Flying by nature

Global Market Forecast

2007 - 2026

AIRBUS

Contents

Executive summary

People want and need to fly

The background

From the very earliest days, necessity and the human spirit have driven the need for travel. People have travelled in the search of better lives and knowledge, to trade and maintain family ties or friendships, and probably most importantly of all, to discover and understand other cultures. For centuries, travel was often a lengthy affair. In the not so distant past, travellers on cramped trans-Atlantic ships or trans-continental wagon trails could only dream of the miracle of flight, yet today using air travel as a fast, efficient, way to connect the entire world is so commonplace that it is easy to take it for granted.

The benefits of air travel are becoming more accessible, more affordable and more important to people from all economic backgrounds and from all parts of the world, but more particularly those from emerging nations like China, India and in Africa, who stand to gain the most from air transport. Air travel is a vital element of people's lives around the world. People want and need to fly.

While there is unquestionably an environmental impact from the growth in air transport, some 80% of the industry's 2% contribution to man-made CO_2 is generated by flights for which there are no practical alternative. This is considerably less than the 16% created by other forms of transport, yet aviation contributes, directly and indirectly, 8% of world gross domestic product.

However, the need for an increasingly eco-efficient industry, which creates economic and social value with less environmental impact, is well understood by the millions of people involved in aviation. Aircraft manufacturers have an intrinsic requirement to be technological pioneers and to develop increasingly eco-efficient aircraft.

But, if the evolution of transport technology from the horse and cart to the advent of aviation was impressive; the subsequent technological progress within the aviation industry has been quite simply astonishing.

In just the last 40 years, technological advances have reduced fuel consumption and CO_2 emissions by 70%, noise by 75% and unburned hydrocarbons by 90%, while increasing the number of people moved per take-off or landing slot and setting unprecedented levels of comfort.

Such progress is the result of a continual cycle that improves the best mature technologies, while gradually introducing the most appropriate new innovations. The cycle won't change, but the driving force behind future development has expanded from pure competitiveness to include environmental necessity, with research and development continuing to provide a series of incremental improvements as well as searching for more substantial technological step changes.

Such substantial advances are particularly evident with the A350 XWB and A380, which are certainly step changes from the aircraft they replace. The A380 in service today, consumes less than three litres per 100 seat kilometres, some 20 years ahead of the world fleet as a whole. Today, when the aviation industry considers new product developments, like the potential for a new generation of short-range aircraft, a step change to its predecessors will be required. This will not only require innovation but also vision, ambition and absolute determination: determination to follow a path towards zero emissions. This is a path that may never end, but it is nevertheless Airbus' ultimate ambition.

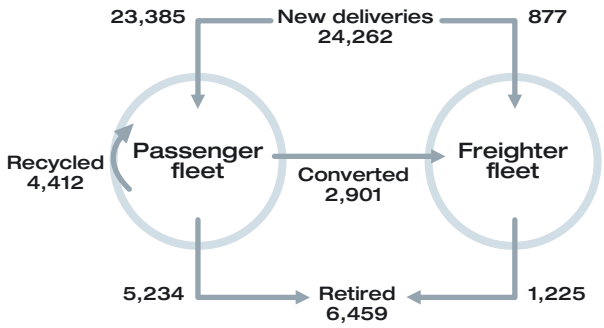
The highlights

In recent years a number of significant developments have influenced passengers and airlines, affecting the shape and direction of the aviation industry, as well as determining the level of future demand around the world.

Markets in the emerging economic nations continue to grow; their economies and demographic developments both driven by and benefiting from air travel. Continued global liberalisation is giving greater market access to airlines and wider choice for passengers. Low-cost carriers will also continue to grow around the world, but particularly in Asia, while the network airlines will benefit from fast growing international markets, with a wave of new international travel consumers from the emerging countries. Changing dynamics, particularly network evolution and the role of mega-cities and congestion are influencing the future of aviation. All these drivers are taken into consideration when developing the Airbus Global Market Forecast (GMF).

75% less noise and 70% less CO_2 emissions in last 40 years

24,262 new passenger and freighter aircraft deliveries over the 2007-2026 period



Passenger aircraft ⩾100 seats

Passenger air traffic demand to grow 4.9% per year

The traffic

All of which means that over the 2007-2026 period covered by this forecast, world passenger traffic is expected to increase by 4.9% per annum and the number of frequencies offered on passenger routes will more than double.

However, faced with increased competition and rising fuel costs, airlines have already achieved considerable productivity gains. Today, very few seats are “wasted”, with historically high load factors across most major markets and flows.

So, with traffic levels easily surpassing pre-September 2001 levels and with demand continuing to increase, there is now little flexibility in a system working at near maximum capacity. In fact, the gradual rise in congestion has also returned to pre-2001 levels and is a problem already being faced by many of the world’s most important airports and cities. Therefore, any future growth of traffic and frequencies will be an increasing challenge to airport infrastructure and air traffic management. That increasing congestion, coupled with the eventual diminishing returns from increased frequencies and the overall growth of the world fleet, has seen the emergence of a clear trend towards larger aircraft. This is evident in all seat categories, from smaller regional aircraft to very large aircraft, and will result in the average aircraft size increasing by as much as 25% over the next 20 years.

This GMF assumes that all necessary infrastructure improvements, including those already planned, will be undertaken during the forecast period. However, given the substantial investments and time required to carry out such developments, there is the possibility that not all the changes necessary may be achieved. In which case, average aircraft size could increase even more than anticipated levels and airlines could, therefore, be forced to acquire more, larger aircraft, across the whole spectrum of those available, to meet demand.

The fleet

The world's fleet, which includes both passenger (from 100 seats to very large aircraft) and freighter aircraft, will grow from 14,980 at the end of 2006 to nearly 33,000 by 2026. At the same time, some 13,772 aircraft from the existing fleet will be replaced by more eco-efficient models. Of these, 4,412 will be recycled back into passenger service, where they too will replace an older generation model with another airline. It is also forecast that 2,901 will be converted to freighters and the remaining 6,459 will be permanently retired or withdrawn from service, where increasing numbers will be decommissioned through environmentally sensitive programmes, such as the Airbus' PAMELA project.

Looking at this in more detail, the greatest demand for passenger aircraft will come from airlines in the United States, the People's Republic of China and the United Kingdom. Europe will receive 24% of the total, with North America and Asia-Pacific taking 27% and 31% respectively.

In addition, the world's airlines will require more than 6,000 smaller aircraft (with 30 to 100 seats) to serve regional demand, especially in the US and Europe.

While traffic demand will nearly triple, airlines will more than double their fleets of passenger aircraft (with over 100 seats) from 13,284 in 2006 to 28,534 in 2026.

This will include deliveries of 23,385 new aircraft. Some 16,620 of these will be single-aisles for domestic and intra-regional flows, which is more than in previous forecasts due to the emergence of low-cost carriers and increased liberalisation. As many as 5,482 twin-aisle passenger aircraft will be required to serve the existing, mainly international, markets and new routes created by ongoing market evolution, while around 1,283 very large passenger aircraft will be needed to link dynamic hub cities. Noticeably, 56% of the world fleet of very large passenger aircraft will be operated by the airlines in the Asia-Pacific region.

Freight traffic is expected to grow at 5.8% per annum and, combined with fleet renewal, this will create demand for 3,778 freighter deliveries, some of which will come from the conversions and 877 of which will be new generation factory-built freighters.

Overall, this means that by 2026 the world's airlines will take delivery of 24,262 new passenger and freighter aircraft, worth US$2.8 trillion at current list prices. Most of this business will be generated from single-aisle deliveries, while 1,698 large passenger and freighter aircraft will account for 19% of total aircraft delivery value.

This demand will require an average of 1,213 new, eco-efficient aircraft deliveries per year, which combined with the decommissioning of older generation aircraft, will gradually reduce the average fuel consumption of the world's fleet to less than three litres per 100 seat kilometres, the standard set by the A380 today.

13,772 aircraft to be replaced by more eco-efficient models

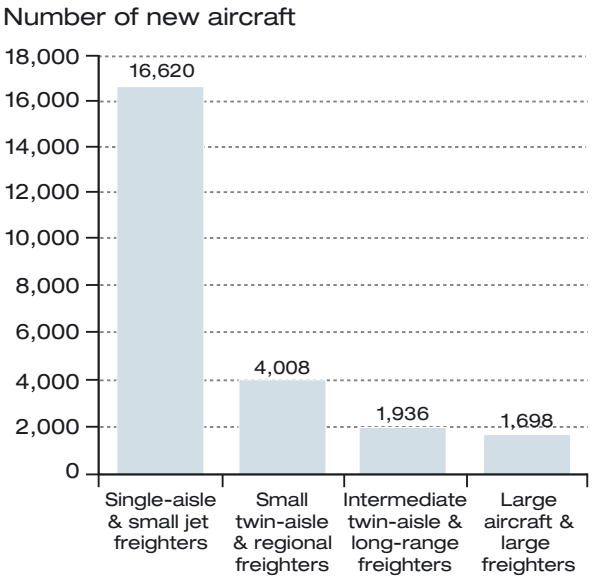
The future

The environmental impact of aviation will remain small compared to other modes of transport and other sources of man-made emissions. However, Airbus and the rest of the industry is determined to minimise and even reduce the environmental impact of aviation at every opportunity, while maximising the contribution that it can make to the quality of life, to better cultural understanding, to greater learning, and to fair and sustainable economic growth.

People used to find it incredible to imagine what it would be like to fly; today, it is much more difficult to imagine a world where we can't.

New passenger and freighter aircraft deliveries will average 1,213 per year

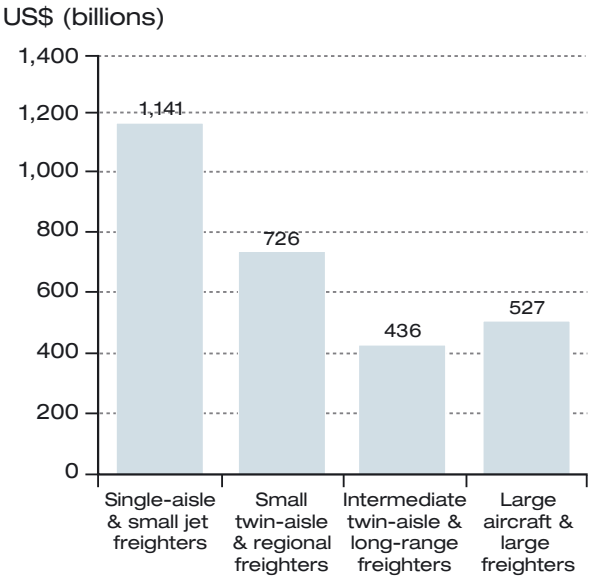
New aircraft deliveries 2007-2026



% unit:	68%	17%	8%	7%

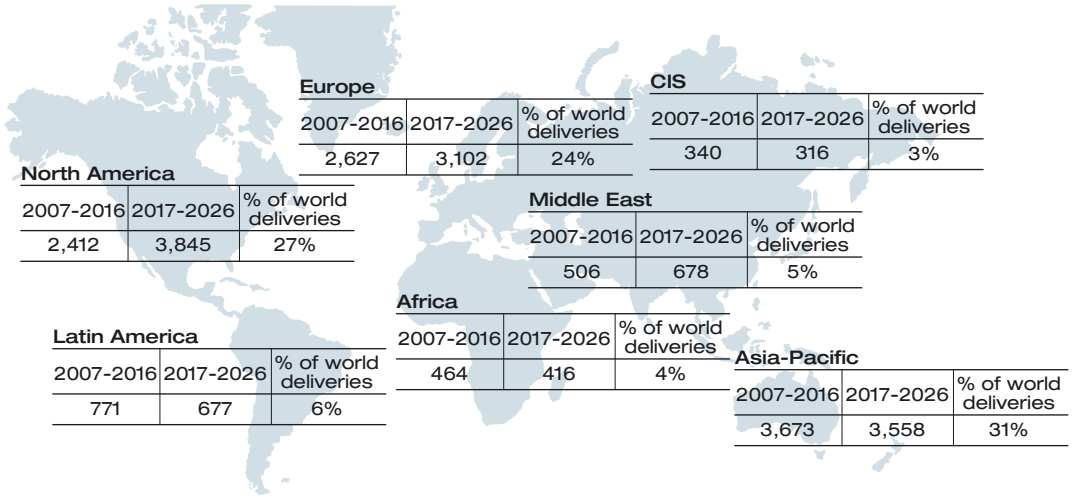
Passenger aircraft ⩾100 seats

Passenger and freighter deliveries worth US$2.8 trillion



% value:	40%	26%	15%	19%

Total new deliveries by region



Europe

2007-2016	2017-2026	% of world deliveries
2,627	3,102	24%

CIS

2007-2016	2017-2026	% of world deliveries
340	316	3%

North America

2007-2016	2017-2026	% of world deliveries
2,412	3,845	27%

Middle East

2007-2016	2017-2026	% of world deliveries
506	678	5%

Africa

2007-2016	2017-2026	% of world deliveries
464	416	4%

Latin America

2007-2016	2017-2026	% of world deliveries
771	677	6%

Asia-Pacific

2007-2016	2017-2026	% of world deliveries
3,673	3,558	31%

Passenger aircraft ⩾100 seats (excluding freighters)

Top ten countries (2007-2026)

	Passenger aircraft demand		By US$ value (billions)	
1	United States	6,579	United States	547.4
2	People's Republic of China	3,238	People's Republic of China	391.2
3	United Kingdom	1,307	United Kingdom	159.7
4	Germany	1,069	Germany	118.9
5	India	986	India	118.7
6	Russia	921	Japan	111.6
7	Mexico	661	UAE	91.7
8	Japan	608	Russia	78.7
9	Ireland	538	Australia	62.5
10	Canada	528	France	59.2

New and recycled passenger aircraft ⩾100 seats (excluding freighters)

Demand for air travel

Aviation: 8% impact on world GDP, 2% of world man-made CO_2 emissions

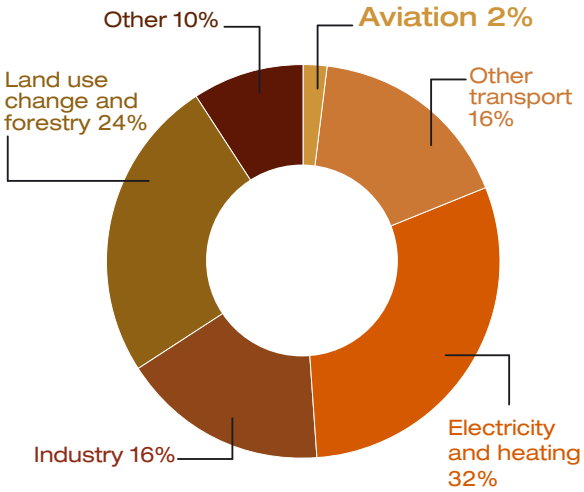
Eco-efficiency: more than just good business…

Air travel, which is and will be increasingly influenced by environmental considerations, has benefited society in many ways. At a human level it has proven to be an ideal means to connect remote areas of the world, which would otherwise have more limited possibilities for economic development. For example, air transport helps sustain 6.7 million direct tourism jobs around the world and enables the swift delivery of humanitarian aid, anywhere on earth, in a fraction of the time required for land or sea transportation.

Air transportation is a powerful tool in an increasingly unified world, providing massive economic benefits. Crucially, it is helping in the transition, both economically and socially, of key emerging markets and economies like China and India, raising standards of living and providing a tool by which growth can be sustained.

It is estimated that aviation contributes, directly and indirectly, to some 8% of world Gross Domestic Product (GDP), generates 29 million jobs and is responsible for the transport of 40%, by value, of all inter-regional exported goods. Yet in Europe alone, air transport is responsible for just 1% of the land used for transportation, in comparison to 4% for rail and 83% for road.

Aviation: only 2% of man-made CO_2 emissions...



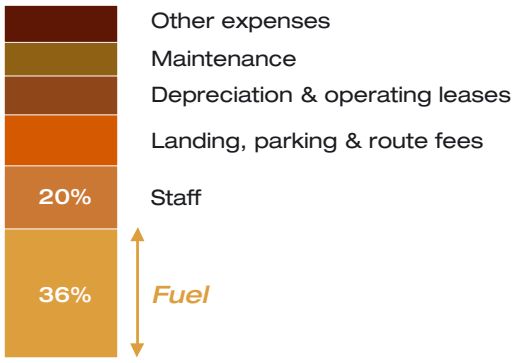
Source: UN IPCC

As with all human activity there is an environmental impact. Aviation is widely understood to be responsible for 2% of worldwide man-made CO_2 emissions, with the United Nations Intergovernmental Panel on Climate Change (UN IPCC) estimating that this could rise to 3% by 2050. The IPCC provides a comprehensive, objective, open and transparent assessment of climate change. Today, 80% of aviation's greenhouse gas emissions are related to passenger flights exceeding 1,500km/900 miles for which there is no practical alternative.

Fuel burn reduced from 8 to 5 litres per 100 passenger km in 20 years...

Manufacturers must strive to reduce fuel consumption to remain competitive

Fuel is the largest airline expense



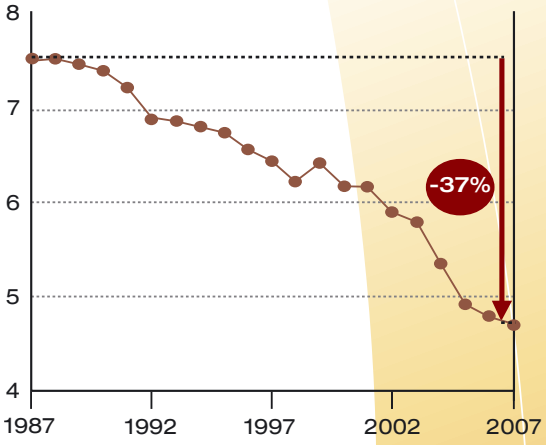
Typical expenses of an Asian international airline

Aviation's small contribution to CO_2 emissions is not a coincidence, but rather the result of a constant focus on innovation. Manufacturers must strive to reduce fuel consumption to remain competitive, but it is much more than just good business. Since the start of commercial jet services in the 1950s, aircraft, engine and other related manufacturers have been driven by a number of factors. Safety is understandably considered above all others, although the cost of aircraft operations for the airlines has been and remains a critical consideration. Much of the airlines' and manufacturers' focus has always been to reduce fuel costs. Today, this can account for 36% of airline operating expenses, even though manufacturers have reduced the fuel consumption by 37% per 100 passenger kilometres travelled, since 1987.

Over the last 50 years, aircraft have become increasingly efficient in terms of their individual impact on the environment throughout their entire life cycle. This continues to be driven by the demands of passengers and airlines, as well as both international and local legislation, such as the Stage/Chapter 4 noise regulations.

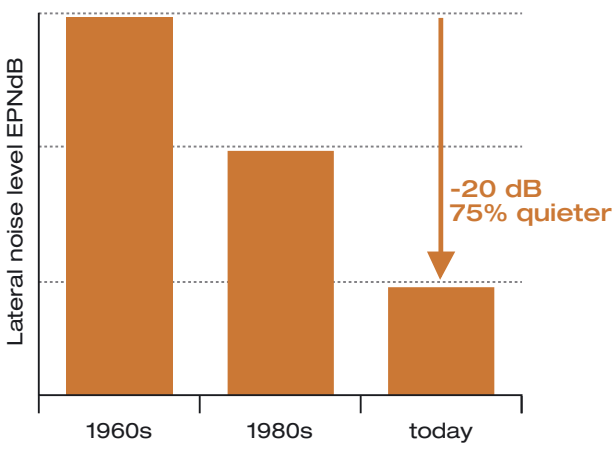
World fleet more fuel efficient

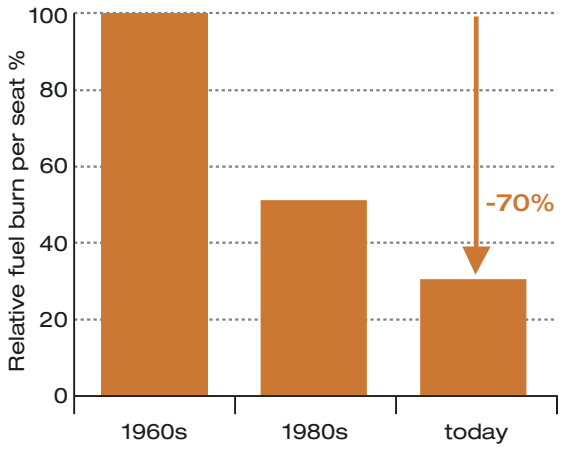
Fuel consumption of world fleet (litres/100 RPKs)



... to less than 3 litres today, with the A380

Aircraft today are 75% quieter and 70% cleaner than 40 years ago





Years refer to aircraft entering the fleet in the 1960s, 1980s and today

Today, aircraft are 20dB quieter than the closest comparable aircraft produced in the 1960s, which equates to 75% less perceived noise. Of the entire population affected by transport noise, 79% live near roads, 14% near railways and only 7% live near airports . Similarly, everyone has seen pictures or film of aircraft from that period taking off with plumes of black smoke billowing from the engines, which is not seen at the world's airports today. In fact, today's aircraft produce 90% less smoke or unburned hydrocarbons than aircraft of the 1970s, with a carbon monoxide (CO) reduction of more than 50%.

