Introduction

Airports, those familiar and often much-maligned interfaces between ground and sky, are vital nodes in the modern world economy. Every year, the world’s airports collectively facilitate the safe aerial movement of over 34.8 million flights, 3.57 billion passengers and over 50 million tonnes of valuable air freight (ATAG, 2016) and the prevalence and socio-economic significance of aviation is such that every nation worldwide, bar the European microstates of Andorra, Liechtenstein, Monaco, San Marino and the Vatican City, and some remote oceanic islands, has within its territory at least one airport capable of handling fixed-wing commercial aircraft. These facilities vary in size from profitable mega-aviation cities that handle tens of millions of passengers every year and boast attractions and facilities ranging from a 23-feet-high bronze sculpture of a teddy bear (Hamad International Airport, Doha) to butterfly and cactus gardens (Singapore Changi Airport), nature trails (Zurich Airport in Switzerland), a dental surgery (Sao Paulo Guarulhos International Airport in Brazil), saltwater aquaria (Vancouver International Airport in Canada) and an in-house brewery (Munich Airport in Germany), to loss-making, predominantly publicly owned remote landing strips that offer few, if any, concessions to passenger comfort.

According to the United States (US) Central Intelligence Agency (CIA), 41,789 airports or airfields (including closed or abandoned facilities) across all seven continents were visible from the air in 2013, of which 14,143 (34 per cent) had paved runways (CIA, 2016a, 2016b). Of the 34,022 active facilities, most serve the needs of the world’s military and general aviation users (ATAG, 2016). In 2014, only 3,883 airports (9 per cent of the world total and 28 per cent of the paved total) handled scheduled commercial flights (ATAG, 2016). However, it is these airports, together with the passengers they serve and the wider aviation industry that they support, that are the focus of this chapter.

This chapter will show how innovations in aeronautical technology and aircraft design, combined with decades of geopolitical intervention, regulatory reform and the emergence of neo-liberal ideologies, has resulted in the formation of a diverse and highly complex global airport industry that serves the needs of diverse and increasingly discerning customers and clients. The chapter begins by describing the contemporary scale and scope of global provision. It then
charts the historical evolution of the airport as a site of aeronautical activity into increasingly diverse commercial enterprises that have to meet the challenging needs of a wide range of users. It then documents the reasons for, and implications of, changes in patterns of airport ownership and management structures, using the United Kingdom (UK) as an example, and concludes by discussing the main challenges and opportunities facing the world’s commercial airport industry.

**The world’s commercial airports**

The near 3,900 commercial airports worldwide that handle scheduled commercial air services (defined here as revenue-generating flights that operate to a published timetable) delineate a world in perpetual (albeit unevenly spatially distributed) motion. Airports permit passengers to complete long-distance journeys, which would once have taken many days or months by land or sea, in a matter of hours by air, and enable personal and professional relationships to be conducted at a distance and across multiple time zones. Yet despite commercial aviation’s apparently international scope, airport provision and access is geographically uneven both between and within states. North America, for example, contains almost 36 per cent of the world’s airports and airfields, while Africa contains 8 per cent and Oceania 1 per cent (see Figure 3.1).

The majority of the world’s airports are located in countries that either have large and geographically widely distributed populations, mature or rapidly growing economies, challenging topography, large land areas, and/or in states that have historically had a large military (see Table 3.1). The US alone has 13,513 airports or airfields (32 per cent of the world total), of which 5,054 (36 per cent of the world total) have paved runways (CIA, 2016a, 2016b). In stark contrast, there are 27 countries or dependencies that only have one airport/airfield within their territory.

