them to judge the value for money of their contracts.

The CAA 'also recognises the need to avoid regulatory interventions that could frustrate the achievement of a competitive market or affect the level of TANS provision'⁷² as it 'continues to consider that securing effective competition in TANS provision will be more aligned to users' interests than regulation.'⁷³ It therefore wanted to understand the steps it could take to strengthen the prospects for market conditions in the future.

After consultation, in 2014, the CAA published a decision on its approach to the regulation of TANS.⁷⁴ The CAA noted that it had carefully judged its intervention so as not to hinder the development of contestability and to be proportionate. For instance, while it considered that some degree of cost transparency would assist in the development of market conditions, transparency at the individual airport level could be counter-productive.

In 2015, the CAA conducted another assessment of the contestability of the TANS market in response to a request from the DfT following some significant changes in the provision of TANS in the UK.⁷⁵ This included the transfer of the TANS service from NSL to in-house provision at Birmingham Airport, and the announcement by Gatwick Airport that it had awarded its TANS contract to Deutsche Flugsicherung GmbH (DFS, the German ANSP). Since the last assessment there had also been a number of contracts re-awarded to NSL after renegotiations rather than open tenders (e.g. Manchester Airport), and one as a result of a tender (Luton Airport). In addition, NATS developed two undertakings to address barriers identified by the CAA's previous contestability assessment. These proposed commitments were designed to remove perceptions held by airport operators that it is risky or difficult to switch TANS provider.

The CAA noted that several tender processes had taken place, and even where airports had not tendered, they had at least undertaken some form of informal market testing. The entry of new operators also showed that the barriers might not be as high as previously considered. The CAA suggested that this was an improvement against the criteria.

The CAA highlighted that, given the nature of the market, a competitive dynamic can persist and develop even if there are only a few credible alternative suppliers. It also expected to see continued development of market conditions for the provision of TANS going forward as contracts approach their renewal dates. However, anything that forces new entrants or airport operators to incur additional costs and uncertainty would distort the competitive process.

Overall, the CAA therefore concluded that it did not find any significant legal or economic barriers that prevent a service provider from offering to provide or withdraw from the provision of TANS, or that prevent airports from exercising choice with respect to service provider. It noted that the barriers previously identified had been overcome and that there are now credible alternative

⁷² Civil Aviation Authority (2013), 'Single European Sky – Market Conditions for Terminal Air Navigation Services in the UK', Advice to the DfT under Section 16(1) of the Civil Aviation Act 1982, CAP 1004, 28 February, para. 12.

⁷³ Civil Aviation Authority (2013), 'Single European Sky – Market Conditions for Terminal Air Navigation Services in the UK', Advice to the DfT under Section 16(1) of the Civil Aviation Act 1982, CAP 1004, 28 February, para. 4.9.

⁷⁴ Civil Aviation Authority (2014), 'The CAA's approach to the regulation of terminal air navigation service for RP2.'

⁷⁵ Civil Aviation Authority (2015), 'Review of advice on SES Market Conditions for Terminal Air Navigation Services in the UK', CAP 1293, April.

operators. The CAA considered that any concerns that might arise over contracting behaviour, particularly contract duration, could be dealt with under its competition powers as needed. It noted that while it had tested whether market conditions exist, it had not assessed whether the market is effectively competitive.

The DfT made the case for market conditions for TANS in the UK to the Commission largely based on Birmingham taking its TANS service in-house and Gatwick choosing an alternative provider. In October 2016, the Commission published its decision that market conditions had been established in the UK.⁷⁶

The CAA proposed to carry out reviews of the Birmingham transition and Gatwick change in provider to draw out lessons and consider whether any further actions would be needed to support the competitive development of the TANS market.

This review was conducted in 2017 by SDG on behalf of the CAA.⁷⁷ It noted some risks identified by stakeholders in the transition, including potential for business interruption or failure of service delivery. The report also makes recommendations for improvements to the TANS provider transition process. For instance, it suggests that airports could shorten the transition time for new ANSPs by establishing methods of communication between incoming and outgoing providers. It also sets out some potential actions for the CAA, such as introducing pre-certification of ANSPs. Overall, it concluded that while there were no transition issues with continuity or quality of service, there were challenges in relation to the transfer of staff, information and data between incoming and outgoing providers.

A1.3 Australian airports

Key messages

- Although it was determined that the four largest airports had market power, the Productivity Commission suggested that there was no evidence that this would lead to anti-competitive behaviour. In part, this was due to market constraints faced by the airports—including, the buyer power of airlines, commercial incentives and pursuit of new airline business—which would ensure that prices would not rise excessively. Due to these constraints, and the potential direct and indirect costs of heavy-handed regulation, price cap regulation was replaced by price monitoring.
- Two subsequent reviews conducted by the Productivity Commission have found that the lighter-handed regime has resulted in benefits for users, including more investment, good levels of service quality and competitive prices.
- There has been ‘constructive tension’ between airlines and the airport operators, and contracts have evolved over time to better match airlines’ needs. Despite some disagreements over how the contracting process operates, the reviews found that neither the airports nor the airlines favour a return to heavier-handed regulation.
- The Productivity Commission’s 2012 review concluded that the regime should continue until at least 2020.

⁷⁶ European Commission (2016), ‘Commission implementing decision (EU) 2016/1940 of 6 October 2016 on the establishment of market conditions for terminal air navigation services in the United Kingdom under Article 3 of Implementing Regulation (EU) No 391/2013’, *Official Journal of the European Union*, 5 November.

⁷⁷ Steer Davies Gleave (2017), ‘Review of TANS provider transition at Birmingham and Gatwick’, Recommendations final report (PUBLIC), January.

A1.3.1 Background

In 1997 and 1998, 17 Australian airports, previously operated by the Federal Airports Corporation, were privatised through the sale of long-term leases (covering an initial 50 years with an option to renew for an additional 49 years) to private sector operators. Five further airports (including Sydney) were leased but not privatised over this same period.⁷⁸ Of these 22 airports, 12 were designated as 'core regulated' airports under the Airports Act 1996.

With the exception of Sydney, the 'core regulated' airports were initially subjected to price regulation—comprising a CPI - X price cap on declared aeronautical services, price monitoring of aeronautical-related services, and cost pass-through provisions for new investments approved by the regulator⁷⁹—administered by the ACCC under the Prices Surveillance Act 1983. Sydney Airport was not subject to a price cap but was instead subject to price notification, such that any price increases were placed under the scrutiny of the ACCC. This regulation applied for the first five years of the operation of the leases, with a review to determine the form of subsequent regulation held to coincide with the end of this period.

In October 2001, price caps on aeronautical charges were removed at eight of the 12 'core-regulated' Australian airports to allow them to recover from a 30–40% reduction in traffic created by the 9/11 terrorist attacks, and the cessation of services by Ansett, the second largest Australian airline at the time.

Shortly afterwards, a Productivity Commission inquiry report, commissioned by the Australian government, recommended price (and service quality) monitoring of the airports that continued to be subject to price caps.⁸⁰

The inquiry report determined that price caps at these airports were not warranted for two reasons. First, the uncertainty in global aviation markets post 9/11 created a high risk of regulatory error:

If airport operators themselves cannot predict what will happen over the next few months or years, regulators are unlikely to be able to fix price caps that can deal efficiently with future market conditions.⁸¹

Second, the existing regulatory regime was deemed to be too 'heavy-handed' given the nature of the market, which 'discouraged efficient investment by sending poor price signals to both airport operators and users about the costs of providing aeronautical services'.⁸² The report further noted that 'the full benefits of privatisation are unlikely to be realised if commercial relationships between airports and airlines continue to be heavily conditioned by intrusive price regulation'.⁸³

Although the four largest airports benefited from considerable market power, the Commission determined that there was no evidence to suggest that they had, or would, engage in behaviour that would generate significant costs to the economy. In particular, it was deemed that airports faced market constraints that would ensure that prices would not rise excessively, since:

⁷⁸ Sydney Airport was later privatised in 2002.

⁷⁹ This was complemented by service quality monitoring and a provision for the ACCC to determine access charges by an arbitration process (under the Part IIIA national access regime).

⁸⁰ Productivity Commission (2002), 'Price Regulation of Airport Services', inquiry report no. 19, 23 January.

⁸¹ *ibid.*, p. XLIII.

⁸² *ibid.*, p. XXXII.

⁸³ *ibid.*, p. 357.

- major airlines would be able to use their countervailing buyer power to ensure that airports could not abuse their monopoly position;
- commercial incentives would encourage airport operators to keep prices at the level that maximises passenger traffic (in order to maximise the revenues from their retail activities, car parking, etc.);
- the pursuit of new airline business, in a bid to expand the market, would prevent airports from increasing their charges.

The government followed the recommendations of the report and discontinued price caps and price notification at all airports in 2002. In its place, price monitoring was introduced at seven airports (Adelaide, Brisbane, Canberra, Darwin, Melbourne, Perth and Sydney) for an initial period of five years.

The ACCC has since been required to monitor prices (as well as financial performance, and quality of service) and issue annual reports, including comparison of airports' performance across certain KPIs, on the basis of information submitted by the regulated airports.

To determine the level of charges, negotiations between airlines and airports are carried out according to a set of formalised pricing principles, and can be subject to arbitration in the event that the parties are unable to agree on an outcome. The resulting agreements do not follow a 'template' but there are a number of common features:

- durations of up to 5–7 years;
- agreed paths with pre-defined variations in specified circumstances;
- consultation processes on capital investment with exchange of information;
- service quality targets and rebates where airports fail to meet agreed service levels;
- discounts for new services, including new destinations;
- agreed dispute resolution procedures.

A1.3.2 Outcomes

To examine the effectiveness of the light-handed regulatory regime, the government commissioned two further Productivity Commission inquiries, which were held at the end of the first two five-year regulatory periods (in 2006 and 2011, respectively).

Broadly speaking, both reviews found that price monitoring had delivered important benefits, with the latter inquiry recommending that the regime should continue, with some enhancements, until 2020. The Department for Infrastructure and Transport has since agreed to this extension.⁸⁴

In particular, the reports highlighted an increased ability for airports to undertake necessary investments:

Against a number of performance indicators, the light handed regulatory approach has measured up well. Most importantly, it has made it much easier for airports and airlines to agree on what new investment is required and the charges

⁸⁴ Department for Infrastructure and Transport (2012), 'Australian Government response to the Productivity Commission Inquiry into the Economic Regulation of Airport Services', press release, 30 March.

necessary to pay for it. This is in contrast to the problems acknowledged by airports and airlines alike under the previous price cap regime.⁸⁵

Light-touch regulation also appears to have delivered several additional benefits, including:

- high productivity performance;
- 'satisfactory to good' service quality by international standards;
- relatively modest compliance costs;
- some evidence of sophisticated agreements between airports and airlines regarding service-level obligations, capital investment and price paths.⁸⁶

Moreover, the Productivity Commission concluded in its 2011 inquiry that aeronautical charges, revenues, costs and profits were broadly comparable to levels observed at (international) comparator airports, and did not point to an abuse of market power, over the review period.⁸⁷ While profits have been at the high end of the performance range of comparators, the Productivity Commission considered that this appeared to be the result of low costs and high productivity rather than a high revenue yield per passenger.

Despite the observed benefits of the new regime, the Productivity Commission noted that there was some evidence of strained relationships, and that the airport operators were generally happier with the regime than airlines. Importantly, despite some disagreements over how the contracting process operates, the reviews found that neither the airports nor the airlines favour a return to heavier-handed regulation.

Almost all participants agree that commercial outcomes are preferable to the regulatory intervention model of the past. For example, Qantas submitted that 'to provide the best and most efficient service to consumers, airports and airlines must negotiate commercially acceptable agreements.' Virgin similarly noted that 'commercial negotiation is the most efficient and flexible method of setting the terms and conditions for which airports supply, and airlines acquire, airports services.'⁸⁸

The latest annual monitoring report produced by the ACCC (covering 2015–16) concluded that service quality performance had been good, and that there had been continued investment in the airports.⁸⁹ Profit margins (as measured by EBITDA) are considered to be high, particularly from car parking services, but the ACCC did not see a need to take further action.

⁸⁵ Productivity Commission (2006), 'Review of price regulation of airport services', Inquiry Report No. 40, 14 December, p. 37.

⁸⁶ Productivity Commission (2011), 'Economic Regulation of Airport Services', Inquiry Report No. 57, 14 December.

⁸⁷ *ibid.*

⁸⁸ *ibid.*, p.177.

⁸⁹ Australian Consumer and Competition Commission (2017), 'Airport Monitoring Report 2015–16', March.

