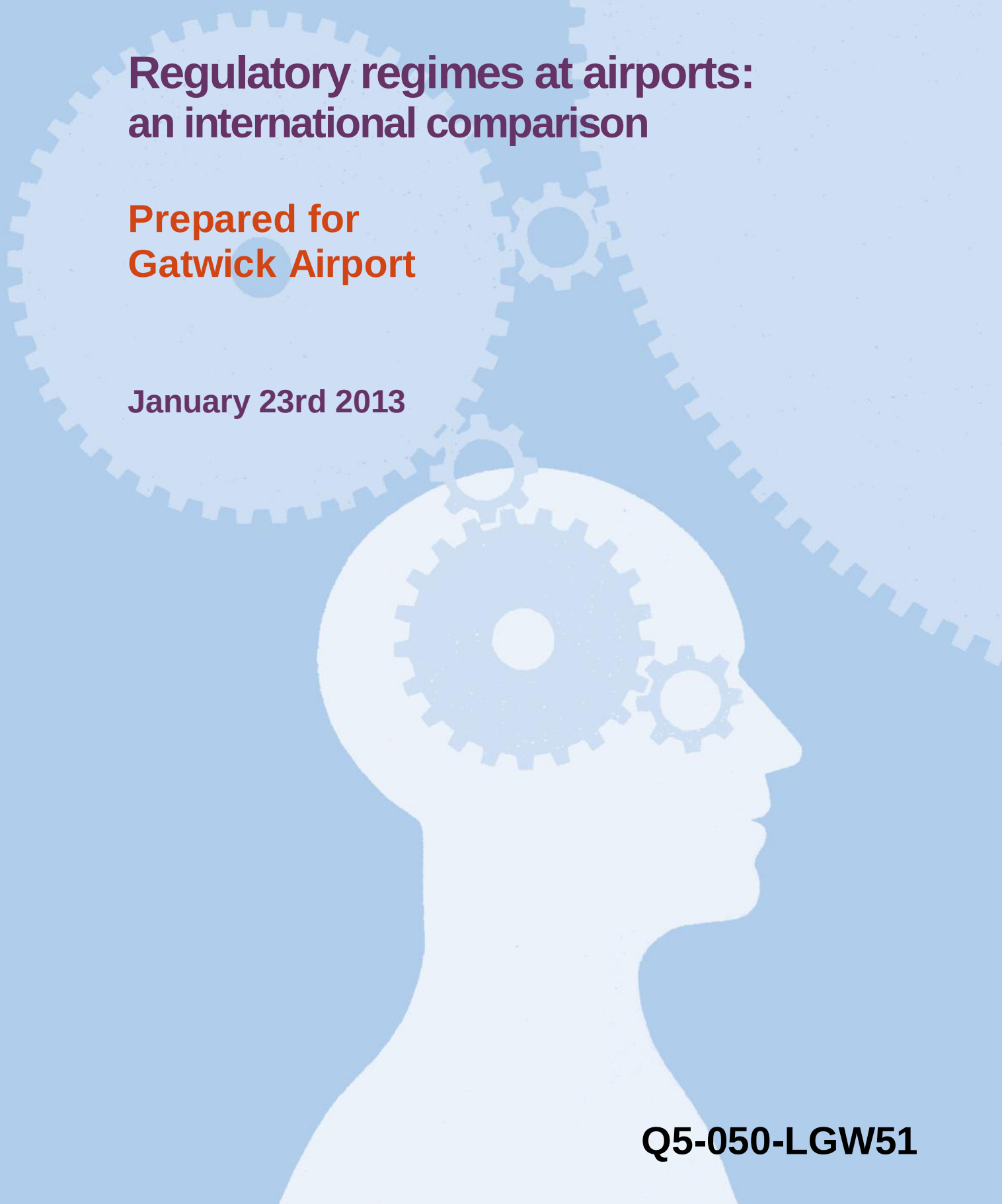
Oxera

Regulatory regimes at airports: an international comparison

Prepared for Gatwick Airport

January 23rd 2013



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Executive summary

In order to assist the Civil Aviation Authority (CAA) to place the regulation of Gatwick Airport in an international context, Oxera (commissioned by Gatwick) has reviewed the economic regulatory regimes at seven international airports. The review includes an assessment of the main features of the regulatory regimes, including their practical application and the regulatory burden (both information-disclosure requirements and the effect of regulation on decision-making at the airport). While the review provides some commentary about the outcomes of the regimes, it does not explicitly compare the outcomes of economic regulation as a whole owing to the difficulty of distinguishing the outcomes from the regulatory regime from those due to other factors, such as the local economic environment.

Core messages from Oxera's review

Changing regulatory environments

Many of the airports reviewed have undergone significant changes in the type of regulation applied within the last decade. Most of these have shifted from regimes with a more significant degree of regulatory intervention to more 'light-handed' regimes. At many of the airports reviewed, there has been a shift towards regulatory intervention focusing on setting the framework in which airports and airlines can negotiate, without trying to design the detailed mechanisms in the regulatory regime. However, the regulatory regime at Gatwick has evolved to increase the extent of regulatory intervention; for example, the addition of the service quality regime and mandated constructive engagement with airlines alongside the regulator-determined price control.

The spectrum and varied nature of regulatory approaches

Paris-Orly, Gatwick and Rome-Fiumicino Airports employ regulator-determined price cap regimes, while Sydney, Auckland, Copenhagen, Düsseldorf, and Brussels Airports have more light-handed regimes.[1] However, although these regulatory regimes can be classified into broad groups, there are significant differences between similarly classified regimes.

Light-handed regimes tend to perform better when they include 'fall-back provisions' for situations where agreements cannot be reached with airlines and/or where there is a threat of regulation being implemented if performance is considered to be poor (eg, prices are deemed to have risen excessively).

The price cap approach imposes a significant burden on both the company and its regulator. In order to arrive at a cap, the regulator needs to take decisions by analysing data that is both internal and external to the company. In particular, the regulator is required to determine a reasonable cost of capital and an efficient level of costs. However, as these factors are not directly observable, the review process can involve intense scrutiny of the company's capital expenditure (CAPEX) programme and general market data, which imposes considerable direct and indirect costs on the airport and the regulator.

Reliance on engagement with airlines

Engagement and commercial negotiations with airlines are a feature of many of the regulatory regimes reviewed and have become a more prominent part of regulatory arrangements over the last ten years. This greater emphasis on these arrangements tends to be coupled with a reduction in regulatory intervention. However, the extent to which

[1] The regulatory regime at Brussels Airport is based on negotiation between the airport and users, which reverts to a regulator-implemented price control if no agreement is reached. Despite the regulator initially rejecting the agreement between the airport and airlines in the recent control period, the regime eventually reverted to the agreement between the airport and its users.

consultation versus negotiation is required varies, as does whether the agreements require regulatory approval.

Regimes based on commercial negotiations between the airport and airlines—in particular those that allow for discounting—tend to provide better incentives for investment and the promotion of consumers' interests when there is the requirement to negotiate rather than to consult. In regimes where negotiation is required, the airport can negotiate individual service-level agreements with its customers, which creates more flexibility to provide differentiated service levels and CAPEX on a customer-by-customer basis (rather than a one-size-fits-all approach). Thus, while transaction and compliance costs (ie, direct costs) could still be high in a light-handed regime, the impact of regulation on the degree of commercial flexibility of an airport (ie, the indirect costs) is likely to be less.

Movement towards adjusted- or dual-till regimes
There have also been changes in the till regime and, in particular, a movement away from the single till at a number of the airports, including Paris-Orly, which has moved to an adjusted till; Brussels Airport, which is progressively moving from a single to a dual till (it currently uses an adjusted till); and Rome-Fiumicino Airport, which now uses a dual till.

Influence of policy concerns on the regulatory process
In the international jurisdictions reviewed, there is a variety of policy concerns, and these may affect the type of regulatory regime and degree of intervention. For example, the proposed new regulatory system for Rome-Fiumicino Airport was partly motivated by the lack of a plan for the development of the airport system, which has resulted in the creation of many airports in Italy.

Approach to selecting comparator airports

In order to place Gatwick's regulatory regime in an international context, it has been assessed against broadly comparable airports. To ensure that the airports reviewed have commercial and operational characteristics that are similar to those of Gatwick, various filtering criteria were applied to all airports in Europe and Asia (including Australasia). Airports in North America were excluded from the initial sample as almost all of them have a different ownership structure from Gatwick (ie, they are owned and operated by local or state government). Many of the regulatory regimes of airports in the rest of the world are not well-developed, and, in some cases, there is a lack of data and information about them. For this reason, airports in South America and Africa were excluded.

To draw up a long list of potential comparator airports from the initial sample, five assessment criteria were used, covering operational features of the airport, such as the number of passengers and private capital, and the broader regulatory and legal environment in which the airports operate. The resulting long list was narrowed down further by applying additional criteria to obtain a sample of airports that are most comparable to Gatwick.

The criteria used were as follows.

– **Passenger numbers**. Airports should have passenger numbers within 20 million passengers per annum of Gatwick.

– **Private investment**. There should be a material level of private capital investment in the airport's infrastructure.

– **Transparency**. There should be transparent information on the regulatory regime, the operator's revenues, service quality and prices, such that meaningful comparisons can be made across airports.

– **Aeronautical revenues**. The percentage of aeronautical revenues as a proportion of total revenues should be within approximately 10% of that at Gatwick, since this implies that the airports will face similar commercial incentives.

– **Traffic mix**. The mix of traffic should be broadly comparable to that at Gatwick. The airports should serve a range of long- and short-haul destinations, have a reasonable mix of airlines, and/or a large percentage of traffic should be made up of international passengers.

Some of these criteria were included for practical purposes—for instance, 'transparency' was included to ensure that there was sufficient information available to provide a detailed review of the regimes. The other criteria were included to ensure that the airports have broadly similar characteristics across a range of factors that could affect the type of regulatory regime employed. These criteria also sought to filter out any regulatory regimes that cannot be applied at Gatwick for practical reasons. Several of the criteria used to obtain both the long list and the shortlist of airports were used by Leigh Fisher in its initial report to the CAA's Regulatory Policy Group on airport charges benchmarking. However, in light of the different purposes of the two reports, the criteria used in this report differ in some respects from those used by Leigh Fisher—eg, runway utilisation is a more relevant criterion for benchmarking charges than for comparing regulatory regimes.

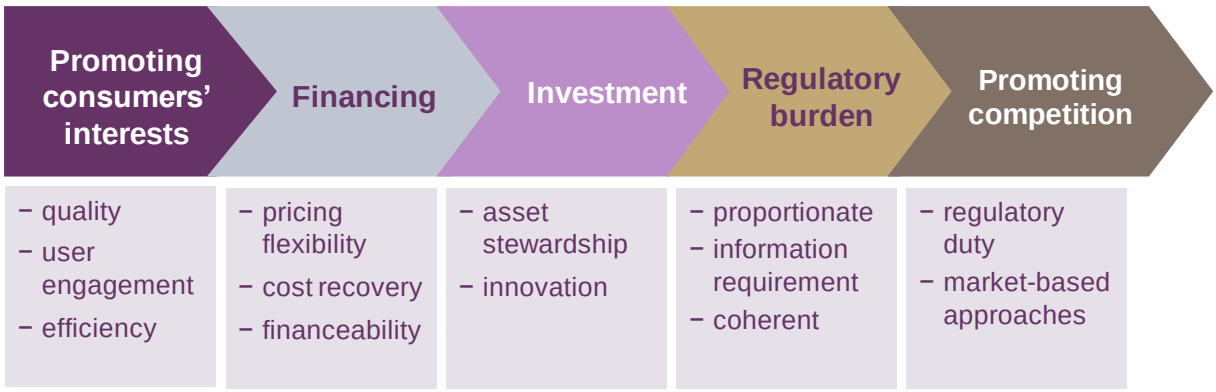
On the basis of this process, a final shortlist of seven international airports was compiled:

1) Auckland;
2) Brussels;
3) Copenhagen;
4) Düsseldorf;
5) Paris-Orly;
6) Rome-Fiumicino;
7) Sydney.

These airports are considered to be close comparators for Gatwick, based on the regulatory and legal context in which they operate.

Framework for comparing regulatory regimes

Oxera developed a framework for comparing the regulatory regimes of the shortlisted airports based on the CAA's duties, as set out in the Civil Aviation Act (see the figure below).

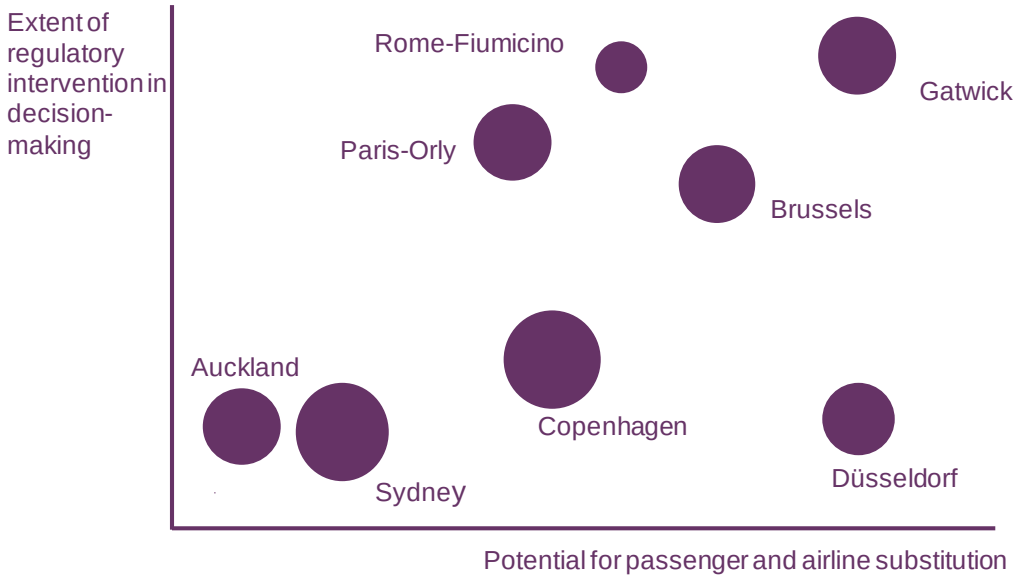


Source: Oxera.

