Air transport drives economic and social progress

The economic and social benefits of air transport 2008

ATAG AIR TRANSPORT ACTION GROUP

Contents

What is the air transport industry?

The air transport industry includes those activities that are directly dependent on transporting people and goods by air.

The two main sectors within the air transport industry are:

- **the civil aviation sector** – airports, airlines, air navigation service providers and those activities directly serving passengers or providing airfreight services; and
- **the civil aerospace sector,** which comprises the manufacture and maintenance of aircraft systems, frames and engines as well as aviation-specific ground equipment.

Foreword

Air transport is an innovative industry that drives economic and social progress. It connects people, countries and cultures; provides access to global markets and generates trade and tourism. It also forges links between developed and developing nations.

Like most human activities, air transport has an impact on the environment, mainly through noise and emissions that affect local air quality and the climate. The industry fully recognises its responsibility in this regard and is determined to accelerate action aimed at mitigating its environmental impact – while preserving and enhancing its economic and social benefits.

This brochure provides new and updated data regarding these benefits, including the creation of jobs; contribution to gross domestic product (GDP) and tourism development; and the provision of humanitarian aid and medical assistance.

It contains global figures as well as regional figures covering Africa, Asia-Pacific, Europe, the Middle East, Latin America & the Caribbean and North America. The brochure summarises for each of these regions the main aviation-related challenges and opportunities.

Based on a study undertaken for ATAG by Oxford Economics, this document is an essential source of information that will enable governments and those interested in the industry to be well informed about the economic and social impacts of aviation.

The Air Transport Action Group (ATAG) is an independent coalition whose mission is *to promote aviation's sustainable growth for the benefit of our global society*. To this end, ATAG advocates for coordinated cross-industry action on strategic issues such as environment and infrastructure, promotes a joint vision, and carries out appropriate studies while proactively communicating aviation's role and impact.

ATAG has been assigned a worldwide mandate by its 70 members, including as funding members ACI (Airports Council International), Airbus, Boeing, Bombardier, CANSO (Civil Air Navigation Services Organisation), CFM International, Embraer, GE Aviation, IATA (International Air Transport Association), Pratt & Whitney and Rolls-Royce.

ATAG AIR TRANSPORT ACTION GROUP

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IATA

The importance of the industry – facts & figures

Air transport is a major contributor to global economic prosperity

- Aviation provides the only rapid worldwide transportation network, which makes it essential for global business and tourism. It plays a vital role in facilitating economic growth, particularly in developing countries.
- Aviation transports over 2.2 billion passengers annually.
- Air transport facilitates world trade, helping countries participate in the global economy by increasing access to international markets and allowing globalisation of production. The total value of goods transported by air represents 35% of all international trade.
- Air transport is indispensable for tourism, which is a major engine of economic growth, particularly in developing economies. Over 40% of international tourists now travel by air.
- Air transport improves productivity, by encouraging investment and innovation; improving business operations and efficiency; and allowing companies to attract high quality employees.
- The air transport industry generates a total of 32 million jobs globally, through direct, indirect, induced and catalytic impacts.
- Aviation's global economic impact (direct, indirect, induced and catalytic) is estimated at USD 3,560 billion, equivalent to 7.5% of world Gross Domestic Product (GDP).

Air transport is a major global employer

The air transport industry generates a total of **32 million jobs globally:**

5.5 million direct jobs

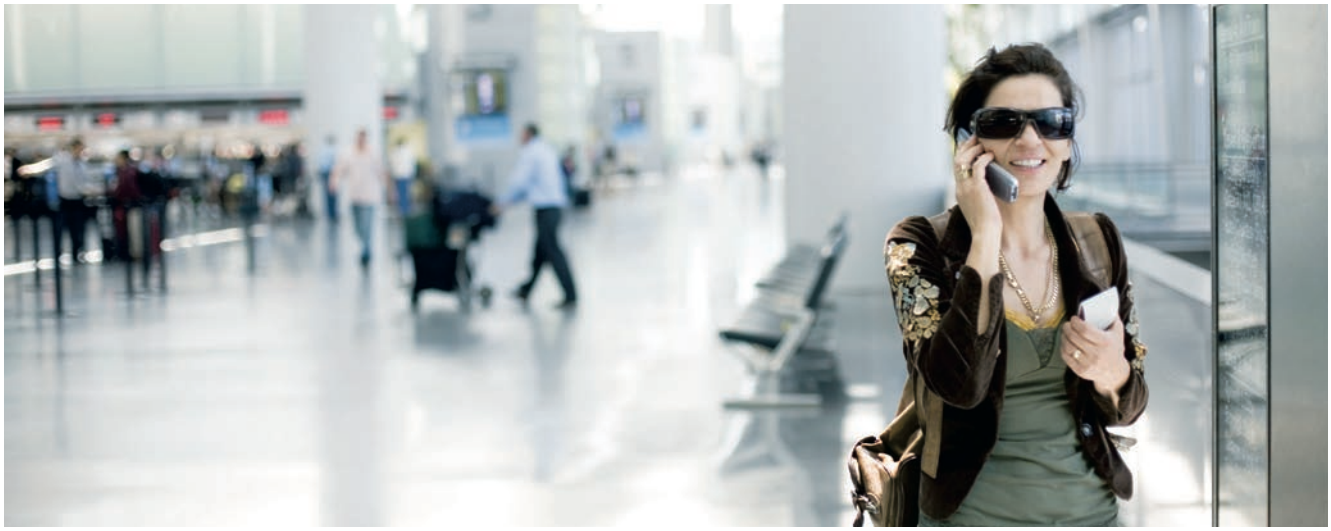
- The airline and airport industry directly employ 4.7 million people globally.
- The civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.) employs 780,000 people.

6.3 million indirect jobs through purchases of goods and services from companies in its supply chain.

2.9 million induced jobs through spending by industry employees.

17.1 million jobs through air transport's catalytic impact on tourism.

- Some 2,000 airlines around the world operate a total fleet of 23,000 aircraft. They serve some 3,750 airports through a route network of several million kilometres managed by around 160 air navigation service providers.



> Air transport is a highly efficient user of resources and infrastructure. Its occupancy rates exceed by far those of road and rail transportation.

Air transport pays its way and invests substantially in vital economic infrastructure

- Unlike other transport modes, the air transport industry pays for its own infrastructure costs (i.e. runways, airport terminals, air traffic control), rather than these being financed through taxation and public investment or subsidy (as is typically the case for road and railways).
- Companies in the air transport industry also make substantial tax payments to national treasuries.

Air transport provides significant social benefits

- Air transport contributes to sustainable development. By facilitating tourism and trade, it generates economic growth, provides jobs, improves living standards, alleviates poverty, increases revenues from taxes, and fosters the conservation of protected areas.
- Air transport is often the only means of transportation to/from remote areas, and promotes social inclusion by connecting those living in such communities with the rest of their country.
- The air transport network facilitates the delivery of emergency and humanitarian aid relief anywhere on earth, and ensures the swift delivery of medical supplies and organs for transplantation.
- Air transport improves quality of life by broadening people's leisure and cultural experiences. It provides a wide choice of holiday destinations around the world and an affordable means to visit distant friends and relatives.

Air transport is responsibly reducing its environmental impact

- Air transport's contribution to climate change represents 2% of man-made CO_2 emissions and this could reach 3% by 2050, according to updated figures from the Intergovernmental Panel on Climate Change (IPCC).
- This evolution is based on a growth in aviation CO_2 emissions of 2-3% per year, with an annual traffic growth of 5%. The air transport industry is now working towards carbon-neutral growth – no increase in carbon emissions in spite of traffic growth – as a first step towards a carbon-free future.
- Aircraft entering today's fleet are 70% more fuel-efficient than 40 years ago, consuming 3.5 litres per passenger per 100 km. The Airbus A380 and the Boeing 787 – consuming less than 3 litres/100pkm – compare favourably with small family cars.
- 25 million tonnes of CO_2 have been saved in 2006-2007 through the shortening of hundreds of air routes, other air traffic management (ATM) improvements and aircraft operational savings.
- A further 25% fuel efficiency gain is targeted for 2020.
- Aircraft entering today's fleet are 20 decibels (dB) quieter than comparable aircraft 40 years ago. This represents a reduction of 75% in noise.
- Research programmes aim to achieve a further 50% reduction in noise and CO_2 emissions and an 80% reduction in oxides of nitrogen (NO_x) by 2020.