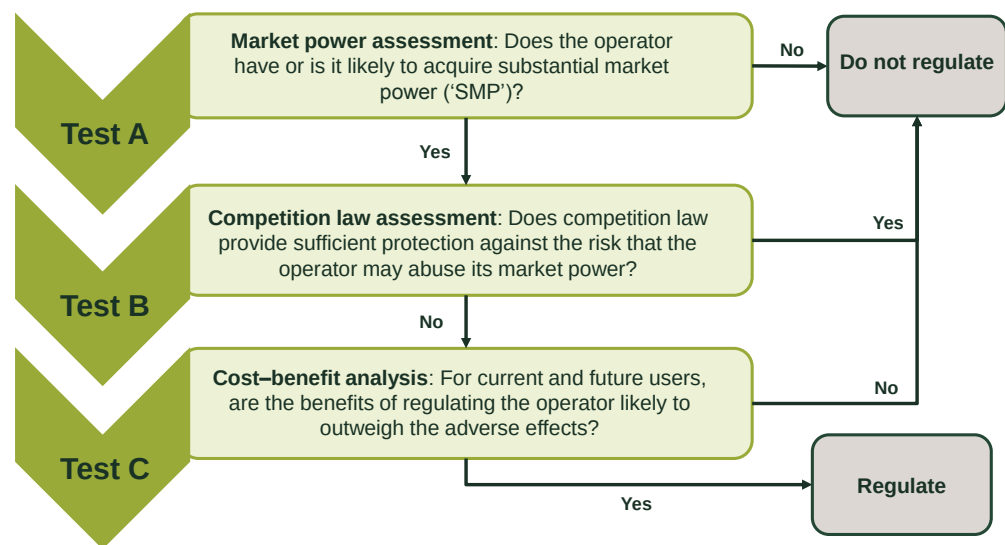
A1.4 Heathrow, Gatwick and Stansted airports

Key messages

- There is a three-part test to determine whether airports need to be regulated. These tests consider whether the operator has SMP, whether competition law is sufficient against the risk that the operator will abuse its market power, and whether the benefits of regulation outweigh the costs. Therefore, even if SMP is found, it could be the case that no regulation is imposed because competition law is sufficient or because the benefits of regulation do not outweigh the costs.
- The CAA undertook these tests at Heathrow, Gatwick and Stansted and determined that Stansted should be de-regulated, and that regulation at the other two airports should vary. Gatwick should be regulated according to a 'Contracts and Commitments' regime, and Heathrow should be price regulated (according to a RAB–WACC framework).
- The CAA assessment is undertaken on a forward-looking basis.
- The CAA considers a number of potential competitive constraints in assessing market power, including countervailing buyer power, switching costs and capacity constraints at the focal and competing airports. Marginal switching is analysed in a critical loss framework. The CAA also considers other indicators of market power, such as the airport's behaviour and performance on profitability measures, quality of service, efficiency and engagement with airlines.
- Airports and airlines can request a new SMP assessment to be conducted, but the CAA can refuse the request if there has been no material change in circumstances.

The CAA undertakes a three-part test to determine whether to regulate airports, as set out in the figure below.

Figure A1.2 UK CAA's three-part test



Source: Oxera and CMS.

Test A requires the CAA to establish whether the relevant operator has, or is likely to acquire, SMP. If an operator does not have SMP, then no regulation is applied. If SMP is found, then Test B requires the CAA to consider whether competition law provides sufficient protection against the risk that the relevant operator might engage in conduct that amounts to an abuse of that SMP. If competition law is determined to be sufficient, then no regulation would be introduced. If competition law is not sufficient, then Test C requires the CAA to consider whether, for current and future users of air transport services, the benefits of regulating the relevant operator (by means of a licence) are likely to outweigh the adverse effects before introducing regulation and in deciding on the

appropriate form of regulation. As economic regulation is only permitted when all three criteria are satisfied. The three criteria are therefore cumulative.

The rest of this section discusses the CAA's market power test guidance and then the market power assessments for each of Heathrow, Gatwick and Stansted airports that were undertaken between 2012 and 2014.

A1.4.1 Market power test

Test A

Test A is met if there is sufficient evidence that the airport currently holds market power and/or is likely to acquire SMP in the future. However, if the airport's SMP is likely to diminish such that the CAA considers that it is unlikely that the airport will have SMP in the future, this will also be accounted for in the assessment. In this case, it is possible that competition law may be able to provide sufficient protection against risks of abuse of SMP, or that the benefits of regulation are less likely to outweigh its adverse effects.

Market definition

In order to undertake an assessment of market power, the CAA starts by considering the bundle of products sold to airlines. The CAA might include non-aeronautical products to complement or further its analysis of aeronautical products. The CAA considers that market definition is a time-sensitive and context-specific exercise. Therefore any assessment may change over time as market circumstances evolve.

The CAA acknowledges that there may be some characteristics of the airports sector that make it difficult to define the market precisely. Therefore, as part of Test A, the CAA analyses all of the competitive constraints faced by the airport operator, regardless of whether they arise from within or outside the relevant market(s) defined.

To define the relevant market(s), the CAA uses the HMT as a starting point. However, as this test should be based on competitive price levels, it can be more difficult to apply where the prevailing price levels are not reasonably close to the competitive price due to the presence of regulated prices. Therefore, the CAA may not be able to carry out a formal HMT either fully or at all, and instead it will seek to gather a range of evidence on substitutability and interpret it within the hypothetical monopolist framework.

To define the relevant product and geographic markets, the CAA refers to the CMA and Commission guidance.

Market power assessment

The CAA notes that although market power is more likely to exist if an operator has a persistently high market share over time compared with its nearest rivals, market shares are not sufficient in isolation to determine that an operator has market power.

Therefore, while the CAA will compute market shares, it will also seek to identify the existence and evaluate the strength of all competitive constraints faced by the airport operator. The CAA accounts for factors such as:

- airline switching;

- the extent to which passengers are prepared to use other airports' route networks or not travel in response to a price increase by the airport operator;
- countervailing buyer power of airlines;
- prevailing capacity constraints at the airport and at neighbouring airports and barriers to entry;
- the extent of potential competition through new entry and/or expansion of airport capacity.

The CAA also considers other indicators of market power, such as the airport's behaviour and performance on profitability measures, quality of service, efficiency and engagement with airlines.

Test B

If SMP is found in Test A, then an assessment is undertaken of whether competition law is sufficient to protect against the risk of abuse of that SMP. The CAA considers that where an airport operator seeks to use its market power for exclusionary behaviour, competition law is likely to be sufficient to protect against such practices. However, where an airport operator seeks to use its market power for exploitative behaviour (e.g. excessive pricing or service quality reduction), competition law may be less able to deal with these consumer detriments.

Test C

Generally, Test C is a balancing exercise between the benefits of a licence being imposed on the relevant airport operator and a situation where there is no licence. If there were no licence, ex post mechanisms could be used instead, including competition law powers or monitoring.

If the CAA makes a market power determination of an airport whose operator does not hold an economic licence, it would make a comparison between the status quo (an airport without regulation through an economic licence) and an airport regulated by means of an economic licence (the counterfactual).

If the CAA makes a market power determination for an airport whose operator already holds an economic licence, it would make a comparison between the likely behaviour of the airport operator without an economic licence and a generic economic licence (the counterfactual). The CAA considers that a generic licence is the appropriate counterfactual as Test C considers the imposition of regulation, not its intensity. In assessing the airport operator absent its economic licence, it would take account of the behaviour that the airport operator had exhibited under the currently applicable regulation.

The CAA notes that there are a number potential benefits of regulation, including improved efficiency, service quality, investment incentives, operational resilience and financial resilience.

In terms of adverse effects, it notes that both direct and indirect costs need to be taken into account. Direct costs include the time and expenditure of management and regulation staff at the CAA, the regulated airport operator and airlines. Potential indirect adverse effects may include: crowding out of a more commercial approach; management distraction; distortions to incentives; and the increased rigidity of a regulatory system.

In assessing ex post powers or ex ante licence regulation, the CAA also notes that it would take account of:

- whether the likely issue is forward- (ex ante) or backward-looking (ex post);
- the specific or general nature of the likely issue;
- the nature of available remedies;
- the time taken to deal with potential issues.

A1.4.2 SMP assessment of Heathrow

Test A

The CAA defined the relevant market as the provision of airport operation services for FSCs and associated feeder traffic. Heathrow is the only airport in the UK offering such a service and therefore the CAA determined that it had a 100% market share.

However, the CAA noted that market shares might not be reliable indicators of market power. In particular, as Heathrow is capacity-constrained, it would be in a stronger position to increase prices above the competitive level than an otherwise identical airport not close to full capacity. The CAA also noted that the level of substitutability of airports for different airlines can be influenced by (among other issues) infrastructure requirements, capacity constraints, strategic reasons and costs.

In addition to market shares, the CAA therefore also considered other market features, including buyer power, barriers to entry, and the extent of potential competition through new entry and/or expansion.

The CAA noted that the most likely source of any SMP that HAL has would seem to arise from its position as the operator of the UK's only hub airport and the combined package that it offers of strong demand, including premium passengers, cargo and connecting passengers. This makes it attractive for both based and inbound airlines. The CAA considered that the importance of network effects meant that very few airlines would be willing and able to switch sufficient capacity to constrain an increase in HAL's charges.

The CAA looked at the cumulative effect of constraints (e.g. capacity constraints at Heathrow and other London airports, switching costs incurred by airlines, etc.) to determine SMP rather than analysing each effect individually. The CAA also derived an estimate of the likelihood of marginal switching by airlines to compare to the critical loss.

The CAA ultimately concluded that Heathrow had SMP based on the following elements:

- Heathrow has 100% market share;
 - switching costs for BA (hub carrier) can be high due to network benefits derived from connecting passengers and the presence of strategic partner airlines;
 - buyer power of airlines is limited by excess demand for slots and the absence of discounts on airport charges;
-

- a comparison of the size of marginal airline traffic at Heathrow against the critical loss estimates suggests that the scale of actual switching is likely to be insufficient to constrain even a 5% increase in charges by HAL;
- capacity constraints, which are likely to increase in the future (at least for the next ten years);
- expansion of existing airports requires lead times that significantly limit competitive constraints;
- Leigh Fisher benchmarking analysis shows that Heathrow's aeronautical charge is above that of comparator airports.

Test B

The CAA determined that ex post competition law, whether under the Competition Act 1998 or the Enterprise Act 2002, is not well adapted to pre-empting conduct that amounts to abuse of SMP in the form of excessive pricing or reduced service. The CAA was also not confident that recourse to competition law alone, particularly when airlines may not challenge any abuse by HAL on the behalf of passengers, would be consistent with its primary duty towards passengers. Therefore, it determined that competition law was not sufficient in this case.

Test C

Having considered the impact of regulation on price, efficiency, service quality and investment, the CAA determined that, despite possible distortions that regulation might cause in theory, in practice, minimal distortions were occurring at Heathrow. The CAA deemed that given HAL's market position, even when such distortions do arise, it is likely that the negative effects are outweighed by the benefits of regulation.

A1.4.3 SMP assessment of Stansted

In 2014, the CAA concluded that Stansted Airport did not have SMP (Test A).⁹⁰ In making its decision, the CAA took the following factors into account.

- Change in ownership from BAA to MAG. The new owner does not need to take account of the impact of its behaviour on the profitability at Heathrow and might take a different strategic approach from that which BAA took at STAL.
- Capacity available at the airport. The CAA considered that since there was some capacity available at London airports, this would allow inbound airlines, charters and inbound services of based airlines to switch in response to a SSNIP. This included off-peak capacity at Luton and Gatwick and peak period capacity at Southend.
- Countervailing buyer power. The CAA found evidence suggesting that STAL's main airlines, easyJet and Ryanair, had countervailing buyer power. These airlines accounted for substantial proportions of Stansted's passengers—19% and 72% of passengers, respectively. The CAA noted that easyJet had moved three aircraft to Southend from Stansted in 2012 in an attempt to discipline STAL's annual increases in airport charges. While Ryanair's local substitution possibilities might be more limited, it appeared to have buyer

⁹⁰ Civil Aviation Authority (2014), 'Market power determination for passenger airlines in relation to Stansted Airport – statement of reasons', January. This section focuses on the assessment of the passenger market. A separate assessment was undertaken of the cargo market, and that is not discussed here.

power. For example, in February 2013, when STAL announced a proposal to increase airport charges by 6%, Ryanair threatened to reduce its traffic. The existence of substantial spare capacity and lack of competitive backfill at Stansted is also relevant to the assessment of buyer power as it means that promises of additional traffic or threats or actual withdrawal of capacity could have a material effect on STAL's profitability.

- Switching costs. The CAA considered the means by which airlines could switch away from Stansted, such as switching existing services, allocating volume growth to alternative airports, rebasing aircraft, reducing frequencies, and grounding aircraft. In addition, the CAA considered the types of switching costs that airlines would be likely to incur if switching away from Stansted. The CAA estimated the likely scale of actual marginal passenger switching and compared it against the critical loss of passengers required to make an increase in airport charges unprofitable. This analysis included the loss of aeronautical and non-aeronautical income from reduced passenger numbers caused by an increase in airport charges.
- Price negotiations with airlines. Over the summer of 2013, easyJet and Ryanair concluded long-term deals with STAL that offered lower prices for airlines growing their traffic at Stansted. The prices under the growth deals were significantly lower than the 2013/14 price cap and were within what the CAA considered to be the competitive price range for Stansted.

As the CAA concluded that Test A was not met, Tests B and C were not assessed.