Each of the regulatory regimes was assessed in detail within this framework and then compared, focusing on the potential for passenger and airline substitution present at the airports, the extent of regulatory intervention in decision-making at the airport, and the degree to which the regulatory regime would meet the CAA's objectives. The results of this

assessment are presented in the figure below. The position of an airport in the figure illustrates the context in which it operates *relative to the other airports in the sample*. The use of a different sample would be likely to change the positioning of the airports in the figure.

Indicative comparison of regulatory regimes



Note: The extent of regulatory intervention in decision-making reflects the influence of the regulatory regime on decision-making at the airport. The potential for passenger and airline substitution is a qualitative assessment based on a range of high-level metrics, outlined in section 3. It does not reflect an assessment of the degree (or presence) of market power, which would require a more extensive and rigorous analysis. The size of the circle indicates the degree to which consumers' interests and competition are promoted, as well as the extent of the incentives for investment and financing. 'Gatwick' reflects the Q5 regulatory regime. This diagram is intended to be illustrative only and the location of each airport should be assessed *relative to the other airports*.
Source: Oxera analysis.

The detailed reviews of regulation and the comparison of regimes outlined in this figure provided the key messages set out above.

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1 Introduction

In order to assist the Civil Aviation Authority (CAA) to place the regulation of Gatwick Airport in an international context, Oxera (commissioned by Gatwick) has reviewed the regulatory regimes at seven airports. These airports were selected from a large sample to ensure that their commercial and operational characteristics are similar to those of Gatwick.

This review considers the key features of each regulatory regime, its practical application, and the intensity of regulation at each airport.[2] The regimes are then assessed against a set of criteria before being compared to each other on three key characteristics. The review provides some commentary about the outcomes of the regimes at each airport; however, it does not explicitly compare the outcomes of regulation due to the difficulty of distinguishing the outcomes from the regulatory regime from those due to other factors, such as the local economic environment.

The report is structured as follows:

– section 2 outlines the approach for selecting the comparator airports, including a high-level description of the airports' key characteristics;

– section 3 sets out a framework for comparing the regulatory regimes across airports, and provides reviews of the regulatory regimes at the selected airports;

– section 4 summarises the key messages from this review, and presents conclusions;

– Appendix 1 describes how the seven airports were selected, and Appendix 2 provides additional detail about the regulatory regimes at each of these airports.

[2] This report has benefited from the input of representatives from many of the airports which have been reviewed in detail. Oxera is grateful for their time and input. Any errors or omissions are the sole responsibility of Oxera.

2 Approach

2.1 Selecting comparator airports

In order to place Gatwick's regulatory regime in an international context, it is assessed against the regimes of airports that are broadly comparable to Gatwick. To ensure that the airports studied in this report have commercial and operational characteristics similar to those of Gatwick, a series of criteria were applied to a list which included all airports in Europe and Asia (including Australasia). Airports in North America were excluded as almost all of them have a different ownership structure to that of Gatwick (ie, they are owned and operated by local or state government). Airports in South America and Africa were also excluded as many of the regulatory regimes are not well-developed, and in some cases there is a lack of data and information about the regimes.[3]

To develop a long list of potential comparator airports, five criteria were used, covering the operational features of the airport, such as the number of passengers and degree of private capital, as well as the broader regulatory and legal context in which the airports operate (see Figure 2.1).

Figure 2.1 Assessment criteria for the long list

	Explanation
Passenger numbers	Does the airport serve between 14m and 54m passengers per annum (ie, a range of 20m ppa either side of Gatwick's current annual traffic)?
Private capital	Is there private capital investment in the airport's infrastructure?
Regulation	Is the airport subject to some form of economic regulation?
Liberalised airlines	Do the airlines that the airport serves operate in a significantly liberalised market?
Consumer protection	Does the airport operate under a jurisdiction with well-developed general consumer protection/fair trading laws as a back-up to regulation?

Note: The only airport that was excluded from the long list based solely on the regulation criterion was Zurich Airport.
Source: Oxera.

Table 2.1 details the resulting long list of airports.

[3] In its report on comparing and capping airport charges, prepared for the CAA Regulatory Policy Group, Leigh Fisher excluded US airports because of 'their specificities in charging and operations'. Leigh Fisher (2012), 'Comparing and Capping Airport Charges, *Emerging Findings,* September 18th. It also excluded airports in South America and Africa (with the exception of Johannesburg) from its long list.

Table 2.1 Long list of airports

Amsterdam Schiphol	Istanbul
Antalya	Melbourne
Athens	Milan-Malpensa
Auckland	Oslo
Brisbane	Paris-Orly
Brussels	Rome-Fiumicino
Copenhagen	Sydney
Düsseldorf	Vienna

Source: Oxera analysis.

Starting with this long list, the airports were narrowed down by applying additional criteria, outlined below, to obtain a sample of airports that are most comparable to Gatwick.

– **Private investment**. There should be a material level of private capital investment in the airport's infrastructure. This excludes airports that are partially privatised but have only a very small amount of private capital—such as Milan-Malpensa, which has only 0.88% private ownership—since the organisational and commercial incentives that these airports face are likely to differ significantly from those at a fully privatised airport such as Gatwick.

– **Transparency**. There should be transparent information on the regulatory regime, the operator's revenues, service quality and prices, such that meaningful comparisons can be made across airports. This criterion led to the exclusion of Antalya and Athens Airports.

– **Aeronautical revenues**. The percentage of aeronautical revenues as a proportion of total revenues should be within approximately 10% of that at Gatwick, since this implies that the comparator set will face similar commercial incentives. Vienna Airport, for example, was excluded on this basis.

– **Traffic mix**. The mix of traffic should be broadly comparable to that at Gatwick. The airports should serve a range of long- and short-haul destinations, have a reasonable mix of airlines, and/or a large percentage of traffic should be composed of international passengers. This criterion sought to ensure that the comparator airports have similar operational characteristics, and thus excluded airports with mainly domestic operations, such as Brisbane and Melbourne.

Some of these criteria were included for practical purposes; for instance, transparency was included to ensure that sufficient information was available to provide a detailed review of the regime. The other criteria were included to ensure that the airports have broadly similar characteristics across a range of factors that could affect the type of regulatory regime employed. These criteria sought to filter out regulatory regimes that cannot be applied at Gatwick for practical reasons.

A number of the criteria used to obtain both the long list and the shortlist of airports were used by Leigh Fisher in its initial report to the CAA's Regulatory Policy Group on airport charges benchmarking.[4] However, it is important to consider the objectives of any study when determining the criteria to be used to identify comparators. Therefore, a number of criteria used in this report differ from those used by Leigh Fisher due to the different

[4] Leigh Fisher (2012), 'Comparing and Capping Airport Charges, *Emerging Findings,* London, September 18th.

objectives of the two studies—eg, runway utilisation is a more relevant criterion for benchmarking charges than for comparing regulatory regimes.

2.2 Overview of comparator airports

On the basis of the process outlined in section 2.1, a final shortlist of seven international airports was compiled:[5]

1) Auckland;
2) Brussels;
3) Copenhagen;
4) Düsseldorf;
5) Paris-Orly;
6) Rome-Fiumicino;
7) Sydney.

These airports are considered to be good comparators for Gatwick based on the broad regulatory and legal context in which they operate. They all operate in liberalised airline markets with well-developed customer and fair trading laws, and transparent information is available to describe their regulatory regimes. Their operational characteristics are also similar to Gatwick, across a range of measures. For comparison, passenger numbers, percentage of aeronautical revenue and traffic mix are detailed in Table 2.2.

Table 2.2 Comparator airports—operational characteristics

Airport	Number of passengers per year	Aeronautical revenue/total revenue (%)	Approximate number of destinations served	Approximate number of airlines	International passengers (%)
Auckland	14,012,329	47	40	20	56
Brussels	18,756,885	63	220	80	99
Copenhagen	22,673,477	51	180	60	89
Düsseldorf	20,339,466	57	200	70	n/a[1]
Paris-Orly	27,139,076	60	160	40	58
Rome-Fiumicino	37,651,222	61	160	100	65
Sydney	36,022,614	54	100	70	33
London Gatwick	**33,668,048**	**51**	**200**	**70**	**89**

Note: Passenger figures are based on 2011 data. Aeronautical revenue is based on 2010 or 2010/11 data. The aeronautical revenue is disaggregated by airport group, so Paris-Orly uses figures for Aéroports de Paris, and Rome-Fiumicino those for Aeroporti di Roma (ADR). The figures for number of destinations served, number of airlines and percentage of international passengers are from 2011. The figures for the number of airlines and destinations served are as reported in the airports' respective annual reports, and cover scheduled flights only, or are taken from airports' websites. [1] The number of international passengers at Düsseldorf Airport was not available.
Source: Airports' annual reports and websites. ACI Europe (2012), 'Airport Traffic Report – December 2011, Q4 2011 and Full Year 2011', February 2nd; Leigh Fisher (2012), 'Airport Performance Indicators', October.

Information about these seven airports was collected through a combination of desktop research and discussions with representatives from many of the airports considered. Where possible, Oxera's understanding of the regime was cross-checked with the airports by sharing the relevant section of the report with a representative of the airport.

[5] Additional information on why the other long-listed airports were excluded from the final shortlist is given in Appendix 1.

3 Review of regulation

3.1 Framework for comparing regulatory regimes

When comparing international regulatory regimes, it is important to be aware of the different policy priorities in different countries. Where appropriate, this is reflected in the reviews in section 3.3. However, the factor of interest is how the regulatory regimes compare with that applied at Gatwick (in Q5 and beyond). To facilitate this comparison, Oxera has developed a framework based on the CAA's duties set out in the Civil Aviation Act 2012, to ensure that the comparisons are conducted in a way which provides clarity on how applicable the regulatory regime would be to Gatwick.

The Act sets out a primary duty for the CAA to 'further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation service', and, where appropriate, to do so in a manner that promotes competition.[6]

In performing these duties, the Act also sets out elements to which the CAA must have regard, including:

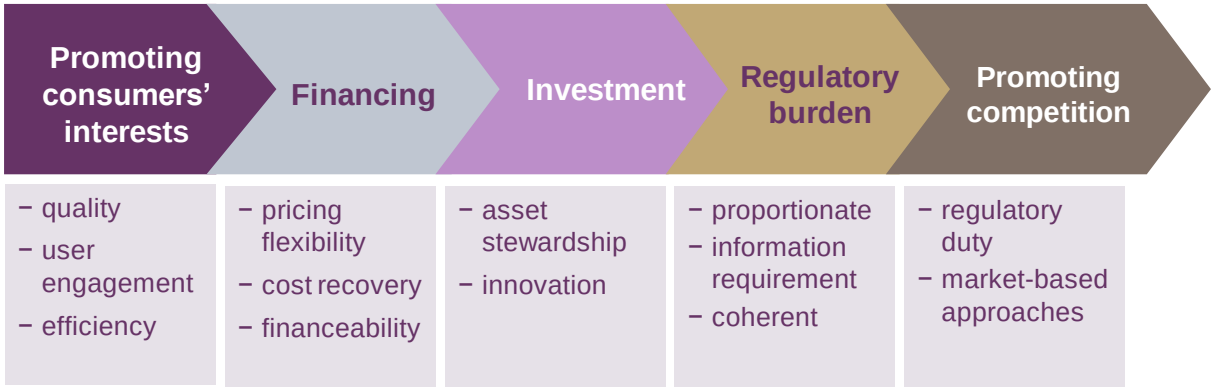
– ensuring that airports can finance their provision of services;
– ensuring that all reasonable demands for airport operation services are met;
– promoting economy and efficiency;
– carrying out regulatory activities in a way that is transparent, accountable, proportionate and consistent;
– targeting regulatory activities only at cases on which action is needed;
– taking reasonable measures to reduce, control or mitigate adverse environmental effects of the airport.

Based on these objectives of regulation, Oxera has developed five high-level criteria that enable the regulatory regimes to be compared qualitatively across airports. The order in which the criteria are presented reflects the CAA's primary duty to air transport users (promoting consumers' interests), and then its support for this duty by ensuring that airports can finance their provision of services (financing); that reasonable demands for airport services are met (investment); and that regulation is targeted at cases where action is needed (regulatory burden). The final criterion reflects the regulator's duty to carry out its activities in a way that promotes competition. While the CAA must also have regard to the environmental effects of airport activities, this is less relevant to the application of economic regulation at airports than the other criteria, and so is not considered further.

Each of these high-level criteria has a number of sub-criteria, as illustrated in Figure 3.1 and described below. The weight or emphasis applied to the various criteria is likely to differ depending on the regulatory regime and the policy concerns in each of the jurisdictions reviewed.

[6] The Civil Aviation Act received Royal Assent on December 19th 2012. See http://www.legislation.gov.uk/ukpga/2012/19/contents/enacted.

Figure 3.1 Criteria for comparing regulatory regimes



Source: Oxera.

Promoting consumers' interests

This criterion assesses whether the regulatory regime seeks to promote and protect the interests of airport users today and in the future. The Civil Aviation Act sets out that regulation should do this by ensuring the range, availability, and quality of airport services. In this review, this objective is assessed by considering the following aspects of the regulatory regime:

– **quality**: is a service quality regime in place which aims to promote high (and appropriate) levels of service, together with the range and availability of services desired by consumers?
– **user engagement**: do airports consult and/or negotiate with users (passengers and airlines) on features of the regulatory regime? Does the regime ensure that users' input affects the outcomes of regulation?
– **efficiency**: are there incentives to reduce costs and/or increase volumes and to share these benefits with users?

In order for a regulatory regime to be considered to be 'promoting consumers' interests', there should be evidence that desired levels of service, as agreed with users of the airport through appropriate consultation, are being efficiently delivered.

Financing

Another important aspect of a regulatory regime is how, and to what extent, it ensures adequate financing for the regulated business. Regulation should seek to provide sufficient resilience such that the regulated company can continue operating through turbulent circumstances. This criterion is assessed by considering:

– **pricing flexibility**: is the regulatory regime sufficiently flexible to allow products to be priced efficiently such that it encourages the delivery of what users want at a price they are prepared to pay?
– **cost recovery**: does the regime ensure recovery of efficiently incurred costs?
– **financeability**: does the regime ensure that efficiently run business functions can be financed?