The economic benefits of air transport

Air transport generates employment and wealth

The air transport industry[1] is a vital part of the increasingly globalised world economy, facilitating the growth of trade, tourism and international investment, and connecting people across continents.

The air transport industry directly generates 5.5 million jobs globally and contributes USD 408 billion to global GDP.

Direct impacts

The air transport industry itself is a major direct generator of employment and economic activity, in airline and airport operations, aircraft maintenance, air traffic control and management and activities directly serving air passengers, such as check-in, baggage-handling, on-site retail and catering facilities. Not all of these activities necessarily happen at an airport, with some taking place at head office. Direct impacts also include the activities of aerospace manufacturers selling aircraft and components to airlines and related businesses.

The air transport industry carries over 2.2 billion passengers and 44 million tonnes of freight.[2] Providing these services generated almost **5.5 million direct jobs** globally in 2006 within the air transport industry and contributed USD 408 billion to global GDP.[3] This is as large a world industry as the pharmaceuticals sector.

Of the 5.5 million jobs directly generated by the air transport industry:

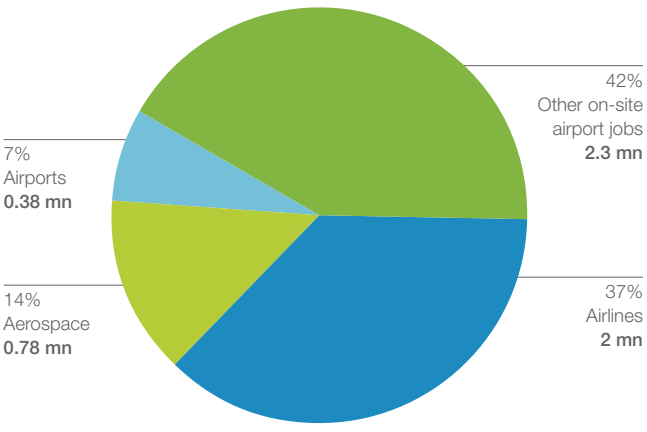
- 780,000 people work in the civil aerospace sector, involved in the manufacture of aircraft systems, frames and engines, etc.
- 2.0 million people work for airlines or handling agents, including flight crew, check-in staff, maintenance crew, etc.
- 380,000 people are employed by airport operators, in airport management, maintenance, security, etc.
- 2.3 million have other jobs on-site at airports – for example, in retail outlets, restaurants, hotels, etc.

The economic contribution of Etihad Airways[4]

The rapid expansion of Etihad Airways – the Abu Dhabi-based airline, which has grown to serve 45 destinations in just four years – is supporting and driving tourism, business and investment, and helping to create thousands of jobs in the United Arab Emirates' largest emirate. Overall, the airline contributed 6.6% of Abu Dhabi's non-oil GDP in 2007, and helped generate or support almost 50,000 jobs (5% of non-oil employment) throughout the emirate.

Of this total, the airline directly employs just over 4,100 people within the emirate. It supports a further 7,500 indirect jobs through commercial interactions with a wide range of Abu Dhabi suppliers, including fuel purchases, maintenance and repairs, airport rental and landing fees, marketing and advertising, IT and communications. Another 7,650 induced jobs are supported by money spent by people working for Etihad Airways and its suppliers.

Direct employment by sector in the air transport industry (2006)



Total = 5.5 million (mn)

Source: Oxford Economics

1. See the description of the air transport industry on the contents page
2. International Civil Aviation Organization (ICAO)
3. Oxford Economics calculations for ATAG
4. "Etihad helping to drive economic growth", Etihad Airways press release, February 2008

> The air transport industry generates almost 15 million jobs globally including indirect and induced impacts.

Global economic impact – employment and GDP 2006

The air transport industry also has important 'multiplier' impacts, which mean that its overall contribution to global employment and GDP is much larger than its direct impact.

Indirect impacts

These include employment and activities of suppliers to the air transport industry – for example, aviation fuel suppliers; construction companies that build airport facilities; suppliers of sub-components used in aircraft; manufacturers of goods sold in airport retail outlets; and a wide variety of activities in the business services sector (call centres, IT, accountancy, etc.).

6.3 million indirect jobs globally are supported through the purchase of goods and services by companies in the air transport industry. These indirect jobs contributed USD 465 billion to global GDP in 2006.

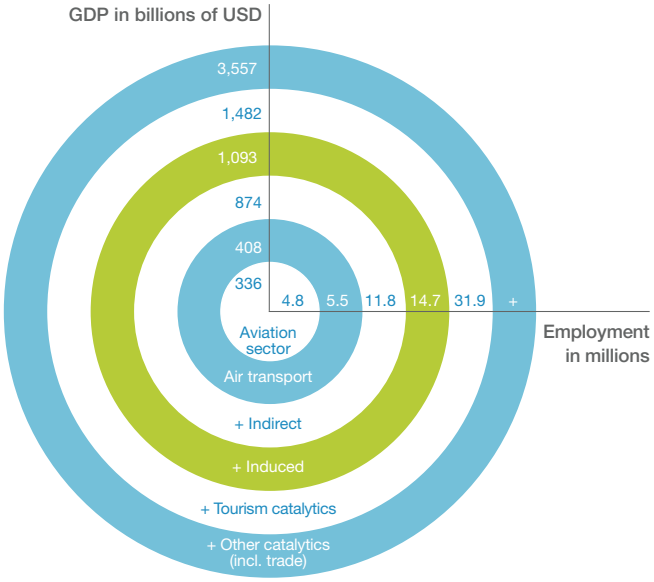
The air transport industry contributes USD 1.1 trillion to world GDP through its direct, indirect and induced impacts – equivalent to 2.3 % of world GDP.

Induced impacts

The spending of those directly or indirectly employed in the air transport sector supports jobs in industries such as retail outlets, companies producing consumer goods and a range of service industries (e.g. banks, restaurants, etc.).

2.9 million induced jobs globally are supported through employees in the air transport industry (whether direct or indirect) using their income to purchase goods and services for their own consumption. The induced contribution to global GDP is estimated at USD 220 billion in 2006.

Global economic impact – employment and GDP, 2006



Source: Oxford Economics

The economic benefits of air transport

Air transport generates wider catalytic (spin-off) benefits

The air transport industry's most important economic contribution is through its impact on the performance of other industries and as a facilitator of their growth. These "catalytic" or "spin-off" benefits of air transport affect industries across the whole spectrum of economic activity.

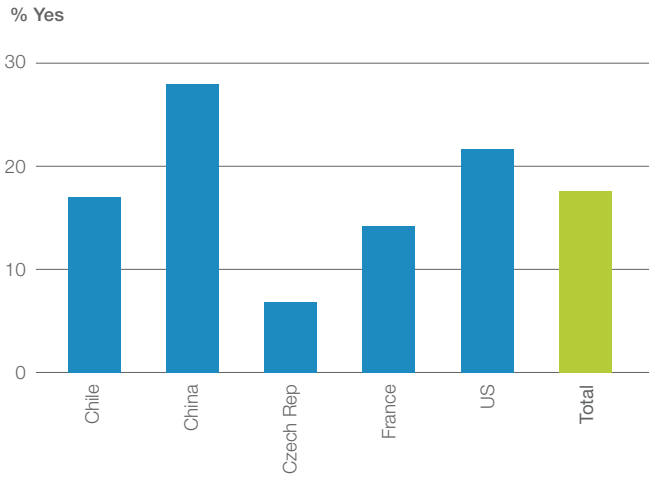
Air transport improves all aspects of firms' operations, including sales, production, customer service and innovation.

- **Air transport facilitates world trade,** helping countries participate in the global market by increasing access to international markets and allowing globalisation of production. See page 8.
- **Air transport is indispensable for tourism,** which is a major engine of economic growth globally, particularly in developing economies. See page 9.
- **Air transport improves productivity,** by encouraging investment and innovation; improving business operations and efficiency; and allowing companies to attract high quality employees.