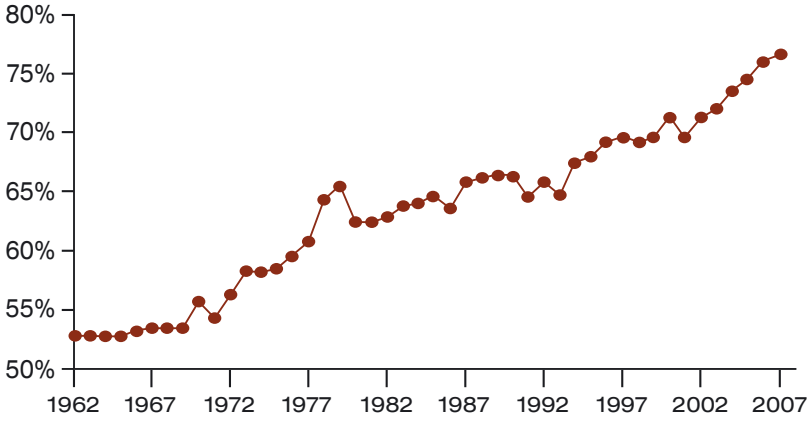
Furthermore, aircraft burn 70% less fuel and, therefore, emit 70% less CO_2 than aircraft flying in this period. Another trend having a significant effect is improved aircraft load factors. In other words airlines have filled their planes more efficiently, thereby effectively reducing the need for more aircraft or frequencies, together with their associated fuel burn. Since 1970, airlines have improved load factors by an average of 0.6 percentage points per year, with industry wide load factors averaging 76% in 2006. How often are cars with three or more passengers seen on roads and highways? So what is good for customers is also good for the environment. It's more than just good business, it's plain common sense.

Lower fuel burn is good for customers and the environment...

Like a car pool; only better

Environmental efficiency through airline productivity

Worldwide aircraft load factors



... it's more than just good business, it's plain common sense

The path towards zero emissions

The great efforts made in the past and the resulting environmental improvements are just the beginning. Our future must be even greener. The entire air transport industry, including Airbus' customers, partners and suppliers believes that an acceleration of technological development and implementation is needed and is best achieved through a unified effort. Airbus is committed to using every opportunity to implement incremental improvements in environmental performance, but also to making more significant step changes that will lead to an increasingly eco-efficient industry.

Technology plays a central role in achieving Airbus' commitment to greener aviation and to moving along the path towards zero emissions. It may be a journey that never ends, but this must be the ultimate ambition in going forward. This requires major investment in research. Airbus' proven experience in technological innovation, its global presence and its strong relationship with partners, suppliers, authorities and governments enable the company to be an industry leader in helping society to develop an effective response to climate change, while also delivering sustainable economic growth. Airbus believes that the traditional link between further CO_2 emissions and traffic growth must be changed by working on the following elements:

- The management of the entire aircraft life cycle from design and manufacturing to dismantling and recycling;
- The development and application of new technologies, such as better engines, alternative fuels and fuel cells;
- The application of efficient operational procedures (fuel-efficient operations, route optimisation);
- The engineering of an efficient infrastructure (runway capacity, Air Traffic Management);
- The selection and implementation of positive economic measures.

SILENCE(R): an example of quiet progress

The European wide SILENCE(R) programme addresses noise reduction technologies for both airframe (landing gear and high lift devices) and engines.
Technology developed within the project provided the starting point from which Airbus developed the world's first full-scale zero splice nacelle intake. This patented concept for engine fan noise reduction delivers acoustic benefits without any penalties in terms of weight, cost or fuel consumption. Now in service on the A380, it enables the aircraft to offer greater operational flexibility to airlines and their passengers, while minimising the noise impact on airport communities and inside the aircraft cabin.The 2006 French Décibel d'Or for noise reducing technology was awarded to Airbus for the design and successful development of this new form of soundproofing for aircraft engines.

Four pillars for CO_2 reduction

Airbus supports the International Air Transport Association's (IATA's) four pillars for CO_2 emission reduction.

- Foster the development and deployment of technology as one of the main drivers of progress. Joint solutions must be found with manufacturers and governments to enable accelerated use of new technologies, including alternative fuels, in a financially sustainable manner.
- Encourage and assist airlines in further adopting best practices to operate their aircraft as efficiently as possible. IATA's own work on fuel-efficient operations and route optimisation has identified potential savings up to 15 million tonnes of CO_2 emissions each year.
- Promote the implementation of efficient infrastructure. Constraints - whether from insufficient runway capacity or inefficient air traffic management procedures - add up to 12% to fuel inefficiencies and CO_2 emissions, according to the UN IPCC.
- Avoid taxes or charges, which, although levied under an environmental banner, are punitive measures and do not improve environmental performance. Instead, positive economic measures should be preferred over punitive ones to stimulate innovation and accelerate technological research, development and deployment.

Through its products, technology, know how and partnerships, Airbus will play a leading role in the development and implementation of IATA's four pillars for the reduction of CO_2 emissions. ACARE and Clean Sky are just two examples of Airbus engagement in extensive research programmes focusing on advanced technologies, architectures and tools that will lead to step changes towards an eco-efficient aviation industry.

Eco-efficiency
requires
- vision
- ambition
- innovation
- determination

ACARE

The European aviation industry has set challenging environmental targets for 2020. Airbus is a leading partner in ACARE (the Advisory Council for Aeronautics Research in Europe), which is committed to achieving four goals for aircraft technology by 2020:

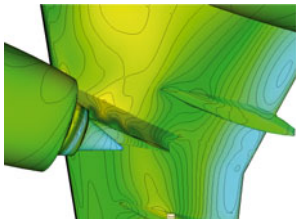
1 - 50% cut in CO_2 emission per passenger/km
2 - 50% cut in perceived aircraft noise
3 - 80% cut in nitrous oxide (NOx) emissions
4 - a greener life cycle

The ACARE objectives were set voluntarily high to push all stakeholders to provide step change technologies. Challenge will also come from achieving the optimisation and balance between noise, emissions and environmental impact throughout the aircraft life cycle. The 50% cut in CO_2 will be achieved from three main sources: airframe will contribute 20 to 25%, engine 15 to 20%, and aircraft operation through air traffic management 5 to 10%.

ACARE's ambitious goals:

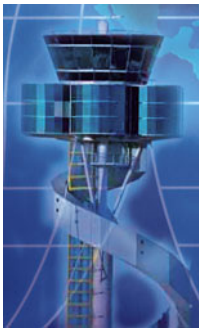
50% cut in CO_2 emissions > Vision 2020

Aircraft manufacturers 20-25%



Engine manufacturers 15-20%

Operations 5-10%
Air Traffic Management



A Clean Sky

Clean Sky is another ambitious initiative. Since 2005, Airbus has been leading the preparation of a new breakthrough European research programme, the Clean Sky Joint Technology Initiative. Clean Sky is fully aligned with the environmental goals for reducing emissions and noise as defined by ACARE.

The scope of Clean Sky covers all aspects of the aeronautics industry, notably the development of innovative wing and rotor blade design, cleaner engines, more efficient flight paths and design favouring renewable materials and end-of-life recycling. Clean Sky aims to go much further than standard research projects: large-scale technology demonstrators, including flight test vehicles, will be built to test out the research results produced and validate their future application. Clean Sky is a partnership solution that brings together major industrial companies, research institutes, universities and other organisations from the entire aeronautics industry and supply chain, including small and medium sized enterprises, with the shared goal of achieving quantum leaps in green technology development.

Fuelling ambitions...

One area of technology that is being actively investigated is the potential use of alternative fuels in the aviation industry. No game-changing alternative to burning kerosene is foreseen in the short to medium-term. However, the industry continues to study alternative fuels, which will bring improvements over time and could bring environmental objectives a step closer. As such, Airbus has committed to playing a part from these very early days of this evolving technology, working with fuel producers, engine manufacturers, airlines, airport authorities and governments. Airbus is fully engaged in various initiatives in this area worldwide.

Airbus expects that promising kerosene and bio-fuel blends will be identified by 2010 and is working towards this through support of projects such as CALIN (Carburant ALternatifs et systèmes d'INjection innovants) and ALFA-BIRD (Alternative Fuels and Biofuels for Aircraft Development). In general, however, the overall environmental benefits throughout the entire life cycle of both the aircraft and the fuel will need to be clear, with progress towards a second or third generation of biofuels possibly being the key to success in this area.

... broadening horizons

The efficient use of existing and future air traffic infrastructure is another area where gains can be made, to the benefit of both the industry and the environment. A number of activities are ongoing today with the industry involved at all levels. SESAR (Single European Sky ATM Research), launched in March 2004 by the European Union (EU), has set the political framework for actions in Europe to unlock viable growth in air transport. The optimisation of ATM and improved flight efficiency in general will cut millions of tonnes of CO_2 emissions per year. The SESAR programme is expected to lead to a CO_2 emission reduction of 10% in Europe, one of the world's largest aviation markets, when it is implemented.

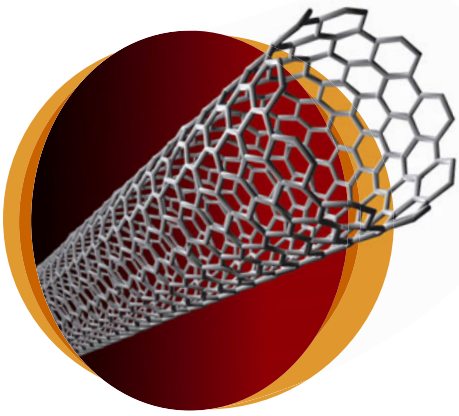
Meanwhile, the EU and the United States (US) stated on 18 June 2007, that they would further cut emissions from aircraft by improving air traffic control systems. Through the Atlantic Interoperability Initiative to Reduce Emissions (AIRE), the European Commission and the US Federal Aviation Administration plan to rapidly introduce new emission reduction methods and technologies that would reduce greenhouse gases and noise from aircraft. This initiative will involve aircraft manufacturers, in order to help test the environmental benefits of any proposed measures.

Eco-efficiency objectives set deliberately high

Eco-efficiency is a combination of small steps and step changes

When thinking small, or just different, is good

Fuel cells promise to be a great technology to supply low or even zero emission electrical power effectively, by combining hydrogen with oxygen and producing nothing but water in the process. Airbus has recognised the potential of this technology and researched its applications for some time. At Airbus' site in Hamburg, a team of specialists, including both Airbus and its partners from leading fuel cell technology companies and universities, continues to evaluate different application scenarios as well as operational, safety and regulatory issues.



Nanotechnology is a field where science fiction really is beginning to meet science fact. It aims to identify and benefit from technologies at a molecular level. The areas where the aeronautical industry is investigating the potential benefits of this technology are largely centered on systems and materials. From a systems perspective, it is envisaged that microtechnology could enable the miniaturisation of devices used on aircraft, thereby yielding weight and, therefore, fuel burn and CO_2 reduction benefits. There is also the possibility of using devices on the wing for example, to act locally on laminar aspects of the airflow, allowing continuous and optimal adaptation to flight conditions, once again improving the eco-efficiency of the aircraft. In terms of materials, nano-components added to a composite material could retain the beneficial mechanical properties such as stiffness and lightness, whilst adding properties typical of metallic materials such as conductivity. Nanotubes are considered one of the most promising nanotechnologies, retaining the advantages of metallic material in combination with the benefits of composites, and potentially providing Airbus aircraft with new "super-materials", another bold step towards greater eco-efficiency.

Hub-to-hub: the most efficient operation

Expansion through stronger hubs and network development

Hub-to-hub and point-to-point operations are complementary in serving demand for air travel. They will always depend on the demand and competitive conditions prevailing on each market. To understand the benefits from an environmental perspective, a marginal approach and data on actual operations involving the entire transport chain (including road and rail) is required. In any case, hubs will always constitute a very efficient mode of operation in terms of connectivity, passenger choice and environmental impact. For example, linking five cities on both sides of two hubs will necessitate only 11 flights to connect all cities, while the pure point-to-point network will require as many as 66 flights. In addition, if the number of airports is increased, the number of routes needed in a pure point-to-point network grows rapidly in a parabolic manner.

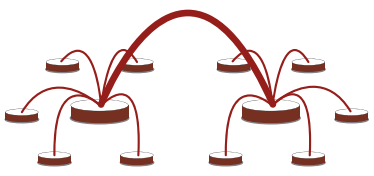
Therefore, a network containing 100 airports - a fairly typical number for a international mainline carrier - would require 50 times more routes, and for the very large carriers with networks covering 150 airports, as many as 75 times more routes, with their associated frequencies and fuel burn and added burden to the network's infrastructure. The connection through a hub generally means a better rail offering to the major hub cities both in terms of frequency and speed. Hubs will generally be closer compared to a point-to-point international long-haul connection. The shorter distances and the subsequent weight savings in terms of fuel required improve overall fuel efficiency. In short, hubs will most often mean fewer flights, less fuel, lower emissions and reduced noise.

On the market side, in order to understand and effectively forecast the future market for commercial aircraft, it is important to fully incorporate a view on how the future network will evolve from the situation today.

Factors driving network evolution include market deregulation, airline competition and strategies, emerging markets and, from the aircraft manufacturers, the types of aircraft and technology that will be deployed on this future network. From a forecast perspective, this means there is a need to take the actual network and the airlines' operations, and apply the forecast passenger traffic growth in a way that logically grows this network, both in terms of existing

Stronger hubs and network development

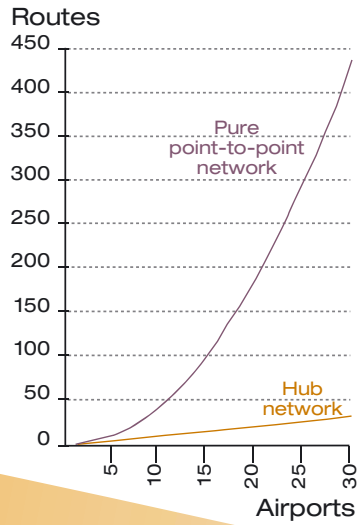
Hub



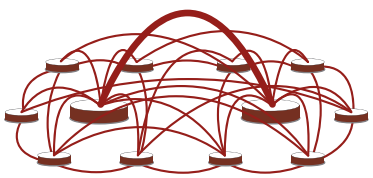
More efficient network

- Hubs are points too
- Improve connectivity
- Fewer flights
- Less fuel
- Less emissions
- Less noise

Pure point-to-point
a greater burden on networks



Pure point-to-point



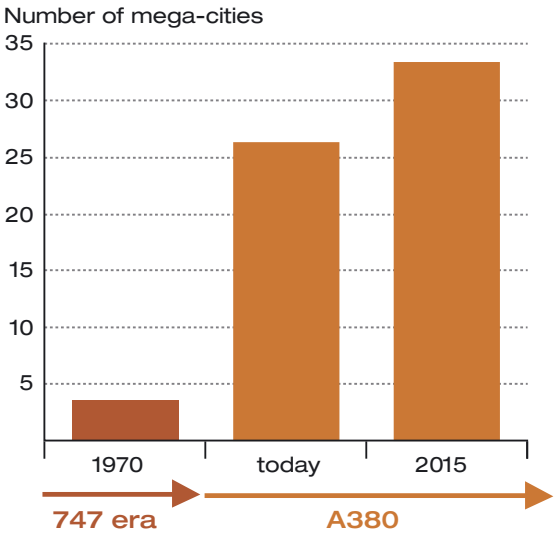
Less efficient network

- Market development
- If traffic/frequency sufficient
- More flights
- More fuel
- Higher emissions
- Greater noise

Hub-to-hub reduces flights, fuel, emissions and noise

city pairs (organic growth) and in terms of new routes. These developments are interrelated and inseparable. Therefore, with intercontinental traffic forecast to nearly triple in the next 20 years, Airbus expects this growth to be accommodated by both adding new non-stop services and through the strengthening of existing city pairs, primarily between major centres of population.

More mega-cities

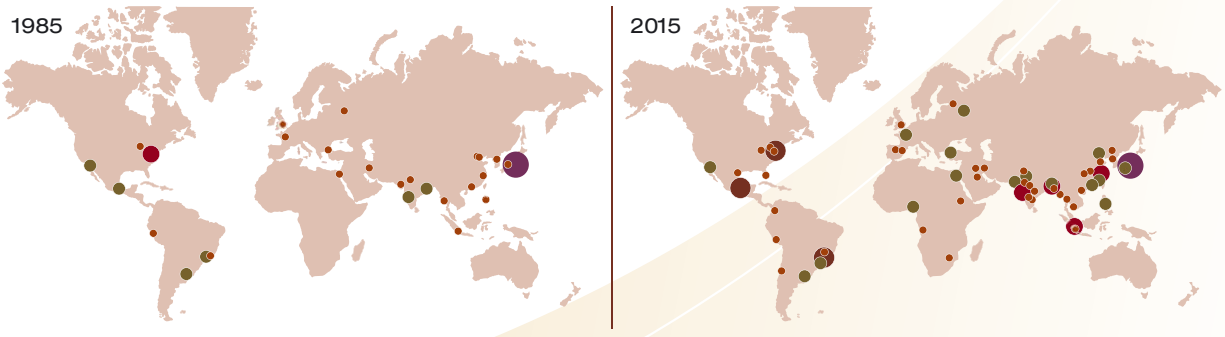


Mega-cities : agglomerations of more than ten million people

Cities are getting larger. Over the course of early history, from the era of Memphis in Egypt until the industrial revolution, the size of the world's largest cities remained relatively unchanged. By 1825, London had become the largest city in the world and continued to grow. Then in 1925, New York became the world's largest city. Since the 1980s, the order of these top three cities (Tokyo, Mexico City and New York), has remained the same; they have simply become much bigger. In 1969, when the 747 was introduced, there were four mega-cities in the world, with populations of more than ten million people. Today, as the A380 is being introduced, there are 26 such mega-cities and by 2015 there are expected to be 33. As many as 22 of them will be in Asia.

The four mega-cities of 1970 were inhabited by a combined total of 43 million people. Today's 26 mega-cities are home to 500 million people. Urbanisation is increasing fast. In 1970, the global urbanisation rate was 20%, but today, more than half the world's population is living in urban areas. By 2030, that figure will increase to two thirds of the population, as more than 1.8 billion additional people are expected to move from rural to urban areas. For example, in China, the urban population will increase from 44% today, to 64%, which is much closer to that of Japan. As well as being highly populated, mega-cities, such as Tokyo, New York, Los Angeles, Shanghai, Rio, Buenos Aires and Mumbai are also the most vibrant and dynamic cities in the world. They offer more and better jobs because they are global business centres, with the resulting effect of a higher propensity for air travel by their inhabitants. Such cities are also main destinations for a booming international tourism market, as a result of the high concentration of cultural and historical attractions that they offer.