A1.4.4 SMP assessment of Gatwick

Test A

In terms of market definition, the CAA initially considered that it was appropriate for the relevant market to be segmented by airline business model. However, it noted that there was no clear demarcation between the business models of LCCs and FSCs, especially in terms of demand for facilities at Gatwick. Therefore, the CAA ultimately concluded that both types of airlines were in the same market.

The CAA concluded that GAL had SMP based on the individual and cumulative effect of several factors, including: costs of switching, capacity constraints, countervailing buyer power, and market shares.

In analysing these factors, the CAA found that:

- FSCs reducing marginal frequencies or removing routes and LCCs rebasing aircraft appeared to be the most likely types of switching that airlines might undertake in an attempt to constrain GAL's pricing. However, the costs associated with this would be likely to outweigh any benefits that might arise;
- the network effects from the connectivity at Gatwick would be likely to be an additional cost of switching for a number of airlines at Gatwick (airlines with significant levels of connecting passengers represent around one-third of GAL's passenger base);
- viable switching opportunities for airlines at Gatwick are limited. While there is capacity at the north London airports, these airports were clearly a less preferred option for airlines than operations from Gatwick, because they did not have the necessary facilities, runway length, feeder traffic or (wealthy)

catchment area. With respect to switching to Heathrow, the evidence suggests that it was a preferred airport to Gatwick. However, the evidence also showed that there were a number of high barriers to entry, including the cost and availability of slots, which prevented effective switching to Heathrow as a reasonable response to a price increase;

- capacity expansion or new entry to accommodate sufficient switching was unlikely to impose a constraint on GAL's pricing over the price control period;
- the tightening of capacity constraints over the next five years across London airports was likely to result in an increase in the degree of market power;
- with respect to countervailing buyer power, some airlines had a sufficient share of GAL's business to suggest that they might have buyer power. However, the evidence suggested that these airlines had limited ability to credibly threaten to switch sufficient capacity away from Gatwick that would give them buyer power in their negotiation of terms with GAL. This was the result of a number of factors, including the capacity constraints, presence of backfill and the credibility and effectiveness of alternative switching options.

Overall, the CAA determined that the likely underlying source of GAL's market power stemmed from its unique characteristics (in terms of density of leisure routes, wealth of catchment, and facilities). This is supported by the inherent attractiveness of the London market combined with capacity constraints in the London system, which limits credible switching alternatives for airlines and thus the airlines' buyer power.

The CAA considered that Gatwick's SMP would continue going forward, as at the time there was no plan for additional capacity at London airports in the short term. However, the CAA remained open to its assessment changing in the future following market changes such as the divestment of Stansted Airport from BAA.

Test B

The CAA concluded that, in relation to GAL, competition law is not adequate as a remedy and, therefore, it is appropriate and proportionate to look to regulatory controls.

Test C

In relation to Test C, the CAA considered that, taking account of the interests of current and future users of air transport services, particularly their demands in terms of stable supply of high-quality airport services at affordable cost, the benefits of licence regulation outweighed any adverse effects.

The CAA assessed the merits of the licence-backed commitments by the airport as to price and service and licence regulation against the no commitments counterfactual (no licence at all) as well as an alternative counterfactual, based on GAL's commitments without a licence ('the Commitments Counterfactual').

The CAA acknowledged that licence regulation could have adverse effects—for example, direct costs of management and regulation staff, indirect costs of management distraction, and crowding out of a more commercial approach. However, the CAA considered that licence-backed commitments would minimise any costs and potential distortions.

The CAA also had regard to the regulatory principles in the Civil Aviation Act and, in particular, that regulatory activities are targeted only at cases where action is needed and are carried out in a way that is transparent, accountable,

proportionate and consistent. It considered that a well-designed licence-based regulatory regime that imposes transparent, proportionate and consistent regulatory obligations (remedies) on GAL, having a position of SMP in the relevant market, and backed up by effective remedies in the event of a breach, would be consistent with UK and European experience as the most effective way to promote competition, economy, efficiency and quality of service.

A1.5 Dublin, Cork and Shannon airports

Key messages

- Market power assessment focuses on aeronautical services and the passenger market.
- Countervailing buyer power needs to account for the concentration of airlines at the airport as well as other factors that could affect airlines' ability to switch, such as sunk costs. Actual evidence of switching is important.
- Market power assessments should be re-done when market conditions change.
- If regulation needs to be imposed, it should be tailored to the problem and should prevent distortion of any existing competition between airports.
- A strengthened joint regulators network in Ireland should be established, with the objective of enhancing regulatory expertise.

The National Aviation Policy, which was published in August 2015, committed to an independent review of airport charges regulation in Ireland.⁹¹ DTTaS, which is responsible for setting goals and deciding on the regulatory structures in the aviation sector, subsequently commissioned Indecon International Economic Consultants (Indecon) to undertake a review of the SMP of Dublin, Cork and Shannon airports. This review was intended to determine whether the regulatory regimes at the airports are fit for purpose. Dublin is the only airport of the three subject to price cap regulation.

Indecon published its report in December 2015 and DTTaS then consulted on it with stakeholders. DTTaS published its National Policy Statement on Airport Charges Regulation in September 2017.⁹²

The rest of this section sets out the key findings from Indecon's report, which are incorporated in DTTaS's National Policy Statement regarding the future regulation of Dublin Airport.

A1.5.1 Market definition

Indecon came to the following conclusions regarding product and geographic market definition:

- The relevant **product market** is the basket of airport operational services which an airline is required to purchase to operate from an airport—e.g. runways, taxiways, ground-handling services, facilities for check-in, etc. Indecon also briefly examined the cargo market.
- The widest feasible relevant **geographic market** is the Republic of Ireland, but the relevant market may be narrower than this (e.g. for Dublin, the geographic market may be the airport itself). Indecon notes that because of the extent of concentration in the market, it is not necessary to come to a

⁹¹ Department of Transport Tourism and Sport (2015), 'A National Aviation Policy for Ireland', August.

⁹² Department of Transport, Tourism and Sport (2017), 'National Policy Statement on Airport Charges Regulation', 20 September.

definitive view on whether a narrower geographic market than the Republic of Ireland is applicable.

Indecon's research indicates that individuals may be willing to travel a (ground) distance of up to 120km for a flight. It also suggests that some people may be willing to travel longer distances, especially if there is no flight available from nearer airports, but short-haul business and long-haul leisure passengers may be reluctant to travel such distances. Indecon explains that it is important to take account of frequency and destination of flights from different airports when considering airport choice for passengers.

Based on this market definition, Indecon looked at the market structure. It considered concentration indices (CR2 and HHI)⁹³ which, based on the Republic of Ireland as the relevant market, showed that Dublin has SMP.

A1.5.2 Indicators of market power considered in the assessment

Indecon noted that key indicators of market power are consistent with Dublin Airport having SMP. For instance:

- Dublin is the largest of the Irish airports and accounts for over 80% of passengers using Irish airports. For many passengers and airport users, Dublin is the main or only choice;
- there are no examples of switching of routes to or from Dublin Airport to other airports in Ireland over the last five years;
- the ability of airlines to switch capacity to other international airports may act as a constraint on Dublin Airport's market power (i.e. there is competition for airline capacity and for new routes);
- international airports only act as a constraint on the relevant geographic market for transfer passengers, and not for most Irish origin or destination traffic;
- countervailing buyer power is a function of sunk costs, switching costs, product differentiation and capacity constraints. If airlines hold countervailing buyer power, it could mitigate the negative effects of an airport's market power, at least to some extent. Ryanair and Aer Lingus account for 80% of the traffic at Dublin Airport. Ryanair has credible options to move aircraft to other airports, and the recent acquisition of Aer Lingus by IAG is likely to enhance its ability to move its fleet to other airports. While the two main airlines are therefore likely to have some countervailing buyer power, this is constrained by consumer preferences, the level of capacity utilisation at Dublin Airport, and the extent of sunk costs by these airlines on routes to and from Dublin.

Indecon also looked at outcomes. It noted that market power might or might not be reflected in excess profits, as some of these 'economic rents' might be captured by input providers to the airport and reflected in excess costs or inefficiencies. It also highlighted that market power might lead to a failure to align quality standards with user requirements. However, it considered that pricing below (or above) the price cap, and the fact that demand might change with price movements, are not indicators of whether the airport has market power.

⁹³ CR2 measures the concentration of the top 2 firms in the industry. The HHI looks at market concentration and the size distribution of firms in the industry.

Indecon undertook some modelling about the extent to which Dublin Airport had incentives to reduce or increase charges at the airport (in the absence of regulation) depending on the extent to which this affects its revenue and profit. It also undertook a critical loss analysis to consider the passenger response that would be required to render any increase in airport charges unprofitable.

In addition, Indecon looked at capacity utilisation at Dublin Airport, and in particular peak capacity constraints. It suggested that the strength of demand for peak capacity at the airport might mitigate any countervailing buyer power held by airlines.

Indecon concluded that on the balance of evidence, economic regulation of charges at Dublin Airport would be required to ensure consumer interests are safeguarded. It suggested that both Cork and Shannon airports face effective competition and that economic regulation of charges at these two airports would not be justified. DTTaS agreed and noted that Dublin Airport retains SMP to a degree that makes continued economic regulation in excess of the minimum standards required by the 2009 Directive in the best interests of customers.

A1.5.3 Design of regulation

Indecon concluded that regulation should only be implemented where companies hold SMP. This is because there are costs involved in regulation, including the creation of inappropriate incentives and inflexibility, which are costs ultimately borne by consumers. It noted that 'competition should be promoted where feasible' and that regulation should 'only [be] where necessary and when markets fail in order to protect consumers.'⁹⁴ Where economic regulation is necessary, Indecon concluded that 'the key challenge is to design the regulatory regime in a manner which maximises the benefits and minimises the costs involved.'⁹⁵

Indecon also undertook a review of airport regulation in other countries and noted that 'international experience highlights that tailored approaches have been implemented which reflect the market position of the airports, passengers' preferences and other factors.'⁹⁶ It concluded, based on its review, that where airports are deemed to not have SMP, regulation of charges has not been implemented. In a number of European countries, airports have been exempt from price regulation either based on a formal assessment of SMP or a general belief that this is not necessary due to the level of competition faced by the airport.

Indecon highlighted that the continued need for regulation, and the appropriateness of the current regulatory approach, should be considered if and when there are changes in market dynamics. Indecon believes this might be best completed by the Competition and Consumer Protection Commission or by a strengthened economic regulator. It suggested that if competition intensifies significantly and Dublin Airport's market position changes, consideration might be given to implementing price monitoring with a default price cap.

Indecon also suggests that a strengthened joint regulators network in Ireland should be established with the objective of enhancing regulatory expertise. This could build on the existing network of regulators. This should involve a detailed memorandum of understanding with clear areas of co-operation identified. This

⁹⁴ Indecon International Economic Consultants (2016), 'Review of the Regulatory Regime for Airport Charges in Ireland', 11 March, p. ii.

⁹⁵ Ibid., p. ii.

⁹⁶ Ibid., p. 46.

could facilitate skill enhancement, sharing of information and expertise, and secondments between regulators.

A1.6 Amsterdam Schiphol Airport

Key messages

- In addition to switching, airlines can exercise buyer power by not increasing capacity or not starting new routes at the airport.
- The distinction between O&D and transfer passengers does not have an impact on the conclusion on market power.
- Availability of capacity at nearby airports is key for determining whether passengers can switch away, particularly for O&D passengers.
- Legacy carriers whose business models require a hub are unlikely to switch.

A1.6.1 Background

In September 2009, the NMa (now the ACM) commissioned a consultancy firm, GAP, to assess the market power of Amsterdam Schiphol Airport. This informed the new regulatory framework and Aviation Act introduced at Schiphol in 2017.

GAP defined several markets for the provision of different services at the airport (infrastructure for passenger airlines, infrastructure for cargo, other services such as ground handling, etc.). This section focuses on the assessment for the market of infrastructure services for passenger airlines.

A1.6.2 Market power assessment

GAP split its analysis into four submarkets for the provision of infrastructure services to airlines:

- airlines serving O&D passengers;
- airlines serving transfer passengers;
- airlines offering freight transportation;
- infrastructure for local and instruction flights (discarded).

GAP's assessment focused on three main points:

- does the airport have market power in the different markets for the provision of infrastructure to airlines?
- what are the major factors that determine the airport's market power?
- how does the airport's own strategy influence the extent of market power?

The main factors considered in GAP's assessment are set out below.

Intermodal competition

GAP analysed to what extent nearby airports, high-speed rail, and competing transfer hubs could potentially limit the market power of Schiphol Airport by attracting demand away and making potential increases in charges unprofitable.

Regarding intermodal competition, GAP suggested that the expected impact for long-haul flights was ambiguous, as this would lead to the catchment areas at

other airports being more likely to overlap with Schiphol's catchment area but Schiphol also being able to attract passengers from a broader catchment area.

Countervailing buyer power

Despite the absence of switching, airlines might have exercised buyer power by not increasing capacity or not launching new routes at the airport. However, airlines' expansion at alternative airports can be limited by capacity constraints.