Air transport's influence on investment and innovation

Good air transport links influence where companies choose to invest. According to a survey,[5] 52% of companies consider international transport links to be an essential factor when locating businesses in Europe. Similarly, other surveys[6] have found that the investment decisions of firms in a wide range of countries have been significantly affected by the absence of good air transport links.

Has the absence of good air transport links ever affected your organisation's investment?



Source: Oxford Economics survey, 2005

Moreover, air services are important in encouraging innovation. For example, they increase the size of the market in which firms operate, which means that the cost of research and development can be spread across a larger sales potential. They also enable networking and collaboration between organisations internationally, which facilitates the transfer of knowledge. Surveys have found that over a quarter of companies believe that innovation and investment in research and development would be quite badly affected if air transport services were constrained.

The economic catalytic impacts generated by air transport are greater than the combined direct/indirect/induced impacts.

5. European cities monitor 2007, Cushman & Wakefield
6. "Measuring airline network benefits". Oxford Economics, 2005; "The economic contribution of the aviation industry in the UK", Oxford Economics, 2006

> Air services allow firms to shorten delivery times, minimise inventory costs and limit interruptions to production.

Air transport's impact on business operations and efficiency

- **Opening up new markets:** Air services enable companies to expand in rapidly growing distant markets. They also expose companies to stiffer competition, encouraging them to become more efficient.
- **Servicing and meeting customers:** Air services allow more effective communication between companies and their clients, helping them make new sales and better meet the needs of existing customers.
- **Improving production efficiency:** Business is becoming increasingly global. Air services allow managers of multinational companies to visit overseas sites and subsidiaries in other countries; widen the range of suppliers and partners with whom firms can work; and facilitate the spread of best practice in business operations.
- **Providing fast and reliable delivery of high-value products:** The global supply chain is becoming increasingly dependent on the rapid and reliable movement of goods internationally, which only air transport can provide. Air services allow firms to shorten delivery times, minimise inventory costs and limit interruptions to production. In addition, customers increasingly demand fast delivery and efficient handling of product returns and replacement, particularly as Internet shopping and e-commerce expand.

Air transport's impact on the labour market

Air transport also enhances the competitiveness of business by making it easier for companies to attract high quality employees from around the globe. This is particularly important for senior staff and professionals for whom access to good international links influences their decision on where to live and work.

> The catalytic impact on investment and productivity of the expansion of air services over the past decade has contributed an additional 4% to European GDP.

Value of air transport's wider catalytic impacts

Research by Oxford Economics[8] has estimated that the catalytic impact on investment and productivity of the expansion of air services over the past decade has contributed an additional 4% to European GDP. These spin-off effects are additional to those arising from trade and tourism.

Applying the same approach, it is estimated that catalytic impacts on investment and productivity added about USD 1,800 billion to global GDP in 2006. Including effects through trade and tourism, the overall catalytic effect of air transport on GDP is estimated to be about USD 2,460 billion.

Express carrier industry

Express operators provide guaranteed, fast, reliable, door-to-door movement of shipments, which are tracked and controlled throughout the journey. The express industry is able to offer delivery to and from countries representing 90% of the world's GDP in 24-48 hours.

Express services enable companies to guarantee rapid delivery to clients and get sub-components or spare parts from suppliers at short notice. This is vital for implementing best international business practice, including just-in-time inventory management and build-to-order production, which improve efficiency and reduce costs.

Express services are particularly important to small companies who do not have their own transport operations. They also enable businesses dependent on fast delivery to customers to locate in regions that are not necessarily close to their market. A survey[7] in Italy found that, without guaranteed international next-day delivery, about 7% of Italian firms would possibly have to relocate some of their operations to another country.

7. "The Impact of Express Carriers for Italy's Economy and Competitiveness", Oxford Economics, 2007
8. "The Economic Catalytic Effects of Air Transport in Europe", Oxford Economic Forecasting, 2005

The economic benefits of air transport

Air transport contributes to world trade

Air transport is an important facilitator of international trade, thereby promoting economic growth and development. Forecasts suggest that the global economy will become even more dependent on trade over the next decade. World trade is expected to nearly double, rising at more than twice the rate of global GDP growth, with China, India and emerging markets leading the way.

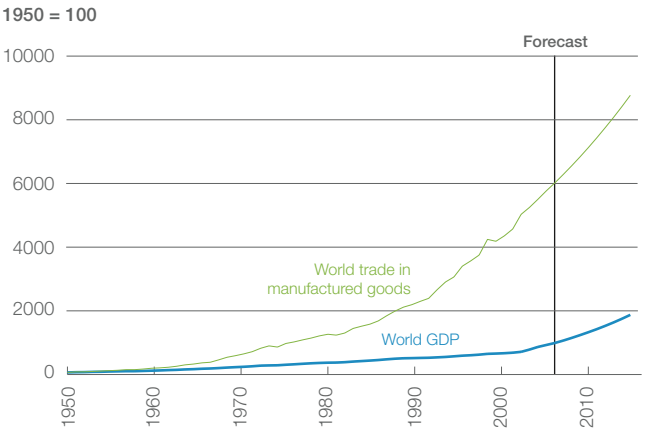
Airfreight's role in international trade

40% of the value of inter-regional trade in manufactured goods is transported by air.[9] Larger amounts of traded goods within regions are transported by other modes, including road and rail. According to IATA estimates, the total value of goods transported by air in 2006 is estimated to have been over USD 3.5 trillion, representing 35% of all international trade.

The air transport industry is vital to international trade in time-sensitive goods. Rapid delivery is particularly important to businesses whose customers are running streamlined production processes or who need urgent delivery of spare parts for machinery and equipment, as well as for exporters of perishable products such as food and flowers (many of whom are in developing countries).

About USD 3.5 trillion of goods were transported internationally by air in 2006.

World trade and GDP



Source: World Trade Organization / Oxford Economics

Passenger air services' role in international trade

Passenger air services are also vital for international trade: around two-thirds of companies consider air services to be vital or very important for sales and marketing, enabling them to meet potential customers. And air services are important for the growing trade in financial and business services globally, estimated to be worth USD 1,380 billion in 2006.[10]

While technologies such as videoconferencing can be very helpful, many companies still consider flying for face-to-face meetings to be essential for winning new business and developing client relationships.

Airbus A380 – Photo : e*m company / P. Masclet

9. Oxford Economics calculations for ATAG. Note that intra-Asia Pacific trade is included in this definition due to the geographically disparate nature of the countries in the region. A technical note is available from Oxford Economics setting out the basis of this calculation.
10. World Trade Organization

The economic benefits of air transport

Air transport stimulates tourism

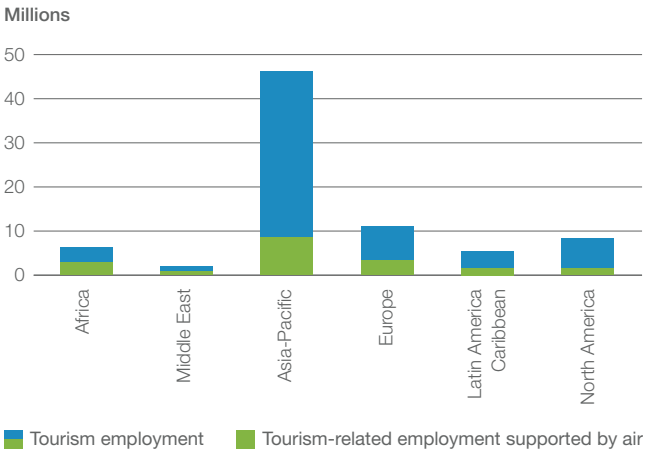
Tourism makes a major contribution to the global economy. It directly contributed USD 1,830 billion to world GDP in 2007 and generated 79 million direct jobs globally – 2.8% of total employment.[11] By 2018, the World Travel & Tourism Council (WTTC) expects the tourism industry to employ directly more than 98 million people globally.

The tourism industry worldwide directly employs 79 million people and accounts for 3.4% of world GDP.

The air transport industry plays a major role in supporting tourism. Over 40% of international tourists now travel by air, up from 35% in 1990. At the same time, the WTTC estimates that foreign visitors account for just under 25% of overall tourism spending around the world. This includes spending by business travellers, as well as those on leisure trips or visiting friends and relatives.