Larger mega-cities



Source: UN, Thomas Brinkhoff: City Population, Airbus

3100 BC	600 BC	320 BC	195 BC	25 AD	935	1315	1710	1900
Memphis, Egypt > 30,000	Babylon > 200,000	Alexandria 300,000	Changan (Xi'an), China 400,000	Rome 450,000	Cordova, Spain 300,000	Cairo 400,000	Beijing, China 1 million	London > 6 million

Source: Tertius Chandler, Airbus

Big cities are big points of origin and destination

For routes over 2,000nm/3,700km excluding domestic traffic

A network of cities

The three attributes helping to define global hub cities are that they are mega-cities, large centres of operations for particular airlines (such as Frankfurt, Atlanta) and large connecting cities (such as Dubai, Singapore). These global hub cities are economic, business, population, political, or strategic centres. There are currently 32 global hub cities around the world, including Tokyo, New York, Paris, Beijing and London. International passenger and cargo traffic is very concentrated at these global hub cites; in fact, as many as 77% of long-haul passengers want to fly to, from or between them. These global hub cities will continue to experience a high growth in passenger volume, which will be driven by increasing local demand between the cities.

The second source of growth for the hub cities is connecting traffic, which is set to continue expanding, as many markets will still have insufficient demand for direct international service. Interestingly, one source of connecting traffic is passengers who could in fact fly directly if they wanted to. For example, in 2006, 20% of those flying between Europe and Asia selected a connecting route, even though they could have taken a direct service. There are several reasons for this. Many passengers prefer to connect due to the breadth of the schedule offered at major hub cities, both in terms of frequency and destination. Passengers may also choose to fly via a hub to take advantage of a stopover, because they prefer the service of an airline operating from these large hub cities, or - and in many cases this is the more important reason - because of a lower ticket price. Despite the anticipated opening of more than 70 new non-stop Europe-Asia routes in the next ten years, primarily to China and India, connecting traffic will continue to grow. Other main flows show similar patterns reinforcing Airbus' view that connecting traffic will remain essential and will mainly pass through existing hubs.

The importance of these major hub cities can be further demonstrated by the fact that 50% of the world's 100 fastest growing city pairs are between the 32 global hub cities mentioned earlier and almost all others involve a hub at one end or the other. The importance of large aircraft to these markets can be demonstrated by the fact that all of the top five airlines responsible for most of the growth on these routes have ordered the A380.

1925	1950	1975	1990	Today	2020
New York 8 million	New York 12 million	Tokyo 23 million	Tokyo 32 million New York 16 million Mexico City 15 million	Tokyo 35 million New York 19 million Mexico City 20 million	More than 30 cities over 10 million

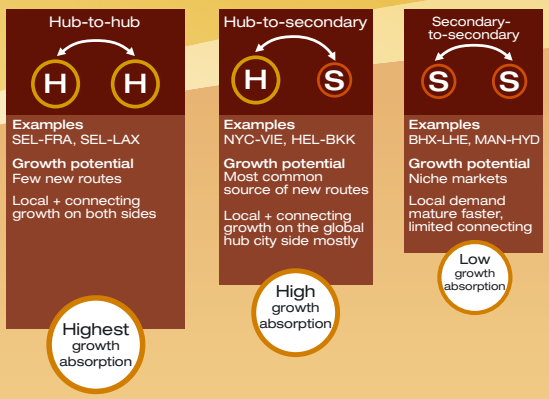
Strong growth between global hub cities

100 fastest* growing city pairs (1997-2007)

* Volume of seats added, non-stop routes over 2,000nm/3,700 km

Source: OAG, Airbus

Network segmentation explained:



Using a broad route classification makes it easier to understand how growth will be allocated across the future network:

- Today, most global hub cities are interconnected. The markets amongst these cities continue to benefit from strong "organic" growth, i.e. growth generated by existing routes, through large increases in local and connecting traffic. These are and will remain trunk routes, where a significant portion of the future fleet of very large aircraft will be operated.

- Opportunities between hub and secondary cities are the most common source of new routes. These new routes, which still rely on a large proportion of connecting passengers, will absorb part of the overall growth. Typically, existing routes in this category are operated by a single airline, targeting one daily flight. Once this daily frequency is achieved, larger aircraft than those required to start operations are used to accommodate any additional organic growth.

- Routes between secondary cities are marginal. Many of these markets have no need for a daily flight and represent just 8% of total traffic today.

The single most important driving factor of network evolution is that traffic will grow 1.7 times faster than the number of routes on the network.

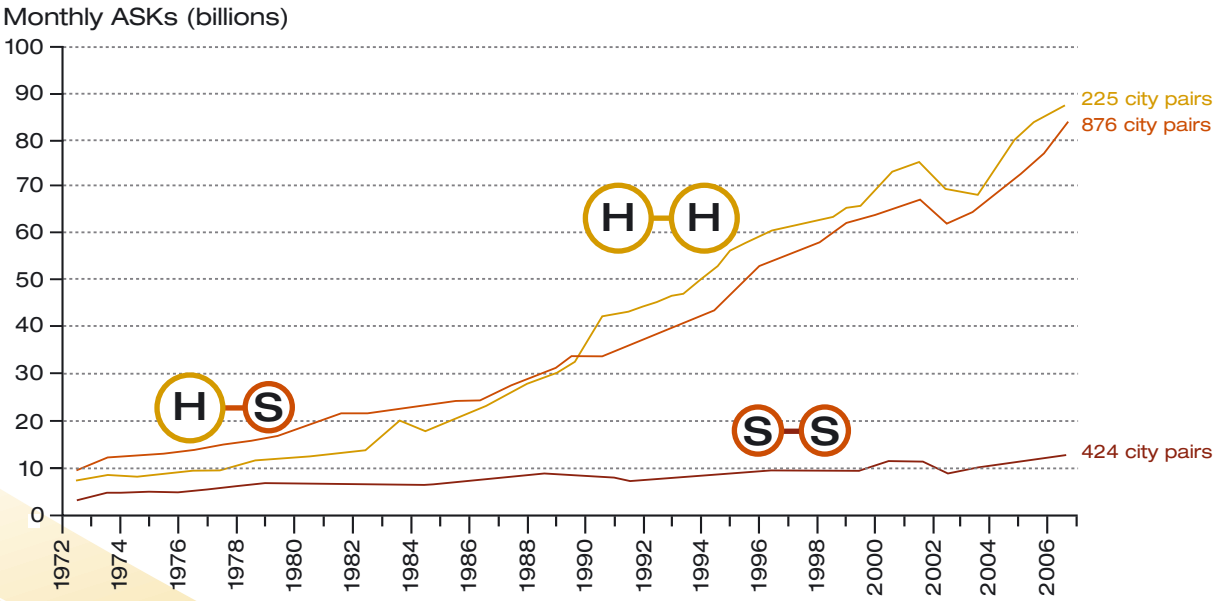
Global hub cities are the most dynamic

Bigger routes linking bigger cities

Over the last 30 years, global hub-to-hub routes and hub-to-secondary routes have grown at exactly the same pace. Today 225 long-haul routes, from a total of 1,500 worldwide, link the 32 global hub cities to each other and account for almost half of all long-haul traffic. These hub-to-hub routes continue to grow organically thanks to the dynamism of the associated cities. Additionally, 45% of the capacity (Available Seat Kilometres) on these routes is currently operated by aircraft with more than 350 seats. Today, these are typically 747s, but the number of A380s on these routes will increase steadily from 2008. These routes are and will remain very important markets for airlines, as they will continue to absorb between 30% to 70% of all growth, depending on the specific flow. It will, therefore, be important for airlines to maintain and even enlarge their presence in these key markets.

Hub-to-hub and point-to-point routes are growing at same pace

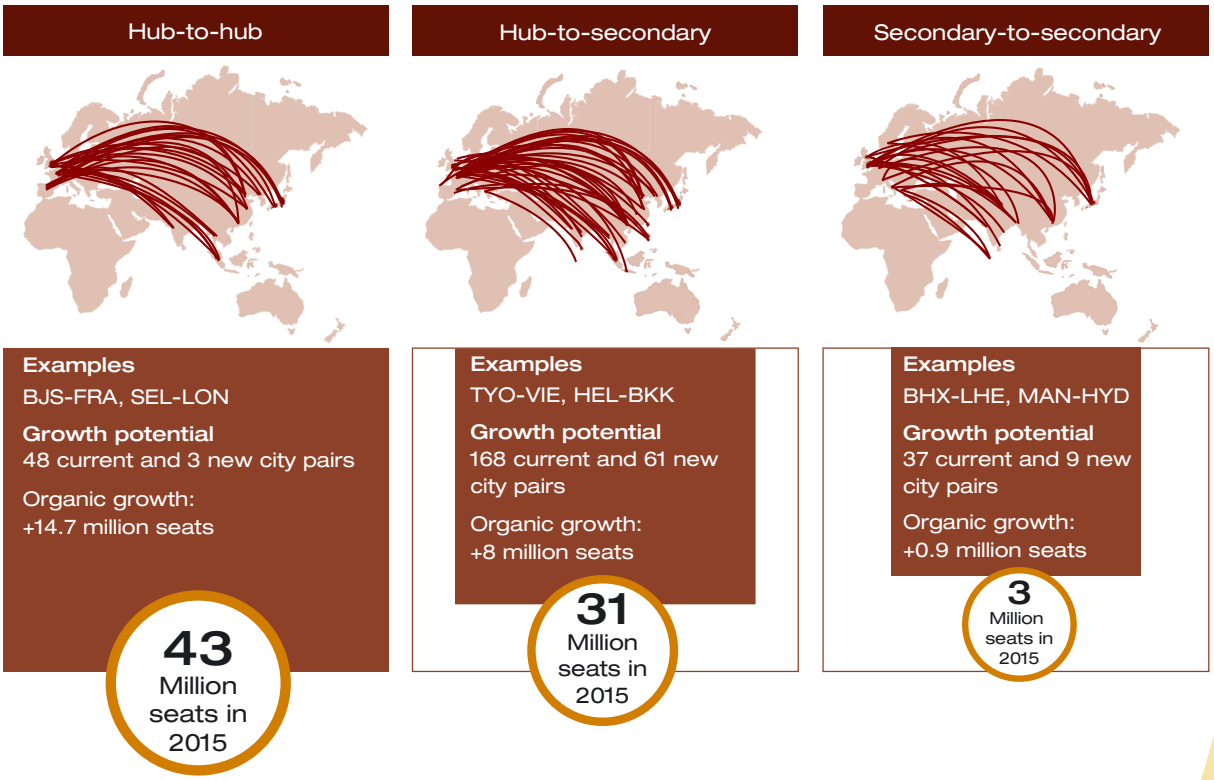
International routes over 2,000nm (3,700km)



H = the 32 Hub cities S = Secondary cities

Source: OAG September each year, Airbus

In 2015 60% of Europe to Asia traffic will be hub-to-hub



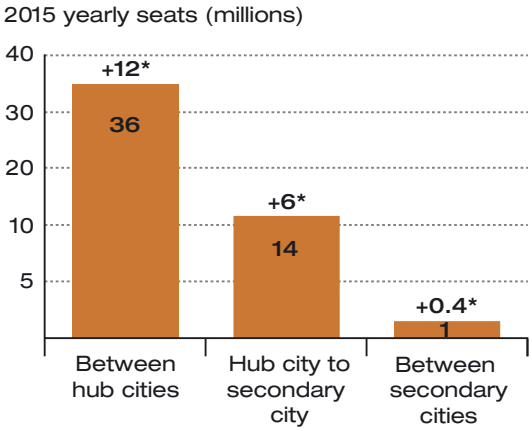
Between Europe and Asia, this pattern of growth will see the very largest routes grow organically, with the addition of nearly 15 million seats by 2015, providing market opportunities for very large aircraft, like the A380.

Routes from these global hub cities to secondary cities will have greater opportunity to grow through new routes, although they will continue to see considerable growth on existing routes. There will be as many as 61 new city pairs in that segment. In fact, if hub-to-secondary routes are anticipated to grow by more than 16 million seats by 2015, as many as eight million of these will come from existing routes. This organic growth will be achieved by an increase in frequencies and aircraft size. New routes will add another eight million seats. Given the diversity of the source of this growth (organic, frequencies, capacity, leaner new routes), the flexibility offered by an extensive family of aircraft with strong commonality, such as the A350 XWB, will be an asset in serving this market.These routes will be ideal markets for both small and intermediate twin aisle-aircraft.

Finally, it is on the secondary-to-secondary routes, that will experience the smallest growth, compared to routes linked to a global hub.

Most hub-to-hub routes are, and will all ultimately become very large routes, which have more than 1,000 passengers one way, on a daily basis. Today, 47 such routes exist on the long-haul market, of which 60% are linked to Asia and account for a quarter of the worldwide long-haul traffic. The number of these large routes is forecast to more than treble in the next 20 years, with passenger volumes also growing to reach an average of 2,000 passengers per route, per day, by 2026. Aircraft with greater capacity will, therefore, be necessary to accommodate this growth on markets that are already well served in terms of frequency.

Major traffic flows between North America and Asia dominated by hubs



*compared to 2006

Today, the North America to Asia network is not as mature as the Europe to Asia network. There are currently 80 city pairs in operation on this market. Over the next 20 years, as many as 70 additional routes will be added and they will have enough origin-destination traffic to justify a minimum of three weekly frequencies on a sustainable profit basis by their opening year.

As for Europe to Asia, most of the route openings will involve a global hub city at either end. North American demand is concentrating on large cities as in Asia, a situation exacerbated by the fact that the global hub cities are also major airline hubs.

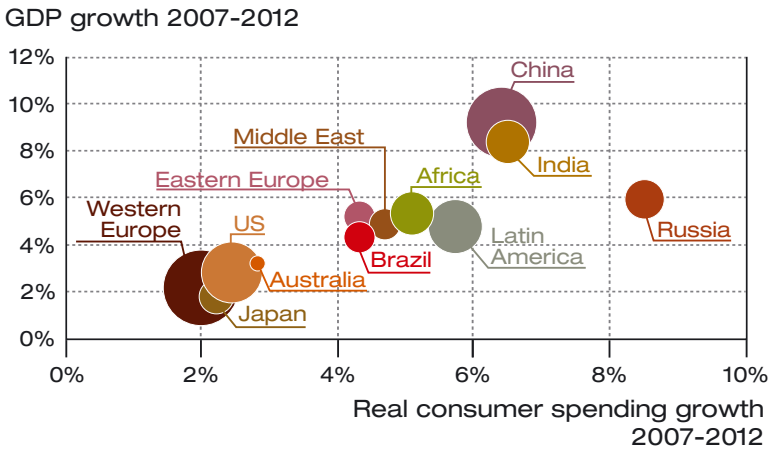
By 2015, the core hub-to-hub routes are expected to represent 70% of the trans-Pacific and North America to India traffic; some 36 million seats available per year.

Hub-to-hub traffic to double

Emerging countries driving the world economy

For the fifth year in a row, all the major powerhouse emerging markets have performed better in every way than was expected just one year earlier. For example, at the start of 2007, Chinese and Indian GDP were expected to grow by 9.5% and 7.4%, but by the autumn, those figures had been revised upwards to 10.4% and 8.4% respectively. In fact, over the last five years, economists have been forced to regularly increase their predictions, with the forecast for 2026 now more than 70% higher than comparable forecasts published in 2002. China and India are already changing the face of global economics and are on their way to becoming the most dominant world economies in the years to come. In just a few years, China has jumped from being the seventh largest world economy to the third largest today, and by 2040, it is expected to regain the premier economic status it held centuries ago.

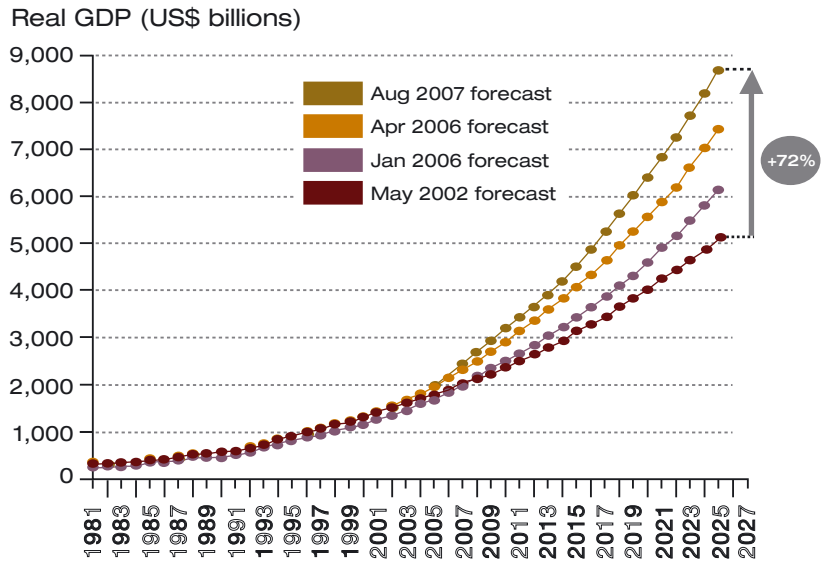
Emerging countries will drive the world economy



Bubble size proportional GDP at PPP (Purchasing Power Parity) in US$billions in 2012

Source: Global Insight, Airbus

China's long-term economic forecast consistently revised upward



Source: Global Insight, Airbus

The world of 2026 will be very different from today

1996	2006	2026
1- US	1- US	1- US
2- Japan	2- Japan	**2- China**
3- Germany	**3- China**	3- Japan
4- UK	4- Germany	4- Germany
5- France	5- UK	**5- India**
6- Italy	6- France	6- UK
7- Brazil	7- Italy	7- France
8- Canada	8- Canada	8- Brazil
9- Mexico	9- Brazil	9- Italy
10- Spain	**10- India**	10- Russia
11- China	11- Spain	11- Mexico
12- Netherlands	12- South Korea	12- South Korea

Ranking by real GDP
Source: Global Insight, Airbus

China's recent economic acceleration is not only due to record exports and investments, but more importantly, is the result of strong domestic private consumption.

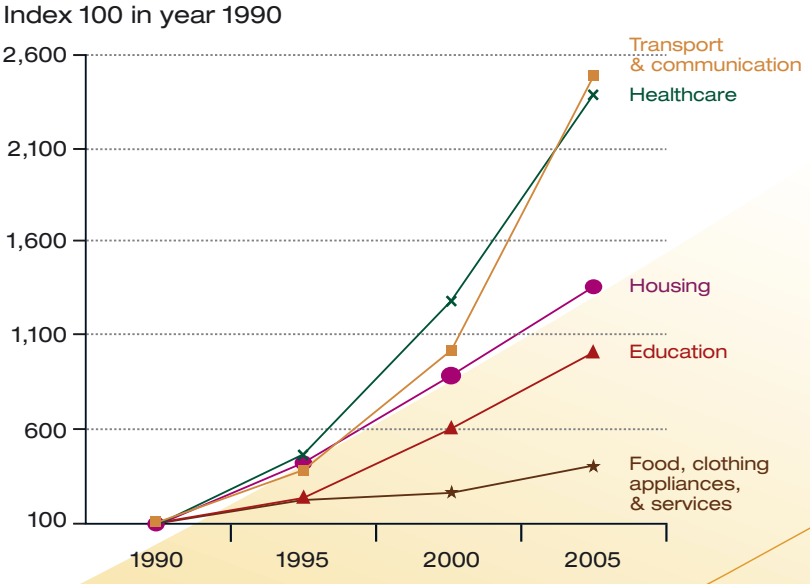
A burgeoning economy, higher disposable income, a demographic shift towards large cities and the growing importance of a younger generation of consumers, combined with a government focus on establishing consumer spending as the main driver of economic growth, have already yielded a sizeable increase in consumer spending. In fact, Chinese households have increased their intake of consumer goods by 15% year-on-year for the last two years.

However, today's consumer spending in China is only a hint of what is expected to come: there will soon be a massive wave of middle-class consumers that will push spending to new heights. This wave will be created by the convergence of six phenomena: (1) a burgeoning economy, (2) rapid urbanisation, (3) more, higher paying jobs in urban areas, (4) the gradual relaxation of attitudes in urban Chinese society to savings, (5) the increasing value of time and (6) the likely favourable exchange rate. Air transport will benefit from this demographic shift.

India and China are evolving into vibrant marketplaces with a dynamic consumer base, which is expected to become three times larger than that of North America and Europe combined, by 2026. In time, the influx of these new consumers from emerging countries will prove crucial to the world economy, as private consumption in developed countries reduces. With levels of consumerism set to ease in developed regions, the world economy will increasingly rely on China and India as an alternative source of demand. This may create an asynchronous economic cycle, with the US slowing before Europe and other developed countries, followed by China and India, a pattern that may lessen the cyclical nature of the world economy and indeed associated business cycles.