A regulatory regime that promotes the 'financing' criterion would provide assurance that efficiently incurred costs will be covered such that the regulated business can continue to finance its operations.

Investment

In general, any system of regulation should provide strong incentives for the delivery of timely and efficient capital investment—for example, to be able to increase capacity while ensuring that the whole-life costs of the assets are minimised. In particular, two investment-related incentives are important:

– **asset stewardship**: does the regulatory regime provide incentives to invest efficiently in new capacity while taking a long-term approach to investment, and to promote asset stewardship?
– **innovation**: does the regulatory regime provide incentives to innovate, for example by allowing the airport to retain the benefits of innovation for a period of time?

In order for a regulatory regime to be considered to be promoting 'investment', there should be evidence that the regime provides incentives for innovation and a long-term approach to investment.

Regulatory burden

The CAA must have regard to how targeted regulation is, and to regulate only where necessary. Therefore, where regulation is necessary, it is important that its burden and extent are minimised. The burden of regulation has two key components: the provision of information by the regulated company to the regulator; and the extent to which decision-making is influenced by the regulator. This burden can therefore be measured by considering:

– whether the regulation is **proportionate**: is regulation targeted and is there a reduction in the scope of regulation for competitive elements?
– **the information requirements**: are the regulatory requirements for the provision of information and the length of the regulatory process clear and reasonable?
– whether the regulation is **coherent**: is the process transparent, accountable, consistent and objective?

The extent of the 'regulatory burden' is determined by both the extent of information required by the regulator and the degree of regulatory intervention in the airport's decision-making.

Promoting competition

The CAA has a duty to promote competition where possible. The extent to which a regulatory regime promotes competition can be assessed by considering:

– the **regulatory duty**: does the regulator have a stated objective to promote competition?
– the **market-based approach**: are market signals or a market-based approach being used, where appropriate?

In order for a regulatory regime to be considered to be 'promoting competition', there should be evidence that the regime aims to promote competition between airports or uses market-based approaches where possible.

Following the development of these criteria, it is possible to consider the regulatory regimes at the airports reviewed against them. In order to provide context, the regime in place at Gatwick is outlined below.

3.2 Review of Gatwick's regulatory regime

The regulatory regime at Gatwick has developed over time, with aspects being added to address particular issues with the regulatory framework, including constructive engagement with airlines; incentives to maintain service quality; and regulation of each of the airports within the BAA Group being undertaken separately.

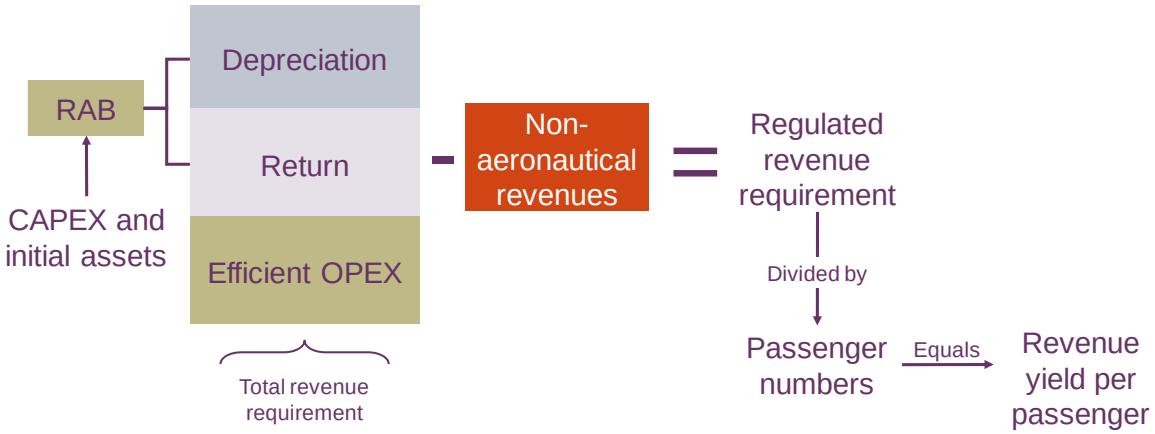
The current regulatory regime at Gatwick (henceforth referred to as the 'Q5 regime') is based on an ex ante revenue yield cap which establishes the maximum revenue per passenger that the airport is allowed to earn for a period of five years. Under this model, the airport is allowed to earn revenues that cover three elements (see Figure 3.2):

– an allowance for the **depreciation** of the airport's regulated asset base (RAB);

– a **return** to investors based on the value of the RAB multiplied by a weighted average of the cost of equity and the cost of debt (known as the weighted average cost of capital, WACC);
– the forecast level of **operating expenditure** (OPEX) associated with the operation of the airport.

The CAA adopts a single-till approach to calculate the net revenue requirement, such that charges for aeronautical services are offset by non-aeronautical revenues.[7] The net revenue requirement is then divided by a forecast of the number of passengers in each year to calculate the allowed revenue per passenger.

Figure 3.2 RAB-based regulation at Gatwick Airport



Source: Oxera.

A benefit of this approach is that there should be high-powered incentives for Gatwick to make cost reductions and to grow passenger traffic—if actual passenger numbers exceed forecast passenger numbers, or if costs are reduced by more than the efficiency factor, Gatwick is allowed to earn a return that is greater than its cost of capital. The Q5 regime should also reliably ensure the recovery of efficiently incurred costs over the whole life of investments and, consequently, should provide investors with reassurance that their (sunk) investments will be remunerated.[8]

However, the Q5 regime imposes a significant burden on both Gatwick and the CAA. In order to arrive at a price cap, the CAA needs to analyse data that is both internal and external to the company and, in particular, is required to determine a reasonable cost of capital and an efficient level of costs. However, as these are not directly observable, the review process involves intense scrutiny of Gatwick's capital expenditure (CAPEX) programme, forecast OPEX and other business plan submissions, as well as general market data.[9]

With the Q5 regime due to expire in March 2014, the CAA is reviewing the appropriate regulatory regime for Gatwick beyond Q5 and, as part of its market power assessment, has determined that:

> although Gatwick appears to have a weaker position than Heathrow in terms of its market power, this is nonetheless of a degree likely to require some form of continued economic regulation for a period beyond April 2014.[10]

[7] CAA (2012), 'Review of Price Regulation at Heathrow, Gatwick and Stansted Airports ("Q6")', Policy Update, May.
[8] Ibid.
[9] The CAA has noted that the 'RAB approach can be complex and time consuming and so is likely to be most appropriate where there is a significant risk of abuse of market power.' CAA (2012), op. cit., p. 99.
[10] CAA (2012), op. cit., p. 9, para 1.10.

However, the CAA has also announced its intention to 'continue to give active consideration, with stakeholders, to the merits of alternative approaches' to the RAB-based regulatory model.[11] One option is a form of default regulatory approach, which would provide greater scope for commercial agreements between Gatwick and airlines. Even if this were adopted, the CAA considers that it might still undertake a RAB-based calculation to provide a reference comparator and/or a fall-back option in case the airlines and airport cannot come to settlement agreements.[12]

3.3 Review of regulatory regimes

This section considers the fundamental features of the regulatory regime at each of the shortlisted airports set out in section 2.2, the context within which the regimes operate, and their incentive properties. The framework established above is then used to describe and evaluate, based on recent regulatory determinations and reviews of the regulation at airports, whether each regime addresses the criteria and how it accommodates them. While it is of note that these criteria are based on the CAA's duties, regulators of many of the other airports reviewed have duties that cover similar areas.

In section 4, the approaches to regulation at these airports are qualitatively compared in order to determine how the degree of regulatory intervention in decision making at the airport relates to the potential for passenger and airline substitution at each airport, and to what extent the regime promotes the CAA's duties.

3.3.1 Auckland International Airport

Ownership
Structure: partially privatised
Major shareholders: New Zealand Central Securities Depository Limited, Airport Shares Limited

Regulator independent of government? yes

Capital expenditure (2010)
As a % of turnover: 19.5% *per passenger:* £2.66

Demand characteristics (2011)
Passengers: 14m (56% international) *Airlines:* 20 *Destinations:* 40

Competition characteristics
Passenger substitution: there are no competing airports within a two-hour drive time; more than 70% of international visitors to New Zealand arrive or depart from Auckland.

Airline substitution: over the short to medium term, airlines would face difficulty in relocating to an alternative airport.

Source: Leigh Fisher (2012), 'Airport Performance Indicators', October; Auckland International Airport Limited (2012), 'Auckland Airport'; Auckland International Airport Limited (2011), Citi London Conference, March.

Until 2008 the regulatory framework at Auckland International Airport (AIA) represented a shadow regulation regime under the Airport Authorities Act, which required specified airports to disclose financial information relating to aeronautical activities. The regime was administered by the Ministry of Transport, but there was no legal requirement to monitor the information, and no explicit review or sanction mechanism existed. Instead, the regulation involved a general provision to enable a review of pricing in the airport industry which could be initiated by the Minister of Transport. There was also a threat of implementing a price cap under the Commerce Act 1986.[13]

[11] CAA (2012), 'Review of Price Regulation at Heathrow, Gatwick and Stansted Airports ("Q6")', Policy Update, May, p.10, para 1.14.
[12] CAA (2012), op. cit.
[13] Office of the Ministers of Transport and Commerce (2007), 'Commerce Act Review'.

A 2007 government review of the regulatory regime in the airport and gas pipeline sectors found that there were problems with this approach:[14]

– the information disclosure regime did not specify guidance on input methodologies or pricing principles to determine the framework for the disclosure of information, and there was no independent monitoring of the information published;

– the requirement to consult, rather than to negotiate, in arriving at price arrangements, combined with a non-credible threat of implementing price cap regulation and the lack of an explicit dispute-resolution mechanism, meant that airports faced no credible sanctions for making decisions that were in their own rather than users' interests;

– the threat of introducing price cap regulation was weak. Furthermore, the review considered that the government was likely to be reluctant to undertake a new inquiry given the cost and the fact that one had occurred only a few years earlier.

On this basis, the 2007 review stated that the current regulation was 'not a credible or robust regime for constraining the scope for exercise of airports' market power',[15] and recommended that:

> the current weak information disclosure system should be replaced with meaningful disclosure requirements along with active monitoring of the disclosed information by the Commerce Commission.[16]

Consequently, the Commerce Act was amended in 2008 establishing the New Zealand Commerce Commission (NZCC) as the economic regulator for Auckland, Wellington and Christchurch International Airports.[17] The regime moved from a shadow regulatory regime to a regulatory regime based on information disclosure. The Commission noted that information disclosure is the most light-handed regulatory instrument available to it under the Act.[18]

The NZCC now formally monitors Auckland Airport's performance and prices. Once the airport has set the new prices for its regulated services, the NZCC must advise the Ministers of Commerce and of Transport as to the effectiveness of the regime. The Ministers will then decide whether further (or no) regulation is required. Although the change in regulatory regime provided the NZCC with a greater role in terms of ex ante specification and ex post monitoring, there is a limited degree of regulatory intervention in the airport's decisions on price, quality and other such aspects.

The NZCC provides detailed guidelines and templates with regard to the information that must be provided about the airport's finances, quality of service, and pricing. It also sets out specific methodologies for the valuation of assets, allocation of common costs, determination of the cost of capital, and the treatment of taxation. While the airport does not have to use these input methodologies when determining its revenue requirement and can set prices as it sees fit, the NZCC must use them when assessing the airport's performance.[19] Stakeholders can appeal against the NZCC's decisions on input methodologies.

[14] Ibid.
[15] Office of the Ministers of Transport and Commerce (2007), 'Commerce Act Review', p. 5, para 20.
[16] Ibid., p. 1, para 6.
[17] Before 2008 the NZCC was involved in the airport reviews undertaken by the Ministry of Transport, but as a competition authority rather than an economic regulator.
[18] Commerce Commission (2011), 'Approach to Information Disclosure Regulation', October 5th.
[19] Airports do need to apply the input methodologies in preparing their annual regulatory accounts. If a business uses assumptions that differ from those in the input methodologies, it has to explain the reasons for this in its annual disclosure. Commerce Commission (2010), 'Information Disclosure (Airport Services), Reasons Paper', December 22nd 2010; Commerce Commission (2010), 'Input Methodologies (Airport Services) Reasons Paper', December. Note that AIA appealed to the High Court the NZCC's final determination on input methodologies.

In May 2012, AIA submitted its first information disclosure under the new regulatory regime, and in June 2012, it published a new five-year aeronautical pricing schedule following consultation with airlines.[20]

The NZCC is currently reviewing the effectiveness of the information disclosure regulatory regime at Auckland Airport, the outcomes of which are due to be published in 2013. This report will assess the airport's performance to determine whether the NZCC's objectives (as set out under Part 4 of the Commerce Act) are being met and the extent to which information disclosure regulation has had an impact on the airport's performance and conduct.[21]

Table 3.1 below presents an evaluation of the regulatory regime at Auckland Airport against the criteria established in section 3.1.