However, irrespective of location, most airports are small and high traffic volumes are disproportionately concentrated at a relatively small number of sites. These hubs, which include sites at Atlanta, Beijing and Dubai, not only act as the command and control posts of global

![Figure 3.1 Proportion of world’s airports/airfields with paved runways by world region, 2013](source: Data derived from CIA (2016a)).
Lucy Budd and Stephen Ison

air travel, but also have become major commercial enterprises in their own right. Airbus, the European aircraft manufacturer, defines an ‘aviation megacity’ as an airport that handles at least 10,000 long-haul passengers a day. In 2015, there were 42, and by 2033 it is estimated there will be 91 (ACI, 2015). Yet 91 still only represents 0.6 per cent of all the airports with paved runways and only 2.3 per cent of all the airports that handled commercial flights in 2014. Far more numerous than these major gateway international airports are secondary and/or regional facilities that either serve the mobility needs of distinct passenger segments (such as charter or low cost traffic, which does not use the expensive and often congested hubs), or parts of a country or region that is not geographically proximate to the main airport, which is usually, but in the case of the US particularly, not exclusively located in/near the capital city. These airports are typically smaller and offer fewer facilities than the major hubs, but are nevertheless vital income generators and employment centres in their own right. Some cities and city regions may also support several airports. These ‘multi-airport regions’ are usually characterised by the provision of three or more major airports (Bonnefoy et al., 2008). In the case of London, these facilities include Heathrow, Gatwick, Stansted, Luton, London City and Southend, while on the other side of the Atlantic, JFK, Newark/Liberty and LaGuardia collectively serve the aviation needs of New York.

This uneven global and regional distribution is significant. Over the last 100 years, a small number of airports have evolved from being rudimentary sites of aeronautical activity into key drivers of national economic growth, social opportunity and cultural exchange. These attributes are keenly desired by states whose economies are predicated on unfettered access to international trade and mobility and who value the global connectivity and rapid aerial mobility air travel affords. Indeed, both developed and developing nations have integrated air connectivity into their national economic development strategies and it is the apparent economic rationality (or the perceived inevitability of aviation-induced economic growth) that underpins much of the current political support for global airport development and expansion.

Certainly, the figures appear compelling. Worldwide, it is estimated that airports contribute to an industry whose direct, indirect, induced and wider economic (or catalytic) impact is in the region of US$2.7 trillion a year (ATAG, 2016), and airport industry revenues alone now exceed US$142.5 billion annually (ACI, 2016). However, as mentioned in more detail in Chapter 10, airports are operating in an increasingly challenging and competitive marketplace. In Europe

### Table 3.1 The 10 countries with the most airports/airfields and most airports/airfields with paved runways, 2013

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Number</th>
<th>Rank</th>
<th>Country</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US</td>
<td>13,513</td>
<td>1</td>
<td>US</td>
<td>5,054</td>
</tr>
<tr>
<td>2</td>
<td>Brazil</td>
<td>4,093</td>
<td>2</td>
<td>Brazil</td>
<td>698</td>
</tr>
<tr>
<td>3</td>
<td>Mexico</td>
<td>1,714</td>
<td>3</td>
<td>Russia</td>
<td>592</td>
</tr>
<tr>
<td>4</td>
<td>Canada</td>
<td>1,467</td>
<td>4</td>
<td>Canada</td>
<td>523</td>
</tr>
<tr>
<td>5</td>
<td>Russia</td>
<td>1,218</td>
<td>5</td>
<td>China</td>
<td>463</td>
</tr>
<tr>
<td>6</td>
<td>Argentina</td>
<td>1,138</td>
<td>6</td>
<td>Australia</td>
<td>349</td>
</tr>
<tr>
<td>7</td>
<td>Bolivia</td>
<td>855</td>
<td>7</td>
<td>Germany</td>
<td>318</td>
</tr>
<tr>
<td>8</td>
<td>Colombia</td>
<td>836</td>
<td>8</td>
<td>France</td>
<td>294</td>
</tr>
<tr>
<td>9</td>
<td>Paraguay</td>
<td>799</td>
<td>9</td>
<td>UK</td>
<td>271</td>
</tr>
<tr>
<td>10</td>
<td>Indonesia</td>
<td>673</td>
<td>10</td>
<td>India</td>
<td>253</td>
</tr>
</tbody>
</table>

Source: Data from CIA (2016a, 2016b).
and other key world markets, reduced government spending, more restrictive rules on permissible levels of state aid, and the growing trend towards airport privatisation mean that many facilities are no longer supported or financed by government investment, and so must attract investment and generate revenue from alternative sources. When this is coupled with increased controversy and political contestation concerning aircraft noise, local air quality, climate change and the effects of expansion on local communities (see Chapters 18 and 25), the challenges facing airport operators are considerable.