A giant pool of first generation flyers

Consumption of transportation and communications: the fastest growing share of Chinese household's wallet



Source: National Bureau of Statistics of China, Airbus

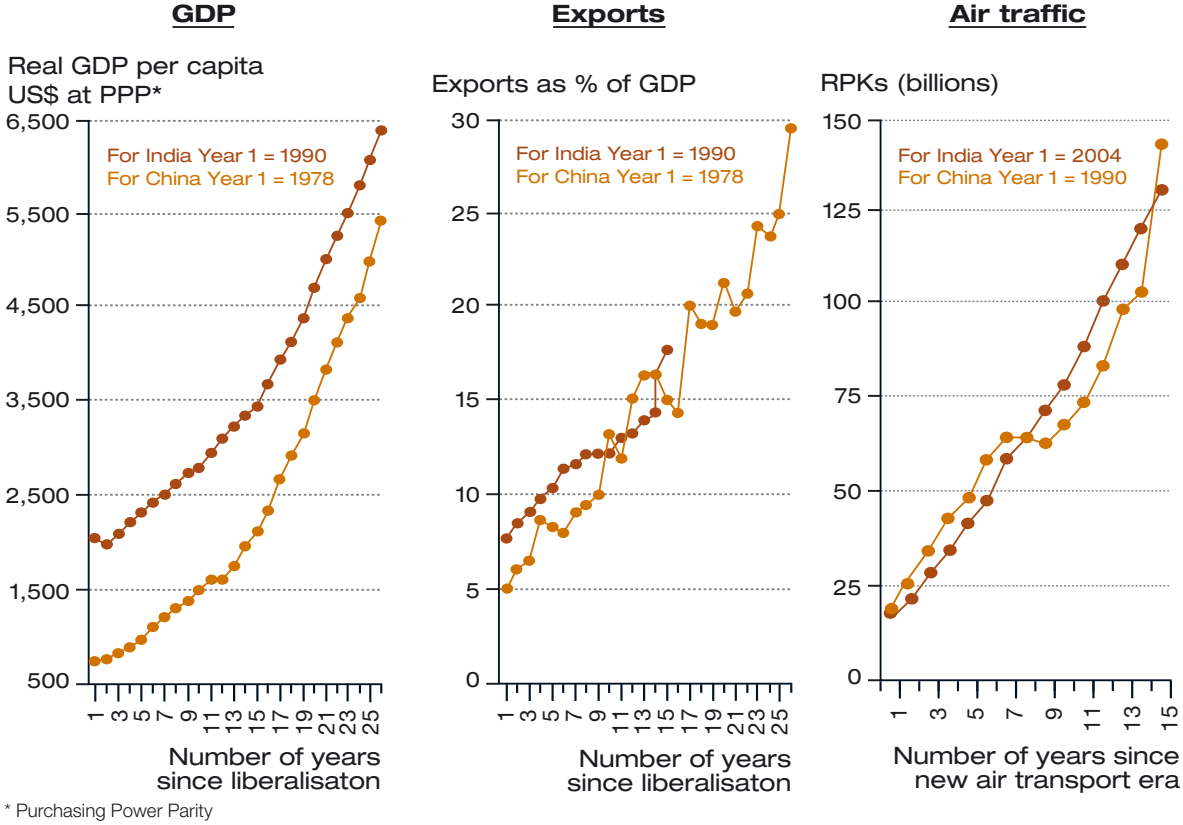
India to follow China in joining top five world economy consumer base

India has recently joined the world's top ten economies and will no doubt be among the top five by 2026. The source of its economic growth differs from China's, but the pace achieved since economic reform is identical.

Services and information technology remain the backbone of India's economy, with manufacturing small, but growing fast. India's private spending contributes 60% to its GDP, a figure closer to developed than to emerging economies.

It was in 1990, 12 years after China, that India started the reforms that led to its emergence as a potent economic power. Since then, it would appear that the Indian economy, exports and transportation development have closely followed Chinese development, only with a 12-year interval. India's GDP per capita was four times that of China at the beginning of the reforms, but with very similar growth. India's exports, measured as a percentage of GDP, are also growing in a very similar fashion to China, with the same 12-year gap linked to the start of their reforms. India's export of precious stones and clothes has grown as fast as China's export of electronics.

India versus China GDP, export and air traffic since start of reforms



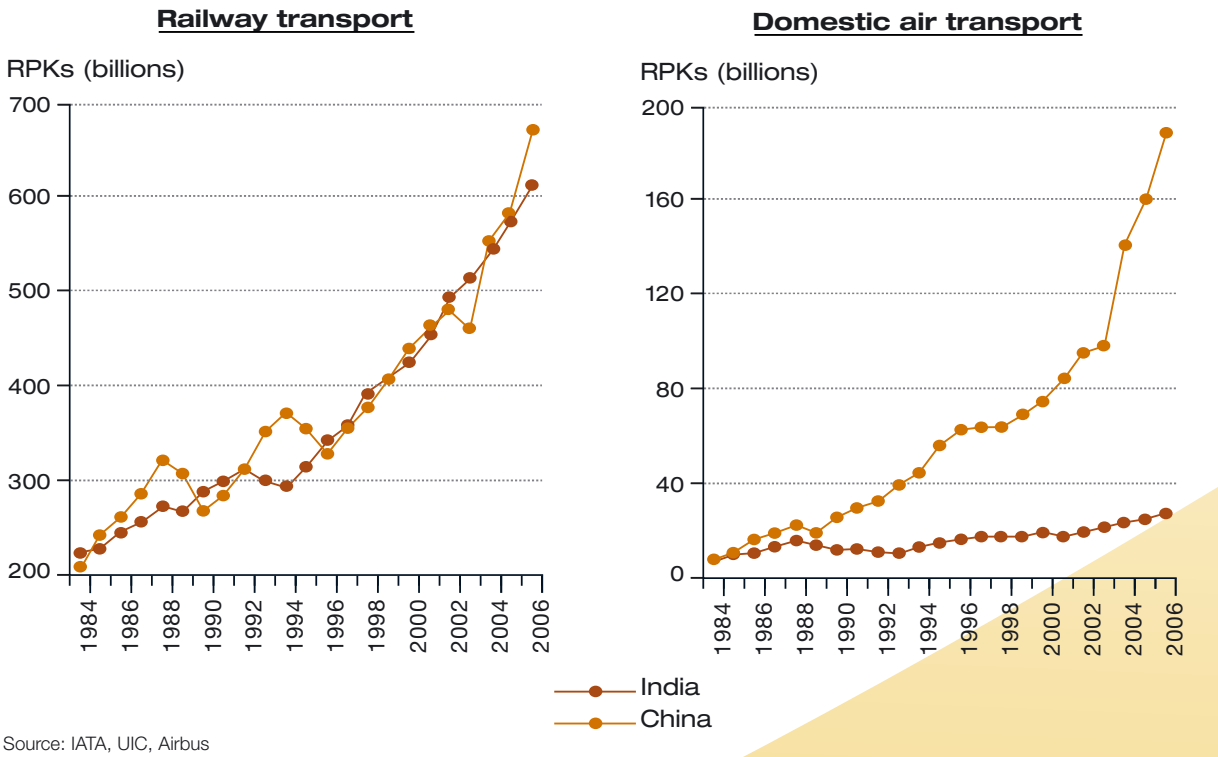
* Purchasing Power Parity

India: enormous air traffic potential unleashed

As income rises in emerging markets, spending patterns evolve from basic needs, such as food, clothing, housing and utilities, to more discretionary items such as recreation, education, electronics and transportation. The urban populations of China and India are moving to spending on discretionary consumer items more quickly than any previous emerging countries. Urban spending on transportation is clearly one of the fastest-growing categories, representing an increasing share of spending by Chinese and Indian households.

Rapid urbanisation, better jobs in large cities and the absence of an established country-wide road transportation network have facilitated the rapid penetration of air transport into China and India. In the same way that cell phone technology leap-frogged the development of land based telecommunication lines, air transport has been usurping a greater share from road or rail networks, which still require significant amounts of time and capital to develop fully. This has especially been the case for China and India due to their relative size and topography. For example, it takes up to 24 hours to travel from Delhi to Mumbai by train, yet it currently takes only 90 minutes to fly, for the same price.

Strong basic need for transportation in India



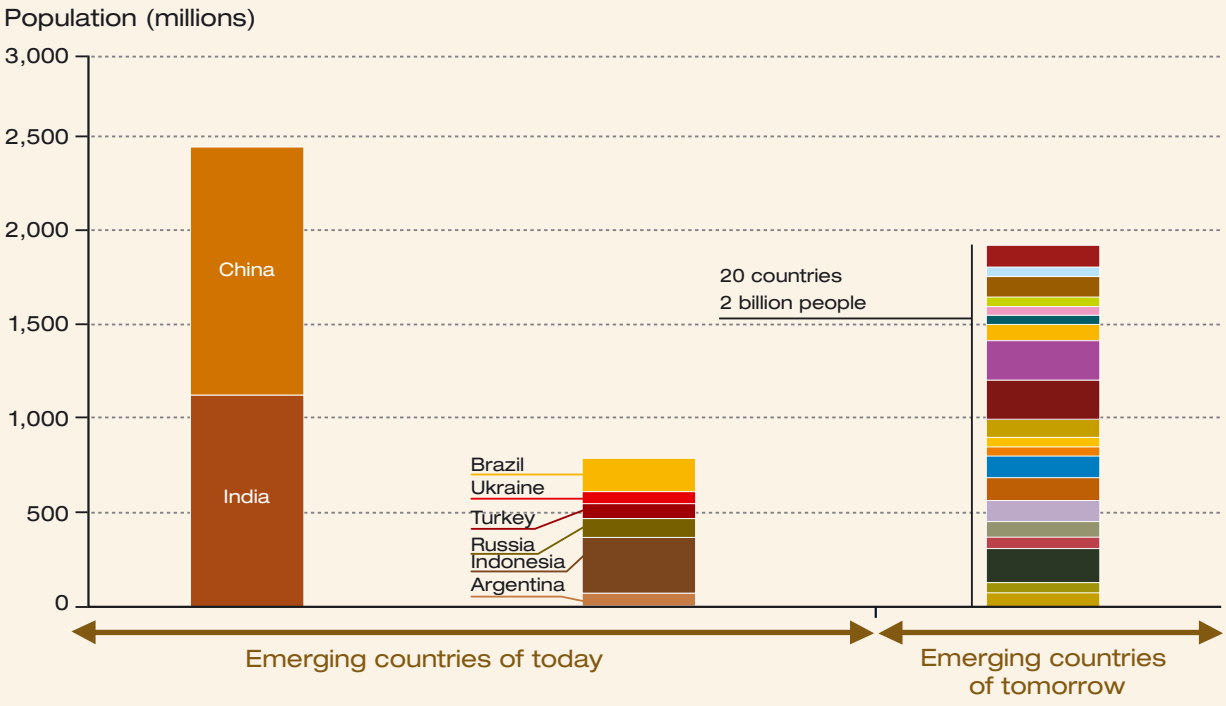
Source: IATA, UIC, Airbus

More than 20 emerging markets in the making

Although China and India are the largest emerging markets, there are other smaller, but significant markets, which are either currently emerging or could potentially emerge during the next decade, in terms of their economies and air transportation. According to the United Nations, there are 27 emerging or potentially emerging countries (excluding China and India), which represent a combined population of almost three billion people.

China and India today; more countries to follow

Other emerging countries as big as China and India combined



Airbus has developed four different methods, highlighted opposite, to assess and identify the countries or markets that could not only emerge economically, but also in which air transport could flourish as a result.
The four methods are based on (1) a thorough assessment of the criteria or indicators (qualitative and quantitative) that drive a country's economy and air transportation and (2) the evaluation of each country against those pertinent criteria and indicators.

The indicators are essentially grouped in four categories: demographics, economics, resources, and geopolitics.

Demographic indicators include population growth, urbanisation, income, social class development and their propensity to travel.

The economic factors are GDP per capita, trade, household consumption, inflation and industrial deregulation. Resources include human capital, commodities, infrastructure, tourism attractiveness, geography (location, coast, mountain) and access to technology, airlines or airports. Geopolitics include the degree of "openness", the strength of the institutions, capacity for change, political stability and potential conflicts.

The four methodologies used to identify the degree of emergence of the countries studied are Composite Index (CI), Principal Component Analysis (PCA), Clustering (CL) and Discriminant Analysis (DA), all recognised methods used in analysis of this type.

In Airbus' analysis, if a particular country is highlighted by at least three of the four methods, they are considered to be in the "emergent country" category, in terms of air transport. As a result, the top ten most promising countries in terms of this analysis (other than Brazil, Russia, India and China) are in alphabetical order: Algeria, Argentina, Columbia, Egypt, Indonesia, Mexico, Pakistan, Peru, South Africa and Vietnam, which have a combined population of nearly one billion people.

How to identify emerging countries in the making:

Benchmark

Dimensions and Criteria

Indicators

Demographic
- Population
- Middle-class
- Age structure
- Literacy

Economic
- GDP
- Imports/exports
- Consumption

Resources
- Human capital
- Commodities
- Access to technology
- Airports/airlines
- Location, coasts, mountains

Geopolitical
- Political stability
- Terrorism
- Conflicts

Methods

Composite Index (CI)

Principal Component Analysis (PCA)

Clustering (CL)

Discriminant Analysis (DA)

Evaluation

	CI	PCA	CL	DA
Country 1	*	*	*	*
Country 2	*	*	*	*
Country 3	*	*	*	*
Country 4	*	*	*	
Country 5		*		
Country 6		*	*	*
Country 7		*	*	*
Country 8	*	*	*	
Country 9	*	*		*
Country 10	*	*		*

India and China addressing infrastructure and pilot challenge

Insufficient infrastructure and flight crew availability have often been cited as the cause for potential constraints to growth in emerging markets. However, where there is growth there is often opportunity, with infrastructure projects like airports and aviation support services firmly in this category. Also, when demand and opportunity are combined with a political will, much can be achieved.

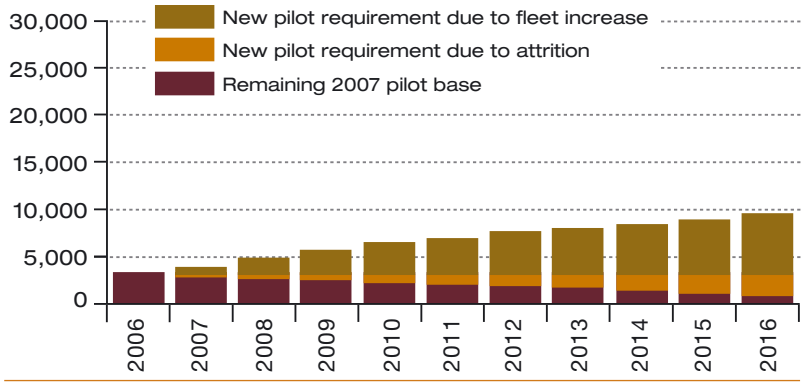
In India an innovative strategy has been applied at an early stage in the development of airport infrastructure, through partnerships encompassing airport authorities, financial institutions, industrial conglomerates and top foreign airport operators. Airport infrastructure is rapidly benefiting from these public-private partnerships. The Indian Government's national airport upgrade and modernisation plan will see an investment of US$9 billion. New Delhi and Mumbai International airports are currently undergoing major mordernisation programmes. This will include the completion of two brand new, world-class airports in Bangalore and Hyderabad, which will be capable of handling large capacity passenger and cargo aircraft, with traffic expected to reach 50 million passengers.

Efficient partnerships to develop Indian airports

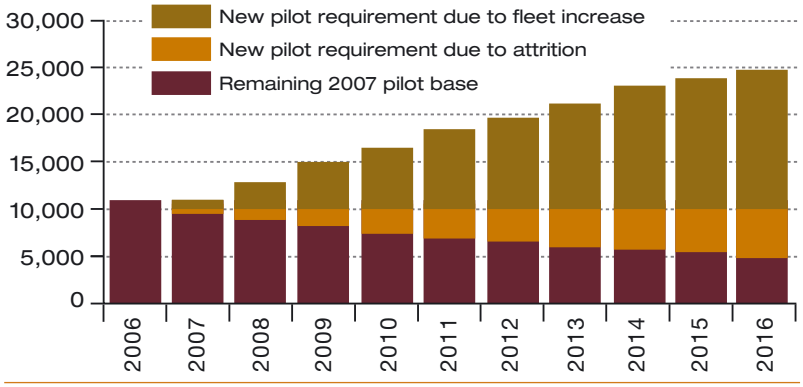
All four airports will be fully operational by 2010. Two other greenfield airports were recently confirmed for Navi Mumbai and Goa, and as many as 35 additional airports are being modernised. When completed, with the later addition of a fourth and then fifth terminal, New Delhi Airport will have over 500 check-in counters, over 200 aerobridges and 150 immigration counters. The international terminal alone will have 130 check-in counters, 70 immigration desks, 55 aerobridges, a high-speed metro and a six-lane approach road. The airport's 2005 capacity of 15 million passengers will grow to 37 million in 2010, following completion of Terminal 3, and eventually to over 100 million with the later terminal additions, making it one of the largest, most modern airports in South Asia.

Such projects, particularly construction at Bangalore Airport, which will open in 2008, having been built from scratch in just 33 months, are a clear sign that infrastructure projects can - and do - move fast in India. They also provide an efficient and cost-effective use of precious land resource, when compared to that needed for other mass transit options like, such as extensive motorway systems for example.

Indian pilot numbers to nearly triple...



...Chinese pilot numbers to more than double



The forecast fleet growth in emerging nations will inevitably drive a strong demand for supporting services. Increased requirements for pilots, maintenance and parts will drive a significant growth in service businesses, such as pilot training and maintenance, repair and overall among developing nations over the next ten years. China is expected to need between 1,900 and 2,000 additional pilots every year to cover the increasing size of fleet, as well as to replace pilots that choose to retire or move to jobs in other countries.

Similar service demands will be evident in India, which is expected to need between 800 and 900 additional pilots per year to cover their fleet size increase and the requirement to replace pilots. Today, a significant part of this need is satisfied by "imported" services from Europe or the US. However, driven by airline demand for local, skilled, low labour rates, indigenous providers are emerging and are becoming increasingly autonomous and competitive. The trend is continuing to evolve with the consolidation of some of these local providers. In addition, some providers are even beginning to export services, leveraging their advantages in terms of labour, costs and, at times, favourable exchange rates.

Traffic forecast

Traffic shifting east

The starting point for any aircraft demand forecast is a clear understanding of the issues driving air transport and the way in which they affect future air traffic. Airbus' traffic forecast process is based on four major building blocks: detailed market research, suitable market segmentation, targeted use of econometrics and detailed network development analysis. The latter being particularly important, as it provides a systematic view on how the route structure of the world's air transport system will evolve, based on true passenger origins and destinations.

The 2007 Airbus Global Market Forecast (GMF) analyses a total of 155 distinct domestic, regional and intercontinental passenger sub-markets, segmented according to their degree of maturity and specific characteristics over time.

Airbus market research examines the fundamental drivers of transportation including future consumer behaviour and expectations, the pace of liberalisation, modal competition, the growing importance of emerging markets and constraints, such as the influence of airport congestion.

The market is segmented by airline business model, region and traffic flow, which enables the precise circumstances and drivers prevailing on each segment to be fully considered. Econometric data is then used to quantify future air travel demand based on economic, operational and structural variables.

Airbus traffic forecast: from research to network development

Market research	Market segmentation	Econometrics	Network development
• Deregulation/liberalisation	• Regional/low cost/charter	• Economics	• Aircraft economics
• Emerging markets	• Start-up/network	• Tourism	• Airline operation economics
• Modal competition	• Integrators	• Fuel price	• Origin-destination demand
• Low-cost penetration	• Traffic flows	• Yields	• Demographics
• Consumer/travel surveys	• Domestic/international	• Trade/value of goods	• Geopolitics

Air traffic to double in next 15 years

Economic developments can be measured by several macro economic variables including Gross Domestic Product (GDP), exports, imports, unemployment rate, inflation, private consumption and disposable personal income. For each edition of the GMF and each traffic flow, the final permutation of independent variables that are selected follows the testing and statistical evaluation of numerous possible combinations. Most often for developing and matured markets, the statistical model that best fits the historical traffic provides the best explanation of future trends and is, therefore, the one selected for use in Airbus' aircraft demand model.