GAP considers that legacy carriers are unlikely to switch. This is applicable to carriers with sunk costs (especially KLM) and their alliance partners, but also the large network carriers whose business models require feeder and onward connections to offer a comprehensive network, and to have access to airports in areas with large economic potential. Therefore, GAP considered that carriers like Lufthansa or British Airways would not consider moving operations from Schiphol to Weeze or Düsseldorf, even if Schiphol were to increase its charges significantly.

Regarding LCCs, some carriers have substantial sunk costs at AMS. Also, nearby airports are either capacity-constrained or do not provide the needed infrastructure.

Non-local competition

The assessment of non-local competition (non-nearby airports) did not highlight any limitation to Schiphol's market power. Airlines (especially low-cost ones) tend to select among potential base airports when making decisions about expansion of their networks (e.g. easyJet purchasing a new aircraft and deciding which airport to base it at). However, GAP argued that the extent of such competition appeared very limited; and an airline's decision not to allocate new aircraft at Schiphol might be affected by the structure of and competition on the downstream airline markets, which are largely outside of the airport's control.

Market dynamics

With respect to future developments, GAP determined that the emergence of new competitors in the O&D market appeared to be very unlikely, given the regulatory framework and the significant sunk costs of constructing an airport.

Indicators of market power

GAP looked at overlapping routes at both the airport-pair-market and city-pair-market level. GAP concluded that if one simply counts the number of non-overlapping airport-pair markets, exposure of AMS to competition for transfer traffic appears limited. However, the larger size of the markets on which there is competition for transfer passengers, and the price-sensitivity of those passengers implies that a price increase by the airport could lead to a loss of revenue. The fact that Schiphol competes on a substantial number of markets with other hubs (along with price sensitivity of transfer passengers) might limit the airport's market power.

GAP also noted that despite the trend towards more overlaps in the absolute number of destinations, in relative terms Schiphol's exposure to the nearby airports changed only modestly. This relates to the fact that over the same time period, airlines serving Schiphol added more destinations to their schedules. Second, exposure of the nearby airports to Schiphol is more substantial than the exposure of Schiphol to the nearby airports.

GAP also conducted a profit incentive test and concluded that a charge increase would be profitable for the airport as a 10% price increase leads to volume decrease of only 4% for O&D passengers. For transfer passengers, the profitability would be lower but still positive.

A1.7 MaltaPost

Key messages

- Market conditions are assessed every three years to determine whether regulation is still required.
- There is a focus on potential competition as a result of innovation in other modes of communication, which could reduce the SMP of MaltaPost.
- Market maturity could be considered as a barrier to entry as the absence of growth might limit the incentive for a new entrant to invest.
- Market share threshold for SMP is set at 50%.

A1.7.1 Background on regulation in the Maltese postal market

Malta joined the EU in 2004 and has been required to comply with EU law since then. The European Union's Directive of 1997 sets out the framework for an internal market for postal services.⁹⁷ Postal operators had a period of 14 years to adjust to the full opening of the market (with a further two years for Malta as a new member state). In 2013, the Maltese postal services market was fully liberalised.

The Postal Service Regulations⁹⁸ define the frequency of market reviews to assess whether an operator has SMP and to determine whether to impose, maintain, amend or withdraw specific obligations on postal operators by determining whether the relevant market is effectively competitive.

If an operator is determined to have SMP, it must:

- provide services at prices, terms and conditions that are non-discriminatory;
- not discriminate in favour of itself, or of its subsidiaries or partners, in the provision of such services in that market.

If the market is effectively competitive then any obligations in place should be removed.

A1.7.2 Three-step process

At the time of liberalisation of the postal market in Malta, MaltaPost had been the incumbent firm and the designated universal service provider for many years. The MCA determined that MaltaPost has an 'a priori' SMP for services falling within the scope of the universal service in Malta. However, the MCA reviews market conditions every three years to assess whether there have been any changes in circumstances that would lead to a change in regulation.

Postal operators classified as having SMP in Malta, in one or more postal markets, will be required to comply with specific ex ante regulatory obligations identified in regulations 64E to 64I of the Postal Services Regulations to prevent anti-competitive practices and to safeguard the interests of consumers. The

⁹⁷ European Commission website, 'EU postal legislation', http://ec.europa.eu/growth/sectors/postal-services/legislation_en.

⁹⁸ SL254.01 of the Laws of Malta.

MCA carries out a three-step process to determine whether to impose regulation:

- **market definition:** definition of relevant markets;
- **market analysis:** assessment of competition in each relevant market, in particular whether any postal operators have SMP in a given market;
- **application of regulatory obligations/remedies:** assessment of the appropriate regulatory obligations that should be imposed given the findings of SMP.

Regarding the second step, the MCA assesses whether there is SMP accounting for the following criteria:

- market share;
- barriers to entry:
 - vertical and horizontal integration;
 - economies of scale and scope;
 - a highly developed collection and distribution network;
- potential competition;
- countervailing buying power.

The MCA considers evidence of actual market performance to assess whether, over the time period considered, the postal markets have characteristics that might justify the imposition of regulatory obligations. Stakeholders can influence the assessment through participation in the public consultation on the draft decision.

The factors considered in the market power assessment are set out in more detail below.

A1.7.3 Factors considered as part of the market power assessment

Market share

The MCA looks at the market shares of the postal operators. It notes that although high market shares are not sufficient in themselves to conclude that a postal operator enjoys SMP in a market, market shares exceeding a certain threshold may give rise to the presumption that the firm has market dominance. In accordance with European case law, the MCA deems that market shares in excess of 50% provide evidence of a dominant position, except in exceptional circumstances. The MCA looks at the market shares for a three-year period before its assessment.

Barriers to entry

The MCA acknowledges that barriers to entry can be of various types but focuses on vertical and horizontal integration, economies of scale and scope, and a highly developed collection and distribution network.

The MCA explains that a well-developed postal network is important for the efficient collection and delivery of postal services. Well-developed postal distribution systems may, however, be costly to replicate and maintain. This is because mail collection, sorting, transport and delivery access may exhibit

economies of scale. For this reason, well-developed postal networks are likely to be controlled by the incumbent operator. The MCA concludes that the incumbent's control over a highly developed postal network may therefore represent a significant barrier to entry for potential competitors as well as an advantage over existing competitors.

Potential competition

The MCA considers that the threat of competition may prevent the incumbent operator from raising prices above competitive levels, leading to a situation in which no market power is exercised. The MCA notes that when barriers to entry are high, the threat of potential competition is likely to be weak or absent.

The MCA also notes that market maturity, particularly evidence of stagnant or moderate demand-side growth, is also an important aspect in the assessment of potential competition. This is because in a mature market, there may be less of an incentive to compete aggressively and attract new customers.

Countervailing buying power

The MCA highlights that the extent of countervailing buyer power will depend on whether customers can choose to discontinue the service being provided by a particular operator and switch to alternative providers within a short period of time.

A1.8 CMA energy market review

Key messages

- Ex post market review of deregulated markets due to concerns about how well competition was working.
- Wholesale electricity market rules and regulations negatively affected the competitive outcome.
- Assessment of SMP by looking at excessive profitability and excessive prices.
- The CMA determined that the potential costs of imposing price caps on standard tariffs might outweigh the benefits in terms of the potential effect on competition, but took other measures to try and enable competition to function more effectively in the market.

A1.8.1 Policies and regulation in the UK energy sector⁹⁹

Since the Electricity Act 1989, the UK electricity sector has been subject to sustained liberalisation. Between 1990 and 2001, the wholesale market for electricity was organised as a Pool, which determined a clearing price based on sellers' bids. The Pool was replaced by NETA in 2001, which introduced bilateral trading between generators and suppliers in England and Wales to limit strategic bidding and to make market participants responsible for balancing their positions. In 2005, the BETTA created a UK-wide wholesale market by extending the NETA arrangements to the Scottish market.

Competition was introduced in three phases in the retail market: industrial consumers were able to choose their energy retailer in 1990, medium-sized customers in 1994, and residential customers from 1998. The transport activity was transferred to National Grid, the transmission system operator, regulated by an independent regulator called Offer (which later became Ofgem).

⁹⁹ Ofgem (2015), 'Wholesale Energy Markets in 2015', 9 September, p. 78, Appendix 2.

The Gas Act 1986 marked the start of liberalisation in the gas market with the privatisation of British Gas. Full retail market competition was achieved for all households by 1998. After the Gas Act 1995, British Gas's activities were divided between British Gas Group (upstream production), National Grid (transportation activities, regulated by Ofgas at the time, now Ofgem), and Centrica (retail). Third-party access and balancing rules were defined and integrated into the industry code.

A1.8.2 Context of the CMA energy market inquiry

In 2014, the Gas and Electricity Markets Authority referred the energy market to the CMA for investigation. There were concerns that the SLEFs, which are large integrated players active at the wholesale and retail level, might be using their market power to the detriment of consumers. The CMA therefore opened an inquiry into the wholesale gas and electricity markets, as well as into the retail market. Retail markets for electricity and gas were largely jointly investigated, since retailers often provide gas and electricity under bundled dual fuel tariffs.

The CMA concluded that the scope for exercising market power in the wholesale gas market is limited because of low concentration of gas production. Indeed, gas is extracted by a large number of producers mostly located in the UK Continental Shelf, Norway, Russia, and North Africa, and transported into the UK via pipeline or LNG terminals. Therefore, 'gas producers are price takers most of the time'.¹⁰⁰

In the wholesale electricity market, the CMA did not find that any of the generators had SMP, since individual generators cannot influence market prices during a significant number of periods throughout the year. Additionally, there is no evidence of excess profitability from the generation activity, since generators' profit margin is around or below cost of capital. Minor adverse effects on competition in the wholesale electricity market have been identified as part of the inquiry, but were related to wholesale electricity market rules and regulations (mechanism for allocation of Contracts for Difference, lack of locational pricing for transmission losses).

The CMA also assessed the impact of suppliers' vertical integration between retail and wholesale activities, especially in the electricity market. It found no evidence that SLEFs are abusing their position by foreclosing small generators or alternative suppliers (e.g. refusing to purchase the independents' production or refusing to supply alternative suppliers), or that vertical integration creates barriers to growth of alternative suppliers.

The bulk of the energy market investigation therefore focused on the retail market, where customer engagement is relatively low and SLEF tariffs are above an indicative competitive benchmark calculated by the CMA.

A1.8.3 Significant market power assessment in the retail market

Given that electricity and gas are homogeneous products, the CMA expected that the retail price would be the most important criterion in the choice of electricity provider. Although a wide range of non-standard tariffs exist, the CMA observed that around 70% of customers are on SVTs, which are the default tariffs and generally more expensive than non-standard tariffs. It also found that

¹⁰⁰ Competition and Markets Authority (2016), 'Energy market investigation. Summary of final report', 24 June, p. 7.

the SLEFs have a very large combined market share, in spite of smaller suppliers offering lower energy prices on average.

To understand consumer behaviour, the CMA commissioned a customer survey and found evidence of a lack of consumer engagement in the retail energy market and low levels of information.

The CMA calculated gains from switching available to consumers on SVTs for dual and single fuel, by payment method.¹⁰¹ It found that material gains from switching exist for SLEF customers, and that such savings are larger for customers on SVTs and paying by standard credit. For the CMA, the fact that significant gains from switching do not lead to high levels of switching indicates low consumer engagement.

The CMA then tried to understand the source of such disengagement. Its survey revealed that more vulnerable customers are less likely to be engaged than other customers, and more likely to be on more expensive tariffs. It is therefore unlikely that vulnerable customers do not value possible savings that could be derived from switching. However, certain characteristics of the energy market may constitute barriers to customer engagement. These include the lack of product differentiation, the difficulty of directly linking energy consumption with bills, barriers to accessing and assessing information, and perceptions around the process of switching.

Based on the above elements, the CMA concluded that features of the energy market led to a weak customer response, adversely affecting competition.

Although the CMA determined that a number of retail market policies might also have an adverse effect on competition, a large part of the inquiry focused on the SLEFs' market power. In particular, the CMA observed large tariff differences between the SLEFs and smaller suppliers that could not be explained by costs of supplying different customers.

According to the CMA, this proves that the SLEFs enjoy a position of unilateral market power over their inactive customer base, which allows them to price their SVTs beyond a level that could be explained through cost differences.

Most of the remedy package proposed by the CMA is composed of structural and behavioural measures aimed at improving competition on the retail market. The competition authority suggests removing the market rules that currently limit competition, and introducing measures that increase customer engagement. Beyond improving information and reducing limitations on price comparison websites, the CMA proposes that Ofgem manages a disengaged customer database, and makes this information available to the different energy retailers.

The CMA also concluded that the benefits of a price cap on all SVTs might be outweighed by the disadvantages associated with interventionist market remedies. Eventually, a transitional price cap was only implemented on the pre-payment meter segment, where barriers to competition and customer engagement were higher than in the rest of the market. It aims to limit consumer detriment in this segment until the smart meter roll-out and other remedies address the market features limiting competition identified throughout the inquiry.