Although all commercial airports offer the same basic built infrastructure, including runways, air traffic control terminals, passenger terminals and cargo sheds that enable aircraft to safely land, take off and be serviced between flights and facilities in which passengers, baggage and cargo can be processed in accordance with strict (inter)national regulations governing safety, security, customs and immigration, every airport is unique. Each facility differs in terms of its geographic site and situation, the provision and extent of its air and landside facilities, its traffic mix, catchment area, population demographics, operating characteristics, volumes and seasonality of passengers and cargo, extent of competition with neighbouring facilities, ground access provision, commercial priorities, marketing attributes and ownership structure. Indeed, the last 100 years have seen airports evolve from privately owned flying fields, which afforded few if any concessions to passenger comfort, into state- or local authority-operated facilities run for the benefit of the region or nation. Some of these facilities have subsequently been sold to the private sector and transformed into part- or fully privatised commercial enterprises (see discussion below) that support a diverse range of aeronautical and non-aeronautical activities. In the European Union (EU) alone, the level of private investment in airports has risen from 23 per cent in 2010 to over 50 per cent by 2016 (ACI Europe, 2016), and even those that remain in public ownership have been forced to diversify their product offering and generate new sources of income from assets such as property, car parking, retail and external consultancy.

As a consequence, airports are now more than just transport nodes. They are complex international businesses that operate in highly defined yet dynamic regulatory, financial and operational environments that are, in turn, directly influenced by changes in the wider social, geopolitical and economic environments of the countries, regions and markets in which they operate and serve. The global airport industry as a whole now includes public institutions and private businesses that own and/or operate airports, as well as third-party providers that deliver services as diverse as refuelling, catering, ground handling, air traffic control, security and air cargo/logistics. Having described the scope of the global airport network, the following sections describe the evolution of airport operations and ownership from the origins of powered flight to the present day.

From airfields to airports: the growth of the global airport industry

Investigations and experiments by pioneering scientists, engineers and philosophers into the possibility of heavier-than-air human flights, which began in ancient antiquity and culminated with the successful first flight of the Wright brothers’ Flyer in December 1903, demanded the creation of a new transportation facility that would permit the safe transition of these new flying machines between land and sky. In order to help generate sufficient lift, the sites that were chosen for the earliest flights were exposed, windswept areas of flat land that were free from local obstructions and hazards such as telegraph poles, chimneys, residential areas and trees that would endanger aircraft. Racecourses, playing fields, agricultural land and municipal parks often provided ideal conditions, and many were temporarily reappropriated for the purposes of flight. By 1908, the Wright brothers had concentrated their activities at a site known locally
as Huffman Prairie in Ohio in the US and constructed buildings adjacent to the flying area in which they could store and maintain their machines. Interestingly, it is claimed that the word ‘hanger’ comes from the French word for a hay barn.

These early flying fields were primarily designed for experimentation and initially did not feature demarcated runways. Pilots would merely point their aircraft into the wind and take off, regardless of the direction it was blowing from. However, despite the enthusiasm of these pioneers, designing aircraft was expensive, and to generate much-needed capital, many engineers and aviators staged air shows for the education and entertainment of the paying public. For reasons of safety and efficiency, these events necessitated the physical separation of publicly accessible landside areas from the technical airside areas where aircraft and their pilots were prepared for flight, and this early demarcation endures to this day.