In some market segments, classic econometric modelling is not sufficient to adequately forecast traffic growth and the use of hybrid models is required. For example, in Asia, the development of Low-Cost Carriers (LCCs) is driven by the pace and timing of deregulation within each country and of liberalisation between others. In Mexico, a portion of air traffic growth depends on the number of people switching from the popular bus network to air transport, which is a consequence of lower airfares and improved journey times. In the maturing LCC markets of North America and Western Europe, the LCC growth will ultimately depend on the number and size of new routes still to be opened, on an economic and sustainable basis. Good examples include the growth witnessed in India, which although undoubtedly influenced to some extent by classic econometric drivers such as economic, trade and population growth, have also benefited from increased access to air transportation, either through new destinations or simply through greater affordability as a result of deregulation and competition. These positive developments have been made possible by the actions of regulators keen to take advantage of the benefits of air transportation.

The use of econometric or hybrid models allows us to conduct sensitivity analysis around our base forecast in a more systematic way. Airbus is often asked how variations in a number of underlying factors, such as the changing price of oil, a recession or accelerated market liberalisation, can affect traffic growth and the resulting demand for air travel.

More upside potential than downside

Sensitivity analysis is useful to understand the impact that variations in certain economic conditions could have on the baseline traffic forecast. To illustrate this, below are two examples of sensitivities showing possible conditions that are worse and better than the most likely case of the GMF.

Scenario 1, applies lower economic growth for the United States and China. This is 1% and 1.5% respectively below the GMF assumption for the 2007-2011 period. This scenario also incorporates a fuel price of US$120 per barrel at the end of 2011, rather than the base GMF assumption. Even in this more downbeat scenario, traffic growth still achieves 4.2% growth against the GMF baseline of 6%.

Scenario 2, which is more positive, assumes that the top two emerging nations will grow at a rate 1.2% higher than GMF base assumptions and that the current 50% Chinese household saving rate will moderate to 35%, which is the same as India and Europe today. In this case, 2007-2011 worldwide traffic growth could reach 7.7% per year, some 1.7% higher than the GMF base forecast. Given the fact that emerging countries have repeatedly beaten expectations, the upside scenario is more probable.

Sensitivity analysis: understanding the upside and downside from the most likely case

Scenario 1

		2007-2011
US real GDP (AAGR*)	GMF 2007	2.9%
	Pessimistic scenario	1.9%
Chinese real GDP (AAGR*)	GMF 2007	8.6%
	Pessimistic scenario	7.1%
2011 fuel price (current US$/barrel)	GMF 2007	GMF base
	Pessimistic scenario	$120

Scenario 2

		2007-2011
Emerging countries (India & China) real GDP (AAGR*)	GMF 2007	8.7%
	Optimistic scenario	9.9%
Other rapidly developing nations real GDP (AAGR*)	GMF 2007	4.5%
	Optimistic scenario	5.7%
Chinese saving rate (% in 2011)	GMF 2007	50%
	Optimistic scenario	35%

	PESSIMISTIC	GMF 2007	OPTIMISTIC
2011 annual traffic (RPKs - billions)	5,412	5,887	6,309
2007-2011 traffic growth (AAGR*)	4.2%	6.0%	7.7%

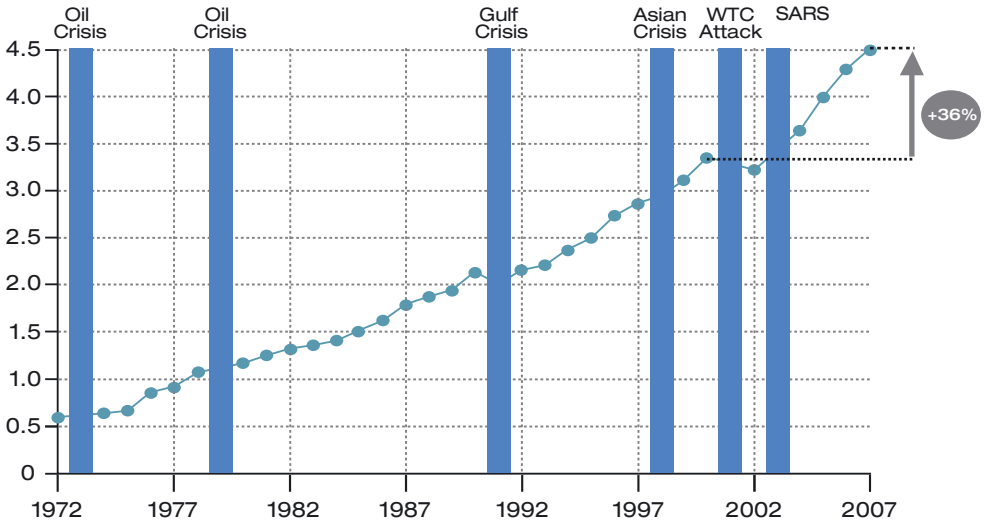
* Average Annual Growth Rate

Economically driven downturns in demand are a historical fact in the air transport industry and are often exacerbated by exogeneous events such as war, terrorism and disease. However, these lows have generally been relatively short lived, after which the trend towards strong growth has been resumed.

After two years of stagnation following the events in 2001, air travel demand made a solid comeback, growing by 14% in 2004, 7% in 2005 and 6% in 2006, with approximately 6% expected for 2007. Demand and consequent traffic growth do not appear to have been affected by increases in airport security and ticket prices, which have edged up to cover increases in fuel prices and have helped airlines to improve their financial position.

Air travel resilient to external shocks

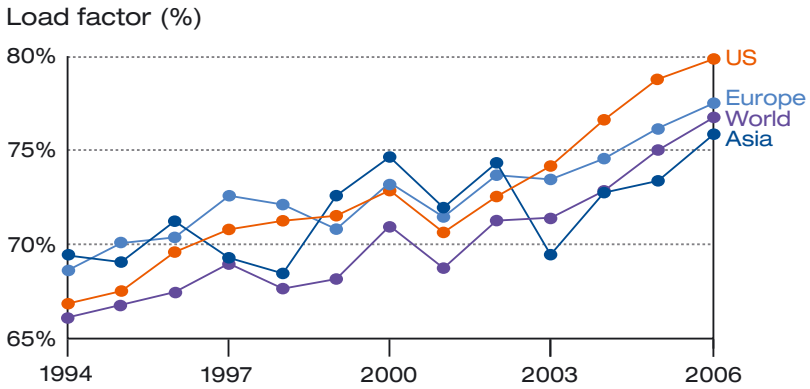
World annual traffic (RPKs* - trillions)



* Revenue Passenger Kilometres
Source: ICAO, Airbus

In order to accommodate demand, airlines have successfully increased their aircraft load factors, which are currently at an historic high, indicating the focus being placed on capacity management. This is important, because it affects the financial gain of the airline and the environmental impact of air transportation: the more seats that are filled on a flight, the more efficiently it moves people around the world. Monitoring the load factor is also a useful way to check that capacity or supply is not being added too quickly, which could create an inefficient overcapacity in the market place and result in possible pressure on airline yields as airlines seek to fill the extra seats, through reduced ticket pricing.

Load factors at historic high



Source: AAPA, ATA, ICAO, AEA, Airbus

The world's airlines reported an average load factor of 76% on total scheduled services in 2006. A particularly strong improvement occurred in North America, where airlines from the Air Transport Association (ATA) reported average load factors of 80%. European and Asian load factors have also improved, averaging record highs of 77% and 76% respectively. This trend has continued, with ATA airlines reporting an average load factor of 81% for the first seven months of 2007 and the Association of Asia Pacific Airlines (AAPA) reporting progressively higher average load factors of 77%. While some improvement is still possible in certain regions, the number of full aircraft operating on most flows today suggests that significant further improvement is unlikely.

In the coming years, Airbus expects the main drivers of worldwide traffic growth to include:

- The increasing importance of Middle Eastern global hubs;
- A new Asian economic paradigm stimulated by a wave of regional consumerism;
- Deregulation in India;
- The continuing high traffic growth rates for domestic China and the country's emerging international outbound traffic;
- Tomorrow's emerging countries and markets;
- The growing importance of the LCCs in Asia.

The more seats that are filled on a flight, the more eco-efficiently it moves people

Asian LCC traffic has doubled in two years

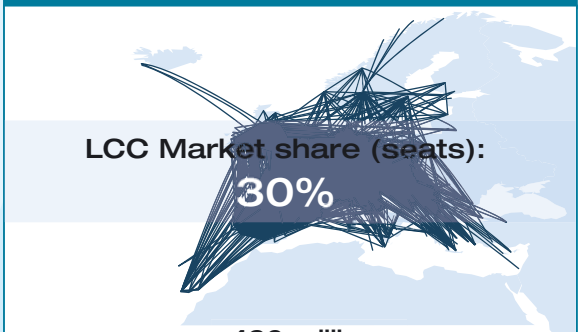
There are now more than 100 LCCs in the world, representing 20% of the total global market in terms of seats offered. While the LCCs in North America are still growing, the network airlines have stabilised their market share, even improving their position in some markets. In Western Europe, the LCCs are beginning to mature. However, there is still considerable growth potential towards the eastern and southern parts of Europe. The market share of Asian LCCs grew from 5% with less than ten airlines in 2004 to 12% with 43 airlines in 2007, if the new Chinese domestic carriers are considered as LCCs. Given that most Asian domestic and intra-regional markets are still in the early stages of development with limited incumbency, it is likely that Asian LCCs could even, in time, exceed the share of capacity achieved by LCCs in both Europe and the US.

Great potential for Low-Cost Carriers (LCC) around the world

North America

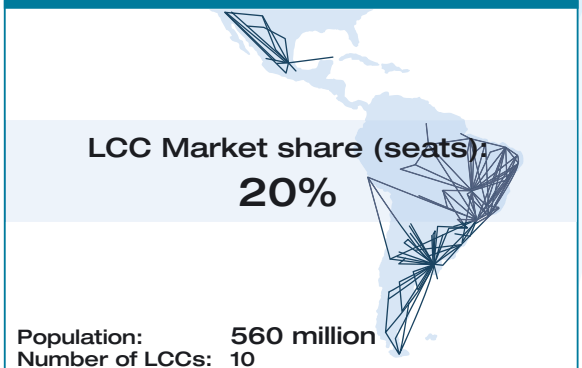
Population: 335 million
Number of LCCs: 13
Deregulation: 1978

Europe



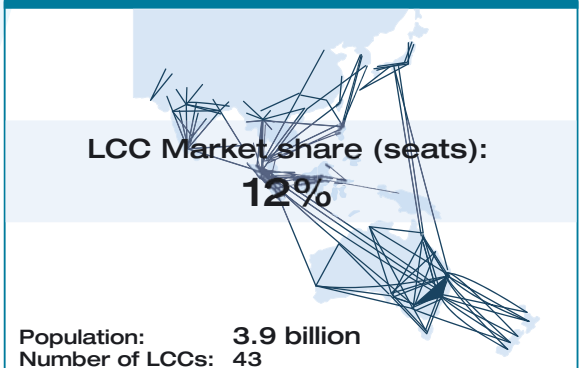
Population: 490 million
Number of LCCs: 44
Deregulation: 1997

Latin America



Population: 560 million
Number of LCCs: 10
Deregulation: acceleration today

Asia



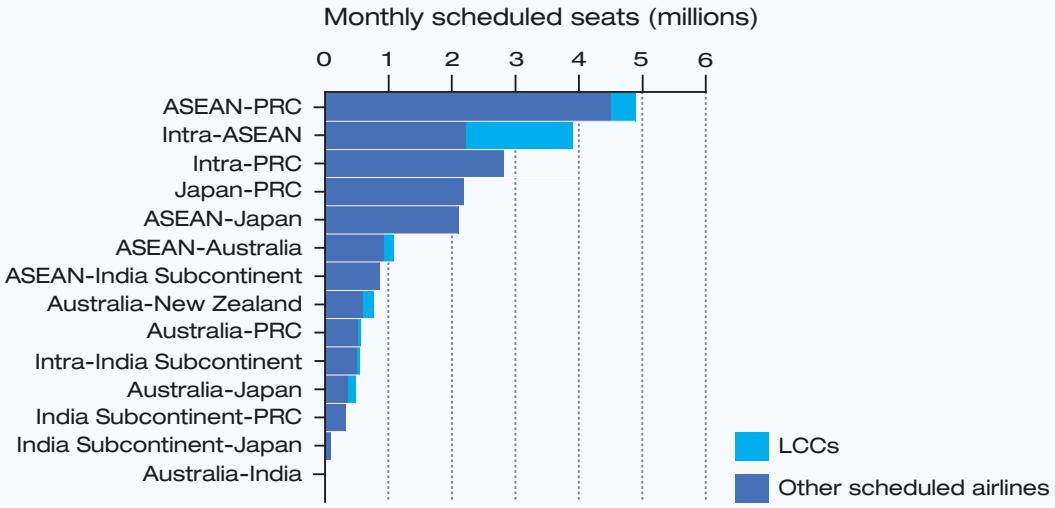
Population: 3.9 billion
Number of LCCs: 43
Deregulation: acceleration today

LCCs to expand in many intra-Asian markets

So far, most of Asia's LCCs have developed within the region's own deregulating domestic markets. While there is still potential for the development of new domestic routes, there is thought to be much larger growth potential on the intra-Asian markets. The pace of growth in these markets will largely depend on the pace of liberalisation between countries in the region. For example, the Association of South East Asian Nations (ASEAN) is planning to have 'open skies' from 2008. The time will come when other obvious markets such as the ASEAN to PRC market will offer considerable potential for LCC development. With the exception of the Australia to Japan market, most intra-Asian markets are still practically untouched by LCCs.

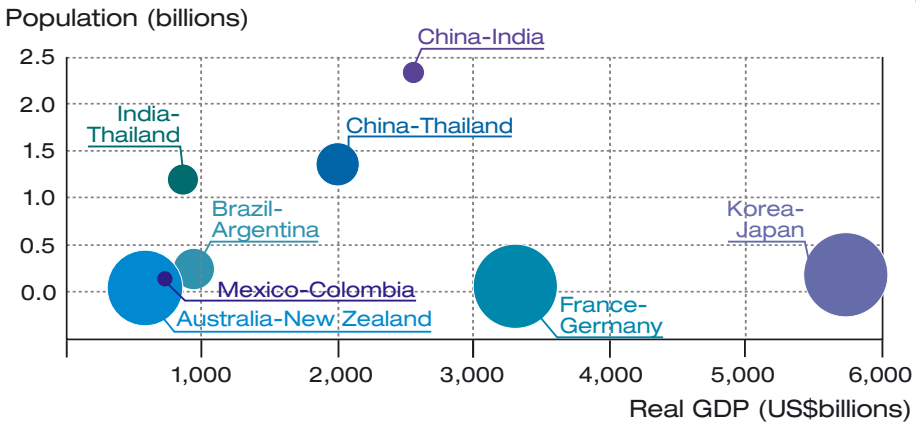
Amongst these relatively untouched markets, one stands out: the Chinese-Indian market. With more than one billion people on each side, a formidable industrial and service power base, aspiring populations and with no real substitute to air travel due to the natural barrier of the Himalayas, the Chinese-Indian market is likely to be the champion of all high potential intra-regional markets. As the historical, political and social differences lessen and common interest grows on both sides, a powerful and enduring, broad based bilateral co-operation is being shaped. The potential is further highlighted by the comparison with other economic powerhouses that have also, at times, overcome differences and competitive pressures. For example, the combined population of Brazil and Argentina is ten times smaller and their combined GDP 2.5 times smaller than the combined values of China and India, yet today air traffic between them is almost ten times bigger.

Large potential for Asian LCCs on intra-Asian markets



Source: OAG September 2007, Airbus

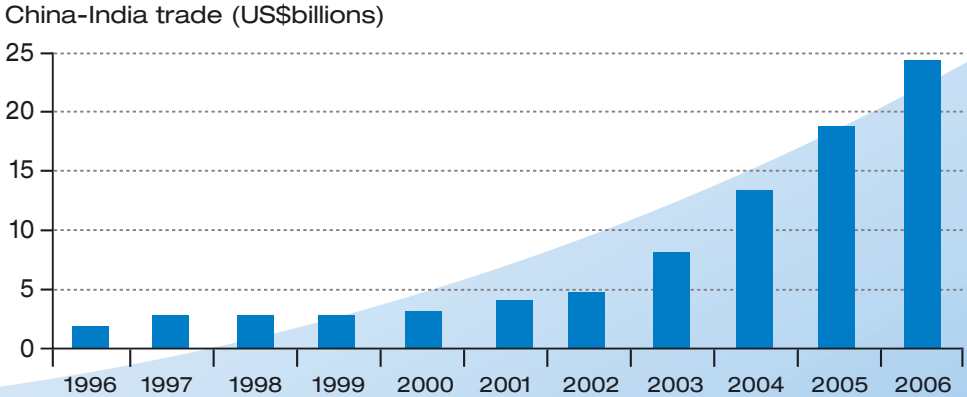
Traffic between China and India small compared to its potential



Population and real GDP figures include both country pairs
Size of bubble proportionate to size of air traffic between country pair

The political will to develop closer socio-economic ties that started in 2003, has driven trade worth US$3 billion in 2000 to US$25 billion in 2006, an average annual increase of 45%. India became China's tenth largest trading partner in 2006, while China is India's second largest trading partner. India to China trade is likely to overtake India's US$30 billion trade with the US in the very near future. This relationship continues to develop in both scale and scope, with more value-added goods being traded.

China-India: increase in trade is a catalyst to improving commercial and economic ties

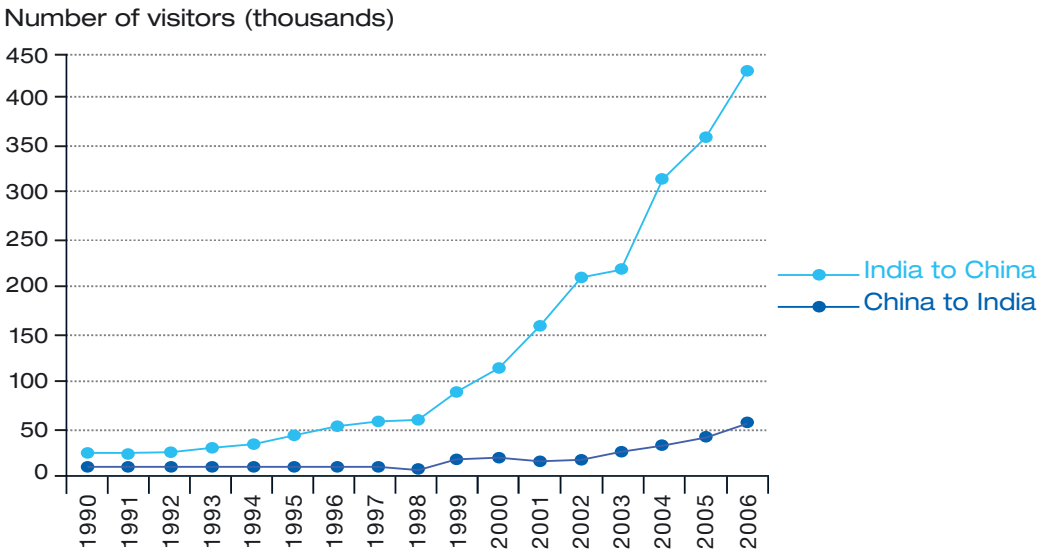


Source: National Bureau of Statistics of China, Airbus

There is no doubt that the economic dimension of this partnership will promote tourism and business between the two countries and that air traffic is likely to benefit from and support this growth. This is especially true for China to India tourism and business travel. The number of visitors travelling from India to China has already taken off over the last ten years with 430,000 people making the journey, in comparison to 55,000 Chinese people visiting India. Indeed, since 2000, China has emerged as one of the top destinations for students and people with small businesses in India. The volume of Chinese visitors to India has still to pick up the momentum seen in the other direction, but it promises to grow faster as the Indian infrastructure, which is the major impediment, develops further.