Table 3.1 Evaluation of Auckland Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: AIA must report annually on its performance on service quality and undertake quarterly surveys. However, there are no explicit targets set or financial incentives attached to performance
	User engagement: AIA is required to consult with major customers (ie, airlines) rather than to negotiate. However, it must consult on a number of aspects, including prices and capital investment. There is a provision for stakeholders to appeal against the NZCC's decisions on input methodologies
	Efficiency: airport efficiency is monitored through detailed information disclosure. Information needs to be disclosed about the extent to which efficiency gains are shared with consumers through lower prices
Financing	**Pricing flexibility**: AIA can set prices as it sees fit, but it has to disclose its pricing methodology. The Commerce Commission has particular principles against which it assesses the airport's prices (for example, no cross-subsidies). In order to increase uptake of services, pricing incentives are permitted through discounts, rebates or credits, or other financial incentives. AIA publishes a five-year pricing schedule (with a less detailed ten-year plan), but prices can be changed within this time period based on consultation with airlines and disclosure of new prices
	Cost recovery: NZCC states that AIA should set prices to ensure normal returns over the lifetime of an investment and preserve its financial capital (in real terms). AIA must disclose information about return on investment (ROI) in comparison to the WACC, but the NZCC notes that having ROI greater than the WACC in the short term may not be an issue if it reflects efficiency or innovation
	Financeability: flexibility to recover costs and update charges promotes financeability
Investment	**Asset stewardship**: outturn versus forecast investment is monitored as part of the regime through required disclosure and forecasts of CAPEX. AIA has flexibility to undertake investments, subject to negotiation with airlines for large capital projects. NZCC notes that this should provide AIA with incentives to invest, including to replace and upgrade existing assets as well as investing in new assets
	Innovation: AIA can offer financial incentives to airlines through commercial arrangements, which may include joint initiatives such as marketing campaigns.
Regulatory burden	**Information requirement**: annual disclosure of detailed information related to financial data, service quality performance and pricing

[20] Auckland International Airport Limited (2012), 'Annual Report 2012'.
[21] In November 2012, the NZCC published a draft review of Wellington Airport. Commerce Commission (2012), 'Process update and opportunity to submit on the review of Auckland International Airport', Airport Services – s 56G Reports, September 6th.

Criteria	Description
	Coherent: changes in regulation have introduced regulatory uncertainty. There is the potential for application of different approaches by the airport when establishing charges and by the NZCC when monitoring them
	Proportionate: extensive and detailed disclosure requirements with annual monitoring of the information disclosed by the airport. The threat of future regulation, or possibility of deregulation, is assessed by the Minister after the NZCC publishes its report on the effectiveness of the regime in meeting objectives
Promote competition	**Regulatory duty**: yes. The NZCC has a duty to promote outcomes that are consistent with outcomes produced in competitive markets
	Market-based approaches: the NZCC sets the regime and assesses whether the performance of airports is broadly consistent with outcomes observed in workably competitive markets

Source: Auckland International Airport Limited (2011), Citi London Conference, March; Office of the Ministers of Transport and Commerce (2007), 'Commerce Act Review: Airports'; Commerce Commission (2010), 'Information Disclosure (Airport Services) Final Reasons Paper', December 22nd 2010, p. 3; Commerce Commission (2010), 'Information Disclosure (Airport Services) Final Determination', December 22nd; Commerce Commission (2010), 'Input Methodologies (Airport Services) Reasons Paper', December; NZ Airports Association (2011), 'Submission by NZ Airports Association on the Productivity Commission International Freight Transport Services Issues Paper', September 7th.

3.3.2 Brussels Airport

Ownership
Structure: partially privatised
Major shareholders; Consortium of private investors (75%), Belgian state (25%)

Regulator independent of government? yes

Capital expenditure (2010)
as a % of turnover: 8.3% *per passenger:* £1.48

Demand characteristics (2011)
Passengers: 18.8m (99% international) *Airlines:* 80 *Destinations:* 220

Competition characteristics
Passenger substitution: 82% of European destinations served from Brussels in 2011 were also served by one or more airports within a two-hour drive time. The high-speed rail connections from Brussels provide alternatives for some short-haul travel. There are 20m people within a 1.5-hour drive time of Brussels Airport.

Airline substitution: hub for Brussels Airlines.

Source: Leigh Fisher (2012), 'Airport Performance Indicators', October; Copenhagen Economics (2012), 'Airport competition in Europe', June.

Brussels Airport Company (BAC) is granted an operating licence which stipulates conditions and rules that aim to fulfil a series of regulatory objectives, including:

– limiting excessive revenues;
– preventing abuse of a dominant position;
– improving the quality of the services provided to airlines and passengers;
– providing sufficient capacity to respond to demand;
– maintaining the international role of the airport.

The airport is regulated by The Regulatory Service for Railway Transport and for Brussels Airport Operations. The composition of the management board for the regulator is decided by the Secretary of State for Mobility. BAC is required to provide a detailed development plan every five years presenting medium-term objectives and forecasts to determine the need for

future investments in capacity or infrastructure improvement. The Royal Decree granting the operating licence sets out the information to be included in the plan and which needs to be taken into account in setting tariffs, including that the proposed system and formula be cost-reflective, guarantee a reasonable profit margin for the recovery of capital invested, and be consistent with the tariffs of reference airports.[22] The tariff formula must also be applied in a non-discriminatory way to similar users and situations.

The development plan includes information on the impact of the airport on the local area and the extent of competition with other airports and modes of transport. It also sets out the airport's forecasts for traffic, operating costs, the asset base and investments for the following five-year period. On the basis of these forecasts, BAC proceeds to preparatory discussions with the regulator and then to a multilateral consultation with airlines and air transport organisations to determine the tariffs for the upcoming five-year period.[23]

As part of this development plan, and through consultation with airlines, BAC sets a number of service quality standards, and reports annually to the regulator on its performance in relation to these and the efficiency of airport management. If it does not meet the standards, it may need to explain its performance to the regulator and indicate what corrective actions will be taken to improve service quality.

While the regulator does not intervene in the consultation with airlines, it may undertake its own work in particular areas, especially if there are areas of disagreement between BAC and the airlines. However, the regulator does not produce its own forecasts of traffic and costs, for example.

Since 2011, an annual information round with airlines has also been required, unless otherwise agreed with at least two companies representing the majority of the traffic at the airport.[24] During this information round, BAC discusses the investment plans and proposals for the following year. If there is a discrepancy between forecast and outturn investment, the initially proposed X value in the tariff formula may be modified. In the absence of an explicit claw-back mechanism for under-delivery or delays in planned investment, tariffs are adjusted in the following year to correct for such under-delivery. Tariffs can also be modified if additional costs are imposed unilaterally by the public authorities—for example, because of new security or environmental requirements. Thus, BAC is covered against such increases in its costs.

Similar to the consultation in advance of the control period, the regulator observes, rather than intervenes, in this annual consultation.

For the most recent control period, which runs from April 2011 to March 2016, the airport tariffs were subject to detailed negotiation with airlines, and were supported by airlines representing over 90% of the passengers and cargo users at Brussels Airport.[25] BAC proposed a yearly increase of CPI+0.9% in tariffs for regulated activities and an additional tariff increase for a major investment project,[26] at 0.25% for each €10m invested.[27]

The tariffs are based on an adjusted single till, which includes partial subsidisation of regulated activities with revenue from non-regulated activities. The government has a long-

[22] The reference airports include Frankfurt Airport, Amsterdam Airport Schiphol and Paris-Charles de Gaulle (CDG) Airport. Article 42 of the Royal Decree of 21 June 2004.
[23] While the airport offers discounts in certain circumstances to act as incentives to develop new routes or additional frequency, negotiation is not undertaken bilaterally with airlines. However, BAC may choose to discuss the principles of its proposed tariff formula with individual airlines before going to consultation.
[24] The two companies have to account for 75% of the annual movements, or 75% of the passengers during the year preceding the multiannual consultation.
[25] Brussels Airport (2011), 'Brussels Airport: major development plan for the next five years', March 17th. This is the second price control which has been based on commercial negotiation between the airport and airlines.
[26] Work for Pier A West.
[27] BAC also proposed new unit tariffs for landing and take-off, parking, passengers, assistance of passengers with reduced mobility, and security. McGuire Woods (2011), 'European Aviation Law Briefing'.

term objective (over four control periods) to reduce the subsidies and move to a dual till, and has therefore implemented a rate of decline in the subsidisation of regulated activities. The level of subsidisation, and its evolution, is affected by a comparison of BAC's tariffs with those of other airports. If the revenues generated by regulated activities are higher than the average revenues of the four comparator airports with the highest charges, the rate of decline in subsidisation is frozen. However, the rate can also be accelerated if the airport's revenues from regulated activities are lower than the average of the four comparator airports with the lowest charges.

Provided that the tariffs proposed by BAC are non-discriminatory and transparent, the formula does not breach the operating licence and there is no disagreement from a significant share of users, the regulator ratifies them.[28] If not, the regulator can require a review of the proposed tariffs or can modify them.

In December 2010, the regulator rejected the tariffs proposed by BAC as it considered that they would result in unacceptable profitability for the regulated activities. In addition, the tariffs were considered to be too high since BAC had not spent the budgeted investment in the previous period, and the regulator considered that users should therefore be reimbursed in the subsequent period through lower tariffs.

The regulator proposed an annual tariff of CPI – 0.55%.[29] In January 2011, the Secretary of State fixed a new formula of CPI + 0.68%.[30] In March 2011, the regulator then lodged an administrative appeal with the Council of State to seek an annulment of this decision, on the basis that the Secretary of State did not have the authority to impose a tariff control formula.

The formula for the current regulatory period has now been set at a maximum of CPI+0.9%, based on an investment plan of €60m over the five years of the control period. This tariff formula is consistent with BAC's original proposal. However, annual tariffs may vary depending on the annual information rounds with users and BAC's progress against its investment plan.

Table 3.2 presents an evaluation of the regulatory regime at Brussels Airport against the criteria.

Table 3.2 Evaluation of Brussels Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: the airport determines quality standards through negotiations with airlines and has to present a report about the evolution of several key performance indicators (KPIs), which is assessed by the regulator annually. No financial incentives are applied, but if the airport fails to provide good quality standards, the regulator can require corrective action to be taken
	User engagement: BAC must gain agreement from the airlines for its tariff proposals. Any two or more of the airlines may reject these proposals but only if they jointly represent a specified share of the air traffic volume
	Efficiency: the benefits of better management of the airport and increases in traffic are retained by the airport operator. There is no explicit claw-back mechanism if outturn investment is less than forecast, although tariffs can be adjusted for the following year to reflect this underperformance

[28] At least two companies, each with a minimum of 1% of the annual movements or passengers and together with 5% of annual movements or passengers have to disagree.
[29] McGuire Woods (2011), 'European Aviation Law Briefing'.
[30] This was set on a yearly tariff increase of CPI + 0.40%, plus an increase of 0.28% on the basis of investments in various projects.

Criteria	Description
Financing	**Pricing flexibility**: the airport fixes the tariff formula according to predefined principles and negotiation with users. A significant proportion of users need to agree in order for the regulator to accept the proposal. The price trajectory is set for five years, but there is an annual review of the initial X value related to the investment plan and outturn investment. Discounts are permitted and are applied to incentivise airlines to increase frequency and/or add new routes. However, negotiations occur on a multilateral basis
	Cost recovery: operating costs enter into the determination of the tariff formula, which can be revised each year, and costs from external factors are incorporated automatically. The regulator states that tariffs should be cost-reflective, but they are also benchmarked against other airports
	Financeability: benchmarking of charges against other airports that may not be appropriate comparators. The regulator initially rejected the airport's proposed tariffs in the last price control. Pre-financing opportunities exist for investment if agreed with airlines
Investment	**Asset stewardship**: investment is taken into account in determining the tariff formula and the average annual increase of tariffs. However, the investment plan was not completed in the most recent control period
	Innovation: innovation is not explicitly considered by the regulator, but discounts to airlines are permitted in order to encourage increased frequency and/or new routes
Regulatory burden	**Information requirement**: a development plan needs to be produced every five years, in addition to the annual information round with users which discusses the X value in the tariff formula and progress against the investment plan. The development plan also contains information about the main economic variables of the airport and its strategic context
	Coherent: the tariff control is benchmarked against reference airports. In the recent control period, there was disagreement between the Secretary of State and the regulator when the latter disallowed the airports' tariffs. The Secretary of State then rejected the regulator's decision. This has since been resolved, with the result that a tariff has been agreed for the five-year price control
	Proportionate: the regime is based on agreement between users and the airport, which defaults to a regulator-implemented price control if there is no agreement
Promoting competition	**Regulatory duty**: no; however, in its development plan BAC must provide an analysis about the degree of competition faced by the airport
	Market-based approaches: commercial negotiations, but focus on cost-reflective charges and need to benchmark against other airports

Source: Brussels Airport (2011), 'Brussels Airport: major development plan for the next five years', March 17th; McGuire Woods (2011), 'European Aviation Law Briefing'; Royal Decree (2004), 'Arrête royal relatif à la transformation de Brussels International Airport Company (B.I.A.C.) en société anonyme de droit privé et aux installations aéroportuaires', May 27th; Royal Decree (2004), 'Arrête royal octroyant la licence d'exploitation de l'aéroport de Bruxelles-National à la société anonyme B.I.A.C.', June 21st, as modified by the Royal Decree of 12 May 2011.

3.3.3 Copenhagen Airport

Ownership
Structure: partially privatised *Major shareholders:* Copenhagen Airports A/S (57.7%), Danish state (39.2%)
Regulator independent of government? No

Capital expenditure (2010)
as a % of turnover: 18.6% *per passenger:* £3.20

Demand characteristics (2011)
Passengers: 22.7m (89% international) *Airlines:* 60 *Destinations:* 180

Competition characteristics
Passenger substitution: there is some competition with Malmö Airport (in Sweden) for low-cost flights. Moreover, around one-third of passengers are transfer passengers who could transfer at a number of alternative airports.
Airline substitution: Scandinavian Airlines, which is the main airline at Copenhagen Airport, operates a triple-hub system (at Copenhagen, Stockholm and Oslo Airports), with the potential for some substitutability between the airports. Low-cost carriers had a market share of 18% in 2011.

Source: Copenhagen Airport (2012), 'CPH Annual Report 2011', March; Leigh Fisher (2012), 'Airport Performance Indicators', October; Copenhagen Economics (2012), 'Airport competition in Europe', June.