The outbreak of the First World War prompted significant advances in aircraft design and technology. The new aircraft were larger and heavier than the early designs and required packed earth runways to support their weight. After the war ended, demobbed pilots were keen to use their new-found aeronautical prowess for peaceful purposes and began to form small private companies to operate air mail services and passenger flights. Following a short-lived but nonetheless pioneering passenger service across Tampa Bay in Florida in 1914, the world’s first scheduled international service commenced between Hounslow Heath aerodrome, west of London, and Paris’s Le Bourget airfield in August 1919. Despite only carrying one passenger and assorted high-value and perishable cargo (which reportedly included a brace of grouse and a pot of Devonshire cream), the inaugural flight proved the utility of employing aircraft for commercial purposes. By the mid-1920s, national governments in Europe and North America were actively promoting the development of municipal air facilities in major towns. In Great Britain, for example, Alan Cobham, Britain’s self-appointed Air Ambassador, flew around the country advocating the formation of an aerodrome in every city as part of his Municipal Aerodrome Campaign, while in the US local corporations sought to finance and develop their own air facilities as statements of municipal pride and prestige. The frenzy of airfield construction that resulted led to a proliferation of airfields at a density that would far exceed future commercial requirements.

The introduction of regular international services from the 1920s onwards required the intervention of customs and immigration facilities, and a new word – ‘airport’ – was adopted to describe these new inland ports of the air. The development of progressively larger and heavier aircraft demanded the construction of more durable landing areas that could support the weight of the larger aircraft that were being introduced, and the first paved (as opposed to packed earth or grass) runway was reportedly constructed in Leipzig, Germany, in 1926. Despite their clear operational advantages and superior strength and drainage characteristics, then, as now, paved runways were expensive assets to construct and maintain (indeed, estimates of cost of constructing a third runway at London Heathrow Airport currently range from £16 billion to £19 billion), and a decision had to be taken regarding their siting and orientation to ensure that they were aligned as far as possible with the prevailing wind direction to ensure maximum usability.

As well as considering the operational requirements of the aircraft, attention was also given to the evolving needs of passengers. In the 1920s and 1930s, commercial flying remained an expensive and dangerous activity, and the early airlines had to persuade potential passengers that flying was not only safe and comfortable, but that it afforded distinct advantages over competing land-based modes of transport. At the time, only society’s most affluent members could afford to fly and the airlines had to convince potential passengers to abandon the relative comfort and safety of steamships, private motor cars and railway carriages and take to the air. For example, at Croydon and Liverpool Speke airports in the UK, dedicated passenger terminals were constructed.
The airport industry

These buildings contained not only airline offices and air traffic control facilities, but also waiting areas, restaurants, newsagents, post offices, viewing facilities and customs posts for the convenience and comfort of the travelling public. One of the defining features of air travel was the length of time it took to process passengers and baggage. On arrival at the airport, individual travellers and their luggage were weighed and passengers were obliged to physically present themselves at a check-in desk at least an hour before take-off. Restaurants, shops and viewing areas were thus provided to make productive use of this ‘dwell time’ and perhaps distract passengers from the reality of the journey they were about to undertake. To permit operations during the hours of darkness and poor visibility, powerful searchlights were installed on the top of the buildings, and in time radio communication towers constructed to enable ground staff to speak directly to departing and arriving pilots.

The use of aircraft during the Second World War again stimulated advances in aeronautical design and technology. New navigation, communication and surveillance technologies were developed, mass aircraft production became the norm, and a new form of aircraft propulsion – the jet engine – was developed and utilised. These new aircraft required longer and stronger runways, and hundreds of new military airfields were constructed in the Allied and Axis nations to accommodate the new aerial squadrons. For example, in the UK, both the new and the hastily upgraded military airfields were taken over by central government and were generally provided with three paved intersecting runways. A small proportion of these sites would ultimately be redeveloped into commercial airports.