A1.9 Australian energy sector

¹⁰¹ There are three payment methods: direct debit (the bill is debited from the client's account), standard credit (the customer pays upon receiving a bill) and prepayment (for customers on prepayment meters).

Key messages

- Assessment of market power considered direct and indirect competition, competition from alternative energy sources, countervailing buyer power, and sunk costs. Outcomes, such as pricing and service quality were also considered and used to form a conclusion that there is market power.
- The ACCC recommended that a new test should be implemented for regulating gas pipelines, where regulation could be introduced if three criteria are met: the pipeline has SMP; it is likely that the pipeline will continue to have SMP in the medium term; and regulation will or is likely to contribute to the achievement of the National Gas Objective.

A1.9.1 Background and regulatory framework

The gas access regime was established in 1997 through the Gas Pipeline Access (South Australia) Act 1997, and the National Third Party Access Code for Natural Gas Pipeline Systems (the Gas Code), with a stated objective of preventing the abuse of monopoly power by pipeline operators and providing rights of access on fair and reasonable terms for both the pipeline operator and users.¹⁰²

Following a series of independent reviews of the energy market,¹⁰³ a new framework was implemented in 2009 via the National Gas Law and the National Gas Rules. Certain 'coverage criteria' were established to determine whether (full or light) regulation would apply to a pipeline. The Inquiry found that these coverage criteria were not directed to the right market failure, and pipelines that were subject to full regulation were still able to engage in monopoly pricing. The Inquiry used a series of criteria to assess market power, and recommend that these be used as a basis for an alternative test for regulation.

A1.9.2 Market power assessment

The Inquiry found that the majority of transmission pipelines on the east coast had market power and faced limited constraints when negotiating with shippers. It also found evidence that a large number of the major arterial pipelines on the east coast and serving regional areas were using their market power to engage in monopoly pricing.

The factors that were used to assess the existence of, and the extent of, market power are discussed below.

Competition from other pipelines

The Inquiry looked at direct competition, from two or more independently owned pipelines transporting gas from the same gas field to the same destination, and indirect competition, from two or more independently owned pipelines transporting gas from different gas fields to the same destination. On the east coast, indirect competition was found to be more of a constraint than direct competition. However, the majority of pipelines were not found to be subject to any form of competition from other pipelines.

Competition from alternative energy sources

While pipeline operators often cited competition from alternative energy sources, for example electricity, the evidence gathered by the Inquiry suggests that

¹⁰² Australian Competition and Consumer Commission (2016), 'Inquiry into the east coast gas market', April.

¹⁰³ See, for example, Parer, W. (2002), 'Towards a Truly National and Efficient Energy Market'; Productivity Commission (2004), 'Review of the Gas Access Regime'; and Expert Panel on Energy Access Pricing (2006), 'Report to the Ministerial Council on Energy'.

alternative energy sources provide only a weak constraint on transmission pipelines, informed by internal documents from pipeline operators.

Risk of asset stranding

The pipeline transmission market has sunk and largely fixed costs, through which asset stranding could pose a constraint on the incentive of a pipeline operator to exercise market power. Evidence on pricing, for example increased prices in the face of declining volumes, was used to conclude that the risk of asset stranding does not appear to provide an effective constraint on pricing behaviour.

Countervailing buyer power of shippers

In this market, countervailing buyer power could enable shippers to circumvent the pipeline, for example by building their own pipeline. The Inquiry noted examples in the last ten years of larger shippers developing alternative pipelines or threatening to use alternative energy sources, but found there was little effect of this buyer power posing a constraint in the most recent two or three years.

Regulation or the threat of regulation

In 1997, the gas access regime came into effect, requiring nearly all pipelines to be regulated. Following this, regulation has been revoked on many key pipelines and many newly developed pipelines are not subject to the regulation. The Inquiry found that less than 20% of the transmission pipelines on the east coast are subject to some form of regulation.

The Inquiry was presented with evidence that some regulated pipelines are taking advantage of limitations in the gas access regime to exercise market power. For unregulated pipelines, by looking at prices over the last five years, the Inquiry found that purchasers assume little reduction in returns from potential future regulation.

A1.9.3 Exercising market power

The criteria outlined above determined the likely existence of market power; the Inquiry also reviewed the extent to which this market power was exercised, by looking at the following factors.

- Monopoly pricing—a large number of pipelines were found to be pricing above levels expected in a competitive market. The Inquiry looked at evidence on rates of return on incremental investments and the prices being charged by operators that had already recovered their cost of building the pipeline, and found that 10 out of 11 pipelines investigated were engaging in monopoly pricing.
 - Anti-competitive bundling or tying—there was no evidence of bundling the prices across several pipelines or tying in additional services, but the Inquiry noted the possibility of bundling in the future.
 - Restricted access or denial of access—there was no evidence found for access to services.
 - Anti-competitive price discrimination—differences in prices paid by shippers can be explained by different service levels, contract term length, and investments required to provide the service.
-

- Reductions in service quality—examples of service quality reduction provided by shippers were rare.

A1.9.4 Recommendation

The ACCC recommended that a new test should be implemented for regulating gas pipelines, where regulation could be introduced if three criteria are met: the pipeline has SMP; it is likely that the pipeline will continue to have SMP in the medium term; and regulation will or is likely to contribute to the achievement of the National Gas Objective.

A2 SMP guidelines

A2.1 Introduction

These proposed guidelines provide an overview of the key steps and factors that should be considered by ISAs as part of the detailed SMP assessment in stage 2. They could also be used as part of an assessment of an airport under Article 6(5)b of the ACD if it is not revised. While the different elements described below are likely to be relevant for all airports, the individual circumstances of each airport will need to be taken into account when undertaking this assessment.

As explained in section 5, the SMP assessment will need to rely on historic data, but it should also be forward-looking and consider how potential changes in the industry could affect the airport's market power. The assessment should draw from data and information held by the airport and stakeholders (e.g. airlines) as well as public domain sources.

These guidelines take account of Commission guidance and decision-making practice, but they are tailored specifically to the airports market. The structure of these guidelines is as follows:

- section A2.2 sets out the framework and process for market definition;
- section A2.3 describes the factors that should be considered in assessing competitive constraints;
- section A2.4 identifies the outcomes that should be taken into account and the basis for doing so.

A2.2 Market definition

A2.2.1 Overview of market definition

Airports offer a variety of services, such as the provision of infrastructure for aircraft, ground handling, rental space, parking and shopping facilities. Based on decisions of the Commission,¹⁰⁴ three broad product markets can be identified: (i) provision of airport infrastructure services to airlines; (ii) provision (or contracting) of ground-handling services; and (iii) provision (or contracting) of associated commercial services. The Commission notes that each could be further divided into several distinct markets. The focus of these guidelines is the first market—the provision of airport infrastructure services to airlines.

The objective of a SMP assessment is to determine whether an airport faces sufficient competitive constraints to prevent it from behaving to an appreciable extent independently of its competitors, customers and ultimately consumers by, for example, raising price or reducing service quality without a reasonable justification. In assessing competitive constraints, market definition is typically the first step. Once the relevant market(s) is defined, an assessment can be made of whether the parties concerned have SMP in the relevant market(s). Therefore, while market definition is important, it is only an intermediate step in a SMP assessment.

¹⁰⁴ European Commission (1997), 'Case No IV/M.786 - Birmingham International Airport' Regulation (EEC) No 4064/89 Merger Procedure', 25 March; European Commission (1997), 'Case No IV/M.1035 - Hotchief/Aer Rinata/Dusseldorf Airport', 22 December; and European Commission (2009), 'Case No Comp/M.562 GIP/Gatwick Airport', 26 November.

A market is always defined around a focal point, in this case the airport under consideration. From this focal point, one has to determine the users of the service (or buyers of the product) in order to identify the relevant competitors and the competitive dynamics in the market.

Typically, two dimensions of a market are relevant to consider:¹⁰⁵

- the **product market**, which ascertains the product or product groups that are considered substitutable by consumers by reason of the products' characteristics, their prices and their intended use, and are therefore in the same market. The Commission and other authorities have analysed the market for the provision of airport infrastructure services in several cases, and have assessed how airports compete for airlines in order to identify the types of airports that are likely to be in the same product market;
- the **geographic market**, which determines the geographic area in which the parties concerned are involved in the supply and demand of products or services in which the conditions of competition are sufficiently homogeneous, and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas. Factors that play a role in determining the appropriate geographic market definition include the geographic location of the focal and other airports, the type of passengers and airlines at the airport, and the destinations served.

Defining the market for an airport can be more complex than other markets, as an airport competes in the first instance for airlines, but also for passengers. There is a complex interaction between passenger and airline demand. To some extent, airline demand for airport services is a 'derived' demand from passenger demand because airlines' decisions (e.g. regarding destinations offered and frequency) will be strongly influenced by passengers' preferences and behaviour. For instance, if sufficient passengers are willing to, and can easily, switch between two nearby airports, airlines may also see these two airports as substitutes. Airlines are also unlikely to operate services or routes unless there are a sufficient number of passengers willing to travel to particular destinations. Therefore, to some extent passengers' propensity to travel to particular destinations or to switch is internalised in an airline's decision-making process.

However, when deciding whether and where to operate services to/from, airlines will take additional factors into account and will behave differently from passengers. When an airline considers where to locate new capacity or whether to shift some routes to an alternative airport, airlines will consider yields available from different airports (which are partly determined by the strength of the passenger demand, but also by other factors such as airport charges and other operating costs), and how the routes fit with their overall network and strategic plans. Airlines will usually be more flexible than passengers in deciding on the airports they can use.

The ways and extent to which airlines and passengers regard airports as substitutes is therefore likely to differ and it is important to consider both passengers and airlines in defining the relevant market.

¹⁰⁵ European Commission (1997), 'Commission Notice on the definition of relevant market for the purposes of Community competition law'.

A2.2.2 Hypothetical monopolist test

When defining the relevant market, an often used tool is the HMT.¹⁰⁶ This test determines the smallest set of substitutes to the focal product, and the smallest geographic area, for which a hypothetical monopolist could profitably sustain a SSNIP (small but significant non-transitory increase in price) above the competitive price level. A price increase of 5–10% above the competitive level is considered to be small but significant, and a period of 1–2 years is often used as the horizon for a ‘non-transitory’ price increase.¹⁰⁷

If the price increase is unprofitable, due to customers switching away to other products (services), the relevant market is likely to be wider, as customers view other products as substitutes. The test is then repeated by widening the set of products and geographic area to include the closest substitute(s) until the price increase is profitable. Once the price rise is profitable, the product and/or geographic area under the hypothetical monopolist’s control is considered to be the relevant market.

For example, consider defining the relevant market for apples. If a hypothetical monopolist can profitably increase the price of apples by 5–10% above the competitive level, the market is likely to consist only of apples as customers are not willing to switch away to other fruit even though the price of apples has increased. If the price increase is unprofitable, it is likely that customers are switching to other fruit, for example pears, and therefore apples and pears belong to the same market. The test is then repeated by including more types of fruit, until a price increase of 5–10% is profitable. One possible market definition could be ‘all fruit’, another could be ‘apples, pears and oranges’, depending on the outcome of the test.

Importantly, it is not necessary for all, or a majority of, customers to switch in response to this price rise. As explained in section 5, the effect on an airport’s profitability of a small number of passengers or airlines switching a limited number of services could be significant due to fixed costs of operation and loss of non-aeronautical as well as aeronautical revenue. The relevant factor is therefore whether there are enough ‘marginal customers’ who would switch to prevent a hypothetical monopolist from profitably sustaining prices at 5–10% above competitive levels.

Although the SSNIP test is a commonly used tool, it can be difficult to apply in practice in the aviation industry. It is particularly challenging to use the SSNIP test when defining a market from an airport’s perspective as, in theory, each route could potentially be a different market, segregated further for each type of airline and each type of passenger. Applying the SSNIP test, which starts with the narrowest possible market, is therefore not feasible.

Even more so, for price-regulated airports the prevailing or historic price level may not be a good indicator of the competitive price level. In these circumstances the SSNIP test could lead to an erroneous market definition, either implying too wide or too narrow a market, depending on how the regulated price is set relative to the competitive price level.¹⁰⁸

¹⁰⁶ European Commission (1997), ‘Commission Notice on the definition of relevant market for the purposes of Community competition law’, paras 15–19.

¹⁰⁷ Niels, G., Jenkins, H. and Kavanagh, J. (2016), *Economics for Competition Lawyers*, second edition, Oxford University Press.

¹⁰⁸ These, and other reasons, led the UK CAA to decide not to undertake a SSNIP test as part of its assessment of SMP at Heathrow, Gatwick and Stansted airports. The CAA also noted that as airports do not

In addition, there can be data limitations as it is difficult to obtain direct evidence on passengers' responsiveness to changes in charges at airports, as well as other data required to apply the SSNIP test, such as the proportion of the airport charge in the total cost for particular airlines.

It may therefore not be possible to undertake the SSNIP test formally when defining the market for an airport. Nevertheless, the SSNIP test and the hypothetical monopolist framework can still be used as a way to frame the market definition analysis, as set out below.