Until 2008, charges at Copenhagen Airport were capped on the basis of a CPI±X formula, as set by the Danish Civil Aviation Administration (Danish CAA). In December 2008, the Danish CAA announced that the airport would be subject to a new light-handed regulatory framework based on charges agreements being reached through commercial negotiation between airlines and the airport, with a set of statutory 'fall-back provisions' if agreement cannot be reached. The regulator agrees the charges on an ex ante basis. The involvement of users in the negotiations is limited to airlines operating a minimum of 5% of take-offs or carrying a minimum of 5% of passengers.[31]

The negotiation process is required to begin on March 1st of the penultimate year of the prevailing regulatory period, and should be completed within six months of that time.[32] The negotiations cover the level of aeronautical charges, the level of annual CAPEX, and the length of the regulatory period (which is not fixed). Moreover, the airport and its users:

> must enter into a special agreement on service levels for selected areas of significance for passenger and aircraft flows through the airport, whether or not agreement can be achieved by negotiation…The agreement is to contain…KPIs…and the principles by which these must be incorporated into charges.[33]

This agreement on service levels and metrics must be revised every four years.[34] Before negotiations start, Copenhagen Airport is required to provide airlines and the Danish Transport Authority with sufficient material to ensure 'an equitable and transparent process where all parties have a reasonable basis to negotiate from'.[35] This includes the provision of the following information:

– a ten-year development plan for the airport in terms of both traffic and investments;
– annual returns for the previous four years, covering revenues, costs, depreciation and return on invested capital for both aeronautical and commercial services;
– documentation on the amount of budgeted capital employed for aeronautical capital over the duration of the next regulatory period;

[31] Danish Transport Authority (2011), 'Provisions for payment for use of airports (Airport charges)', updated 3rd edition, March 8th, BL 9–15, appendix 1, section 4.1.
[32] Ibid., appendix 1, section 4.3.
[33] Danish Transport Authority (2008), 'Regulatory model for fixing airport charges under the incentive-based model in relation to Copenhagen Airports A/S', para 3.4.
[34] Danish Transport Authority (2011), op cit., appendix 1, section 3.
[35] Ibid., section 4.4.

– documentation of efficiencies;
– evidence of known future changes in the airport's cost base.

For the current regulatory period, running from January 2009 to April 2015, it was agreed that aeronautical charges would be fixed for a period of 18 months, before increasing at CPI+1% for the final four years of the agreement.[36] A programme of priority investment projects was agreed, with the airport committing to spend a minimum of DKK500m (approximately £56m)[37] per year on CAPEX relating to aeronautical services. The Danish Transport Authority (which has now taken on the regulatory powers of the Danish CAA) can choose to act as a mediator for the negotiations between the airlines and the airport, as was the case for the first regulatory period.

If the airport and airlines fail to negotiate an agreement, the regime would revert to traditional incentive regulation, with the Danish Transport Authority fixing an annual revenue cap (as determined through a building-block approach) for a period of four years.[38] These fall-back provisions are as yet untested, as agreement was reached for the current regulatory period.

The Danish Transport Authority can approve or demand modification to the level of airport charges if changes occur during the regulatory period, but only if these changes have a significant and unforeseen impact on:

– the airport's level of activity or operating costs;
– demand for investments in the airport's infrastructure, service facilities or other development;
– the airport's compliance with its CAPEX plans.[39]

In 2010, Copenhagen Airport agreed with airlines to introduce differential traffic charges which allowed the passenger charge for using the new low-cost facility to be reduced by 25% relative to the existing agreement.[40] This discount applies to passenger charges only, and not to any of the other charges levied on airlines. From April 2011, the framework has also incorporated a service-level agreement, which requires the airport to pay rebates to airlines if the airport does not meet pre-agreed KPIs as long as these are met by the airlines.[41] If an airline also fails to meet its pre-agreed KPIs, any rebates that would have been paid to that airline are instead transferred into an investment pool (and are not returned to the airport). The funds in the investment pool can then be spent on any operational issue agreed upon between the airport and airlines.

As the new regulatory framework is in its infancy, its impact on regulatory outcomes is not yet clear. However, Moody's has stated that it considers the regime to be credit-positive as it:

> shows consensus between the major parties and provides visibility on aeronautical charges until the expiry of the regulatory period.[42]

Table 3.3 below presents an evaluation of the regulatory regime at Copenhagen Airport against the criteria.

[36] Although the CPI+1% formula determines the increase in the total level of charges, in practice only passenger charges will be increased, while charges relating to take-off, parking and emissions will be kept at a constant level. Consequently, the passenger charges will actually change by CPI+1%+K, where the K factor is an additional factor to compensate for the fact that the other charges will be unchanged. Copenhagen Airport (2009), 'New charges agreement strengthens CPH's position as Scandinavian hub', press release, September 14th; Copenhagen Airport (2010), 'Charges regulations applying to Copenhagen Airports A/S in force during the period 31 October 2010 to 31 March 2015', October, Clause 14.
[37] At a conversion rate of 1DKK to 0.11 GBP.
[38] Danish Transport Authority (2008), 'Regulation on payment for use of airports (Airport charges)', December 19th, BL 9–15, appendix 1, section 5.
[39] Danish Transport Authority (2008), op. cit.
[40] Copenhagen Airport (2010), 'Charges regulations applying to Copenhagen Airports A/S in force during the period 31 October 2010 to 31 March 2015', October.
[41] Danish Transport Authority (2011), op cit., section 3.
[42] Moody's (2012), 'Moody's assigns Baa2 rating to Copenhagen Airports A/S; stable outlook', November 26th.

Table 3.3 Evaluation of Copenhagen Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: a service-level agreement has been introduced which requires the airport to compensate airlines if it does not meet the agreed level of service
	User engagement: commercial negotiations ensure that airlines are engaged in the charge-setting process
	Efficiency: the airport faces the same incentives for productive efficiency as it would under price cap regulation, since it retains outperformance relating to cost efficiencies. Cost savings are passed on to users at the subsequent review
Financing	**Pricing flexibility**: charges apply to all airline customers rather than being agreed on an individual basis, but a differential charging agreement was introduced in 2010 allowing discounts on passenger charges between terminals
	Cost recovery: commercial negotiations should ensure cost recovery, while the fall-back provisions are designed to ensure cost recovery if agreement cannot be reached
	Financeability: the level of airport charges can be modified in response to significant and unforeseen changes in circumstance during the regulatory period
Investment	**Asset stewardship**: the agreement specifies a minimum level of CAPEX and includes a list of priority investment projects as identified by airlines
	Innovation: the regulatory contract is uniform across all airlines so there is little scope for innovative airline-specific service-level agreements and investments
Regulatory burden	**Information requirement**: at the start of the negotiation process, the airport is required to provide airlines with all information required for negotiations to be balanced. Airlines argued that this led to an overload of information
	Coherent: the process is transparent, with facilitation from the regulator and publication of key documents. Both the airport and users take accountability for the outcome of the negotiation process. Negotiations take place over a period of six months
	Proportionate: lighter-touch approach, but with the fall-back of traditional price cap regulation if agreement cannot be reached
Promoting competition	**Regulatory duty**: no
	Market-based approaches: commercial negotiation represents a market-based approach

Source: http://www.cph.dk/CPH/UK/Newsroom/Business/Strategy/Competition.htm. Copenhagen Airport (2012), 'CPH Annual Report 2011', March.

3.3.4 Düsseldorf International Airport

Ownership
Structure: partially privatised
Major shareholders: Landeshauptstadt Düsseldorf (50%), Airport Partners GmbH (50%)
Regulator independent of government? No

Capital expenditure (2010)
as a % of turnover: 34.3% *per passenger:* £5.40

Demand characteristics (2011)
Passengers: 20.3m *Airlines:* 70 *Destinations:* 200

Competition characteristics
Passenger substitution: 73% of European destinations served by airlines from Düsseldorf were served by another airport within a two-hour drive time. In particular, Düsseldorf competes directly with Cologne and Bonn Airports for regional and short-haul flights, and with Frankfurt Airport for long-haul flights.
Airline substitution: Lufthansa has hubs at five airports: Frankfurt, Munich, Düsseldorf, Vienna and

Zurich. Hancioglu (2008) highlights examples of airlines switching flights to Cologne/Bonn Airport when no slots have been available at Düsseldorf.

Source: Leigh Fisher (2012), 'Airport Performance Indicators', October; Copenhagen Economics (2012), 'Airport competition in Europe', June; Hancioglu, B. (2008), 'The market power of airports, regulatory issues and competition between airports', German Airport Performance, July; http://www.lufthansa.com/uk/en/Our-hubs-in-Frankfurt-Munich-Dusseldorf-Zurich-and-Vienna.

The regulation of German airports has traditionally been carried out under the Luftverkehrs-Zulassungs-Ordnung (LuftVZO), paragraph 43a. Following the transposition of the EU Airport Charges Directive into national law, the regulation of airport charges is now ruled by paragraph 19b Luftverkehrs-Gesetz (LuftVG). These pieces of legislation require that airports seek approval for their charges schedules from the transport authority in the relevant federal state. This involves the following steps:[43]

- the airport consults with airlines on its proposed charges schedules before formally submitting these proposals to the transport authority;
- the transport authority allows comments from the airlines on the proposals for a period of four weeks;
- the airport is given the opportunity to revise its proposals based on these responses, before final submission;
- once the final submission is received, the authority accepts the proposals or asks the airport to make further modifications;
- if the authority accepts the proposals, it allows a further four weeks for any comments from users and then reviews and finalises the approval.

Charges are set on the basis of three criteria:[44]

- **cost-reflectiveness**—regulation is effectively 'cost-plus', with charges corresponding to the forecast level of costs for the subsequent year (including a depreciation charge), plus a set return on capital;
- **transport policy**—the regime allows for differentiation of charges where this would further the public interest; in practice, however, a uniform level of charges has been applied;
- **reasonableness**—this requires that charges balance the interests of the airports and airlines. However, it does not require that the charges are either fair or efficient, and in practice is interpreted to mean that increases in charges should not be unduly high for specific users.

This process has been criticised on a number of counts: it provides airports with insufficient incentives to make efficiency savings, the rules are unclear, and there is no national, independent regulatory body.[45] As a result, private framework agreements incorporating properties of incentive regulation have been introduced at a number of airports. Such agreements were pioneered by Hamburg Airport (in 2000), and subsequently replaced the traditional approval procedures at Frankfurt and Hanover Airports in 2003.

In 2004, Düsseldorf Airport also moved away from the approval regime and entered into a private framework agreement with its airlines. Under this, the airport agrees how charges will develop through negotiations with the main body of airlines (eg, Lufthansa, Condor, Air France-KLM) and associations representing a range of smaller airlines. The agreements do

[43] Littlechild, S. (2011), 'German airport regulation: Framework agreements, civil law and the EU Directive', *Journal of Air Transport Management*, **21**, pp. 63–75.
[44] Ibid.
[45] See, for example, Niemeier, H.-M. (2003), 'Price cap regulation of German Airports: Should German airport policy follow the Littlechild approach?', in I. Bartle (ed), *The UK Model of Utility Regulation*, CRI Proceedings 31, University of Bath. Müller, F., Konig, C., Müller, J. and Hoffjan, A. (2008), 'Regulation of Airport Charges in Germany', German Airport Performance research project, preliminary version, October 4th.

not explicitly cover the level of service provided by the airport, and passengers are not represented in the negotiations.

The initial private framework agreement ran for four years and was renewed in 2008. The current agreement, which runs until 2014, includes an explicit price cap formula:

$$c_2 = c_1 \times [CPI - X - (m \times \Delta P)]$$

This formula incorporates a sliding-scale mechanism, under which charges (c) depend on:

– the rate of inflation (CPI);
– an efficiency factor (X);
– the growth in passenger numbers (ΔP);
– a sharing factor (m), which determines how much of the risk of passenger growth deviating from forecast is taken by the airport.

As such, if airlines are able to grow passenger numbers by more than the level forecast, charges will fall (by a level determined by the sharing factor), and vice versa.[46]

The private framework agreement works under a 'common sense arrangement' such that, once the annual charges schedule has been agreed with the airlines (on the basis of the above formula), it is automatically approved by the Minister of Transport. Should the airport and airlines be unable to reach agreement, regulation would revert to approval of charges as specified in Luftverkehrs-Gesetz (LuftVG), paragraph 19b.

Table 3.4 presents an evaluation of the current private framework agreement at Düsseldorf Airport against the criteria.

Table 3.4 Evaluation of Düsseldorf Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: there are no explicit service-level agreements
	User engagement: private agreements are made with the major airlines and bodies representing the smaller airlines. Passengers are not represented in the negotiations
	Efficiency: the current charges formula includes an explicit efficiency factor, while the airport profits from any efficiencies it makes beyond this level
Financing	**Pricing flexibility**: airlines pay different charges based on growth in their passenger numbers. Retrospective volume rebates are also paid based on annual passenger volumes
	Cost recovery: commercial negotiations should ensure cost recovery, and cost-reflectiveness is one of the principles on which the fall-back provisions (ie, charges approval) are based
	Financeability: there are no explicit arrangements to change tariffs within the regulatory period
Investment	**Asset stewardship**: investment is taken into account in determining the tariff formula
	Innovation: discounts have been introduced under the framework agreements for airlines that operate new intercontinental air routes
Regulatory burden	**Information requirement**: airlines are given information on historical and forecast OPEX and CAPEX, traffic volumes, etc

[46] Under the 2004 agreement, the sliding-scale mechanism came into effect only where deviations in passenger growth from the forecast level exceeded thresholds of +10% or –7%. Müller et al. (2008), op. cit., p. 17.

Criteria	Description
	Coherent: the regime is transparent, with accountability for outcomes shared by the airlines and the airport; if no agreement is reached, the regime reverts to approval of charges by the regulator
	Proportionate: the regime is based on commercial negotiations and a light-touch approach, but there is no formal market power assessment
Promoting competition	**Regulatory duty**: there is no duty to promote competition
	Market-based approaches: commercial negotiation represents a market-based approach

Source: Littlechild (2011), op. cit.; Müller et al. (2008), op. cit.

3.3.5 Paris-Orly Airport

Ownership
Structure: partially privatised
Major shareholders: French government (52.1%), Schiphol Group (8%), Institutional investors (23.4%).
Regulator independent of government? No

Capital expenditure (2010)
as a % of turnover: 16.8% *per passenger:* £3.89

Demand characteristics (2011)
Passengers: 27.1m (58% international) *Airlines*: 40 *Destinations*: 160

Competition characteristics
Passenger substitution: given the joint ownership of Paris-Orly and Paris-Charles de Gaulle (CDG) Airports, there is limited competition for passengers. However, high-speed rail may compete with some short-haul flights.
Airline substitution: mostly point-to-point airline operations. Main airlines are Air France (44%) and easyJet (10.5%). Aéroports de Paris (ADP) decides on the allocation of traffic between the Paris-Orly and Paris-CDG Airports, taking into account the rules on distribution of traffic within the Parisian system, as set out by the Minister, and capacity.