Tourism is particularly important in many developing countries, where it is a key part of economic development strategies. In Africa, for example, the jobs of an estimated 1.5 million people directly employed in tourism are supported by overseas visitors arriving by air, representing 25% of all tourism jobs in Africa.

Tourism employment, 2007



Source: WTTC / Oxford Economics

Tourism's contribution to economic development in Botswana[12]

Botswana is a good example of tourism's potential to contribute to economic development. Foreign visitors spent almost USD 1 billion dollars in Botswana in 2007, almost three times more than five years ago. The tourism industry now directly accounts for around 4% of employment and GDP and around 10% when considering impacts through its supply chain and investment by companies and governments in tourism infrastructure.

The Botswana Government has earmarked tourism as a development priority in successive national plans. Since its 1990 Tourism Policy Paper, it has undertaken a number of supportive policy initiatives and recently established a Botswana Tourism Board to market and promote the country's attractions and to encourage and facilitate travel to those destinations.

The contribution of air transport to tourism employment and GDP

Direct: 7.7 million direct jobs in tourism globally are estimated to be supported by the spending of foreign visitors arriving by air. This includes jobs in industries such as hotels, restaurants, visitor attractions, local transport, car rental, etc., but it does not include air transport industry jobs.

Indirect: A further 6.0 million indirect jobs in industries supplying the tourism industry are supported by visitors arriving by air.

Air transport supports 17.1 million jobs within tourism, contributing around USD 90 billion a year to world GDP.

Induced: These direct and indirect tourism jobs supported by air transport generate a further 3.4 million jobs in other parts of the economy, through employees spending their earnings on other goods and services.

11. "The 2008 travel and tourism economic research", World Travel & Tourism Council (WTTC), 2008
12. "Botswana: The impact of travel & tourism on jobs and the economy", WTTC, 2007

The economic benefits of air transport

Air transport is a significant tax payer

Unlike other transport modes, the air transport industry directly pays for its own infrastructure costs (i.e. runways, airport terminals, air traffic control), rather than these being financed through taxation and public investment or subsidies (as is typically the case for road and railways). In addition, companies in the air transport industry make significant tax payments to national treasuries.

Aviation pays for all of its infrastructure costs and more, through user charges and taxes – making a net contribution to public funds in most developed countries.

Levying user charges

The air transport industry covers its infrastructure costs (airport operations and air traffic management) through the payment of user charges by airlines to airports and air navigation services providers. These charges, which totalled USD 42 billion in 2006,[13] are generally included – and sometimes explicitly identified – in the price of the airline ticket.

Levying taxation

The air transport industry pays substantial taxes to local, provincial and national authorities around the world via aircraft or passenger duties, domestic value-added tax (VAT), customs or immigration levies, etc. In the United States, for example, taxes and fees levied on aviation were about USD 16 billion in 2006, corresponding to 26% of airfares.[14]

Air transport is the only transport mode that fully pays for its own infrastructure

The user charges collected by airport operators pay both for the day-to-day services they provide to airlines and their customers, and also for the massive investment in runways, terminals and other infrastructure required for a modern, efficient air transport service.

In contrast, while road users pay fuel duties and vehicle excise taxes, most governments fund their countries' investment in new highways and in road maintenance. User charges are typically not applied as such except in the form of a toll charge on some highways.

Moreover, as well as receiving public support for infrastructure investment, most States heavily subsidise their rail sectors. In Europe, for example, governmental aid to the rail sector is USD 70 billion per year.[15]

Air transport makes a net contribution to public funds in the developed world

According to a recent study,[16] air transport frequently makes a net contribution to public funds. This study compares road, rail and aviation in terms of infrastructure costs versus taxes and charges per 1,000 revenue-kilometre (000 rkm):

- Germany: Aviation infrastructure costs represent USD 112 per 000 rkm, while user charges and taxes generate USD 125, thus resulting in a net surplus of USD 13 per 000 rkm. Conversely, revenues from German rail users represent USD 41 per 000 rkm, while infrastructure costs amount to USD 107, resulting in a public subsidy of USD 66 per 000 rkm.
- France: The situation is comparable with a net contribution of aviation to public funds of around USD 83 per 000 rkm and government subsidies for rail of USD 97.

The economic benefit of investment in air transport infrastructure

Congestion costs in the UK aviation industry have been rising over the past decade as passenger numbers have grown more rapidly than the capacity of the air transport system to handle them. A recent study[17] estimates that congestion costs (to both airlines and passengers) nearly tripled from £600 million (in today's prices) a decade ago to more £1,700 million today. If these trends continue, congestion costs would exceed £5 billion a year (in today's prices) by 2015, and approach £20 billion a year by 2030.

The same study uses a detailed econometric model of the UK economy to assess the full impact of the development of new runways on the UK economy, allowing for direct, indirect, induced and catalytic effects. It estimates that if a third runway at Heathrow were to increase passenger movements by 31 million by 2030, this would raise UK GDP by over £7 billion a year (at today's prices) in the long term. The economic benefits of a third runway remain substantial even after allowance is made for the climate change costs of additional carbon emissions.

13. International Air Transport Association (IATA)
14. Estimation by the Air Transport Association of America (ATA) for average passenger ticket tax, passenger flight segment tax, departure/arrival/frequent flyer tax, jet fuel tax and federal security surcharge.
15. European Commission
16. "Comparison of taxation and subsidy for transport modes around the world", Mott MacDonald, 2005
17. "The economic contribution of the aviation industry in the UK, Oxford Economics", 2006

The social benefits of air transport

The impact of the air transport industry is not just a result of the economic activity it generates or facilitates. Air transport also contributes to people's quality of life in a number of other ways that are not captured in standard economic indicators: for example, by contributing to sustainable development, supporting remote communities, providing humanitarian aid and widening consumer choice.

Air transport expands the range of consumer choices and opportunities to visit other countries and to experience new cultures.

Air transport contributes to sustainable development

Air transport makes a major contribution to sustainable development by supporting and promoting international tourism. Tourism helps reduce poverty by generating economic growth, providing employment opportunities, increasing tax collection and fostering the development and conservation of protected areas and the environment. This is particularly important in Africa, which is home to nearly 15% of the total protected areas worldwide, and where many countries are seeking to develop nature-based tourism for international visitors.

Air transport provides access to remote areas

Air transport provides access to remote areas where other transport modes are limited. Many essential services, such as food deliveries, hospitals, education and post, would not be available for people in such locations without air services. And residents would be isolated from family, friends and business contacts.

Air transport delivers humanitarian aid

Air services play an essential role in humanitarian assistance to countries facing natural disasters, famine and war – through cargo deliveries, refugee transfers or the evacuation of people trapped by natural disasters. They are particularly important in situations where access is a problem – for example, 'air drops' are among the first response of aid agencies to stem a humanitarian crisis.

Air transport also plays a vital role in the rapid delivery of medical supplies and organs for transplantation worldwide.

Air transport contributes to consumer welfare

Travel and tourism provide substantial consumer welfare and social benefits:

- **Making foreign travel and a wider range of holidays available** – international air travel from China, India and other emerging markets is increasing particularly rapidly as their residents' living standards improve.
- **Increasing understanding of different cultures and nationalities,** which facilitates closer international integration.
- **Supporting the development of multicultural societies** – allowing immigrants to maintain contact with their friends and relatives at home.
- **Improving living standards by widening choice** – seasonal fruit and vegetables, for example, are now available year round at reasonable prices. Meeting the needs of overseas visitors has also helped widen the range of leisure and cultural activities available in many countries.

Conclusions

The air transport industry is an innovative and environmentally responsible industry that drives economic and social progress. The growing availability of affordable air travel has considerably widened aviation's role in our global society. *Flying is no longer a luxury!*

The air transport industry is responding to the growing demand for mobility by investing heavily in

- technological innovation;
- safety and security improvements;
- fleet renewal with quieter and more fuel efficient aircraft;
- airport, air route and air traffic management enhancements;
- business simplification and improved customer services.

The industry's efforts must be matched by government action to:

- further liberalise aviation markets without micro-managing air transport nor over-taxing it;
- support infrastructure improvements by approving essential increases in airport capacity as well as new and shorter routes;
- provide a global framework for a sustainable mass transportation system, which is not based on national rules and without distorting competition between industries and transportation means.