In the next 20 years worldwide Revenue Passenger Kilometres (RPKs) will grow at an average of 4.9% per annum. Among the largest submarkets, annual RPK growth on domestic Indian and PRC flows is expected to average 11.5% and 8.4% respectively. This reflects increasingly optimistic projections for economic growth in these countries, as well as a growing tendency for their populations to travel by aircraft. Growth will also be driven by increased wealth and improved access to air transportation generally. Some other markets linked to the Indian Subcontinent are expected to grow strongly, with an average annual RPK growth of 8.0% for the Indian Subcontinent-US market and 7.5% for the Asia-Indian Subcontinent market for example.

China-India visitors: India ten years ahead

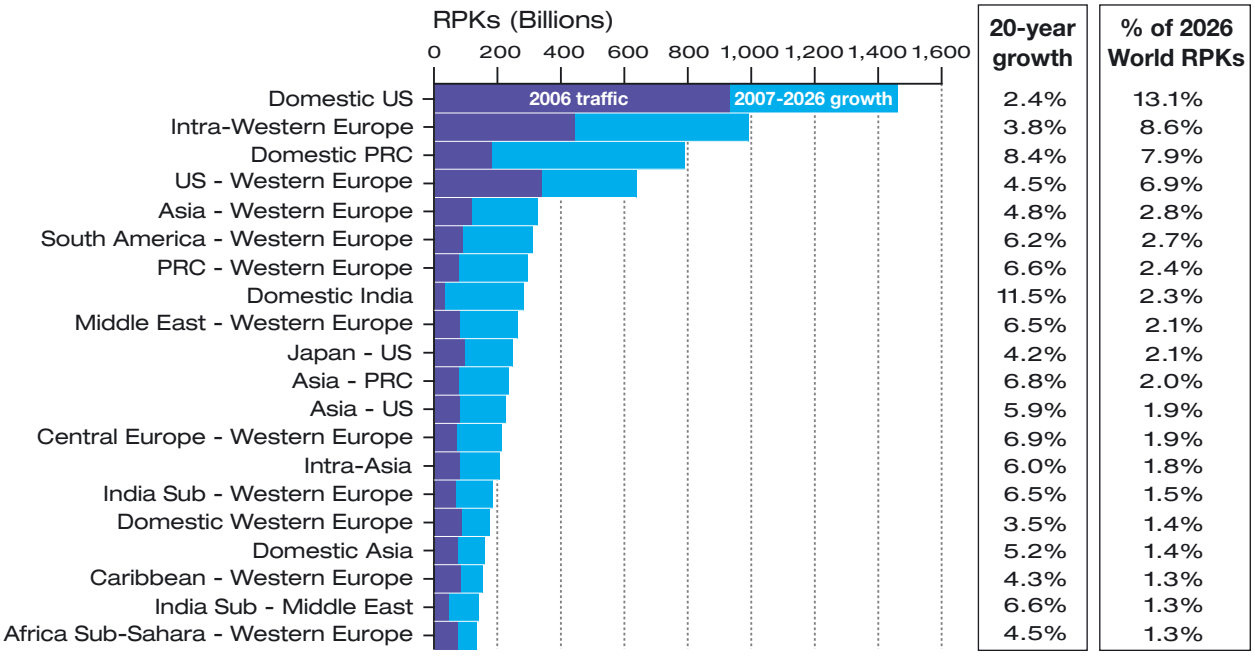


Source: World Tourism Organisation, Airbus

Air transport: a major enabler for China and India's future

20-year world annual traffic growth 4.9%

Largest 20 traffic flows in 2026



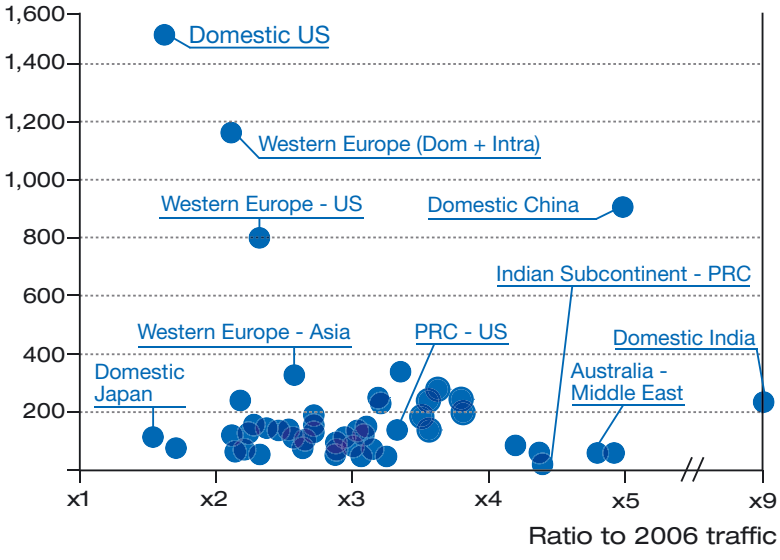
	20-year growth	% of 2026 World RPKs
Domestic US	2.4%	13.1%
Intra-Western Europe	3.8%	8.6%
Domestic PRC	8.4%	7.9%
US - Western Europe	4.5%	6.9%
Asia - Western Europe	4.8%	2.8%
South America - Western Europe	6.2%	2.7%
PRC - Western Europe	6.6%	2.4%
Domestic India	11.5%	2.3%
Middle East - Western Europe	6.5%	2.1%
Japan - US	4.2%	2.1%
Asia - PRC	6.8%	2.0%
Asia - US	5.9%	1.9%
Central Europe - Western Europe	6.9%	1.9%
Intra-Asia	6.0%	1.8%
India Sub - Western Europe	6.5%	1.5%
Domestic Western Europe	3.5%	1.4%
Domestic Asia	5.2%	1.4%
Caribbean - Western Europe	4.3%	1.3%
India Sub - Middle East	6.6%	1.3%
Africa Sub-Sahara - Western Europe	4.5%	1.3%

India and China fastest growing, but US remains the largest market

For other, more mature markets, such as the domestic US and the intra-European market, Airbus forecasts average annual RPK growth of 2.4% and 3.8% respectively. Although these seem to be relatively small numbers, they are still significant due to the already high levels of traffic in these regions.

The pace of growth for Indian and Chinese domestic flows is set to increase nine-fold and five-fold respectively over the next 20 years. However, by 2026 the total volume of traffic, including growth, will still be larger in the US.

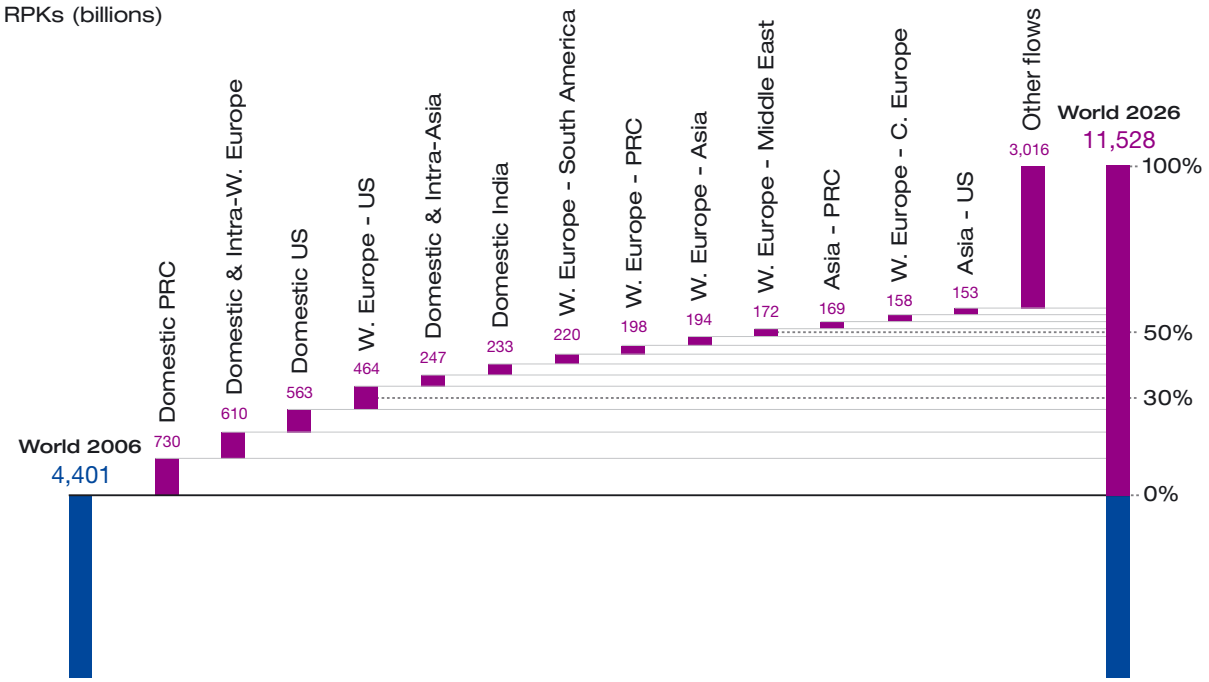
Traffic volume in 2026
RPKs(billions)



Domestic PRC the largest contributor to world traffic growth

In addition, the combined Middle Eastern traffic flows are expected to expand rapidly, with 6.5% annual growth to 2026. Flows from and within the Commonwealth of Independent States (CIS) will generate 6.3% average annual growth. Africa and Latin America are expected to increase by 5.8% and 5.3% respectively over the next 20 years.

World traffic growth by regional flow - 2026 versus 2006



Evolution of world top ten traffic flow by RPK

1995	2000	2006
1. Domestic US	1. Domestic US	1. Domestic US
2. Intra-Western Europe	2. Intra-Western Europe	2. Intra-Western Europe
3. US - Western Europe	3. US - Western Europe	3. US - Western Europe
4. Japan - US	4. Japan - US	4. Domestic PRC
5. Asia - Western Europe	5. Asia - Western Europe	5. Asia - Western Europe
6. Asia - US	6. Domestic PRC	6. Japan - US
7. Domestic PRC	7. Domestic Western Europe	7. South America - Western Europe
8. Domestic Japan	8. South America - Western Europe	8. Domestic Western Europe
9. Domestic Western Europe	9. Domestic Japan	9. PRC - Western Europe
10. South America - Western Europe	10. Asia - US	10. Asia - US

Flows that involve North America and Europe are also expected to remain significant. Seven of the top ten flows, in terms of actual traffic added, are forecast to involve the US, Western Europe or both. However, traffic within China is now expected to add more RPKs than any other flow in the next 20 years, with the domestic and intra-European flow next in order of importance using this measure.

Passenger traffic growth by airline domicile

World

2007-2016	2017-2026	20-year growth
5.4%	4.4%	4.9%

Europe

2007-2016	2017-2026	20-year growth
4.8%	4.3%	4.5%

CIS

2007-2016	2017-2026	20-year growth
6.6%	4.7%	5.6%

North America

2007-2016	2017-2026	20-year growth
3.6%	3.5%	3.5%

Middle East

2007-2016	2017-2026	20-year growth
8.1%	5.5%	6.8%

Latin America

2007-2016	2017-2026	20-year growth
6.7%	4.8%	5.7%

Africa

2007-2016	2017-2026	20-year growth
6.1%	4.5%	5.3%

Asia-Pacific

2007-2016	2017-2026	20-year growth
7.2%	5.0%	6.1%

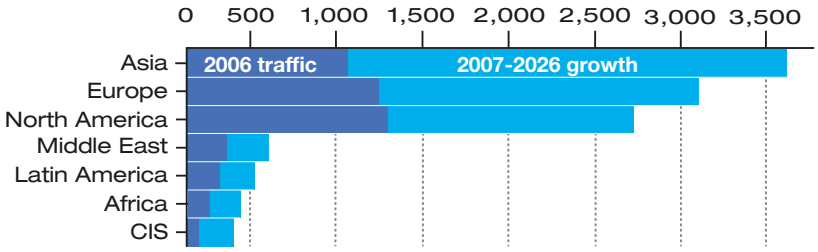
2011	2016	2026
1. Domestic US	1. Domestic US	1. Domestic US
2. Intra-Western Europe	2. Intra-Western Europe	2. Intra-Western Europe
3. US - Western Europe	3. Domestic PRC	3. Domestic PRC
4. Domestic PRC	4. US - Western Europe	4. US - Western Europe
5. Asia - Western Europe	5. Asia - Western Europe	5. Asia - Western Europe
6. South America - Western Europe	6. South America - Western Europe	6. South America - Western Europe
7. Japan - US	7. Japan - US	7. PRC - Western Europe
8. PRC - Western Europe	8. PRC - Western Europe	8. Domestic India
9. Middle East - Western Europe	9. Middle East - Western Europe	9. Middle East - Western Europe
10. Asia - US	10. Asia - US	10. Japan - US

The two largest traffic flows of the last 20 years, domestic US and intra-Western Europe, will remain so, for at least the next 20 years. However, the progress made by Chinese flows is equally clear. The country's domestic flow moved up from seventh place in 1995, to fourth in 2006 and is expected to be the third largest by the end of 2026. Flows from and to the Middle East are also expected to become more important, with growth driven by rapidly developing business and leisure opportunities, as well as the region's aspiration to become a 'world hub'. In particular flows from the Middle East to Europe will move up through the rankings to the ninth position by 2026.

Asia to lead in world traffic by 2026

Traffic by airline domicile

RPKs (billions)



	20-year growth	% of 2026 World RPKs
Asia	6.1%	31%
Europe	4.5%	27%
North America	3.5%	24%
Middle East	6.8%	7%
Latin America	5.7%	5%
Africa	5.3%	3%
CIS	5.6%	3%

As a consequence, airlines based in the Middle East and Asia, which will grow by an average of 6.8% and 6.1% respectively, are expected to develop their traffic more rapidly than those based in other regions. This is fuelled by the aspirations of airlines and in some cases the countries themselves, as well as by access to burgeoning markets driven by liberalisation and a growing propensity to travel.

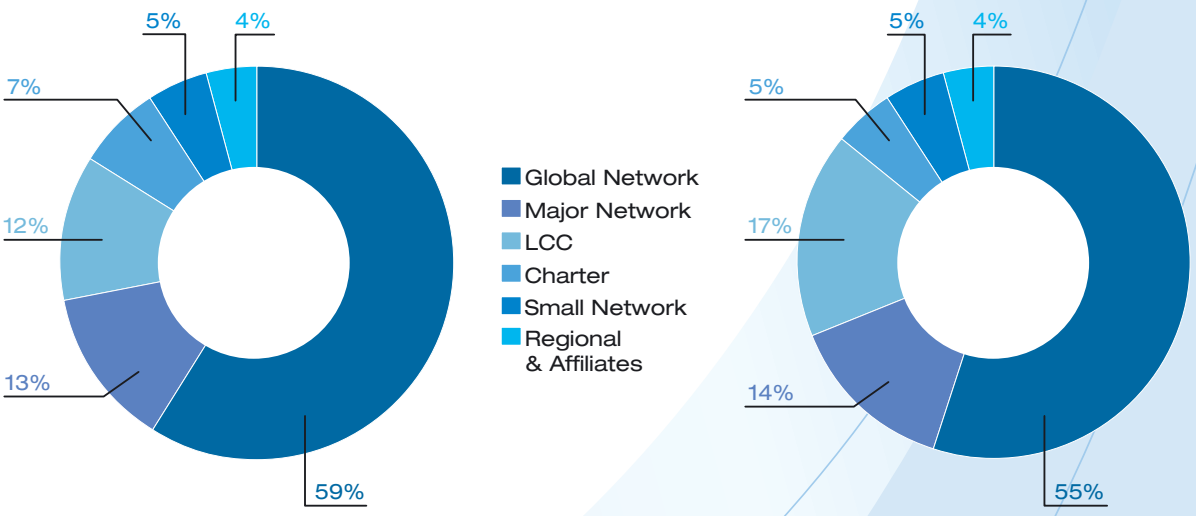
The airlines of Latin America, the CIS and Africa are also expected to register growth higher than the global average during this period, as air transportation and its benefits continue to be more evenly distributed around the world. As a result of these developments, the way traffic is distributed between regions is expected to evolve.

The biggest change will be traffic becoming much more evenly shared across the world, with Asian airlines forecast to almost triple their traffic to represent 31% of world traffic by 2026.

There could be even more of an upside to these figures, should developing Asian countries achieve greater than expected economic growth, as has happened in the recent past, and airlines in the region regain a greater share of their home market from foreign competition than was initially anticipated.

Looking at how traffic will evolve from a different point of view, this time segmenting airlines at a very broad level, or highest possible granularity, the network airlines are expected to remain dominant with 75% of the total worldwide traffic, whether they are global, major, such as a large national flag carrier with a large fleet, or small. The 42 global network airlines, which grow more slowly, will still represent 55% of the total worldwide traffic in 2026. Today's LCCs are expected to grow 2% per annum faster than the global network airlines (the 77 included in this GMF represent 98% of global LCC traffic).

Airline segmentation - world traffic evolution



Traffic at end 2006
4.4 trillion RPKs

Traffic at end 2026
11.5 trillion RPKs

Demand for passenger aircraft

Market demand for 1,200 aircraft per year

Over the next 20 years, the world's airlines will require 23,385 new passenger aircraft with more than 100 seats, worth US$2.6 trillion, to serve demand for air travel.

In terms of units, single-aisle aircraft, such as the A320 will account for more than two thirds of this demand and twin-aisles, such as the A350 XWB, will account for 24%. In terms of value, the single-aisles and twin-aisles will represent 43% and 41% of the total demand respectively. Some 1,283 very large passenger aircraft (VLA), like the A380, will be required, accounting for 5% in terms of units and worth an important share of total business at 16% of total value. Each of these seat segments is driven by market conditions, the opportunities and constraints prevailing on each traffic or regional segment, as well as airline strategies and manufacturer product offerings.

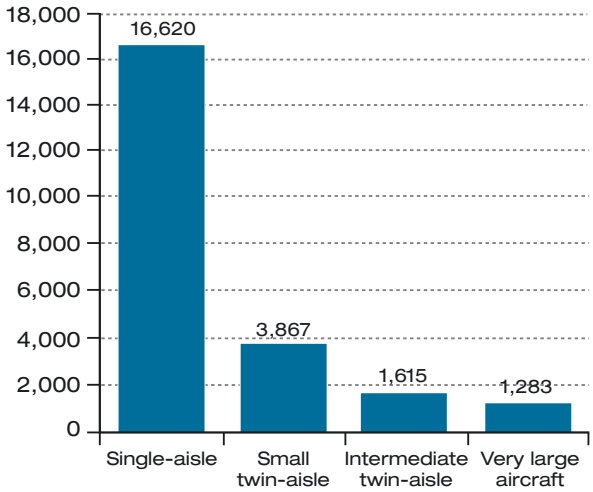
As the different world regions are stimulated by different economic timing, demographic, geographic, regulatory and air transportation structural forces, demand within each region will also differ.

Although air travel growth in the larger, more mature domestic markets of North America and Europe will slow in the following decade, demand for aircraft will continue to be strong, driven by a higher number of replacements during that period. In these regions, efficient widebody aircraft will form a larger share of the total requirement, as international long-haul demand will be fuelled by the need to increase travel, to and from the emerging and dynamic markets of Asia.

In the Americas, single-aisles will represent 84% of the total demand for aircraft with more than 100 seats, while European and African demand will be more evenly spread across market segments. The Middle East, and Asia in particular, will represent a larger share of demand for twin-aisles and VLAs. This is mainly due to the fast growing mega-cities on both side of Asia's international flows, the need to use such aircraft on trunk domestic and intra-regional routes, the fast pace of air travel demand, geographical considerations and the effectiveness of these aircraft in alleviating congestion.