Note: CAPEX figures are based on the ADP group as a whole.
Source: Aeroports de Paris (2012), 'Registration document 2011', April 6th; Aeroports de Paris (2012), 'Record traffic in 2011', press release, January 16th; Leigh Fisher (2012), 'Airport Performance Indicators', October.

In 2005 a new regulatory framework for ADP was introduced into the French civil aviation code (Articles L.224-2 and R.224-4), covering Paris-Orly, Paris-CDG and Paris-Le Bourget Airports. There is no economic regulator which is independent of the government; the government regulates these airports through the French Civil Aviation Authority (DGAC), as it considers that they have a dominant position with respect to the users of their airport services.[47] Economic regulatory agreements (ERAs) are set for five years after in-depth consultation with the airlines and other stakeholders.

The current ERA (2011–15) for Paris-Orly and Paris-CDG was subject to an initial phase of consultation with airport stakeholders (airlines and relevant associations) and, in particular, the economic consultative commission (ECC).[48] As part of this consultation, factors discussed included the investment projects desired by airlines, the associated investment costs, and the evolution of the structure of charges for the control period. ADP then published a detailed consultation document with proposals for the next control period, which

[47] The Ministers in charge of airport economic regulation are the Minister in charge of civil aviation and the Minister of the Economy. They regulate the three airports through the civil aviation department, and the competition, consumer protection and fraud department.
[48] This brings together Paris-CDG and Paris-Orly, main airline customers and professional associations for air transport and ground-handling. It is chaired by a qualified independent person appointed by the state.

were referred by the Minister in charge of civil aviation to the airport consultative commission after public consultation.[49] The state and ADP then signed the agreement. For the current control period, after consultation with stakeholders, the DGAC accepted many of ADP's proposals, including its investment plan, service quality targets and tariff formula.

The regulatory agreement covers three main areas:[50]

- the airports' commitments on investments and associated financial incentives;
- the service quality targets and the associated financial incentives (bonus and penalties);
- the cap for changes in the rates for the airport's fees. This cap is set at a level to ensure a fair return for the airport, as measured by the return on capital employed, with respect to the WACC.

The first regulatory agreement was signed in 2006 for the period from 2006 to 2010. This agreement was structured to address a number of challenges facing the airport, and in particular to develop aeronautical infrastructure, improve service quality for consumers and ensure productivity gains. A single till was originally used to ensure that the large investment programme did not lead to significant increases in charges. For the current regulatory period, this was changed to an adjusted till, which excludes from the regulated scope certain non-aeronautical activities (commercial activities and services, and diversification real estate). [51]

On average, tariffs are set to increase by CPI+1.38% over the next control period.[52] However, the fees are adjusted annually with respect to traffic, service quality and investment, and a maximum rate of increase is set for each year (which, over five years, are required to average CPI + 1.38%).[53] The adjustments are as follows. [54]

- **Traffic**. If the discrepancy between the assumption for passenger traffic included in the ERA and outturn traffic is greater than a pre-specified range, the airport is compensated for 50% of the surplus or deficit in returns, subject to a limit of 0.5% of the cap.[55]

- **Service quality**. There are ten service quality indicators, based on equipment availability, compliance and passenger satisfaction. Each indicator is associated with a financial incentive, but their combined effect on the price cap is subject to an annual cap of 1%.[56]

- **Investment**. The price cap is also adjusted for investment, through two indicators:

  - if investments are not completed by their predicted opening dates, penalties can be applied up to a maximum threshold;[57]
  - If the investment costs in certain categories[58] are lower than 90% of the amount initially forecast by the end of 2013, the price cap for 2015 will be reduced by an amount equivalent to 70% of the costs saved. If the airport spends more than forecast on investment, it must bear the effects of these costs.

[49] This was created by the law of April 20th 2005 and is made up of independent parties.
[50] Aeroports De Paris (2008), 'Economic Regulation Agreement 2011-2015', Public consultation document, December 1st; Economic Regulation Agreement between the State and Aeroports de Paris 2011-2015.
[51] Non-terminal land and real estate activities, other than the provision of land, surface areas, buildings or premises for ground-handling activities, storage and distribution of aircraft fuel, aircraft maintenance, air cargo activities, general and business aviation activities and public transport. Aeroports de Paris (2008), 'Economic Regulation Agreement 2011-2015', Public consultation document.
[52] This applies to principal fees (landing fee and fee per passenger), as well as some ancillary fees.
[53] For example, for 2013 the fees are set to increase by CPI+1.5%: Economic Regulation Agreement between the State and Aeroports de Paris 2011-2015.
[54] Although some of these adjustments do not apply from the start of the control period.
[55] This adjustment may apply from 2013 onwards. Economic Regulation Agreement between the State and Aeroports de Paris 2011-2015.
[56] Each of the ten indicators is weighted equally with a maximum effect of 0.1%.This adjustment may apply from 2012 onwards.
[57] Bonus points are offset against penalty points, to the extent that the investments are completed before or after the reference date, but only net penalties are applied. This can be applied from the 2013 pricing period onwards.
[58] This relates to investment costs, other than investment for capacity, renovations and diversification property development.

ADP meets with the ECC several times a year to consult on the annual evolution of fees, the investment programme and the quality of service for Paris-Orly (and Paris-CDG). The ECC expresses its opinion on the rate proposals and the investment programme of the airport. These elements are then subject to approval by the Independent Supervisory Authority/ DGAC. The same rates must be charged to all airlines according to the law.[59]

Table 3.5 presents an evaluation of the regulatory regime at Paris-Orly Airport against the criteria.

Table 3.5 Evaluation of Paris-Orly Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: financial incentives (bonus/penalty) are applied to the price cap each year depending on the airport's performance across ten service quality indicators. 15 other indicators are monitored. This was considered to be effective in improving quality in the first regulatory period. Service quality and customer satisfaction have been identified as the main development areas for the next control period, and there is a dedicated budget for this
	User engagement: requirement to consult with airlines prior to each control period by publishing a detailed consultation document with forecasts for traffic, investment, quality, changes in fees, etc. The ECC brings together Orly, CDG, the main airline customers and professional associations, and is consulted on issues in advance of setting out the ERA as well as annually during the control period
	Efficiency: rewards for outperformance with respect to savings on investment costs against the original business plan. These gains are shared with consumers. There were large improvements in efficiency during the last control period
Financing	**Pricing flexibility**: an overall cap set on the average increase in the main fees for the duration of the control period, with a maximum cap set for each year. This gives the airport some flexibility in setting its pricing policy. Charges are subject to consultation with the ECC, and then approved by the Independent Supervisory Authority. Discounts to airlines are permitted where outturn traffic exceeds forecasts by a certain percentage, subject to certain limits—for example, they cannot exceed €5m in total in each pricing period
	Cost recovery: charges can be changed during the control period subject to consultation. A gradual increase in the return on capital employed was allowed in the regulated scope, as part of the evolution to an adjusted till
	Financeability: charges can be changed automatically and/or through consultation during the price review
Investment	**Asset stewardship**: considerable investment undertaken in the first control period; investment forecasts for the next control period are substantial. The airport is required to provide forecast investment requirements over the next decade. Penalties are applied if dates for planned investment are missed
	Innovation: the regulatory contract is uniform across all airlines, so there is little scope for innovative airline-specific service-level agreements and investments
Regulatory burden	**Information requirement**: the airport is required to provide detailed consultation document in advance of the control period, which includes forecasts for the control period. Additional financial, traffic and quality of service information must be provided each year
	Coherent: the last process took about a year to complete, including stakeholder consultation; the regulator accepted the airport's proposals
	Proportionate: the till was adjusted to exclude some activities from the regulated scope.

[59] However, discounts to airlines are permitted once a year if outturn traffic exceeds forecasts by a certain percentage, subject to certain criteria.

Criteria	Description
Promoting competition	**Regulatory duty**: no
	Market-based approaches: improving price-competitiveness and quality of service, to ensure that the airport remains competitive

Source: Aeroports de Paris (2008), 'Economic Regulation Agreement 2011-2015', Public consultation document, December 1st; Economic Regulation Agreement between the State and Aeroports de Paris 2011-2015.

3.3.6 Rome-Fiumicino Airport

Ownership
Structure: partially privatised
Major shareholders: Gemina SpA (95.9%)
*Regulator independent of government? Y*es

Capital expenditure (2010)
as a % of turnover: 21.0% *per passenger:* £2.15

Demand characteristics (2011)
Passengers: 37.7m (65% international) *Airlines:* 100 *Destinations:* 160

Competition characteristics
Passenger substitution: Rome-Fiumicino and Rome-Ciampino are both operated by ADR, so there is limited competition between these airports. However, 20% of European destinations served by airlines from Rome-Fiumicino are served by another airport (not operated by ADR) within a two-hour drive time.
Airline substitution: main hub for Alitalia. Alitalia had a 45% share of traffic in 2012. Rome-Fiumicino competes with the Milan airports to be Italy's main short- to long-haul hub. Rome-Ciampino Airport is more focused on low-cost carriers.

Note: CAPEX figures are based on the ADR group as a whole.
Source: Gemina (2013), 'ADR's New Concession Agreement, ERA to Come into Effect and 2012 Traffic Performance', January 4th; Aeroporti di Roma (2012), 'Annual Report as of December 31st 2011', April; Leigh Fisher (2012), 'Airport Performance Indicators', October; Copenhagen Economics (2012), 'Airport competition in Europe', June.

The application of regulation at Rome-Fiumicino Airport is conditional on government approval of contracts between the airport operator and the Italian aviation authority, ENAC. Due to legislative changes since the privatisation of the airport in 2000,[60] Rome-Fiumicino, along with Rome-Ciampino—which is also operated by ADR—has been subject to a regulatory framework that has experienced some delays in implementation.[61] Pending approval of the regime, tariffs have, in practice, been determined by the government and frozen until 2012, when contracts were approved for a number of airports, including Rome-Fiumicino and Ciampino.[62]

Since privatisation, the government has introduced the following legislation affecting the regulation of airports.

– **Delibera CIPE No. 86/2000**—this introduced a price cap system, according to which airports' allowed revenues were set to cover OPEX and CAPEX associated with investment (including a fair remuneration on debt and equity capital). The regulator had the power to set a cap on the airports' charges, having regard to the outcome of the consultations undertaken with the airlines and stakeholders. Only revenues related to aviation activities were subject to regulatory determination, in what was effectively a dual-till price cap system. The regulator also defined quality standards and efficiency

[60] The privatisation process began in 1997.
[61] See Autorità Garante della Concorrenza e del Mercato (2008), 'A376—Aeroporti di Roma', October 23rd, Delibera No. 19020 paras 41 and 45, pp. 8–9.
[62] Gemina (2013), op. cit.

objectives for the airports.[63] While Rome-Fiumicino and ENAC agreed on a draft regulatory framework which took account of this legislation, the framework never received government approval.[64]

– **Law 248/2005 and Delibera CIPE No. 38/2007**—introduced by Parliament legislation in 2005, this legislation included a switch to a hybrid-till approach whereby a proportion (typically 50%) of the profits on certain non-regulated activities—those linked to the exploitation of location advantages—was used to reduce airlines' charges.[65]

– **Law 102/2009 and Law 27/2012**—starting in 2009, Parliament approved a number of laws differentiating the regulation applicable to strategically important airports with traffic volumes above 8m passengers per year (eg, Rome-Fiumicino) from that applicable to all other airports.[66] The introduction of differentiated regulation coincided with a Parliamentary inquiry, initiated in 2009, which considered some key issues in the Italian aviation system, including:[67]

  – the lack of a plan for the development of the airport system, which resulted in the creation of many airports in Italy;
  – the extensive involvement of public authorities in the development of new airports in areas without sufficient potential for the development of air traffic. This had led to smaller airports offering short-term promotional terms of service to airlines in order to enhance their own traffic volumes, often at the expense of larger airports in nearby areas;
  – difficulties in securing the finance required to undertake investments in strategically important new infrastructure;
  – the protracted nature of the tariff-setting process, with severe delays in the definition and approval of investment programmes and tariff allowances.

In October 2012, ADR and ENAC signed a new economic regulation agreement (ERA), which the government approved in December. Valid for new tariff applications from March 2013, the ERA sets a revised concession contract and rules for tariff-setting,[68] establishing the price cap methodology, dual-till and service quality regime until the end of the concession in June 2044. Regulatory periods are set for ten years, after which ministers have 60 days to evaluate the fairness of the application of the contractual rules. However, after five years, the price cap is re-set based on updates for traffic, investment and the cost of capital. There are also annual reviews which update tariffs according to progress made on the CAPEX plan and quality of service.[69]

Table 3.6 below presents an evaluation of the current regulatory regime at Rome-Fiumicino against the criteria.

[63] Autorità garante della Concorrenza e del Mercato (2008), op. cit., para 21, p. 5.
[64] Gemina (2013), op. cit.
[65] This approach is often referred to in the Italian literature as a partial single-till approach. See, for example, Nucleo di consulenza per l'Attuazione delle linee guida per la Regolazione dei Servizi di pubblica utilità (2011), 'Relazione al CIPE sull'attività svolta dal NARS nel 2010', December, p. 23.
[66] Art. 47, comma 3, of Law 122/2010, amending Law 102/2009 and Allegato (Parte Seconda) of Law 27/2012. The new regime remains applicable to all airports with traffic of less than 8m passengers per year.
[67] IX Commissione Permanente Trasporti, Poste e Telecomunicazioni (2010), 'Indagine conoscitiva sul sistema aeroportuale italiano', February 17th, pp. 137–85. Available at: http://documenti.camera.it/_dati/leg16/lavori/bollet/201002/0217/pdf/09.pdf
[68] Gemina (2013), op. cit.
[69] Ibid.