Industry and government leaders must share a common view, addressing climate change with global solutions, tearing down the outdated bilateral system, ensuring cost efficient infrastructure, harmonising security and making travel convenient again.

We are a great industry capable of innovation and change.

I am confident in our future: safe, secure, efficient and environmentally-responsible. For the benefit of our global society.

Giovanni Bisignani,
Director General & CEO, IATA

Boeing 787 Dreamliner

Economic impact per region

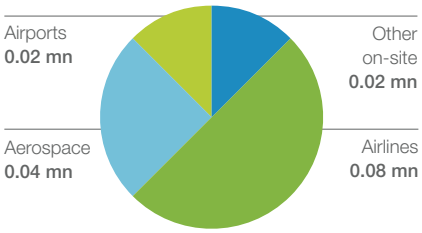
Africa (2006)

The air transport industry generates around 430,000 jobs in Africa and contributes more than USD 9.2 billion to African GDP (direct, indirect and induced impacts).

If catalytic impacts are included, the number of jobs increases to 3.3 million and GDP to USD 67 billion.

Worldwide, Africa represents 10% of total jobs and 2% of GDP generated by the air transport industry, including catalytic impacts.

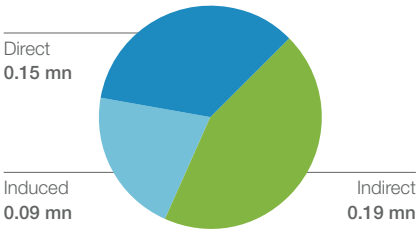
Direct employment in the air transport industry



Direct employment = 0.15 million

Source: Oxford Economics calculations

Total employment in the air transport industry



Total employment = 0.43 million

Source: Oxford Economics calculations

Direct and total employment and GDP (2006)

	Employment		GDP USD million	
	Direct	Total (incl. direct, indirect & induced)	Direct	Total (incl. direct, indirect & induced)
Airports	21,264	55,818	916	2,404
Other on-site airport jobs	18,331	48,120	61	160
Airlines	76,974	202,057	1,923	5,048
Aerospace	38,322	124,545	500	1,626
Total	**154,891**	**430,540**	**3,401**	**9,239**

Source: Oxford Economics calculations

Direct, indirect and induced employment, GDP and gross output (2006)

Impact	Employment	GDP USD million	Output USD million
Direct	154,891	3,401	13,380
Indirect	189,541	3,991	15,243
Induced	86,108	1,848	7,156
Total	**430,540**	**9,239**	**35,779**

Source: Oxford Economics calculations

Africa: all countries on the continent of Africa, including Egypt.

Africa (2006)

The number of jobs created directly by the air transport industry is estimated to have reached 150,000 in 2006:

- Almost 77,000 people (or 49% of the total) work for airlines or handling agents (e.g. as flight crew, check-in staff, maintenance crew, etc.).
- Over 21,000 people (or 14%) work directly for airport operators (e.g. in airport management, maintenance, security, etc.), while more than 18,000 (12%) work on-site at airports in retail outlets, restaurants, hotels, etc.
- Over 38,000 people (25%) are employed in the civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.).

Regional air traffic figures and forecast

	Passengers (000s)			Freight tonnes (000s)		
Region	Domestic	International	International passenger growth forecast 2007-2011	Domestic	International	International passenger growth forecast 2007-2011
Africa	18,300	26,905	5.6%	122	708	4.6%
Asia-Pacific	394,736	163,718	5.9%	4,799	8,722	5.4%
Europe	189,840	476,172	5.0%	628	7,589	4.3%
Latin America/Caribbean	84,667	30,639	4.4%	939	1,058	4.2%
Middle East	23,929	54,396	6.8%	91	2,392	5.0%
North America	673,303	102,216	4.2%	10,445	6,307	3.9%
World	**1,384,775**	**854,046**	**5.1%**	**17,024**	**26,776**	**4.8%**

Source: ICAO (2006 data), IATA Passenger & Freight Forecast 2007-2011 (Forecast)

Africa – challenges and opportunities

Aviation accident rates remain higher in Africa than for the rest of the world.

- Industry and regulators are working very hard to consolidate a much needed safety culture throughout the region by establishing a data-driven approach to manage safe operations and using flight data analysis (FDA) to proactively prevent accidents.

With the planned introduction of reduced vertical separation minima (RVSM) from September 2008, it will be essential to ensure that all States implement their ICAO-approved national safety plans.

Providing adequate infrastructure for air traffic services is also a challenge in Africa, which has a heavily fragmented air traffic management system. Through a strongly coordinated regional approach, African air traffic management has the potential to become state-of-the-art.

- The rapid introduction of satellite-based services is imperative.

The development of ground-air communication infrastructure is a major priority, especially for Angola and the Democratic Republic of Congo.

- Any shortfalls in the Angolan and Congolese airspace are likely to have wider impacts on other flight operations in Africa, since many flight paths cross through this airspace.

Economic impact per region

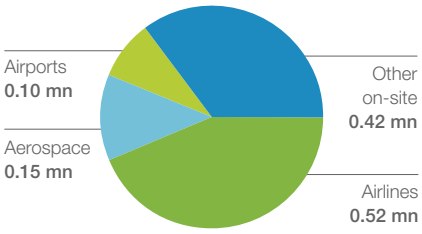
Asia-Pacific (2006)

The air transport industry generates around 3.2 million jobs in the Asia-Pacific region and contributes more than USD 154 billion to Asia-Pacific GDP (direct, indirect and induced impacts).

If catalytic impacts are included, the number of jobs increases to 10.5 million and GDP to over USD 807 billion.

Worldwide, the Asia-Pacific region represents 23% of both the total jobs and the GDP generated by the air transport industry, including catalytic impacts.

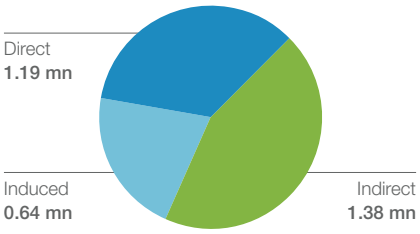
Direct employment in the air transport industry



Direct employment = 1.19 million

Source: Oxford Economics calculations

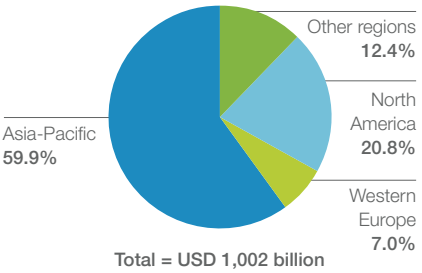
Total employment in the air transport industry



Total employment = 3.21 million

Source: Oxford Economics calculations

Merchandise exports by air



Total = USD 1,002 billion

Source: Oxford Economics calculations

Direct and total employment and GDP (2006)

	Employment		GDP USD million	
	Direct	Total (incl. direct, indirect & induced)	Direct	Total (incl. direct, indirect & induced)
Airports	102,000	267,750	9,162	24,049
Other on-site airport jobs	419,923	1,102,297	6,105	16,027
Airlines	515,660	1,353,608	31,753	83,353
Aerospace	151,049	490,910	9,452	30,718
Total	**1,188,632**	**3,214,565**	**56,472**	**154,147**

Source: Oxford Economics calculations

Direct, indirect and induced employment, GDP and gross output (2006)

Impact	Employment	GDP USD million	Output USD million
Direct	1,188,632	56,472	159,820
Indirect	1,383,020	66,845	187,382
Induced	642,913	30,829	86,801
Total	**3,214,565**	**154,147**	**434,003**

Source: Oxford Economics calculations

Asia-Pacific: all countries to the East of Pakistan (including Pakistan) to Australia/New Zealand, etc.
Central Asian countries: Afghanistan, Turkmenistan, Uzbekistan and Kazakhstan are also included.

Asia-Pacific (2006)

The number of jobs created directly by the air transport industry is estimated at 1.19 million in 2006:

- Some 515,000 people (43% of the total) work for airlines or handling agents (e.g. as flight crew, check-in staff, maintenance crew, etc.).
- 102,000 people (9%) work directly for airport operators (e.g. in airport management, maintenance, security, etc.), while 420,000 (35%) work on-site at airports in retail outlets, restaurants,
- 151,000 people (13%) are employed in the civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.).