From public to private: a UK example of the changing pattern of airport ownership

Following the end of the Second World War, the provision of airfields in Great Britain changed rapidly. London Airport (which was renamed Heathrow in 1966) opened to commercial flights in 1946, and by 2016 had developed into Europe’s busiest airport, handling over 72 million passengers a year. The British government, keen to ensure the orderly development of post-war commercial flying in the country, enacted a National Airports Plan in 1947, under which strategically important airfields would be acquired for public ownership and developed for civilian use. The need for a national plan was based on the fact that airports are capital- and land-use-intensive infrastructure assets that require considered allocation of scarce financial resources, as operating costs are high and few airports make a profit. In the 1966–1967 financial year, for example, the three Midlands airports made a cumulative loss of £390,000 after meeting their capital charges (Sealy, 1976).

In 1961, a British government White Paper had emphasised the importance of towns and cities getting directly involved in the provision and operation of local airports. The document advocated that individual airports should be relinquished from centralised state control and run as commercial enterprises for the first time. As in the US 20 years previously, British civic competitiveness encouraged local authorities to ‘outdo’ neighbouring air facilities in terms of the scale and scope of their buildings and infrastructure, and municipal airport design became highly competitive. However, in order to construct the required infrastructure, considerable building work was often required. The transformation of the redundant RAF Castle Donington airfield into the new civilian East Midlands Airport in central England in the early 1960s necessitated the removal of 630,000 cubic yards of earth, the infilling of thousands of tonnes of fly ash from the local power station to level the site, the construction of a new east–west runway, a 235,000-square-feet concrete aircraft apron complete with five stands, a 722-feet-long terminal building, an air traffic control tower, 1.5 miles of internal roads, and, arguably on the grounds...
of convenience and public utility rather than an appreciation of their future revenue-earning potential, a car park with space for 850 vehicles. At the same time, other nations were embarking on far more challenging airport development projects that variously involved land reclamation, coastal, estuarine and fluvial realignment, the removal and resettlement of local communities, and sculpting local terrain to smooth gradients and remove proximate obstructions.

The introduction of bigger and higher-capacity commercial aircraft during the 1960s caused air fares to fall and passenger demand to increase, and necessitated the construction of larger terminals and airside areas. The first generation of jet aircraft also resulted in the development and widespread adoption of new technologies, including the air bridge, moving walkway and automated baggage reclaim carousel, while growing incidents of terrorist attacks against aircraft and airports in the 1960s and 1970s resulted in the introduction of more rigorous and technologically mediated security screening. However, these rapid technological advances, combined with growing levels of traffic and the need to finance capital-intensive development programmes, had meant the business of running airports had become increasingly complex.

In 1965, the British government passed the Airports Authority Act, which established the British Airports Authority (BAA) as a new government-owned independent commercial enterprise. In April 1966, BAA assumed responsibility for four of the 22 government-owned airports – London Heathrow, Gatwick, Stansted, and Prestwick Airport on the Ayrshire coast in Scotland. Edinburgh, Aberdeen and Glasgow Airports followed in the early 1970s. Under the terms of the Act, the UK Civil Aviation Authority (CAA) retained statutory powers to regulate airport charges consistent with the terms of the 1977 Bermuda II air service agreement with the US, which obliged the government to adopt a single-till approach to airport charges.

The inauguration of Boeing 747 ‘jumbo jet’ services in 1970 demanded a transformation in the scale and scope of airport operations. Apron areas, taxiways and runways had to be expanded and reinforced to support the aircraft’s increased physical size and weight. Terminal buildings had to be expanded to accommodate the increased numbers of passengers, bags and cargo the aircraft could transport. However, while new higher-capacity wide-bodied aircraft such as the Boeing 747 were lowering the price of air fares and stimulating increased passenger demand for flight, they were also posing an environmental and public relations challenge for airports.

Although concern about aircraft noise had been articulated by local communities living near busy aerodromes as early as the 1920s, the widespread introduction of jet aircraft in the 1960s and 1970s spread the issue of noise pollution and emissions over a wider area, and forced some airports, including London Heathrow and Idlewild (later JFK) in New York, to introduce operating restrictions and noise curfews to manage and mitigate, as far as possible, the acoustic impact of aircraft operations on local communities. In theoretical terms, the global space of air traffic flows was now imposing ever-greater burdens on immobile local people and places.