A2.2.3 Product market

In determining the relevant product (or service) market, it is important to determine whether each of the products offered by the airport could be considered to constitute its own market, or whether multiple products can be aggregated into broader markets or groups of products. At the end of the product market definition exercise, ISAs should have a clear idea about the airlines an airport can serve, and the (type of) airports it competes with.

The boundaries of the market will be determined by evidence on the extent of substitution between services by airlines (demand-side substitution) and evidence on the flexibility of switching airport capacity between different uses (supply-side substitution). The Commission has noted that demand-side substitution constitutes the most immediate and effective competitive constraint on a firm as a firm cannot have a significant impact on prices in the market if, for example, customers can easily switch to available substitutes.¹⁰⁹

One could also consider whether an airport faces competition from alternative modes of transport, such as high-speed rail or buses. Alternative modes of transport are, however, likely to only compete with air travel on specific routes. In order for intermodal competition to be relevant to the assessment, it needs to constrain the pricing behaviour of the whole airport and not just certain routes. It is therefore unlikely to be a significant constraint for most airports.

Demand-side substitution

While all airlines require similar basic aeronautical infrastructure at an airport, individual airline requirements may differ according to the type of services offered, their business model, and whether they are based or inbound carriers. It is therefore important to gain an understanding of the different types of airlines operating at the airport to determine the airports that can be regarded as competitors. The different airline segments that are relevant to consider as part of the assessment are described below.

Short-haul versus long-haul

There are some differences in the infrastructure needed to operate short-haul and long-haul routes. For example, long-haul routes are generally served by larger aircraft and therefore require larger aircraft stands and a longer runway than short-haul flights. There are also limited differences in terms of terminal requirements.

charge passengers directly, any small increase in airport charges to airlines will have a relatively smaller indirect effect on passengers. See, for example, Civil Aviation Authority (2013), 'Stansted market power assessment: Developing our "minded to" position', January.

¹⁰⁹ European Commission (1997), 'Commission Notice on the definition of relevant market for the purposes of Community competition law', *Official Journal of the European Communities*, C 372/5, 9 December.

In assessing the relevant product market, it is important to consider whether the focal airport has facilities to accommodate both short-haul and long-haul services. This will also help in determining the other airports it competes with for airlines. For instance, if the focal airport is a large hub airport operating a mix of short-haul and long-haul services, then a small regional airport located nearby that does not have the infrastructure for long-haul flights might only compete with the focal airport for short-haul services. However, it is possible that some long-haul passengers may consider that taking a short-haul flight from the regional airport to another airport and then a connecting flight to their ultimate destination would be substitutable for a long-haul flight. The Commission has noted that ‘as a general rule, the longer the flight, the higher the likelihood that indirect flights exert a competitive constraint on direct flights.’¹¹⁰

Business model

Business models of airlines are often segregated into two broad categories: LCCs and FSCs. There may be some differences in the infrastructure needs of these two types of airlines. For instance, LCCs tend to have fewer requirements for facilities, such as air bridges, or for transfer passengers and their baggage. FSCs have historically tended to have more heterogeneous passengers (e.g. leisure and business, transfer and point-to-point) and FSCs that operate hub-and-spoke models may require feeder traffic from short-haul flights (either from their own airline or code share) to make certain flights viable. For this reason, LCCs tend to have more bases (e.g. Ryanair has 86 bases)¹¹¹ as they do not rely on the networks that some FSCs do to ensure that they can offer connections between flights. However, many FSCs now have strategies of using multiple bases (e.g. Lufthansa in Germany) or have extended their potential bases through mergers (e.g. IAG) and therefore have the ability to relocate some of their capacity to alternative airports.

Indeed, as noted in Oxera’s study,¹¹² there has been a lessening of the distinction between FSCs and LCCs over the last few years. In its decision on the takeover of Aer Lingus by IAG, the European Commission noted that ‘over the last few years the differentiation gap between full-service network and low cost carriers has significantly diminished’¹¹³ and ‘those traditionally regarded as, respectively, full-service and low-cost carriers now offer services that, in the eyes of customers, are more comparable.’¹¹⁴

Therefore, the distinction between LCC and FSC business models is less clear than it has been in the past, and airlines can be considered along a spectrum rather than in two distinct categories. Airlines with business models that more closely resemble the LCC model may be more willing and able to switch between airports as they tend to have more bases across Europe. Charges also make up a higher proportion of the overall cost base for LCCs,¹¹⁵ suggesting that they may have a greater potential responsiveness to a change in price by the

¹¹⁰ European Commission (2015), ‘An Aviation Strategy for Europe’, para. 31. In previous cases, the Commission considered that for flights longer than six hours, indirect flights constituted a competitive alternative to direct services under certain conditions—for example, if they are marketed as connecting flights on the O&D pair in the computer reservation system.

¹¹¹ See Ryanair website, ‘About us’, <https://www.ryanair.com/gb/en/useful-info/about-ryanair/about-us>, accessed 15 August 2017.

¹¹² Oxera (2017), ‘The continuing development of airport competition in Europe’, prepared for ACI EUROPE, 26 September.

¹¹³ European Commission (2015), ‘An Aviation Strategy for Europe’, para. 248.

¹¹⁴ *ibid.*, para. 249.

¹¹⁵ See, for example, Civil Aviation Authority (2012), Gatwick – Market Power Assessments, Non-confidential version’, p. 49, Figure 19.

airport. This is further discussed in the geographic market definition section below.

While airports do not explicitly distinguish between FSCs and LCCs in their charging structure, many airports do operate a flexible charging structure that allows airlines choice in their use of facilities at the airport. In other words, airlines are able to select the mix of services that best suits their own operating model and are only charged for the services they use. For instance, there may be 'LCC terminals' at airports that offer fewer services and amenities, and for which the airport charges a lower price.

Based versus inbound carriers

Linked to the above, another way to consider potential airline segments at airports is by distinguishing between based and inbound carriers. Traditionally, a based airline has been defined as one that operates a network of short- and long-haul routes into a particular airport, and parks its aircraft overnight at that airport. An inbound aircraft is one where the first flight of the day is operated starting at a different airport, with the focal airport as the destination airport. While based airlines may generate additional demand for parking aircraft and office space, their requirements for access to infrastructure at the airport are likely to be quite similar in other respects to non-based carriers.

As noted above, LCCs tend to have multiple bases in different countries and do not focus their traffic at a particular airport. Traditionally, FSCs have had one base, or home airport, although this has been changing as some FSCs have started to operate point-to-point routes in addition to their traditional hub-and-spoke network, or have established multiple bases. Airlines with multiple bases and inbound carriers are more flexible, and can more easily relocate capacity in response to a price rise by the airport. Additionally, airlines that operate point-to-point routes are likely to be more flexible in determining the location of new capacity, as the location of the route should not affect the viability of their other routes.

Supply-side substitution

Supply-side substitution considers whether other firms could begin to supply a market in response to a hypothetical monopolist increasing its prices. It is:

a special case of entry – entry that occurs quickly (e.g. less than one year), effectively (e.g. on a scale large enough to affect prices), and without the need for substantial sunk investments (e.g. investment incurred on market entry that is not recoverable when exiting).¹¹⁶

An example of supply-side substitution is where an airport offering general aviation or military services starts providing services to commercial passengers, or an airport offering only point-to-point short-haul services upgrades its infrastructure to start providing transfer or long-haul services. This type of substitution could prevent a hypothetical monopolist from profitably sustaining prices at 5–10% above competitive levels.

A number of pieces of evidence are relevant to consider when assessing the potential for supply-side substitution:¹¹⁷

¹¹⁶ Office of Fair Trading (2004), 'Market Definition' (2004), para 3.15.

¹¹⁷ Civil Aviation Authority (2011), 'Guidance on the assessment of airports market power', April; and Competition and Consumer Protection Commission (2014), 'Guidelines for Merger Analysis', 31 October, para. 2.18.

- the availability of suitable, underutilised airport infrastructure to serve the airports market;
- the time and costs required by an airport to begin serving the market;
- legal or contractual restrictions that limit an airport's ability and willingness to supply;
- airport users' views on the substitutability of the services provided.

For instance, an airport that does not currently serve long-haul airlines, but which could easily extend its runway to serve this market segment, could act as a competitive constraint on the focal airport and should be taken into account in the assessment. Indeed, in its 2009 investigation into BAA, the UK Competition Commission (now the CMA) noted that:

many of the examples of competition in the UK have occurred when the airports involved had spare capacity, or could expand capacity at relatively modest cost. When this is the case, competition is likely to be more intense because average cost is likely to fall as passenger numbers expand, and very low marginal costs (after netting off commercial revenue) allow low charges to attract new business.¹¹⁸

However, the Commission has noted that:

when supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage of market definition. In these cases, the effects of supply-side substitutability and other forms of potential competition would be examined at a later stage.¹¹⁹

Importantly, as discussed in the following section, the analysis of supply-side substitution should take account of all airports in the relevant geographic market, including airports to which airlines could shift some capacity or at which they could locate new capacity, even if the airports are not within the same country.

A2.2.4 Geographic market

The objective of geographic market definition is similar to that of product market definition—to identify substitutes that are sufficiently close in a geographic sense that they would prevent a hypothetical monopolist from profitably sustaining prices at 5–10% above competitive levels. The geographic market definition depends on two main factors: the type of passengers and the type of airlines at the airport.

Passengers

The extent to which airports compete depends, in part, on the type of passengers served. Passengers can be segmented in various ways, such as by journey purpose (business, leisure or VFR), by flight time (short-haul or long-haul), and as O&D or transfer passengers. As each of these passenger groups is likely to have different characteristics and willingness to travel to alternative origin or destination airports, the passengers served by an airport need to be identified to assess the degree of substitutability between airports. However, it is not necessary for all passengers to have a choice between airports; if there are

¹¹⁸ Competition Commission, (2009), 'BAA airports market investigation', A report on the supply of airport services by BAA in the UK', 19 March, para. 3.23(b).

¹¹⁹ European Commission (1997), 'Commission Notice on the definition of relevant market for the purposes of Community competition law', *Official Journal of the European Communities*, C 372/5, 9 December, para. 23.

a sufficient number of passengers who could switch airports, this should constrain the airport's behaviour.

There are two steps in defining the geographic market for an airport from a passenger's perspective. First, the 'local' geographic market can be defined using catchment area analysis. This looks at airports that are located near the focal airport such that O&D passengers might consider them as substitutes. Second, it is important to consider whether airports that are located further away could be viable substitutes for certain passenger groups.

Catchment area analysis is frequently used to determine the geographic area to and/or from which an airport's passengers travel. The size of the catchment area and the extent of overlap of catchment areas between airports can then be used as part of an assessment of the extent of competition between airports, since passengers in these overlapping areas are more likely to view the airports as reasonable substitutes. While the screening criteria in stage 1 apply a 120-minute drive time across all airports, in stage 2 a more detailed analysis should be undertaken to determine the precise catchment area for each airport.

As noted in section 4.5.1, in its previous assessments the Commission has used a catchment area of 100km around regional airports, and 300km for international airports,¹²⁰ or a 60-minute drive time.¹²¹ However, the Commission ultimately defines the catchment area on a case-by-case basis. A 60-minute drive time is also used in the Commission's 2014 State Aid Guidelines, although these are intended for a different purpose than SMP assessments.¹²² The CAA used 60-, 90- and 120-minute drive times in their SMP assessments for Gatwick, Stansted and Heathrow.¹²³

Often an airport has access to data on the origin and/or destination of passengers using the airport. In these instances, rather than using fixed distances, one can consider the 'outturn' catchment area that most of the airport's passengers come from and/or travel to, in order to determine the appropriate catchment area.

However, in the absence of such data, the types of passengers at the airport need to be considered. Passengers may vary in their willingness to travel to their origin airport. For instance, passengers going on holiday may be more price-sensitive, and therefore willing to travel further distances to an origin airport, whereas business passengers may be more time-sensitive and likely to travel to the closest airport, regardless of the price differential. Preferences for travel time may also differ according to the flight distance (e.g. long-haul passengers willing to travel longer distances to an airport) and whether they are national or foreign residents (e.g. national residents willing to travel longer distances).¹²⁴ As noted by the UK Competition Commission:

Generally, passengers prefer to use the airport closest to them, to reduce the cost and time of travelling to the airport, but passengers (particularly leisure passengers) do use airports other than their nearest airport to take advantage of

¹²⁰ European Commission (2005), 'Case No COMP/M.3823 – MAG/ Ferrovial Aeropuertos/Exeter Airport', August, para. 18.

¹²¹ European Commission (2013), 'Case No COMP/M.6663 – RYANAIR/ AER LINGUS III, Regulation (EC) No 139/2004 Merger Procedure', 27 February, para. 80.

¹²² European Commission (2014), 'Guidelines on State aid to airports and airlines', para. 25(12).

¹²³ Civil Aviation Authority (2012), 'Heathrow: Market Power Assessment Non-Confidential Version', the CAA's Initial Views, February.