Regional air traffic figures and forecast

	Passengers (000s)			Freight tonnes (000s)		
Region	Domestic	International	International passenger growth forecast 2007-2011	Domestic	International	International passenger growth forecast 2007-2011
Africa	18,300	26,905	5.6%	122	708	4.6%
Asia-Pacific	394,736	163,718	5.9%	4,799	8,722	5.4%
Europe	189,840	476,172	5.0%	628	7,589	4.3%
Latin America/Caribbean	84,667	30,639	4.4%	939	1,058	4.2%
Middle East	23,929	54,396	6.8%	91	2,392	5.0%
North America	673,303	102,216	4.2%	10,445	6,307	3.9%
World	**1,384,775**	**854,046**	**5.1%**	**17,024**	**26,776**	**4.8%**

Source: ICAO (2006 data), IATA Passenger & Freight Forecast 2007-2011 (Forecast)

Asia-Pacific – challenges and opportunities

By 2010, the Asia-Pacific region will be the largest aviation market in the world. To cope with the ever-increasing demands for aviation system capacity and cost-efficiency, the air traffic management sector must transition from its presently fragmented national arrangements to a regionally coordinated regulatory and operating environment.

- This transition will require strong regional inter-governmental institutions to coordinate the harmonisation of aviation regulations and infrastructure.

Regionally harmonised air traffic management (ATM) systems should be put in-place to provide appropriate capacity, safety and efficiency levels.

- This will also contribute towards mitigating aviation's impact on the environment.

Strong regional coordination will enable new concepts in air traffic control technology to be implemented, thereby allowing aircraft to become less reliant upon expensive, ground-based infrastructure. A consistent approach, in-line with the ICAO Operational Concept will be necessary to facilitate the uniform implementation of ATM enhancements throughout the region.

- The future ATM system must be designed to fully utilise the standardised modern technology available on the aircraft.

Airspace restructuring is urgently required in many parts of China, including, in particular, the Pearl River Delta area (Hong Kong, Shenzhen, Macau, Zhuhai).

- This will require additional military airspace to be made available for civil use.

A careful and responsibly-planned approach to airport infrastructure development is needed for the Asia-Pacific region, taking account of long-term requirements.

Economic impact per region

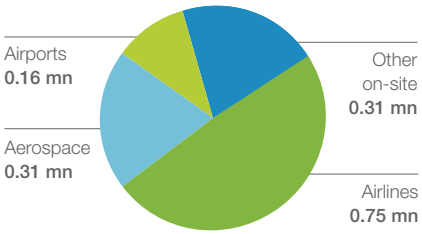
Europe (2006)

The air transport industry generates around 4.2 million jobs in Europe and contributes more than USD 331 billion to European GDP (direct, indirect and induced impacts).

If catalytic impacts are included, the number of jobs increases to 7.6 million and GDP to over USD 1,226 billion.

Worldwide, Europe accounts for 24% of the total jobs and 34% of the GDP generated by the air transport industry, including catalytic impacts.

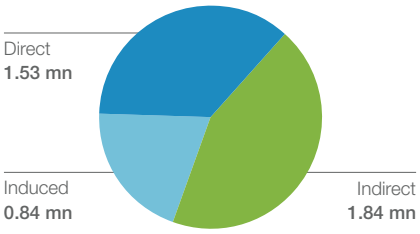
Direct employment in the air transport industry



Direct employment = 1.53 million

Source: Oxford Economics calculations

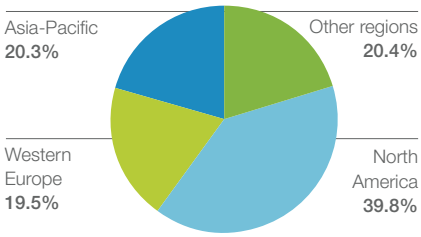
Total employment in the air transport industry



Total employment = 4.20 million

Source: Oxford Economics calculations

Merchandise exports by air



Total = USD 517 billion

Source: Oxford Economics calculations

Direct and total employment and GDP (2006)

	Employment		GDP USD million	
	Direct	Total (incl. direct, indirect & induced)	Direct	Total (incl. direct, indirect & induced)
Airports	156,000	409,500	17,542	46,048
Other on-site airport jobs	308,141	808,869	13,399	35,172
Airlines	748,070	1,963,683	52,724	138,400
Aerospace	313,978	1,020,428	34,349	111,633
Total	**1,526,188**	**4,202,481**	**118,014**	**331,254**

Source: Oxford Economics calculations

Direct, indirect and induced employment, GDP and gross output (2006)

Impact	Employment	GDP USD million	Output USD million
Direct	1,526,188	118,014	298,906
Indirect	1,835,796	146,989	359,494
Induced	840,496	66,251	162,350
Total	**4,202,481**	**331,254**	**811,750**

Source: Oxford Economics calculations

Europe: EU27 and other non-EU countries, plus Turkey and Russia and former Soviet Union countries in Eastern Europe (Belarus, Ukraine, Moldova, etc.).

Europe (2006)

The number of jobs created directly by the air transport industry is estimated to have reached 1.53 million in 2006:

- Around 748,000 people (49% of the total) work for airlines or handling agents (e.g. as flight crew, check-in staff, maintenance crew, etc.).
- 156,000 people (10%) work directly for airport operators (e.g. in airport management, maintenance, security, etc.), while more than 308,000 (20%) work on-site at airports in retail outlets, restaurants, hotels, etc.
- Nearly 314,000 people (21%) are employed in the civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.).

Regional air traffic figures and forecast

	Passengers (000s)			Freight tonnes (000s)		
Region	Domestic	International	International passenger growth forecast 2007-2011	Domestic	International	International passenger growth forecast 2007-2011
Africa	18,300	26,905	5.6%	122	708	4.6%
Asia-Pacific	394,736	163,718	5.9%	4,799	8,722	5.4%
Europe	189,840	476,172	5.0%	628	7,589	4.3%
Latin America/Caribbean	84,667	30,639	4.4%	939	1,058	4.2%
Middle East	23,929	54,396	6.8%	91	2,392	5.0%
North America	673,303	102,216	4.2%	10,445	6,307	3.9%
World	**1,384,775**	**854,046**	**5.1%**	**17,024**	**26,776**	**4.8%**

Source: ICAO (2006 data), IATA Passenger & Freight Forecast 2007-2011 (Forecast)

Europe – challenges and opportunities

Major aviation challenges for the region include environment and climate change, aviation liberalisation and competitiveness – and infrastructure development.

The creation of the Single European Sky is Europe's key infrastructure challenge.

- Urgent political action is required to address inefficiencies resulting from the allocation of airspace to the military sector and from the overlap in air navigation services, currently supplied by more than 40 providers in European airspace.
- In 2007, airspace users paid EUR 8 billion in user charges to 35 national air navigation service providers in Europe.
- Flight inefficiencies from sub-optimal routing (related to civil/military airspace design) and procedures cost EUR 2.2 billion for 2007. This resulted in an additional 7-11% fuel burn.
- Operational delays from the air traffic control system added further costs of EUR 1.3 billion from delays and this is expected to get worse with 20% of flights delayed in 2020.

The deployment of the Single European Sky ATM Research (SESAR) programme is critical for the next generation of air traffic management systems, in order to meet demand and avoid gridlock by 2020.

- Europe and North America must adopt a harmonised approach within ICAO's Performance-based Framework to avoid unnecessary development costs and to secure early benefits for airlines.

Functional airspace blocks (FABs) need to be defined and agreed by European States urgently, in the best possible manner, according to European traffic streams, taking account of SESAR. These FABs divide up the upper and lower airspace according to traffic flows, rather than along national borders.

Governments in Europe are not addressing airport capacity adequately. Unless urgent action is taken, more than 60 airports will become congested by 2025 and the top 20 European airports will be saturated for 8-10 hours each day.