While concerns about the environmental impact of aviation continued to grow (see Chapters 18 and 25), moves towards privatisation and increased commercialisation began to gain traction in the UK in the early 1980s. As part of its wide-ranging public sector reforms, the UK government announced its intention in the Airports Policy White Paper of 1985 to privatise BAA. In December 1985, BAA plc was incorporated under the 1986 Airports Act. This resulted in the transfer of BAA’s property, rights and liabilities to a new public limited company. In July 1987, 500 million shares in BAA plc were offered for sale and the company was listed on the London Stock Exchange with a capitalisation of £1,225,000,000 (ICAO, 2013). The new company bought Southampton Airport in 1990 and sold Prestwick Airport to PIK facilities in 1992. In 1996, the UK government sold its remaining 2.9 per cent stake in BAA plc but retained a golden share to prevent a full takeover by foreign investors. This golden share was redeemed in September 2003 in response to a European Court of Justice ruling.
In 2006, a consortium led by the Spanish construction group Ferrovial took over BAA plc, delisted it from the London Stock Exchange and changed its name to BAA Ltd. In August 2008, the UK Competition Commission ruled that BAA Ltd must sell off two of its three London airports and one of its Scottish ones. London Gatwick Airport was duly sold to Global Investment Partners (GIP) and other investors in 2009/10, Edinburgh Airport was sold to GIP in 2012, and London Stansted Airport was sold to Manchester Airports Group (MAG) in 2013. By 2012, investments by foreign institutions and sovereign wealth funds, which included investments by the Chinese, Singaporean and Qatari governments, had reduced Ferrovial’s stake to just over a third, and the remaining airports at London Heathrow, Glasgow, Aberdeen and Southampton were operated under stand-alone brands.

At the same time as BAA was being privatised, large local authority-operated regional airports in the UK, including Manchester, Birmingham, East Midlands and London Luton, were also being corporatised. The 1986 Airports Act required municipal airports with a turnover in excess of £1 million to become public airport companies. By 1993, changes in government borrowing requirements meant that the future development of these facilities could only be funded through private sector finance (ICAO, 2013). Subsequently, many UK airports have now been privatised (Ison et al., 2011).

**Airport privatisation**

The British government’s privatisation of BAA in 1987 started a trend towards greater private sector involvement in airports (Gillen, 2011). Privatisation aims to reduce government debt and liabilities, attract new investment, secure international expertise in operational efficiencies, open up the market to greater competition and remove government restrictions (Graham, 2011). Airport privatisation is often thought of as transferring the whole airport from public to private operation and/or ownership, but private sector involvement at airports can take many forms, from least to full privatisation (see Table 3.2). The decision to privatise some or all of an airport’s property, assets and operations is motivated by many factors, including the need to secure cash injections by selling certain assets, repaying debt, enhancing revenues, improving levels of efficiency and productivity, and/or raising additional capital for development and expansion projects.

**Table 3.2 Types of airport privatisation**

<table>
<thead>
<tr>
<th>Type</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least privatisation (management arrangement)</td>
<td>Services such as cleaning, maintenance, parking and non-police security are contracted out to private firms but the main airport asset remains in public ownership.</td>
</tr>
<tr>
<td>Public–private partnerships (PPPs) or concession arrangement</td>
<td>A partnership between the public and private sectors that delivers a project or service that has traditionally been provided by the public sector. A government grants a private company the right to develop, build, maintain and/or operate a public asset (such as an airport terminal) for a contracted period of time. The asset is still owned by the government but the private party generally assumes the financial risk for it. PPPs are intended to increase the quality, efficiency and competitiveness of an airport and/or raise additional finance or overcome budget restrictions. Governments retain responsibility for safety, security and economic oversight.</td>
</tr>
<tr>
<td>Full privatisation</td>
<td>Involves the long-term lease or sale of an entire airport to a private operator.</td>
</tr>
</tbody>
</table>

Source: Derived from LeighFisher (2010).
By 2016, over 40 per cent of European airports had at least some private shareholders (ACI Europe, 2016). Significantly, the type of private shareholder has changed over time, with sovereign wealth funds and pension funds taking over from the first generation of private owners, which were predominantly airport operating companies or transport providers (see Table 3.3 for a UK example, and more generally Graham and Morrell, 2016).