20 year demand for 23,385 passenger aircraft worth US$2.6 trillion

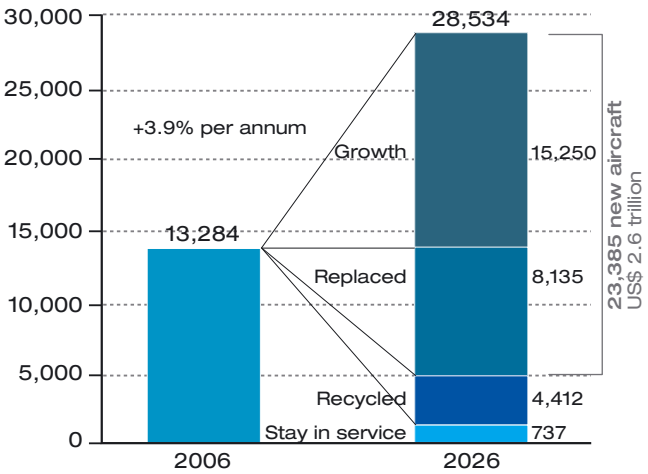
Number of new aircraft



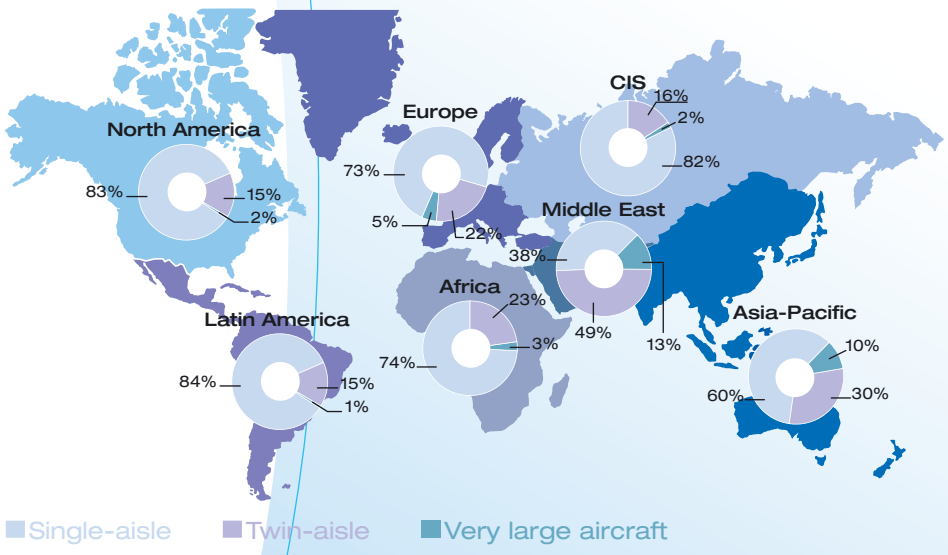
% unit:	71%	17%	7%	5%
% value:	43%	27%	14%	16%

Passenger aircraft ⩾100 seats (excluding freighters)

Fleet size

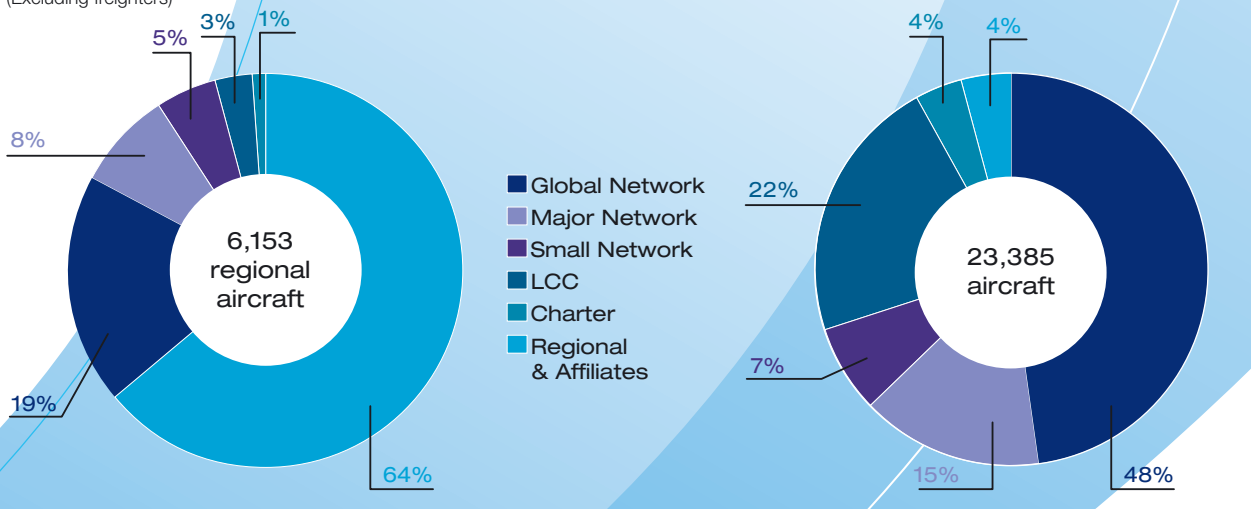


New aircraft demand by region



New aircraft demand 2007-2026

(Excluding freighters)



Passenger aircraft < 100 seats
(turbo-prop & jets)

Passenger aircraft ⩾ 100 seats

95% of current fleet will be recycled or replaced by more eco-efficient aircraft

By identifying up to 135 of airline characteristics or criteria, then regrouping them into a small number of pertinent segments (as few as six) each of which covers a wide scope, in other words high granularity, it is clear that 70% of the aircraft deliveries will remain concentrated within the network airlines. The global network airlines, with their large combined single-aisle and widebody fleets, will require 11,273 aircraft of more than 100 seats. Major (medium size network airlines with international reach) and small operators (network or national carriers with a smaller country base) will require almost 5,000 aircraft. The current Low-Cost Carriers (LCCs) will require 5,206 aircraft, or 22%. (The 77 LCCs included in this forecast represent 98% of LCC fleets). This share could grow higher as more new Asian LCCs enter the market. The current LCCs, particularly in Asia, will also require as many as 400 widebody aircraft including VLA such as the A380, the ultimate low-cost per seat machine. Regional airlines will also require about 1,000 single-aisle aircraft with more than 100 seats.

In addition to the greater demand for aircraft with more than 100 seats, there will be a need for 6,153 regional aircraft with more than 30 seats (either turboprops or jets). Some 64% of these aircraft will be delivered to regional airlines, however, the network airlines, especially in Europe and Asia will need 1,912 of them. The scope clause evolution in the US will greatly influence the requirement for large regional and smaller single-aisle aircraft in both regional and network airlines fleet. This Global Market Forecast (GMF) assumes a conservative evolution of the scope clause in the US, which will continue to push the seat limit higher, as it has done over the last ten years moving from 55 in 1997 to about 75 seats today. In many cases this will result in larger aircraft for both LCC and network airline models.

The Asia-Pacific region, with its significant emerging markets, is expected to take the largest share of deliveries. Although Asia's fleet is currently 22% of the world fleet, Airbus expects demand for 7,231 new aircraft in Asia-Pacific, representing as much as 31% of the total world demand over the next 20 years.

The more mature, yet still significant markets of North America and Europe, are expected to take 27% and 24% of total deliveries respectively. The rest of the world will take the remaining 18%, including 6% for Latin America, which at times will rival the traffic, fleet size growth and aircraft demand expected in Asia.

Asia-Pacific: the largest demand

	2007 -2016	2017 -2026	2007 -2026	% of world deliveries
Asia-Pacific	3,673	3,558	7,231	31%
North America	2,412	3,845	6,257	27%
Europe	2,627	3,102	5,729	24%
Latin America	771	677	1,448	6%
Middle East	506	678	1,184	5%
Africa	464	416	880	4%
CIS	340	316	656	3%
World demand	**10,793**	**12,592**	**23,385**	**100%**

Passenger aircraft >100, (excluding freighters)

Replacements driven by age and eco-efficiency

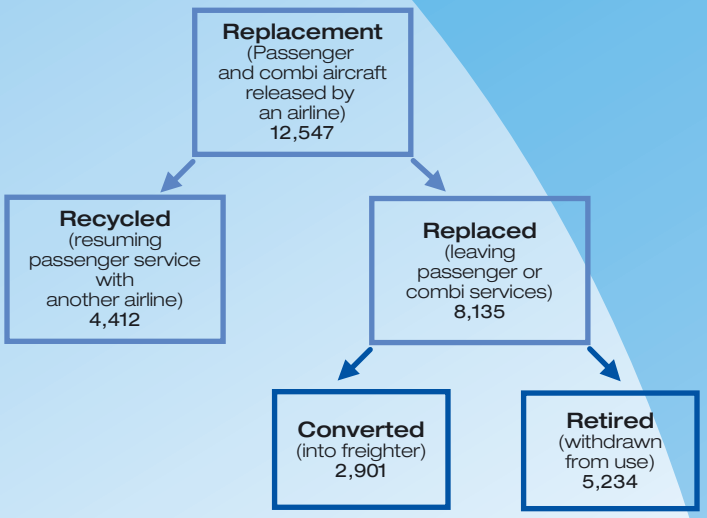
Airlines will acquire aircraft not only to accommodate growth, but also to replace older equipment with more eco-efficient, comfortable and lower cost aircraft. Increased productivity and larger aircraft, will see the traffic demand grow by 4.9% per year and the aircraft fleet by 3.9% per year to satisfy demand for air travel.

The world fleet of aircraft with at least 100 seats will grow from 13,284 today to 28,534 in 2026. However, only the most efficient, like the A320 Family will remain in service to the end of the forecast period. The fuel consumption of the average aircraft in 2026 will be less than three litres per passenger, per 100 kilometres, in comparison to five litres in 2006 and eight litres in 1986. The A380 consumes less than three litres per seat, per 100 kilometres, 20 years ahead of today's fleet.

Up to 95% of the current fleet will be either replaced or recycled into other airlines. Some 8,135 older, less efficient aircraft will leave passenger service, either to be definitively withdrawn from use, or converted to freighter or other non-airline roles. In addition, many of the 4,412 aircraft recycled back into passenger service through sale, lease or lease extension will also be replacing much older, less efficient models.

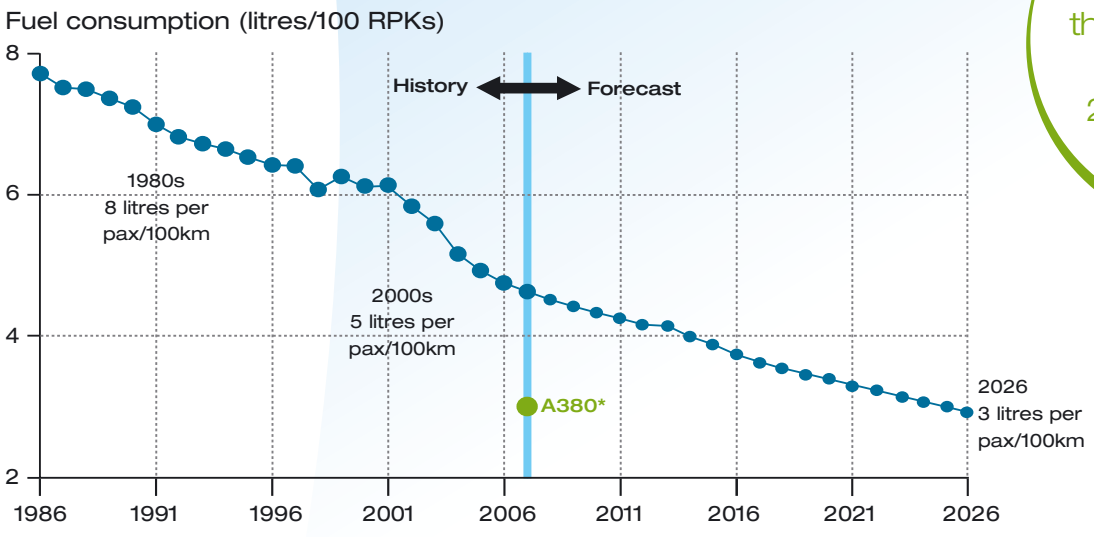
In other words, every one of the 12,547 aircraft leaving their initial operator creates an opportunity to replace them with new, more eco-efficient models.

Aircraft replacement 2007-2026



Retirement and more eco-efficient aircraft leading to increasingly fuel efficient fleet

Average fuel consumption of the world passenger fleet



*Assumed 100% load factor

The world fleet will consume three litres per pax per 100km in 2026. The A380 does it today.

Focus on retirement

Aircraft retirements accelerated in 2006

During the last 50 years, some 22,000 western-built commercial jet aircraft have been produced. Some 5,900 of these had been definitely withdrawn from use by the end of 2006, 1,100 were in storage and 15,000 are still in active service with airlines. Of the 1,700 freighters in commercial operation today, some 1,000 are former passenger aircraft that have been converted to freighters.

Prevailing market conditions determine why and when aircraft enter the different stages of their life cycle. Such drivers include passenger demand, fuel prices, previous order/delivery cycles and residual value, which itself drives freighter conversion potential.

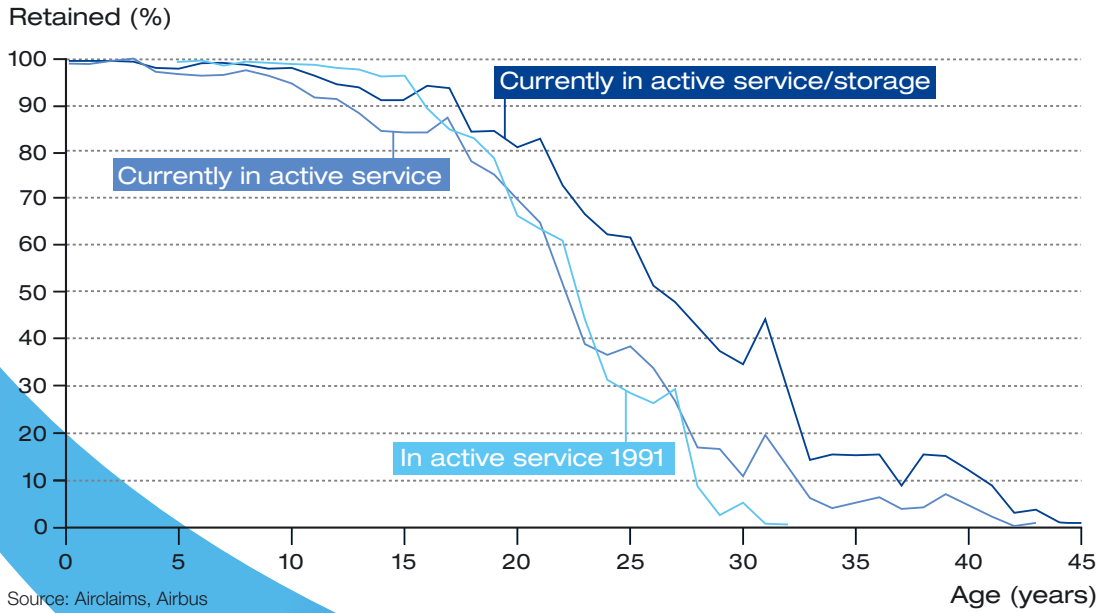
When age profiles of the aircraft in service in 1991 are compared to the current fleet, little has changed. In short, the latest generation aircraft last as long as previous generation aircraft. In 1991 and today, half of the aircraft that were 22.5 years of age were still in passenger service. An apparent lengthening of age shown in the current fleet curve is merely the effect of a few of those aircraft delivered in the 1970s remaining in service because of recent capacity shortage and lower ordering between 2001 and 2004.

The Airbus forecast is primarily based either on the actual fleet replacement plans of each airline, or a default replacement age, (which is determined through detailed analysis of the airline's previous aircraft replacements and the region in which it is based). In the GMF, any passenger aircraft removed from an airline's fleet, either through lease termination, second-hand sale, cargo conversion, storage or decommissioning and recycling, provides an opportunity to place a new more eco-efficient aircraft. A number of the aircraft replaced in the forecast will go back into service with other airlines, thereby competing with new aircraft to meet airline needs. These are the 'recycled' aircraft referred to in the GMF. Others become available for cargo conversions and compete with factory-built cargo aircraft.

In 2004 and 2005, only 215 aircraft per year were definitively retired from commercial service. However, following fuel price increases, some 440 aircraft were retired in 2006, mainly from the JT8 engine generation. These 440 aircraft had an average of 155 seats, while new aircraft delivered that year had an average of 164 seats; further evidence of the trend towards larger aircraft.

Average seats retiring 155; average seats delivered 164

Fleet attrition rate constant over time



Source: Airclaims, Airbus

Airbus committed to eco-efficiency throughout the entire aircraft life cycle

When the end is really just the beginning

Airbus is committed to eco-efficiency throughout the entire aircraft life cycle. This is illustrated by Airbus becoming the first aerospace manufacturer to attain ISO 14001 corporate certification for environmental standards for its 16 production sites, head office and the entire life cycle of its products. As well as covering aircraft production, for which Airbus intends to reduce energy consumption by 30% and CO_2 emissions by 50%, the company's life cycle approach addresses everything from concept and design at the start, right through operations, to decommissioning and recycling of retiring aircraft at the end.

That's why, since 2005, Airbus has been working with several partners on an aircraft recycling programme called PAMELA-LIFE (Process for Advanced Management of End-of Life of Aircraft). Some 5,200 passenger aircraft are due to reach this phase of the life cycle in the next 20 years and what happens to them is clearly important, particularly during periods of higher than average retirement. Decommissioning, therefore, needs to be as environmentally sensitive and efficient as possible.

The PAMELA project has already demonstrated its potential by recycling 65% of the material from an A300-B4 and transforming 85% of the aircraft's weight, in terms of equipment and materials, into value, while establishing environmental best practice. Not only does the project develop and improve sustainable dismantling and recycling techniques that comply with environmental, health and safety requirements, but it feeds valuable knowledge back into the concept and design phase of new, more eco-efficient aircraft to replace those retiring from service.

This effectively completes the loop of Airbus' life cycle approach to aviation and is well illustrated by the A380 programme, for which elements of the static test aircraft had been sent to PAMELA even before its entry into service. In other words, feedback from an aircraft with environmental performance that is 20 years ahead of today's fleet is already being used to design the next generation.

PAMELA is being commercialised through TARMAC AEROSAVE. Managed by a partnership of Airbus, SITA France, Snecma Services, Equip'Aero, TASC Aviation, Aeroconseil in association with Aerospace Valley and the Midi-Pyrenees region, this will help fund and widen access to PAMELA expertise. This is another example of Airbus sharing knowledge and expertise with its industrial partners and providing innovative solutions to customers.

PAMELA: 65% materials recycled 85% of weight to value

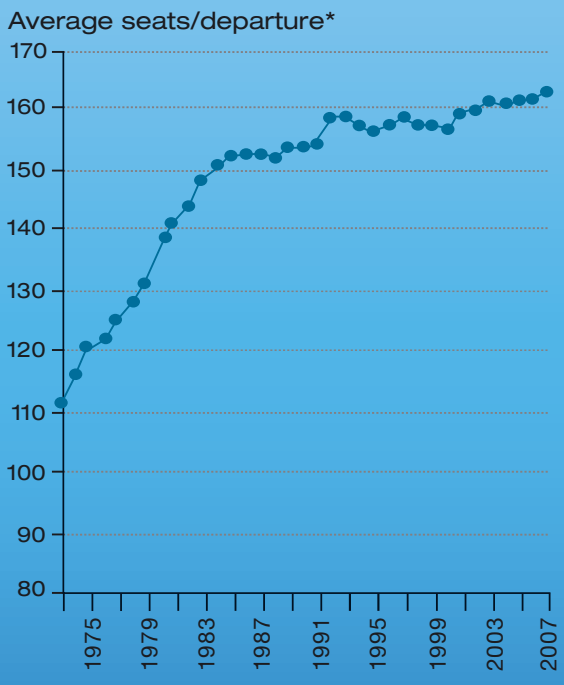
Bigger is better

There is a definitive trend towards larger aircraft in every segment. This is because pressure has never been greater in terms of the concentrated and constantly increasing demand for air travel, as well as high load factors, growing congestion, regained strength among network airlines, rising fuel prices and greater environmental sensitivities. Not only are newer generation aircraft larger than the ones being replaced, but also a greater proportion of those orders are for larger sized aircraft.

This is evident from the current deliveries, which have higher seat capacity than the aircraft they are replacing, and from the evolution of aircraft programmes. The A320s and 737s are replacing smaller 1970s and 1980s MD80s/737 Classics, while 787/A330/A340/A350/777s are replacing the smaller 767/A310/A300/DC10s also from that period.

The only recent exceptions have been at either end of the aircraft size spectrum: regional aircraft and, to some extent, very large aircraft.

World fleet aircraft size grows



*Excluding regional aircraft
Source: OAG, Airbus

The first exception, which was a lowering of aircraft size at the bottom of the single-aisle category of aircraft, resulted from LCC entry into the market and the subsequent response of the US network airlines. These airlines increased regional aircraft fleets among their regional affiliates in order to better compete, at some cost to their main single-aisle fleet.