Economic impact per region

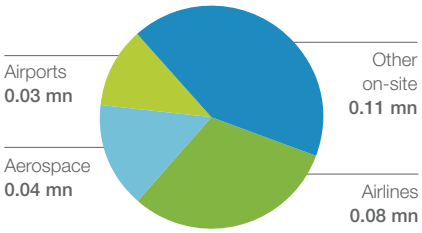
Latin America & the Caribbean (2006)

The air transport industry generates around 700,000 jobs in Latin America & the Caribbean and contributes more than USD 22 billion to Latin American & Caribbean GDP (direct, indirect and induced impacts).

If catalytic impacts are included, the number of jobs increases to 2.7 million and GDP to over USD 157 billion.

Worldwide, Latin America-Caribbean represents 8% of the total jobs and 4% of the GDP generated by the air transport industry, including catalytic impacts.

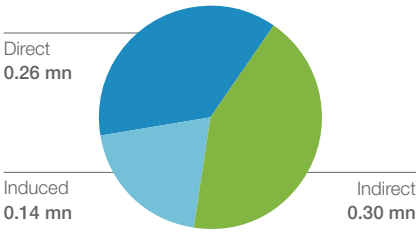
Direct employment in the air transport industry



Direct employment = 0.26 million

Source: Oxford Economics calculations

Total employment in the air transport industry



Total employment = 0.70 million

Source: Oxford Economics calculations

Direct and total employment and GDP (2006)

	Employment		GDP USD million	
	Direct	Total (incl. direct, indirect & induced)	Direct	Total (incl. direct, indirect & induced)
Airports	25,500	66,938	1,585	4,161
Other on-site airport jobs	109,761	288,123	816	2,143
Airlines	79,283	208,119	4,715	12,378
Aerospace	41,233	134,006	1,076	3,498
Total	**255,777**	**697,186**	**8,193**	**22,179**

Source: Oxford Economics calculations

Direct, indirect and induced employment, GDP and gross output (2006)

Impact	Employment	GDP USD million	Output USD million
Direct	255,777	8,193	25,838
Indirect	301,972	9,550	29,780
Induced	139,437	4,436	13,904
Total	**697,189**	**22,179**	**69,522**

Source: Oxford Economics calculations

Latin America & the Caribbean: all States in South America, Central America (excluding Mexico) and the Caribbean.

Latin America & the Caribbean (2006)

The number of jobs created directly by the air transport industry is estimated to have reached almost 260,000 in 2006:

- Over 79,000 people (31% of the total) work for airlines or handling agents (e.g. as flight crew, check-in staff, maintenance crew, etc.).
- 25,500 people (10%) work directly for airport operators (e.g. in airport management, maintenance, security, etc.), while almost 110,000 (43%) work on-site at airports in retail outlets, restaurants, hotels, etc.
- More than 41,000 people (16%) are employed in the civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.).

Regional air traffic figures and forecast

	Passengers (000s)			Freight tonnes (000s)		
Region	Domestic	International	International passenger growth forecast 2007-2011	Domestic	International	International passenger growth forecast 2007-2011
Africa	18,300	26,905	5.6%	122	708	4.6%
Asia-Pacific	394,736	163,718	5.9%	4,799	8,722	5.4%
Europe	189,840	476,172	5.0%	628	7,589	4.3%
Latin America/Caribbean	84,667	30,639	4.4%	939	1,058	4.2%
Middle East	23,929	54,396	6.8%	91	2,392	5.0%
North America	673,303	102,216	4.2%	10,445	6,307	3.9%
World	**1,384,775**	**854,046**	**5.1%**	**17,024**	**26,776**	**4.8%**

Source: ICAO (2006 data), IATA Passenger & Freight Forecast 2007-2011 (Forecast)

Latin America & the Caribbean – challenges and opportunities

Latin American and Caribbean governments should work to implement effective, homogeneous, independent and transparent regulations (Latin American Regulations - RAL) to ensure the development and consolidation of a strong air transport industry within their region.

Latin American and Caribbean governments should work towards the elimination of outdated bilateral air transport agreements and the implementation of more modern open skies. States developing bilateral agreements should use as a model the recent bilateral agreements successfully applied in the region, and adapt these to their specific requirements.

Issues such as infrastructure, training of skilled aviation specialists, lack of awareness about environmental issues and the high level of poverty in Latin America should be addressed. According to the Economic Commission for Latin America and the Caribbean (ECLAC), 36.5% of Latin America's population (195 million people) is poor and 13.4% (71 million) is extremely poor.

In line with global practice, Latin American States should enforce the separation of state regulatory and oversight functions from operational service provision for air traffic management to ensure the highest safety standards.

Air traffic management should be supported by strong regional and global coordination to ensure that best practices are adopted within the shortest possible timeframe.

Economic impact per region

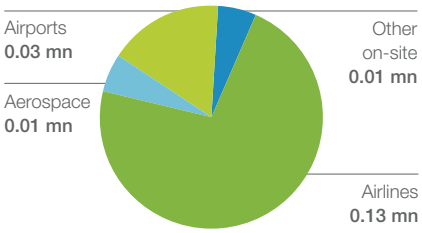
Middle East (2006)

The air transport industry generates around 460,000 jobs in the Middle East and contributes more than USD 17.5 billion to Middle Eastern GDP (direct, indirect and induced impacts).

If catalytic impacts are included, the number of jobs increases to 1.1 million and GDP to USD 72.5 billion.

Worldwide, the Middle East accounts for 3% of the total jobs and 2% of the GDP generated by the air transport industry, including catalytic impacts.

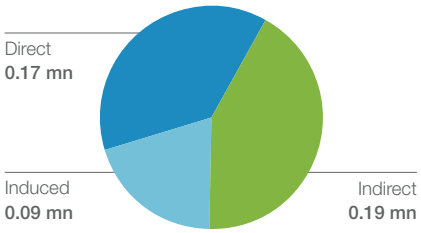
Direct employment in the air transport industry



Direct employment = 0.17 million

Source: Oxford Economics calculations

Total employment in the air transport industry



Total employment = 0.46 million

Source: Oxford Economics calculations

Direct and total employment and GDP (2006)

	Employment		GDP USD million	
	Direct	Total (incl. direct, indirect & induced)	Direct	Total (incl. direct, indirect & induced)
Airports	30,610	80,353	1,281	3,362
Other on-site airport jobs	7,458	19,577	91	239
Airlines	129,547	340,061	4,141	10,870
Aerospace	5,518	17,932	961	3,122
Total	**173,133**	**457,922**	**6,474**	**17,593**

Source: Oxford Economics calculations

Direct, indirect and induced employment, GDP and gross output (2006)

Impact	Employment	GDP USD million	Output USD million
Direct	173,133	6,474	23,586
Indirect	193,205	7,601	27,282
Induced	91,584	3,519	12,717
Total	**457,922**	**17,593**	**63,584**

Source: Oxford Economics calculations

Middle East: the Gulf States and the core Middle Eastern countries (excluding Egypt).

Middle East (2006)

The number of jobs created directly by the air transport industry is estimated to total over 170,000 in 2006:

- Almost 130,000 people (75% of the total) work for airlines or handling agents (e.g. as flight crew, check-in staff, maintenance crew, etc.).
- Over 30,000 people (18%) work directly for airport operators (e.g. in airport management, maintenance, security, etc.), while more than 7,000 (4%) work on-site at airports in retail outlets, restaurants, hotels, etc.
- Nearly 6,000 people (3%) are employed in the civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.).

Regional air traffic figures and forecast

	Passengers (000s)			Freight tonnes (000s)		
Region	Domestic	International	International passenger growth forecast 2007-2011	Domestic	International	International passenger growth forecast 2007-2011
Africa	18,300	26,905	5.6%	122	708	4.6%
Asia-Pacific	394,736	163,718	5.9%	4,799	8,722	5.4%
Europe	189,840	476,172	5.0%	628	7,589	4.3%
Latin America/Caribbean	84,667	30,639	4.4%	939	1,058	4.2%
Middle East	23,929	54,396	6.8%	91	2,392	5.0%
North America	673,303	102,216	4.2%	10,445	6,307	3.9%
World	**1,384,775**	**854,046**	**5.1%**	**17,024**	**26,776**	**4.8%**

Source: ICAO (2006 data), IATA Passenger & Freight Forecast 2007-2011 (Forecast)

Middle East – challenges and opportunities

Strong economic growth in the Middle East has fostered noticeable opportunities ranging from rapid construction development to increased foreign investment in the region. This has led some States to press ahead with significant financial and economic reforms geared towards increased liberalisation and improved efficiency.