Over the past decade, overseas banks, sovereign wealth funds and pension plans have become active airport investors. The Canadian Ontario Teachers’ Pension Plan (OTPP), for example, began investing in airports in 2002 and currently owns 100 per cent of Bristol Airport in the UK plus stakes in Birmingham (UK), London City, Brussels and Copenhagen Airports.

Although some countries, including India, Brazil and South Africa, have chosen to sell off some or all of their airport assets to the private sector (see ACI, 2017 for an overview), other nations have sought to retain public ownership of them. Thus, it is important to state that the move towards privatisation is not universal. In the US, for example, municipalities and the Federal Aviation Administration (FAA) retain ownership and control of most major commercial facilities. Hartsfield-Jackson Atlanta International Airport in Georgia, the busiest passenger airport in the US, for example, is owned by the City of Atlanta and operated by the Atlanta Department of Aviation. Worldwide, as of 2013, 70.8 per cent of airports were still in public ownership, with 15.4 per cent operated as a PPP and only 13.8 per cent in full private ownership, which equates to 66.7 per cent, 17.9 per cent and 13.4 per cent of global passengers, respectively (ACI, 2015). Consequently, despite the moves towards privatisation in certain markets, public ownership remains an important aspect of the airport industry.

### Table 3.3 The changing nature of private airport investors in the UK, 1980s to 2010s

<table>
<thead>
<tr>
<th>Decade</th>
<th>Type</th>
<th>Example companies</th>
<th>Example airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980s</td>
<td>Airport operating companies</td>
<td>BAA (privatised from 1987)</td>
<td>London Heathrow</td>
</tr>
<tr>
<td>1990s</td>
<td>Transport providers</td>
<td>National Express, Stagecoach, First Group</td>
<td>East Midlands</td>
</tr>
<tr>
<td>2000s</td>
<td>Infrastructure funds/companies</td>
<td>Macquarie, Infratil, Global Infrastructure Partners, Ferrovial, Balfour Beatty</td>
<td>Exeter</td>
</tr>
<tr>
<td>2010s</td>
<td>Banks, sovereign wealth funds, overseas pension funds</td>
<td>Ontario Teachers’ Pension Plan, Future Fund Boards of Guardians</td>
<td>Bristol</td>
</tr>
</tbody>
</table>

Source: Data based on an original survey by LeighFisher (2010) with author additions.

Airport profitability

Airports and other transport infrastructure are often considered to be attractive assets in which to invest, not least because ACI (2016) reported an industry net profit margin of 16 per cent, a global return on invested capital of 6.3 per cent and global industry year-on-year growth (2014–2015) of 8.2 per cent. However, it is important to realise that these figures hide significant variation. Although some airports are profitable, many smaller facilities still operate at a loss and have relied on continued public subsidy to remain operational (see Chapter 12). In 2014, ACI estimated that 69 per cent of airports worldwide operate at net loss. In Europe, 51 per cent of airports make a loss. The majority of these loss-making airports (81 per cent of the world total) are small facilities handling under 1 million passengers per annum, and so do not have the traffic or passenger volumes to generate sufficient levels of revenue. In Europe, 77 per cent of these smaller airports make a loss (ACI Europe, 2017).
One such example of a loss-making airport in the UK is Glasgow Prestwick Airport, a facility that was bought back into public ownership in late 2013 for a token price of £1 amid concerns that the facility could close. In the 2015–2016 financial year, Prestwick handled 624,000 passengers and 11,409 tonnes of cargo but reported a loss of £9.2 million, an increase on the £8.9 million reported the previous year, with some sources suggesting the bailout could reach £40 million by 2018 (BBC News, 2017).