Table 3.6 Evaluation of Rome-Fiumicino Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: as part of the ERA, ENAC and ADR have agreed performance indicators and improvement targets for quality of service and environmental protection. Symmetrical bonuses and penalties of up to 1% of regulated revenue can be applied to the airport's tariffs each year. At the end of each five-year tariff period, these targets and indicators are reconsidered
	User engagement: airlines' views are sought during the consultations before the start of the control period. Airlines are also given monitoring powers with reference to the achievement of the promised levels of service quality and progress against the investment plan
	Efficiency: if operating costs are lower than allowed costs (after adjusting for traffic) over the control period, 50% of these gains are shared with users in the following control period, provided that the airport achieves its quality targets
Financing	**Pricing flexibility**: the regulator determines the maximum level of tariffs that can be applied to airlines, with some flexibility for the operator to determine the exact level of tariffs whenever this leads to an increase in the competitiveness of its services and to a more efficient usage of capacity
	Cost recovery: guarantee of full cost recovery for the operator and an adequate remuneration on capital. Investment-specific returns are allowed on a number of infrastructure developments. Tariffs are based on correlation with the costs of infrastructure and services
	Financeability: financeability of investments is facilitated through the ring-fencing of certain types of revenues (eg, non-regulated revenues) and through the allowance of a higher cost of capital for a subset of strategic investments. Tariffs are adjusted according to the difference between forecast and outturn traffic
Investment	**Asset stewardship**: the regulatory framework was established in order to promote investment in infrastructure. Penalties are applied for delays in projects, with a cap of 3% on regulated revenues per year
	Innovation: not explicitly considered by the regulator
Regulatory burden	**Information requirement**: the airport has to submit data annually on its key operational and financial performance indicators
	Coherent: there is a guaranteed stable regulatory methodology for a period of at least ten years. However, in the past there have been frequent changes in primary legislation, coupled with long implementation periods and lack of clarity/transparency about the regime
	Proportionate: dual-till regime and increased flexibility in the articulation of allowed tariffs
Promoting competition	**Regulatory duty**: the regulator has a duty to promote competition and to ensure equal and non-discriminatory access to airport infrastructure[1]
	Market-based approaches: allowed tariffs are determined by the regulator and market conditions are taken into account when determining the appropriate return on investment. The regulator's duty to ensure that passengers' costs are minimised suggests that the overall level of tariffs is not necessarily reflective of the market value of the services provided

Note: [1] As set out in Attachment 1 of Law 27/2012, amending Article 37 of Law Decree 201/2011 and Article 36 of Law Decree 1/2012.
Source: ENAC (2011), 'Documento Tecnico di Regolazione Tariffaria', September 19th; ENAC (2012), 'Convenzione per la gestione del sistema aeroportuale della Capitale e Contratto di programma, ai sensi dell' art. 17, comma 34 bis, del decreto legge 1 luglio 2009, n. 78, convertito con modificazioni, in legge 3 agosto 2009, n. 102, comprensiva dei principi e criteri per il suo aggiornamento periodico', October 25rd; Nucleo di consulenza per l'Attuazione delle linee guida per la Regolazione dei Servizi di pubblica utilità (2011), 'Relazione al CIPE sull'attività svolta dal NARS nel 2010', December, p. 23. Copenhagen Economics (2012), 'Airport competition in Europe', June, p. 57.

3.3.7 Sydney Airport

Ownership
Structure: fully privatised
Major shareholders: Sydney Airport Holdings (85%), Hochtief Airport GmbH (12%)
Regulator independent of government? Yes

Capital expenditure (2010)
as a % of turnover: 15.7% *per passenger:* £2.12

Demand characteristics (2011)
Passengers: 36m (33% international) *Airlines:* 70 *Destinations:* 100

Competition characteristics
Passenger substitution: There are no competing airports within a two-hour drive. However, there may be competition with other international airports for long-haul gateway traffic, where the passenger has the choice of transferring at Sydney or flying direct. Approximately one-third of passengers are international.
Airline substitution: there is little credible threat of airlines moving services elsewhere, resulting in a lack of countervailing buyer power. As noted above, however, airlines might be able to serve other airports directly as opposed to connecting via Sydney.

Source: Leigh Fisher (2012), 'Airport Performance Indicators', October; Sydney Airport (2012), 'Annual Report 2011', February 22nd. Sydney Airport (2012), 'Sydney Airport Capacity – The Facts', May.

Prior to 2002, Sydney Airport was subject to prices notification, such that any price increases were placed under the scrutiny of the Australian Competition and Consumer Commission (ACCC). At this time, a Productivity Commission inquiry report, commissioned by the Australian government, recommended that the regulated Australian airports should be granted commercial freedom, subject to ongoing price and service quality monitoring.[70]

The government followed the recommendations of the report and discontinued price caps and price notification at all airports from June 1st 2002. In its place, price monitoring was introduced at Sydney and six other airports for an initial period of five years.[71] The only airport services that continue to be subject to prices notification and price caps are Sydney's regional air services.

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. Since 2008 this has included a requirement to monitor the prices, costs and profits of car-parking services, as well as aeronautical services.

To determine the level of charges, negotiations between airlines and airports are carried out according to a set of formalised pricing principles, and are subject to arbitration if the parties are unable to agree on an outcome. The threat of arbitration has been an important part of the regulatory framework at Sydney in increasing the bargaining power of airlines in the negotiating process. For example, Virgin Blue Airlines triggered arbitration proceedings following an access dispute in January 2007, which ultimately led to Sydney Airport making concessions in a negotiated commercial settlement.[72]

Although investment levels are not mandated or subject to regulatory approval, inquiries undertaken by the Productivity Commission since the introduction of price monitoring have highlighted an increased ability for airports to undertake necessary investments under the new regime:

[70] Productivity Commission (2002), 'Price Regulation of Airport Services', inquiry report no. 19, January 23rd.
[71] The other airports were Adelaide, Brisbane, Canberra, Darwin, Melbourne, and Perth.
[72] Australian Competition and Consumer Commission (2007), 'ACCC welcomes commercial resolution of access dispute between Virgin Blue and Sydney Airport', press release, May 24th.

> 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 necessary to pay for it. This is in contrast to the problems acknowledged by airports and airlines alike under the previous price cap regime.[73]

Price monitoring 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.[74]

Despite these benefits, there have been concerns that Sydney has been allowed to earn monopoly profits under the new regime. For example, in its 2009–10 annual price monitoring report, the ACCC noted that:

> over several years, airlines have raised concerns about unsatisfactory levels of service at Sydney Airport. Over the same period, prices and profitability continued to increase. The monitoring results, when considered within the context of the airport's market power as well as the incentives and ability to use that market power, point to Sydney Airport earning monopoly rents from services provided to airlines.[75]

However, 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.[76] Moreover, in its latest monitoring report, the ACCC reported that airlines rated Sydney's quality of service as 'satisfactory' in 2010/11.

The Commission recommended that the regime should continue, with some enhancements, until 2020. The Department for Infrastructure and Transport has since agreed to this extension.[77]

Table 3.7 presents an evaluation of the regulatory regime at Sydney Airport against the criteria.

Table 3.7 Evaluation of Sydney Airport's regulatory regime

Criteria	Description
Promoting consumers' interests	**Quality**: the level of service provided at Sydney has frequently been rated as poor by airlines, but in 2010/11 it was deemed 'satisfactory' and an inquiry by the Productivity Commission concluded that the observed service quality was consistent with international comparators. No financial incentives are applied
	User engagement: charges are set on the basis of negotiations with airlines. Although some airlines have argued that Sydney is able to abuse its monopoly power in these negotiations, the Productivity Commission found this not to have been the case
	Efficiency: Assaf (2011) found that Sydney exhibited increasing productivity and cost efficiency over the period studied (2002–07)

[73] Productivity Commission (2006), 'Review of Price Regulation of Airports Services', inquiry report no. 40, December 14th, p. 37.
[74] Productivity Commission (2006), op cit.; Productivity Commission (2011),'Economic Regulation of Airport Services', inquiry report no.57, December 14th.
[75] Australian Competition and Consumer Commission (2011), 'Airport monitoring report 2009-10: Price, financial performance and quality of service monitoring', February, p. vii.
[76] Productivity Commission (2011), op. cit.
[77] Department for Infrastructure and Transport (2012), 'Australian Government response to the Productivity Commission Inquiry into the Economic Regulation of Airport Services', press release, March 30th.

Criteria	Description
Financing	**Pricing flexibility**: charges are set according to separate agreements with airlines, which differ according to the needs of the airlines
	Cost recovery: Sydney has flexibility to set its prices to recover costs, including negotiating with individual airlines to increase charges in lieu of airline-specific investments
	Financeability: flexibility to recover costs promotes financeability
Investment	**Asset stewardship**: although investment levels are not mandated or subject to regulatory approval, the Productivity Commission has noted significant investment benefits relative to price cap regulation
	Innovation: potential for innovative agreements between airports and airlines, although this has not been widespread in practice
Regulatory burden	**Information requirements**: airports are required to provide the ACCC with detailed information on costs, prices and service quality for aeronautical and car-parking services on an annual basis
	Coherent: the regime has previously been criticised for a lack of clarity on situations in which Sydney's conduct would be subject to further investigation, and the process by which such an investigation could be initiated
	Proportionate: frequent reviews of the need for, and appropriate scope of, regulation. Reduced intervention from the regulator since 2001 but regulatory reporting requirements are high
Competitive market	**Regulatory duty**: the ACCC has a duty to promote competition
	Market-based approaches: commercial negotiation represents a market-based approach

Source: Assaf, A. (2011), 'Bootstrapped Malmquist indices of Australian airports', *The Service Industries Journal*, **3**:5, pp. 829–46.

3.4 International comparison

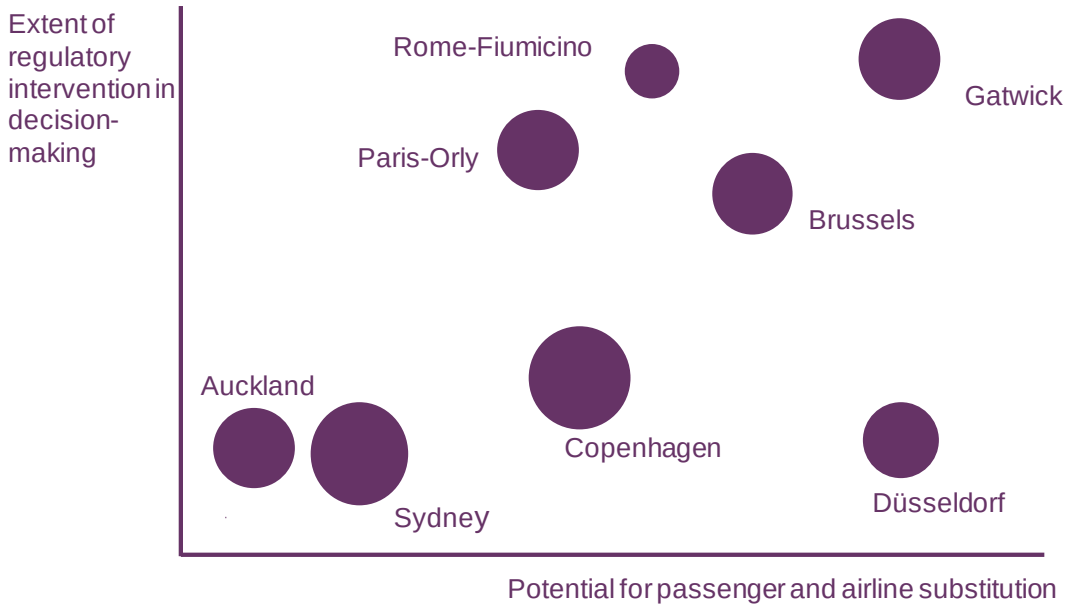
While section 3.3 has evaluated each of the airports against the criteria listed in section 3.1, it is of interest to compare the regimes. Figure 3.3 below provides an indicative comparison of the regulatory regimes of the seven airports and the Q5 regime at Gatwick, based on the qualitative assessment in section 3.3.

The context in which each regime operates is represented by the two axes. The extent of regulatory intervention in decision-making at the airport is measured along the y axis, where the origin represents a low degree of regulatory intervention in the commercial decision-making at the airport. The potential for passenger and airline substitution at the airport is evaluated along the x-axis, where the origin represents low potential for substitution. It is important to note that these are qualitative judgements based on a range of high-level metrics from a number of sources and do not reflect the outcome of a test of market power. The position of an airport in the figure illustrates the context in which the airport operates *relative to the other airports in the sample*. The use of a different sample would be likely to change the positioning of the airports in the figure.

The size of the circle represents the other criteria established in section 3.1 and reflects the extent to which the regulatory regime at each airport would be consistent with the CAA's duties—in particular, promoting consumers' interests, investment, financing and competition—relative to the other airports reviewed in this study. For example, Sydney faces low levels of potential passenger and airline substitution and a relatively low regulatory

burden relative to the other airports reviewed in this study, while meeting the CAA's duties relatively well. As another example, Rome-Fiumicino faces fairly high levels of potential passenger and airline substitution compared with the other airports considered, but a substantial degree of regulatory influence on decision-making due to the challenging nature of the regulatory system in Italy.

Figure 3.3 Indicative comparison of regulatory regimes



Note: The extent of regulatory intervention in decision-making reflects the influence of the regulatory regime on decision-making at the airport. The potential for passenger and airline substitution is a qualitative assessment based on a range of high-level metrics, outlined in section 3. It does not reflect an assessment of the degree (or presence) of market power, which would require a more extensive and rigorous analysis. The size of circle indicates the extent to which consumers' interests and competition are promoted, as well as the extent of the incentives for investment and financing. 'Gatwick' reflects the Q5 regulatory regime. This diagram is intended to be illustrative only and the location of each airport should be assessed *relative to the other airports*.
Source: Oxera analysis.

A number of key messages can be drawn from this diagram.

– There appear to be clusters of similar airports, with Auckland and Sydney facing relatively low levels of potential passenger and airline substitution and regulatory intervention, and Rome-Fiumicino, Paris-Orly and Brussels facing higher levels of potential passenger and airline substitution and regulatory intervention.[78]

– There does not appear to be a direct link between the potential for passenger and airline substitution faced by an airport and the regulatory regime applied. Based on the airports reviewed, there is evidence that the most light-handed regimes are applied at airports that are associated with the least potential substitution of passengers and airlines (Auckland and Sydney), while regulator-determined price cap regimes are applied at airports that are subject to greater potential for substitution (for example, Gatwick).