- Some USD 1 trillion is now being invested in air transport infrastructure within the region. By 2010, this could total USD 3 trillion.

Air traffic growth is expected to remain above the world average, driven by a double-digit growth posted by the Gulf's major carriers.

- In the next 18 years, the regional fleet, which currently comprises some 600 aircraft, is projected to increase by more than 1,160 new aircraft worth some USD 190 billion.
- During the same period, close to USD 50 billion will be invested in airport expansion projects – including USD 22.5 billion in the United Arab Emirates.

Investment in airspace optimisation is insufficient. Airspace congestion has become a major challenge, especially in the Gulf area and this can only be adequately resolved through strong regional cooperation between civil and military authorities.

- Much-needed routes are currently blocked by military-controlled airspace. To address this, the region must implement a civil/military airspace management programme.
- Opening up airspace between Syria and Iraq is also required as a matter of urgency, to accommodate new routes between Europe and the Gulf States.

Economic impact per region

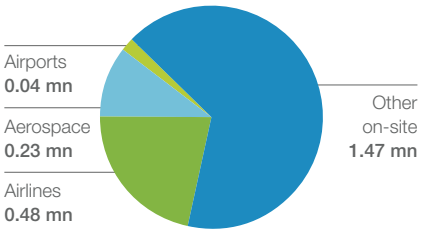
North America (2006)

The air transport industry generates around 5.7 million jobs in North America and contributes nearly USD 560 billion to North American GDP (direct, indirect and induced impacts).

If catalytic impacts are included, the number of jobs increases to 6.6 million and GDP to over USD 1,225 billion.

Worldwide, North America represents 21% of the total jobs and 34% of the GDP generated by the air transport industry, including catalytic impacts.

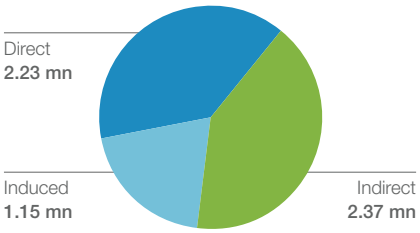
Direct employment in the air transport industry



Direct employment = 2.23 million

Source: Oxford Economics calculations

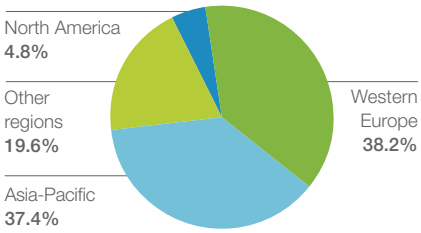
Total employment in the air transport industry



Total employment = 5.47 million

Source: Oxford Economics calculations

Merchandise exports by air



Total = USD 372 billion

Source: Oxford Economics calculations

Direct and total employment and GDP (2006)

	Employment		GDP USD million	
	Direct	Total (incl. direct, indirect & induced)	Direct	Total (incl. direct, indirect & induced)
Airports	43,860	109,650	10,628	26,571
Other on-site airport jobs	1,469,412	3,673,531	117,785	294,462
Airlines	482,647	1,206,618	61,846	154,616
Aerospace	232,221	754,717	25,519	82,938
Total	**2,228,140**	**5,744,516**	**215,779**	**558,587**

Source: Oxford Economics calculations

Direct, indirect and induced employment, GDP and gross output (2006)

Impact	Employment	GDP USD million	Output USD million
Direct	2,228,140	215,779	493,079
Indirect	2,367,473	231,091	527,785
Induced	1,148,903	111,717	255,216
Total	**5,744,516**	**558,587**	**1,276,080**

Source: Oxford Economics calculations

North America: United States, Canada and Mexico.

North America (2006)

The number of jobs created directly by the air transport industry is estimated to have reached 2.23 million in 2006.

- Over 482,000 people (22% of the total) work for airlines or handling agents (e.g. as flight crew, check-in staff, maintenance crew, etc.).
- Almost 44,000 people (2%) work directly for airport operators (e.g. in airport management, maintenance, security, etc.), while nearly 1,470,000 (66%) work on-site at airports in retail outlets, restaurants, hotels, etc.
- Over 232,000 people (10%) are employed in the civil aerospace sector (manufacture of aircraft systems, frames and engines, etc.).

Regional air traffic figures and forecast

	Passengers (000s)			Freight tonnes (000s)		
Region	Domestic	International	International passenger growth forecast 2007-2011	Domestic	International	International passenger growth forecast 2007-2011
Africa	18,300	26,905	5.6%	122	708	4.6%
Asia-Pacific	394,736	163,718	5.9%	4,799	8,722	5.4%
Europe	189,840	476,172	5.0%	628	7,589	4.3%
Latin America/Caribbean	84,667	30,639	4.4%	939	1,058	4.2%
Middle East	23,929	54,396	6.8%	91	2,392	5.0%
North America	673,303	102,216	4.2%	10,445	6,307	3.9%
World	**1,384,775**	**854,046**	**5.1%**	**17,024**	**26,776**	**4.8%**

Source: ICAO (2006 data), IATA Passenger & Freight Forecast 2007-2011 (Forecast)

North America – challenges and opportunities

Strong measures are required in the short- and long-term to accommodate continued air traffic growth.

- In the short-term, the U.S. Department of Transport (DOT) and Federal Aviation Administration (FAA) are seeking to better utilise airspace around congested areas such as the New York region. They will consider capping the number of aircraft movements, redesigning airspace – and allowing airports to introduce demand management pricing programmes to allocate limited airport capacity.
- The DOT is also seeking to allow congested airports to include in their landing fees the costs of airfield facilities under construction but not yet in use – and to give airports the ability to use congestion pricing in their funding activities going forward.
- These measures are being partially or entirely opposed by various political constituencies (including airlines and some airports).
- In the longer-term, multiple U.S. agencies are focusing on a 20-year plan to implement a satellite-based air traffic control system (NextGen) and to expand airport capacity.

The U.S. Government must address its outdated institutional framework for air navigation services (ANS):

- Congressional approval will be required for a sustainable programme, to fund the national air traffic system.
- Commercial aviation is seeking to ensure that general and corporate aviation pay their fair share for air traffic control services, an effort that is being strongly opposed by those non-commercial interests.
- Failure to address the existing ANS Governance structure and to revise the funding system will likely make it more difficult for the FAA to pursue the much-needed modernisation of the air traffic control system.

Glossary and abbreviations

Air transport industry	Civil aviation and aerospace sectors
ANS	Air navigation services
ATAG	Air Transport Action Group
ATC	Air traffic control
ATM	Air traffic management
Balance of payments	Difference between a country's exports and imports of goods and services
Catalytic impact of air transport	Impact on industries that are outside (includes tourism) of air transport
Civil aerospace sector	Manufacture and maintenance of aircraft systems, frames and engines as well as aviation-specific ground equipment
Civil aviation sector	Airports, airlines, air navigation service providers and those activities directly serving passengers or providing airfreight services
CO_2	Carbon dioxide
dB	Decibel
DOT	U.S. Department of Transport
Direct impact of air transport	Employment and activity within the air transport industry
ECLAC	Economic Commission for Latin America and the Caribbean
FAA	U.S. Federal Aviation Administration
FAB	Functional airspace block
GDP	Gross Domestic Product. The 'total market' value of all final goods and services produced in a country
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
Indirect impact of air transport	Employment and activity linked to supplying the air transport industry
Induced impact of air transport	Employment and activity supported by the spending of air transport employees (e.g. suppliers of goods and services that employees purchase)
IPCC	Intergovernmental Panel on Climate Change
Inter-regional trade	Trade between different regions
Labour productivity	Contribution to the global economy, per worker
NextGen	Satellite-based air traffic control system in the U.S.
NO_x	Oxides of nitrogen
RAL	Latin America Regulations
Rkm	Revenue-kilometre
SESAR	Single European Sky ATM Research programme
Spin-off effect of air transport	Impact on industries that are outside (includes tourism) of air transport
VAT	Value added tax
WTO	World Trade Organization
UN-WTO	UN World Tourism Organization
WTTC	World Travel & Tourism Council

This brochure is based on 2006 figures and estimations except where otherwise stated.
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