Although it is presumed that larger airports are more likely to be profitable, ACI figures show that even some airports that handle over 25 million passengers a year still report a loss. However, analysis by CAPA (2015) suggests that geographic location as well as passenger throughput influences airport profitability, with airports in some countries in the Far East outperforming the financial performance of comparatively sized facilities in neighbouring countries. Thus, it would appear that both size and the regulatory environment in which an airport operates are key to profitability.

Losses, combined with increased pressures on public spending, have led to the desirability (and even the legality) of state interventions and subsidies to be questioned. In 2004, for example, the European Commission (EC) stated its intention to introduce tighter regulations for state aid for airports and airlines in an attempt to prevent overcapacity and market distortion. The intervention was controversial, with many criticising the policy and claiming it would damage the competitiveness of European aviation vis-à-vis the still heavily state-subsidised markets of the Middle East and other regions. New regulations in this area, still very contentious, were agreed by the EC in 2014 (EC, 2014).

One of the main issues would appear to be the ability of airports to recoup the cost of infrastructure provision. It is rare for airports to cover the cost of their operation from aeronautical charges alone, and so airport operators and owners have been forced to develop alternative revenue streams from non-aeronautical sources (see Chapter 12 for a discussion of the complementarities between the aeronautical and non-aeronautical areas). Of the total global industry revenue of US$142.5 billion, 55.5 per cent comes from aeronautical charges, 40.4 per cent from non-aeronautical sources and 4.1 per cent from non-operating revenues. The revenues from non-aeronautical activities (which include car parking, property development, airport retailing and consultancy) have become increasingly important in recent years, as the airport ownership model has become increasingly diverse and complicated. In 2014, non-aeronautical revenue accounted for 40.4 per cent of total airport revenues, with retail, car parking and property accounting for 28 per cent, 22 per cent and 15 per cent of this total, respectively (ACI, 2016). Although some critics and commentators claim airports have become giant shopping malls, retail is a vital revenue source for airports, and many airports would not be profitable or even viable if retail revenues were removed. In the year to 31 December 2016, Heathrow Airport Holdings reported that ‘retail performed strongly’ thanks to a rise in retail revenue of 7.6 per cent to £612 million (£569 million in 2015); £138 million came from tax and duty-free, £115 million from specialised airside shops and a further £114 million from car parking (Heathrow Airport Holdings Limited, 2016).

The progressive commercialisation of airports, both in Europe and around the world, has had far-reaching consequences for airlines, airports and consumers. Airports now increasingly have to compete for traffic in a competitive marketplace and appeal to both airlines and passengers. Competitive forces compel airports to offer a range of inducements (such as free or reduced price landing charges, marketing assistance or other forms of incentive) to get airlines to fly from their facility (see Chapter 14), while pressure from shareholders obliges airport operators to streamline their services and provide a high-value but cost-efficient service that not only enhances service quality, but also offers an attractive opportunity to potential investors while...
being resilient to changes in consumer demand, currency fluctuations and the dynamics of airline route development and withdrawal. Such market pressures are not discriminating, and exert an influence irrespective of whether an airport is publicly or privately owned.

**Conclusion**

The global airport industry is highly dynamic, diverse and spatially uneven, and comprises complex internationally focused operations that exist within an increasingly competitive and market-oriented environment. The industry faces a range of challenges, including long-term commercial viability, growing environmental pressures, and ever-evolving and dynamic security concerns. In saying this, each airport is unique in terms of its geographical location, type of provision, traffic mix, infrastructure, size, ownership structure, and passenger and cargo volumes. The last century evolved from publicly owned transport interchanges into complex commercially oriented enterprises, often with considerable private sector financing and management involvement. However, the move towards greater airport privatisation is by no means universal, with many airports remaining under public ownership and control.

**References**