– Light-handed regimes tend to have less regulatory intervention in key decisions, as the regulator's role is more focused on establishing and guiding the process. While the regulator does not necessarily make ex ante interventions in the form of setting a price cap, some ex ante regulatory action may be necessary to 'set the rules of the game'. This involves establishing a framework, including the informational requirements and

[78] The regulatory regime at Brussels Airport is based on negotiation between the airport and users, which reverts to a regulator-implemented price control if no agreement is reached. Despite the regulator initially rejecting the agreement between the airport and airlines in the recent control period, the regime eventually reverted to the agreement between the airport and its users.

pricing principles that will guide the negotiation process, and the sanctions that could be imposed in an ex post intervention.

This section has provided details of the regulatory regimes in place at seven international airports and provided a comparison between those airports and the Q5 regime at Gatwick. A comparison between the potential regimes to be applied at Gatwick beyond Q5 has not been provided because of the range of possible outcomes.

4 Conclusions

The previous section provided a review of regulatory regimes at the shortlisted airports, a comparison across the regimes and considered some key emerging themes. The review demonstrates the wide range of regulatory approaches that are applied, from detailed ex ante regulation, such as that applied at Gatwick, to more light-touch approaches. It also demonstrates the differences in the details of the approaches between similarly classified regimes.

A number of key themes emerge from the reviews of regulation at international airports, as outlined below.

Changing regulatory environments

Many of the airports reviewed have undergone significant changes in the type of regulation applied within the last decade. Most of these have shifted from regimes with a more significant degree of regulatory intervention to more light-handed regimes. For example, Copenhagen Airport has moved from formal regulation to a regime based on commercial negotiations between the airport and airlines, while Düsseldorf Airport has shifted from a cost-plus regime to an arrangement based on framework agreements with airlines. Sydney and Auckland Airports also underwent changes in regimes, from price notification to price monitoring at Sydney, and shadow regulation to information disclosure at Auckland.

At many of the airports reviewed, there has been a shift towards regulatory intervention focused on setting the framework in which airports and airlines can negotiate, without trying to design the detailed mechanisms in the regulatory regime. Indeed, in many of the regulatory regimes reviewed, such as that at Brussels Airport, the regulator's role is intended to be more as an observer, rather than intervening in the negotiations between the airport and the airlines.

However, light-handed regimes tend to perform better when they include fall-back provisions for situations where agreement cannot be reached with airlines, and/or where there is a threat of implementing regulation if performance is considered to be poor (eg, prices are deemed to have risen excessively). Indeed, given that light-handed regimes tend to be in place at airports that face lower levels of potential for passenger and airline substitution, threats to introduce more intrusive regulation may reflect limits to airline buyer power. Airports are more likely to have regard for the potential consequences of giving little or no weight to airlines' views if there are such threats. As such, the strength of incentives in a light-handed regime may be determined by the credibility of the threat of regulatory intervention as much as by potential substitution.

The spectrum and varied nature of regulatory approaches

Paris-Orly, Gatwick and Rome-Fiumicino Airports employ regulator-determined price cap regimes, while Sydney, Auckland, Copenhagen, Düsseldorf and Brussels Airports have more light-handed regimes. However, although these regulatory regimes can be classified into broad groups, there are significant differences between similarly classified regimes. Copenhagen Airport, for example, is subject to light-handed regulation, although there are specified investment requirements with ex ante regulatory approval provisions, unlike the ex post price monitoring regime applied at Sydney.

Similarly, although Paris-Orly is subject to some regulatory intervention in determining the price cap, the regulatory process tends to take less time (ie, about one year for the recent regulatory agreement) and involves less detailed regulatory scrutiny than the price cap employed at Gatwick. This outcome does not appear to be directly linked to the level of airlines and passenger substitution faced by the airports. At Paris-Orly there is also more

emphasis on negotiations with airlines and there has been a movement away from the single-till regime to an adjusted till with some non-aeronautical activities not subject to regulation.

The regulator-determined price cap approach, such as that in place at Gatwick and Rome-Fiumicino, imposes a significant burden on both the company and its regulator. In order to arrive at a cap, the regulator needs to take decisions by analysing data that is both internal and external to the company. In particular, the regulator is required to determine a reasonable cost of capital and an efficient level of costs. However, as these factors are not directly observable, the review process can involve intense scrutiny of the company's CAPEX programme as well as general market data, which imposes considerable direct and indirect costs on the airport and the regulator.

Reliance on engagement with airlines

Airline engagement and commercial negotiations with airlines are a feature of many of the regulatory regimes reviewed and have become a more prominent feature of regulatory arrangements over the last ten years. A greater emphasis on these arrangements also tends to be coupled with a reduction in regulatory intervention. However, the extent to which consultation versus negotiation is required varies, as does whether the agreements require formal regulatory approval. The negotiations also tend to cover different elements—for example, in Copenhagen they cover the length of the regulatory period and the service quality performance indicators. At many of the airports reviewed there is also the potential to default to a more intrusive regime.

Regimes based on commercial negotiations between the airport and the airlines—in particular those that allow for discounting—tend to provide better incentives for investment and the promotion of consumers' interests when there is the requirement to negotiate rather than to consult. In these regimes, the airport can negotiate individual service-level agreements with its customers, which creates more flexibility to provide differentiated service levels and CAPEX on a customer-by-customer basis (rather than a one-size-fits-all approach). Thus, while transaction and compliance costs (ie, direct costs) could still be high in a light-handed regime, the impact of regulation on the degree of commercial flexibility of an airport (ie, the indirect costs) is likely to be less.

Movement towards adjusted or dual-till regimes

There have also been changes in the till regime and, in particular, a movement away from the single till at a number of the airports, including Paris-Orly, which has moved to an adjusted till, Brussels Airport, which is progressively moving from a single to a dual till (it currently uses an adjusted till), and Rome-Fiumicino airport, which now uses a dual till.

Influence of policy concerns on the regulatory process

In the international jurisdictions reviewed, there are different policy concerns, and these may affect the type of regulatory regime and degree of intervention. For example, the proposed new regulatory system for Rome-Fiumicino Airport was partly motivated by the lack of a governmental plan for the development of the airport system, which has resulted in the creation of many airports in Italy.

A1 Selection of comparator airports

The process by which a sample of all European and Asia Pacific airports was narrowed down to a short list of seven comparators was outlined in section 2.1. Figure A1.1 outlines which of the criteria led to the exclusion of the long-listed airports from the final shortlist.

Figure A1.1 Filtering of the long list of airports

	Explanation	Excluded airports
Private investment	**Is there a material level of private capital investment in the airport's infrastructure?**	Milan-Malpensa, Oslo
Transparency	**Is there transparent information on the regulatory regime, the operator's revenues, service quality and prices?**	Antalya, Athens, Istanbul
Traffic mix	**Is the mix of traffic at the airport broadly comparable to Gatwick?**	Brisbane, Melbourne
Aeronautical revenues	**Is the percentage of aeronautical revenues as a proportion of total revenues within 10% of that at Gatwick?**	Amsterdam, Vienna

Source: Oxera.

A2 Summary of regulatory regimes

This appendix provides detail on various features of the regulatory regimes at the seven airports reviewed. For each airport, to the extent which data was available, a summary is provided of:

– the form of the regulatory till used in the determination of charges—ie, whether charges reflect the total cost of providing aeronautical services or are subsidised by non-aeronautical revenues;

– the form of regulation;

– the duration of the regulatory period and the allowance for re-openers;

– whether, and under what conditions, the regulator allows for commercial contracting between the airport and airlines;

– the extent to which the regulator allows for airport-to-airline discounts;

– the basis for regulation—ie, whether regulation takes place under conditions set out in a licence or via some other mechanism;

– the requirement for, and scope of, airline consultation in the regulatory framework;

– arrangements regarding the pre-specification of service quality levels, and any related financial incentives.

A2.1.1 Auckland International Airport

Figure A2.1 Features of regulatory regime at Auckland Airport

Form of the till	Dual-till regime
Form of price control/ monitoring	Information disclosure regime
Duration of control	No formal control period; information must be disclosed on a yearly basis and AIA publishes a five-year pricing schedule
Commercial contracts	Yes. AIA can negotiate commercial agreements with airlines. These negotiations are underpinned by market-based valuations and contractual dispute resolution procedures
Discounts	Yes. Airports are allowed to agree discounts, rebates or credits with airlines or a third party. They must disclose pricing incentives annually as part of the financial information disclosures
Airline consultation	AIA is required to consult with substantial airline consumers (those that contribute more than 5% of aeronautical revenue) before fixing or changing any charges, or at least once every five years. It must also consult on CAPEX decisions exceeding 20% of its aeronautical asset base
Service quality	Each year the AIA must disclose performance statistics on passenger satisfaction. As part of this, AIA must undertake a quarterly survey that asks passengers to assess quality on a five-point scale

A2.1.2 Brussels Airport

Figure A2.2 Features of regulatory regime at Brussels Airport

Form of the till	The single-till approach introduced in 2004 is evolving towards a dual till through progressive reduction in the subsidy of regulated activities by non-regulated activities. A dual till must be reached within four regulatory periods.
Form of price control/ monitoring	Consultation with airport users, with the potential for regulatory intervention if an agreement is not reached. Benchmarking against other airports.
Duration of control	Five years
Commercial contracts	Aeronautical charges agreement with users, although this needs to be ratified by the regulator and the Secretary of State for Mobility
Discounts	Discounts or promotional rates can be granted subject to ex ante rules and must comply with legal requirements. BAC offers discounts to airlines that offer new destinations or extra frequencies
Licensing	Yes; Brussels Airport has an operating licence containing conditions and rules that it must meet
Airline consultation	Multiannual consultation with the airlines before the start of each regulatory period and annual information round, unless otherwise agreed
Service quality	The airport determines quality standards through negotiations with airlines and has to present a report about the evolution of several key performance indicators (KPIs), which is assessed by the regulator annually. No financial incentives are applied

A2.1.3 Copenhagen Airport

Figure A2.3 Features of regulatory regime at Copenhagen Airport

Form of the till	Dual till, although there is a provision for transfer of additional return from the commercial area—minimum transfer of 10% and maximum of 50%
Form of price control/ monitoring	Commercial negotiation between the airport and airlines with ex ante approval by the regulator
Duration of control	Agreed by the airport and airlines as part of the negotiations. The first regulatory period covers five-and-a-half years
Commercial contracts	Yes, charges determined through negotiation
Discounts	Scope for differential passenger charges between terminals since 2010
Licensing	No
Airline consultation	Airline consultation takes the form of commercial negotiation
Service quality	Service-level agreements are included in the framework, with rebates paid where Copenhagen Airport fails to meet agreed levels

A2.1.4 Düsseldorf Airport

Figure A2.4 Features of regulatory regime at Düsseldorf Airport

Form of the till	Single till
Form of price control/ monitoring	Private framework agreements with airlines
Duration of control	The current framework agreement runs from 2010 to 2014
Commercial contracts	A uniform charges formula is determined through negotiation between the airport and airlines. There are no airline-specific contracts but, under the formula, airlines with greater passenger growth pay lower charges
Discounts	Discounts are in place for passenger growth and for airlines opening new routes to intercontinental destinations
Licensing	There is no licence; regulation is carried out under paragraph 19b Luftverkehrs-Gesetz (LuftVG)
Airline consultation	Extensive airline consultation before the framework agreements are made. Ongoing consultation as annual charges are agreed on the basis of the formula
Service quality	No explicit service-level agreements.

A2.1.5 Paris-Orly Airport

Figure A2.5 Features of regulatory regime at Paris-Orly Airport

Form of the till	In the last control period, the till was changed from a single to an adjusted till. Retail activities and diversification real estate are excluded from the regulated scope, although car parks and other non-aeronautical activities are still included
Form of price control/ monitoring	Ex ante price cap
Duration of control	Five-year periods
Commercial contracts	No
Discounts	Subject to consultation with the ECC, discounts can be introduced to incentivise traffic growth and improved use of infrastructure. Cannot be more than 30%, and one-year limits. Total discounts cannot exceed €5m
Airline consultation	Extensive consultation with airlines prior to the control period with regard to pricing, investments, etc. Continued consultation during control period
Service quality	Financial incentives are applied; the price cap is adjusted based on performance against ten indicators

A2.1.6 Rome (Fiumicino) Airport

Figure A2.6 Features of regulatory regime at Rome-Fiumicino Airport

Form of the till	Dual till
Form of price control/ monitoring	Ex ante price cap
Duration of control	At least five years (with establishment of a regulatory methodology for a longer period of at least ten years)
Commercial contracts	New services beyond those listed in the License can be introduced, whenever provision of these additional services is in the interest of airport users. Flexibility in varying tariff structures to optimize capacity usage and improve competitiveness of services
Discounts	Allowed tariffs represent a cap on the actual tariffs applied by the airport. However, the airport has a duty to comply with principles of impartiality and non-discrimination
Airline consultation	Submissions from airlines are accepted during consultations underpinning the tariff-setting process. Greater involvement of airlines when required infrastructural investments are defined
Service quality	The airport must publish a document containing the minimum standards of services that passengers should be able to rely on. These standards are approved and monitored by the regulator

A2.1.7 Sydney Airport

Figure A2.7 Features of regulatory regime at Sydney Airport

Form of the till	Dual till since the regulatory reforms introduced in 2002, in the sense that the ACCC looks at profitability on aeronautical and non-aeronautical services separately
Form of price control/ monitoring	Ex post price and service quality monitoring
Duration of control	The next price monitoring period will run for seven years from 2013 to 2020. The previous periods have run for five and six years respectively
Commercial contracts	To determine the level of charges, negotiations between airlines and airports are carried out according to a set of formalised pricing principles
Discounts	The pricing principles 'allow multi-part pricing and price discrimination when it aids efficiency'. Discounts have been offered for new services, including new routes
Licensing	Regulation takes place under the Competition and Consumer Act 2010 rather than through licensing
Airline consultation	Airline consultation takes the form of commercial negotiations. The airlines are also consulted as part of the ACCC's monitoring role
Service quality	Commercial agreements allow for specification of service quality by individual airlines, allowing for more targeted service levels

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