¹²⁴ European Commission (2006), 'Case No Comp/M.4164 – Ferrovial/Quebec/GIC/BAA

greater choice of destinations, more conveniently-timed or frequent flights and/or lower air fares available on those flights.¹²⁵

When assessing the relevant catchment area, the accessibility to the airport, such as by roads and railways, also needs to be taken into account. For example, if the airport is served by a high-speed train, passengers might be willing to travel from a further distance as this takes relatively less time than travelling the same distance by car. Therefore, it is more appropriate to use actual access times rather than fixed distances to define the catchment area where possible, to ensure different ways of accessing the airport are accounted for. Importantly, regardless of whether distances or drive times are used to define the catchment area, these thresholds should apply across countries rather than just within a given country. This is already the practice applied by the Commission in state aid cases.

Passengers will consider a number of elements other than travel time and distance in deciding where to fly from, including cost, flight schedules and quality of service of the airport.¹²⁶ Therefore, services at airports may be differentiated in a way that limits competition between them, even if they are geographically close. For this reason it can be important to consider the degree of route overlaps between nearby airports to determine if, in addition to passengers being willing to switch, passengers are actually able to switch between airports. For certain groups of passengers, particularly VFR and business passengers, this may mean that the destination, or the destination airport, needs to be available at the alternative airport. However, as noted in section 4.5.1, airports may compete 'for the market' to get the airline to operate the route from the airport in the first place in addition to competing 'in the market' on particular routes. Therefore, the absence of route overlap between two airports does not indicate that they are not in competition with one another.

In addition, the degree of route overlap may not be relevant for all passengers as some passengers may consider that different destinations and even some short- and long-haul flights are substitutes for one another. This is likely to depend, in part, on the purpose of travel. Therefore, in addition to the catchment area analysis, which determines competition from nearby airports, it is also important to consider the overlap with airports further afield for particular passenger segments.

The substitutability of different destinations is likely to be greatest for leisure passengers. VFR and business passengers are likely to want to travel to a particular destination, or to airports near their ultimate destination, whereas people travelling for leisure may just seek a 'city break' or 'beach holiday', and would be willing to substitute between flights to similar destinations. They are also likely to be the most price-sensitive travellers and therefore may be willing to travel to a different airport for a cheaper fare, or could choose not to travel altogether.¹²⁷

Transfer passengers, who can originate from any country, are also likely to have a wider choice set of airports than point-to-point passengers. The relevant geographic market is likely to include a wide range of airports, provided that they

¹²⁵ Competition Commission, (2009), 'BAA airports market investigation', A report on the supply of airport services by BAA in the UK', 19 March, para. 3.7.

¹²⁶ European Commission (2015), para. 38.

¹²⁷ The Schiphol market power assessment cites Gonzales-Savignat (2004) as evidence that leisure passengers are more price-sensitive. The European Commission also notes this in its merger procedure Reg (EC) no 139/2004 Iberia-BA report.

do not significantly increase travel time and offer flights to the same/similar destinations. In its assessment of the geographic market for Berlin Airport, the Commission found that airports within a two-hour flight time of one another can be considered as part of the same geographic market for transfer passengers.¹²⁸

Therefore, in defining the geographic catchment area, the types of passengers at the airport need to be considered. For example, if the airport is mostly used by short-haul business passengers, the catchment area is likely to be narrower than if most passengers at the airport are long-haul leisure travellers or transfer passengers.

Airlines

It is also important to consider the geographic market for airlines. This will include airports at which airlines could locate new capacity, move some routes, rotations (i.e. frequencies), or entire bases/operations in light of a price rise at the focal airport. This may depend on an airline's characteristics, such as its business model, as discussed in the product market definition section above. Generally, as the aircraft that airlines operate are mobile assets, airlines undertake regular reviews to optimise their networks, accounting for costs that are incurred from reallocating these assets (e.g. the costs involved in relocating staff).

One alternative, following a price rise, would be for an airline to switch flights (in part or in full) to nearby airports, such that it could still tap into the same passenger demand located near that airport. Another possible response to the price increase could be for an airline to reduce the number of services from an airport, and switch to airports in an entirely different region or country to capture new passenger demand. The areas that airlines can operate in is governed by international law, but any airline registered in the ECAA is entitled to operate between any two points within the ECAA, giving considerable scope for flexibility to airlines across Europe. Therefore, the ability of airlines to reallocate capacity between airports in different countries can act as a constraint even if passengers do not consider these airports as viable substitutes.

The CAA has suggested that LCCs 'and other no frills operators, also have a track record of moving services between different airports, cancelling under-performing routes and moving their growth across a number of different European markets. Given that they already have bases across Europe, it should be easier for them to switch aircraft between bases than it would be for a network carrier to relocate to a new base.'¹²⁹

Indeed, the geographic area over which airports compete for airlines may depend on the airline business model. As described above, LCCs in particular tend to have multiple bases and do not rely on hub-and-spoke models and are therefore likely to be more flexible in terms of the airports they are willing to operate from. Their point-to-point model also means that they have more flexibility in their optimisation of routes which can enable the switching of capacity from the focal airport at lower cost than for based aircraft.

In addition, when airlines are deciding where to locate new capacity, they often consider airports across a wide geographic area. For instance, as set out in Oxera (2017), airlines deciding on a new route from Europe to Asia or to a

¹²⁸ European Commission (1999), 'Decision regarding regulation number 4064/89, M.1255 Case M.1255 Flughafen Berlin', 21 May.

¹²⁹ Civil Aviation Authority (2012), 'Stansted – Market Power Assessment: Non-confidential Version, The CAA's Initial Views – February 2012', para. 2.138. In its final assessment, the CAA determined that the market was not European-wide, given the lack of evidence of switching.

Middle East hub may consider European airports in different countries to be substitutable for one another.

A2.2.5 Summary

By undertaking product and geographic market definition, ISAs should be able to define the airports that compete with the focal airport. This should focus on the current competitors to the focal airport, as well as a consideration of how this may change over the next few years given developments in the market.

- In defining the product market, the types of airlines that the airport can accommodate, as well as airports' ability to adapt their facilities to accommodate other types of airlines and/or types of traffic, needs to be considered. If the majority of an airport's traffic is composed of, for example, long-haul airlines, then this should be the focus of the assessment in terms of determining the relevant competitor airports.
- In assessing the relevant geographic market, in addition to considering airports in the immediate catchment area, it is also important to take account of the fact that airports are constrained by more distant airports in attracting certain passengers and particularly airlines.

Once the relevant market(s) is defined, the degree of market power of the airport can be assessed.

A2.3 Assessing competitive constraints

SMP (or the lack of it) can derive from a combination of criteria, which, taken separately, may not necessarily be determinative. This section considers a number of factors that should be taken into account when assessing the extent of competitive constraints faced by an airport, including countervailing buyer power, market shares, barriers to entry, and capacity.

A2.3.1 Countervailing buyer power

An assessment of the degree of buyer power is an important component of a SMP assessment. If downstream users have, or are likely (within a reasonable timeframe) to acquire, sufficient bargaining strength, this could effectively countervail any market power held by an airport. Indeed, as noted in the 'Buyer power and its roles in regulated transport sectors' report for the NMa, now the ACM:

in the case of a large airport, if sufficient buyer power is present, the airline(s) concerned may be able to counteract to some extent an attempt by the airport to raise prices. In turn, this can mean that the regulator does not need to introduce formal price regulation of airport charges.¹³⁰

If a few airlines represent a large share of an airport's traffic, those airlines are likely to have buyer power. If these airlines decide to shift some capacity away from the airport in response to a price rise, this may mean that the price rise is unprofitable, and that the market power of an airport might be limited. This can be analysed in a critical loss framework (see the box below). While the critical loss analysis can provide insight into whether the airport has a degree of market power, other factors and market characteristics need to be considered as well.

¹³⁰ Oxera (2012), 'Buyer power and its role in regulated transport sectors', Summary document prepared for the NMa, 8 February, p. 4.

For example, if an airport has existing contracts with airlines at the airport, it may not be able to increase price for that proportion of capacity.

Box A2.1 Critical loss analysis

In assessing buyer power, a consideration of the magnitude of the airline and passenger loss that the airport could sustain, while remaining profitable, can be informative. When prices are increased, some airlines may move away, but the airport receives more revenue from the airlines that remain and pay higher charges. Therefore, the airport would need to assess the overall profit loss or gain in deciding whether to implement a price rise. This can be assessed in a critical loss framework. This technique helps to understand the passenger loss and/or reduction in airline frequency that would mean that a 5–10% price rise would be unprofitable for the airport.

The critical sales loss is the percentage reduction in passenger numbers at which the hypothetical monopolist makes the same profit before and after imposing a SSNIP. The 'actual loss' is the predicted percentage decrease in sales in response to such a SSNIP by the hypothetical monopolist. If the actual loss following the SSNIP exceeds the critical loss threshold, then the SSNIP is unprofitable, implying that the hypothetical monopolist may not have an incentive to raise price. If the actual loss is below the critical loss threshold, then a hypothetical monopolist could profitably increase prices by a small but significant amount as passengers/airlines may not be willing or able to switch away or reduce volume.

For each passenger/airline that is lost after the price rise, the airport loses aeronautical and non-aeronautical revenue. This increases the airport's sensitivity to volume loss and therefore both revenue streams need to be taken into account as part of this analysis.

If some airlines are willing and able to relocate some of their capacity, or allocate new capacity to an alternative airport following a price increase, such that the price increase is unprofitable, airlines are likely to have some degree of buyer power. This depends on the airline's dependence on the airport and switching costs, which are likely to be related.

For instance, consider an airline that is dependent on a single airport for a large proportion of traffic, because it has its base at this airport and operates the majority of its routes from there. The countervailing buyer power of this airline might be limited, as its ability to relocate some capacity following a price increase could be costly in terms of, for example, the costs of moving staff and the effects on the viability of some routes as part of its network.

However, LCCs and even more recently some FSCs have established multiple bases and operate many point-to-point routes. These airlines can more easily relocate capacity at lower (and possibly minimal) costs. They are therefore more likely to have buyer power as they can more credibly threaten to move capacity in terms of either aircraft or routes.

Importantly, for an airline to have buyer power, it does not need to be able to switch away its entire operation from the airport; having the ability to switch away only some capacity might be enough to make a price rise at an airport unprofitable.

The number and strength of an airline's outside options relative to the airport is the primary determinant of the relative bargaining strength of the parties. The outside options are what the parties would do if they could not reach agreement with one another. Examples of the outside options available to an airline could include moving its services to a different airport or reducing its number of services.

In addition to assessing each party's current outside options, it is also important to consider how the degree of buyer power might change in the future. The main factors that are likely to affect the degree of buyer power include further

consolidation in the airline market (which would be expected to reduce an airport's outside options), changing proportion of LCCs and FSCs in the market (with LCCs typically being more willing and able to switch capacity at low switching costs) and capacity development and/or improvement in the product offering at competitor airports (which may be expected to increase airlines' outside options).

Airport's outside options

The following factors should be considered in assessing the airport's outside options.

- **Alternative buyers**—the extent to which there are alternative airlines that the airport can contract with, and the likelihood that these other airlines would take up airport capacity freed up by an airline that switched some or all of its operations to another airport. The greater the number of alternative buyers, the greater the airport's outside options. The extent to which it would be possible for the airport to contract with alternative buyers may be diluted if it is strategically important for the airport to have a particular airline at the airport, or if that airline significantly contributes to the airport's profitability.
- **The existence of alliances**—linked to the above, the airport's outside options may be reduced if airlines bargain collectively, since this will reduce the number of alternative airlines that the airport can contract with.
- **Economies of scale**—the extent to which an airport would lose economies of scale if an airline were to reduce its operations has an effect on its bargaining power with airlines. As airports are a largely fixed-cost business, unit costs fall the more output that is produced. Given the extent of fixed costs, it is also difficult for an airport to reduce its cost base within a short timescale if it were to lose a significant amount of traffic. Therefore, airports have incentives both to retain and to grow traffic.
- **Sunk costs**—in terms of overall business, the airport's outside options are limited as an airport can generally not be used for other purposes. However, in terms of assessing the buyer power of particular airlines, it is important to take account of how specific an airport's investments are with regard to particular airlines, and the extent to which these investment costs would be sunk, were the airline to reduce its operations at the airport. Investments may not be entirely airline-specific, in the sense that potential use of the assets is not restricted to a single airline. However, some investments may be specific to a particular (airline) operating model, such that if the airline currently using the asset were to cease its operations at the airport, the asset would only continue to be used if an airline with the same operating model were to enter in its place.
- **Short-run, cash-flow dependency** of the airport on current airlines.

Airlines' outside options

It is also important to assess the ability of airlines to switch or reduce their use of an airport (e.g. through reductions in frequency or routes). We do not consider that it is a necessary condition for a finding of countervailing buyer power for there to be evidence of actual switching by airlines; rather, a credible threat of switching may be sufficient for airlines to exert countervailing buyer power. As noted by the Competition and Consumer Protection Commission in Ireland:

Rivalry between businesses, together with the credible prospect of consumers switching from one business to another, provides an incentive for businesses to compete with each other to the benefit of consumers.¹³¹

The ability of airlines to switch between airports is primarily driven by two factors.

- **Switching costs**—in order for airlines to switch, or to credibly threaten to switch, the costs involved in switching their demand to another airport cannot be significant. Potential switching costs for airlines include:
 - the costs of relocating staff and assets, including redundancy and recruitment costs if some staff are unable to relocate;
 - capital investment costs at the new airport;
 - sunk costs relating to any assets that cannot be relocated to other airports or from breaking long-term commitments;
 - the loss of economies of scale from reducing the scale of operations at an airport, resulting in increased average costs and reduced competitiveness for the airline's remaining services;
 - marketing costs associated with raising awareness of new routes launched at the alternative airport(s), particularly where operations are transferred to a country or a route that the airline has not previously served.

It is likely to be less costly for an inbound carrier than for a based airline to switch airports as this may not, for example, involve costs for relocating staff. In addition, if an airline were to reduce its operations significantly at an airport rather than remove them altogether, this would still be likely to have an impact on the airport, and the costs to the airline are likely to be lower.

That such switching takes place, as Oxera (2017) demonstrates, in significant volumes in the normal course of business suggests that the costs involved are relatively low.

- **Existence of appropriate alternatives**—in order to switch, an airline must be able to access broadly comparable capacity at a reasonable price elsewhere and it must be commercially viable for the airline to switch. That is, there must be sufficient demand at the alternative airport to replace the lost demand such that these airports offer broadly comparable yields to the airline in the medium to long term. A further consideration for some airlines is the potential loss of network effects from switching when an airport provides transfer passengers.

Looking at the past degree of switching or 'route churn' at an airport, can help provide evidence about countervailing buyer power. One can consider:

- the proportion of routes that have been started and stopped as a percentage of total routes;
- the proportion of routes for which the frequency of services has been increased or decreased as a percentage of total routes.

This provides insight into the extent to which airlines vary their schedules, and indicates the ease with which airlines can increase or decrease frequencies at an airport. However, as noted above, the threat of potential switching, even if an

¹³¹ Competition and Consumer Protection Commission (2014), 'Guidelines for Merger Analysis', 31 October, para. 1.4.

airline does not actually relocate capacity, can act as a constraint on the airport. As noted in Oxera (2017), many airports have increased their marketing teams and frequently attend routes conferences to try and attract new airlines to the airport. Therefore, it is not necessary to see evidence of route churn at a particular airport to provide evidence of countervailing buyer power. As long as airlines have the ability or can credibly threaten to switch capacity, this suggests that airlines have countervailing buyer power.

A2.3.2 Market shares

A firm's share of a defined market provides a useful first indication of market power.¹³² Although a high market share alone is not sufficient to establish the presence of SMP, it is unlikely that a firm without a significant share of the relevant market would have SMP.

It follows from the Commission decisions on abuses of a dominant position (Article 102 TFEU) that the higher the market share, and the longer the period of time over which it is held, the more likely it is to be a preliminary indication of dominance. Undertakings with market shares of less than 40% are normally not likely to enjoy a dominant position in the relevant market. A market share of 50% indicates a rebuttable presumption of dominance.¹³³ However, there may be specific cases below that threshold where competitors are not in a position to effectively constrain the conduct of a dominant undertaking, for example where they face serious capacity limitations.¹³⁴

The fact that an undertaking with a significant position in the market is gradually losing market share may indicate that the market is becoming more competitive, but it does not preclude a finding of SMP. On the other hand, fluctuating market shares over time may be indicative of a lack of market power in the relevant market.¹³⁵ Market share analysis is typically undertaken on the basis of volume or value of sales. For airports, we consider that looking at traffic would be the most appropriate measure.

Since market shares are calculated with reference to a relevant market, they are closely linked to, and can be sensitive to, the precise market definition. It may therefore be helpful for ISAs to undertake sensitivity analysis to check how sensitive the market shares are to the definition of the market. For example, if the market share of an airport heavily depends on whether it competes with a specific airport but the extent to which they compete is not clear, relying on market shares will not provide a definitive view on the SMP of the airport.

While concentration measures, such as the HHI, can also be useful, they do not necessarily reflect the existence and strength of competitive constraints and may not adequately capture changing market dynamics.¹³⁶

Therefore, ISAs should undertake a thorough analysis of the economic characteristics of the relevant market before coming to a conclusion about the existence of SMP. In that regard, the criteria listed in this section should also be

¹³² Case 85/76 Hoffmann-La Roche & Co. v Commission [1979] ECR 461, paras 39–41; Case C-62/86 AKZO v Commission [1991] ECR I-3359, para. 60; Case T-30/89 Hilti v Commission [1991] ECR II-1439, paras 90, 91 and 92; Case T-340/03 France Télécom v Commission [2007] ECR II-107, para. 100.

¹³³ Judgment of 3 July 1991. AKZO Chemie B.V. Case C-62/86, ECLI:EU:C:1991:286.

¹³⁴ European Commission (2009), 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings', OJ C 45, 24 February, pp. 7–20, para. 14.

¹³⁵ *ibid.*

¹³⁶ The HHI is defined as the sum of the squares of the market shares of the firms. In the case of a monopoly, the HHI is 10,000 (100²), whereas the HHI for a highly fragmented market is close to zero.

used to consider whether the airport has the ability to behave to an appreciable extent independently of its competitors, customers and consumers.

A2.3.3 Barriers to entry

If competitors can quickly enter the market following a price increase by the incumbent firm, then the market power of the incumbent is likely to be limited. In contrast, if there are high barriers to entry that prevent potential new competitors from entering the market, an airport is likely to maintain its market power.

There are several different types of entry barriers that are relevant to consider. First, structural barriers to entry exist when supply and demand conditions are asymmetric between incumbents and new entrants. Examples of such barriers to entry are high sunk costs, absolute cost advantages, and substantial economies of scale or scope. These structural barriers are likely to exist at airports:

- building an airport requires high investment and sunk costs for the infrastructure and to attract airlines to operate from the airport;
- a new entrant might need to capture a large share of the market to achieve similar economies of scale and compete with the more established incumbent;
- a large airport might also benefit from economies of scope through offering a variety of services, such as a cargo infrastructure, that might attract some airlines. With the airport holding market power in one market, it might be able to leverage this market power in adjacent markets such as cargo.

Second, there might be legal or regulatory barriers to entry, as competitors might not be legally authorised to enter or expand in the market, for example, due to construction permits or noise and pollution restrictions.

As part of the SMP assessment, ISAs should therefore take account of whether there are any plans for new airports to be constructed that could compete with the focal airport. Entry barriers in terms of opening a new airport are likely to be relatively high, as it is both time- and capital-intensive. However, this is not the only way in which entry can take place. An airport could build a new terminal or extend an existing one to handle more passenger traffic at a relatively low cost and in a relatively short period of time. An airport may also be able to extend its runway so that it could handle long-haul traffic or tailor its existing facilities to serve new and different types of traffic. This would be considered as part of the analysis of supply-side substitution in section A2.2.3.

Any assessment of the issue of barriers to entry needs to take account of geographic market definition. Where an airport is potentially competing with airports across a wide geographic area for airline business there will be many more opportunities for potential competitors to undertake any necessary improvements to facilities and operations.

A2.3.4 Capacity

As noted in section 4.5.3, if an airport is capacity-constrained, this is not necessarily an indicator that it has market power. For example, it could be that there is a regulated price which is set below the competitive price, creating excess demand in the market. If price regulation were removed, the price would rise and the market would clear.

While it is therefore not necessarily an indicator of market power, if an airport is capacity-constrained, this may reduce its incentives to compete strongly with other airports (e.g. to win airline business). Also, this may mean that the bargaining power of airlines is weakened as there are other airlines willing to serve that airport if current airlines leave—i.e. there are other airlines that would enter quickly to fill the capacity at the airport.

Importantly, the extent to which capacity constraints affect competition also depends on the capacity constraints at other airports to which airlines and/or passengers could switch some of their capacity. For example, if a given airport is capacity-constrained, but competitor airports (some of which could be geographically distant) have additional capacity, then airlines and/or passengers may be able to switch. In contrast, if other airports in the catchment area are also capacity-constrained, then airlines and passengers may be less able to switch. Therefore, the capacity of both the focal airport and competitor airports (potentially over a wider geography than the local catchment area) should be taken into account as part of the SMP assessment.

A2.4 Analysis of outcomes

The existence or absence of market power might also be observed from outcomes in the market. Looking at market definition and competitive constraints are 'bottom-up' approaches in the sense that they deal with the structural building blocks of market power and therefore its causes. It is also important to consider elements from a 'top-down' perspective' and identify the presence or absence of market power by examining market outcomes—i.e. by testing for its effects. If an airport has SMP, this could be exercised in several ways; for example, increasing price, low efficiency of airport operations, reductions in quality of service, lack of investment, or high profitability.

In assessing these factors, in cases where there is regulation in place, it is important to distinguish between the behaviours that are incentivised and likely to be driven by the existing regulatory framework and those that are a result of competitive pressures and an airport's own business choices.

In addition, while we describe each outcome separately below, they should all be taken account of together in assessing the degree of SMP. For instance, it could be that prices have risen significantly at an airport over the previous five years. However, if this is due to significant investment to improve service quality performance at the airport in response to customer demand, then this is less likely to be an indicator of SMP than if prices are rising at a time of low investment and poor service quality. In particular, the fixed-cost, infrastructure-intensive nature of airports' business may often involve periodic, lumpy investments in sizeable facilities with consequences for the profile of prices.

In benchmarking price, cost or service at the focal airport it is important that relevant comparator airports are selected. But even so, there will be differences between airports that will be important to take into account (such as different cost structures, different stages of the investment cycle, etc.). Therefore, the analysis of outcomes will provide some insight into the relative levels of profitability, service quality and efficiency at an airport, but drawing precise conclusions may be difficult. Outcome evidence will need to be considered in the round with other evidence.

A2.4.1 Pricing

An analysis of how an airport's prices have changed over time, and also relative to competitor airports, can provide an indication of its degree of market power. In particular, one factor that can be considered is the extent to which incentive schemes have been introduced by an airport to reduce their airport charges in return for airlines generating traffic growth, adding new routes and new destinations. Many airports even have departments that actively seek new airlines and routes in order to grow the airport's business. The existence of these departments and incentive schemes may point to the existence of competition with other airports.

A2.4.2 Profitability

One of the most direct means of measuring market power is to understand the relationship between the costs of the company and the prices it charges. The essence of market power is the ability to charge high prices and earn high profits for a sustained period without being undermined by consumers switching, or competitors entering the market. In competitive markets, companies are expected to make profits in the long run that are broadly in line with the minimum returns required by investors—i.e. the cost of capital.

There are two important features of airports to reflect in the profitability assessment. First, to value the capital employed on the basis of the replacement cost of assets. This allows for the maintenance and replacement of assets over time, and is also consistent with the costs that a competitor airport would face. Second, to consider a sufficiently long time period. This is because CAPEX at airports can be lumpy, with profitability following a path from low to high as volumes increase over time to match large discrete increases in capacity. Reflecting these features in the profitability assessment is important to generate economically meaningful inputs to the market power assessment.

A2.4.3 Service quality

A higher degree of market power is likely to reduce the airport's incentive to match improvements in service quality offered by its competitors, and/or deliver additional improvements for customers. Therefore, an evaluation of service quality requires an assessment of the airport itself, as well as against benchmarks achieved by comparator airports. Importantly, it also requires an assessment of whether the improvements are related to, and driven by, customer demands.

Some questions that are relevant to consider are:

- have there been significant improvements in service quality at the airport?
- have these been above improvements achieved by competitors?
- have any additional initiatives been undertaken to improve performance?

A2.4.4 Efficiency

A higher degree of market power is likely to impose less stringent incentives on the airport to improve efficiency in order to grow and/or retain market share. Thus, an assessment of the efficiencies achieved by the airport, benchmarked against the efficiencies achieved by comparator airports, can provide some insight into the nature of constraints operating on an airport. The efficiencies achieved in incurring OPEX and CAPEX can be assessed separately.

A2.4.5 Investment

Another outcome that is useful to consider is the level of investment that the airport undertakes, as low investment could be an indicator of market power. However, it is important to note that investment is very lumpy expenditure. Therefore, it could be that an airport makes significant investments over a few years, and then does not make investments in the subsequent years. For this reason, investment needs to be considered over a long time horizon.

A2.4.6 Summary

An analysis of efficiency, prices, service quality, investment and profitability at an airport can provide an indication of whether the airport is behaving in a way that is consistent with having SMP, or it may indicate that the airport faces competitive pressures and does not exhibit behaviours that would be expected from a firm with SMP.

A2.5 Conclusion

These proposed guidelines provide an overview of the key steps and factors that should be considered by ISAs as part of the detailed SMP assessment in stage 2. ISAs will need to consider evidence against the factors set out above in the round. There is also no single point where an undertaking changes from having no SMP to having SMP. SMP is a matter of degree and may not be sufficient to have an adverse economic effect. Various sources of evidence and assessments of different competitive constraints therefore need to be considered together to reach an overall conclusion.