The second exception was smaller and more efficient long-haul aircraft, such as the A340 and 777, being used to replace the 1960s technology of the 747. Combined with demand for greater comfort, such as flat beds in business class and reduced seat counts in 747s, this contributed to an overall reduction in average seat counts.

However, these exceptions were short lived. By 2003, all aircraft had been refurbished and demand was increasing again. In addition, the scope clause for regional jets further relaxed and new efficient, very large aircraft, such as the A380 became available. Now, every aircraft segment, from the regional jet to the very long-range aircraft, is increasing again in terms of seat size.

Larger aircraft in every segment

More pressure towards larger aircraft

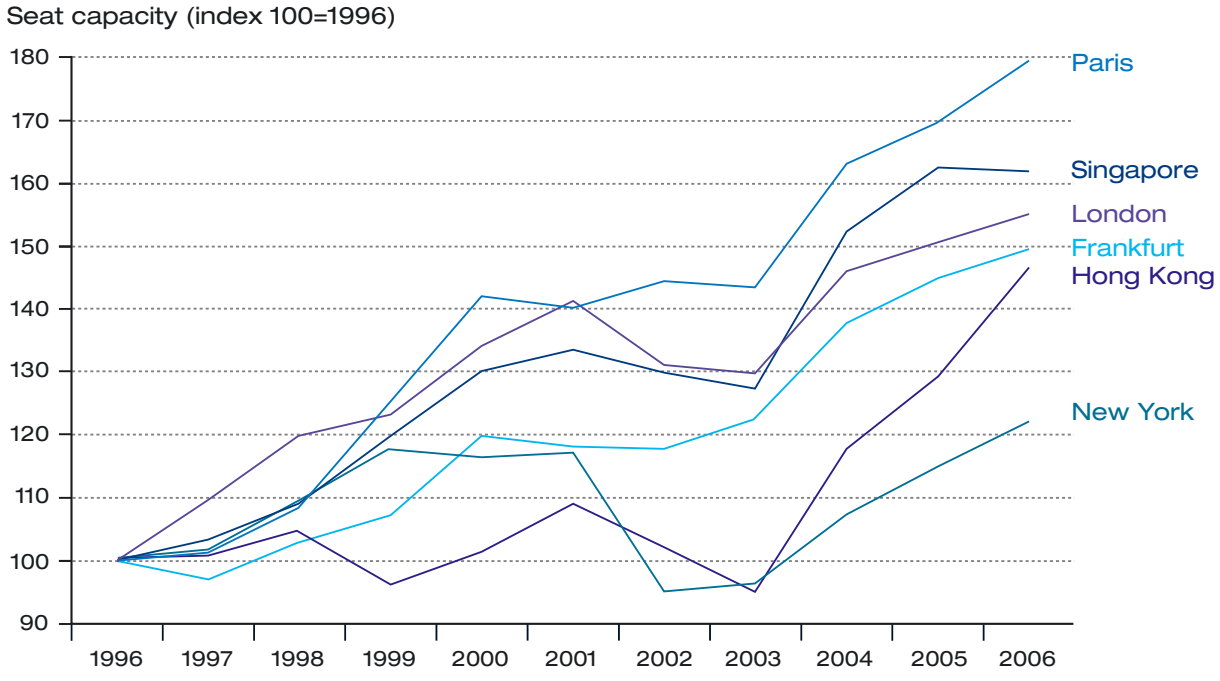
The need for larger aircraft, across the whole spectrum of aircraft size, is all too evident when one considers the record load factors witnessed worldwide in recent years. Airports, air traffic control and other essential infrastructure are being constantly pushed to provide more and more capacity. In addition, emerging markets, under pressure from their population to provide air transport at the lowest cost per seat, continue to increase demand even further. This is why larger, modern, high performance aircraft, which offer greater capacity per take-off or landing slot, are good both for the airlines and the environment, in terms of both the resulting reduction in fuel burn and, consequently emissions.

Top ten reasons why bigger is better

1. Traffic to almost treble in next 20 years
2. "Hub-to-hub" is just "big point-to-big point"
3. Global hub cities getting bigger, inhabitants richer and more internationally mobile
4. People live in and want to go to global hub cities
5. Passengers want more comfort and cheaper flights
6. New large aircraft offer better economics
7. New large aircraft are more eco-efficient
8. Diminishing return of additional frequency
9. Airport congestion worsening
10. Airport capacity improvement limited

Seat capacity increasing again at global hub cities

Long-range seats offered from global hub cities (Long-range > 2,000nm)

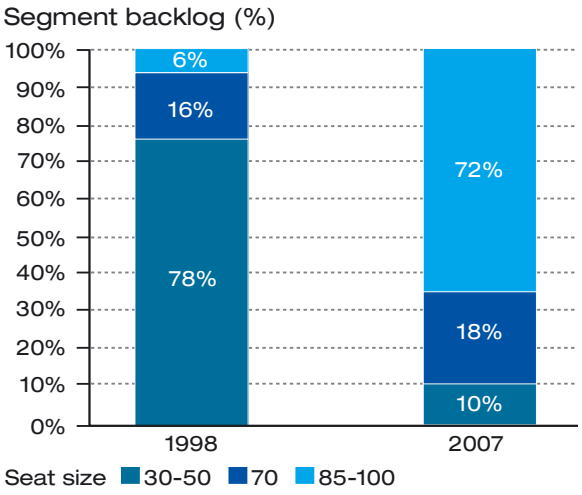


Regional aircraft getting bigger

In the US, the move from network to regional airlines is maturing, in response to LCC competition. Airlines and manufacturers are focusing on larger regional aircraft and the current order book gives a clear indication of that shift. Ten years ago nearly 80% of the backlog was for regional jets with less than 70 seats. Today this trend has been reversed, with 90% of the regional backlog now for aircraft with 70 seats or more.

Increased frequencies using small regional jets has put ever-increasing pressure on the domestic infrastructure, particularly at airports in dense markets such as the US and Europe. Studies in 2007, suggested that the use of small aircraft in this market, combined with growing frequencies to accommodate growth, has led to increased delays for passengers. Rather than alleviating congestion, this practice has in fact added to the woes of the travelling public, as well as creating additional difficulties for airports and aviation planners, in what is already the world's biggest domestic market. So much so that ideas are now being put forward that would enable airports to grow further, without expensive, difficult and at times unpopular expansion, by encouraging the use of larger aircraft. These proposals include stipulating aircraft size requirements in airport gate lease agreements and changing airport landing fees from the current weight-based system to a system that would encourage the use of larger models.

Regional jet backlog swings to larger aircraft

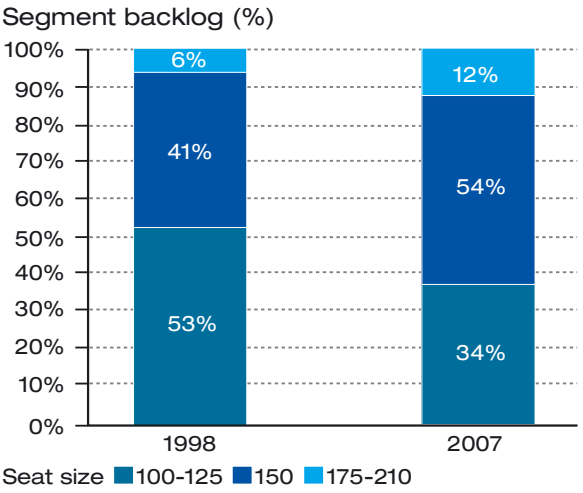


Source: Airclaims, Airbus

Single-aisle aircraft getting bigger

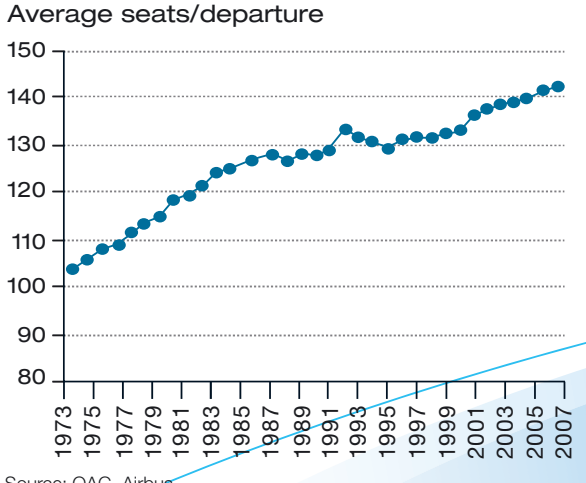
Increasing aircraft size is very clear among single-aisles, such as the A320 Family. The number of seats in these "work-horses" of the world fleet has grown from 126 to 141 since 1997; the equivalent of two extra rows. Some airlines have simply added more seats to their aircraft, while others have ordered larger aircraft. Comparing the single-aisle backlog for the last five years, which indicates airlines' future needs, one can see that the proportion of larger single-aisles has increased. The 150-seat segment, which includes the A320 and 737-800, as well as the A319 that is so popular among LCCs, has grown by 13 percentage points to 54%. The 175 to 210-seat segment, which includes the A321, 737-900 and of course the A320 for LCCs, has grown by six percentage points to 12%. These examples serve to underline the trend towards larger aircraft in general.

The backlog of larger single-aisle types has grown



Source: Airclaims, Airbus

Single-aisle types have more seats

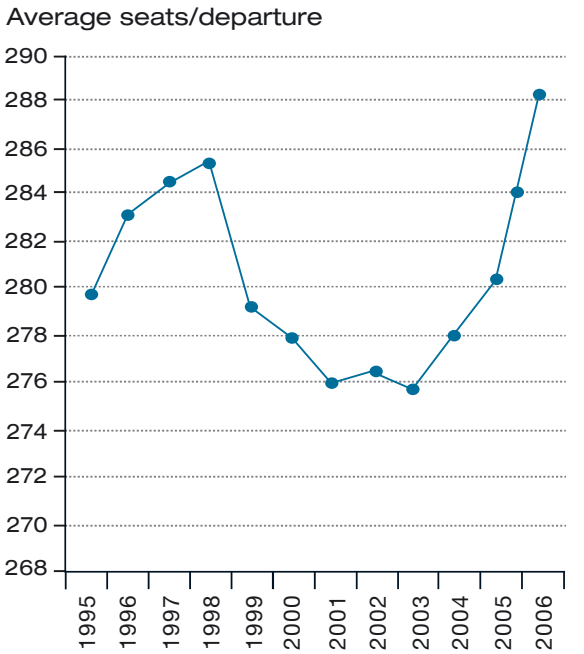


Source: OAG, Airbus

Twin-aisle aircraft getting bigger

In the late 1990s and earlier this decade, some larger widebody aircraft were replaced with aircraft that are marginally smaller in capacity, in general newer generation aircraft that provide better operating economics. Most of this temporary decrease was a result of the network airlines removing seats on international routes, in order to provide the increasing levels of service and comfort, which passengers in all classes demand. However, airlines now have the option to buy and operate modern aircraft in a broad spectrum of sizes, which have both the latest technology and enhanced cabin cross sections, from the 250 to 400-seat A350XWB to the 525-seat A380. In the middle market, where a wave of replacements has already begun, airlines are demanding more seats in new aircraft than there were in those being replaced. Again, this suggests that the trend towards larger aircraft size will continue. In fact, since 2003, this is exactly what has been happening.

Twin-aisle average size increases



Source: OAG, Airbus

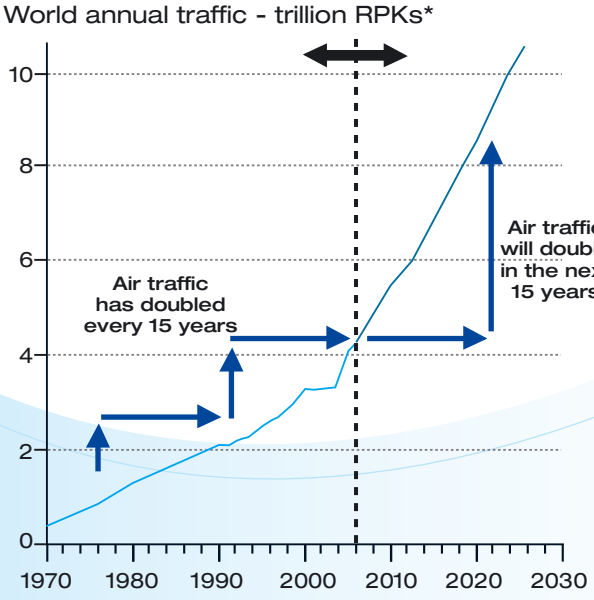
Very large aircraft getting bigger

On 15 October 2007 the delivery of the first A380 created a new stimulus to aircraft size of the world fleet. With the A380 now setting new standards in both operating economics and comfort, airlines no longer have to downsize from the largest aircraft previously available to more efficient twins or to remove seats from current fleet in order to bring premium seating comfort up to the very latest standards, losing revenue in the process. Deliveries of the A380 are set to increase steadily. With a market for 1,300 very large aircraft, the world fleet average seat capacity will get larger with every delivery.

Congestion will increasingly affect aircraft size

Air traffic demand will double in next 15 years. Airport capacity will not.

Air travel is a strong growth market



* Revenue Passenger Kilometres
Source: ICAO, Airbus

The race between airport capacity and demand

Having been less evident for a few years, airport congestion is back; its impact more acute than ever. Some relief is expected from the concerted actions of all stakeholders, but demand for air travel will outpace airport capacity expansions. As such, congestion will increasingly influence air transport development in the next decade. Since the 1970s when the first 747s were introduced, air traffic has increased ten-fold, doubling in volume every 15 years, from 500 billion Revenue Passenger Kilometres (RPKs) in 1970 to more than four trillion RPKs today. It will double again in the next 15 years, reaching nine trillion RPKs by 2020. Airport capacity is unlikely to double in the next 15 years.

The global hub cities will experience some congestion relief with the dispersion of certain services and the opening of more direct flights between secondary cities. However, most of these new routes will still almost always involve a global hub city on one side or the other. As highlighted earlier, traffic demand from the mega-cities will have doubled by the turn of the next decade, with these mega-cities getting bigger, richer and with more international mobility among their populations. These global hub cities are where increasingly large numbers of people live and work, as well as being where most people want to travel from and to.

93 airports are already capacity constrained: these airports accommodate 64% of the world traffic

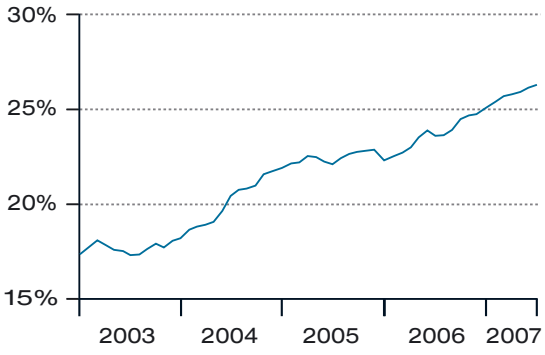
Source: IATA, OAG, Airbus

Airport congestion is caused by growing and concentrated demand, the desire for frequency of service, and the resulting pressure on infrastructure, including airports and ATC systems. This has become a constraint that will increasingly influence how airlines respond to future demand. Congestion is causing serious operational disruptions, with a growing number of delayed departures and arrivals, not to mention the knock-on implications across networks. These result in significant economic penalties for most of the systems stakeholders, including airlines and passengers, as well as a significant amount of wasted fuel consumption and CO_2 emissions.

In an effort to help manage the allocation of scarce airport resources at congested airports, the International Air Transport Association (IATA) has identified 93 airports where congestion is so high that demand already exceeds capacity and where any expansion of capacity is improbable, at least in the short term. To prevent undue delays, diversions or cancellation of flights at these airports, it has been recognised that a more co-ordinated approach to slots is necessary between the airlines, airports, air traffic control and government authorities.

More flight delays in the US

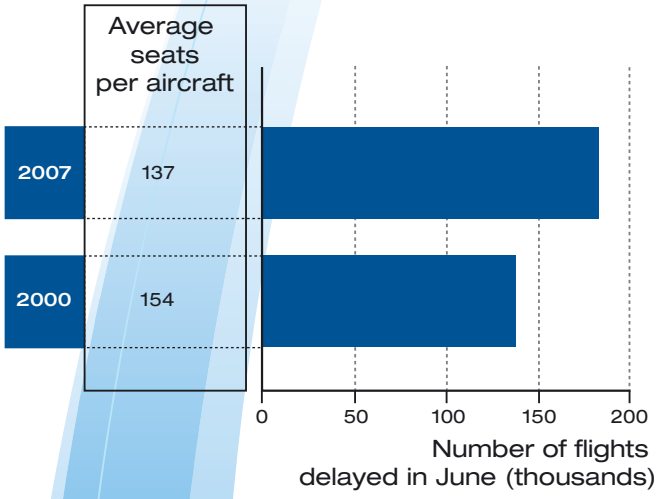
Flight delays (% of total flights)*



* 12 months rolling average at 15 minute or more delay
Source: FAA, Airbus

Authorities advocating larger aircraft for congestion relief

Smaller aircraft, bigger delays



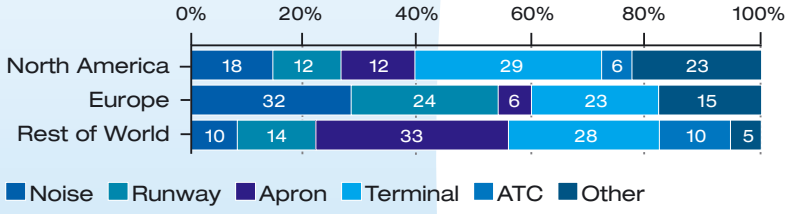
Source: Airline Monitor, US Bureau of Transportation Statistics, The Wall Street Journal, Airbus

Both the scale of congestion and the number of airports affected are increasing. Although there was some relief from congestion resulting from the slow-down in traffic post 2001, the number of delayed flights caused by congestion has sharply increased over the last few years. This is partly due to competitive pressure that led to more regional aircraft and lower demand between 2001 and 2003, which reduced the average capacity of US aircraft to 137 seats, down from about 160 a decade ago. In Europe, 23% of flights are now delayed. In the US around a third of flights are delayed with an average of 62 minutes. The three large airports in New York are the worst for late flights in the US. The Federal Aviation Administration (FAA) is advocating larger aircraft size as one key way to reduce delays and the proposed minimum average size could reduce delays at La Guardia airport by 37%.

In China, some 7,000 people per day take one of the forty flights on the busy Beijing to Shanghai route. A seat on this route is already a hot commodity, with load factors at an impressive 84%. Demand is expected to grow at an average of 12.4% per year until 2015, by which time some 17,600 travellers will be making the journey. Given the distance between the two cities, it is unlikely that there will be large transfer to any possible future high-speed train on this route.

Beijing-Shanghai average aircraft size of 290 seats by 2015

Source of airport congestion constraints

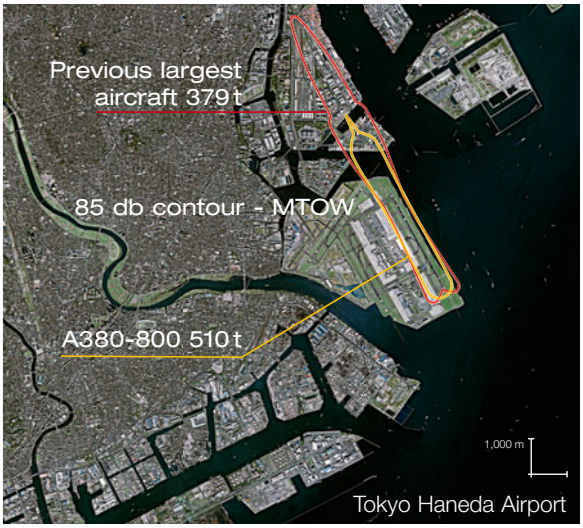


Source: IATA, Airbus

A380: 35% more payload and 50% quieter

If the average capacity of aircraft on this route were to remain the same as today, it would require over 110 frequencies per day, or one departure every ten minutes, to satisfy the demand: a level never achieved, even for the most efficient shuttle operations on the eastern US corridor. Assuming an optimistic frequency of one flight every 15 minutes, or 72 flights over the 18-hour operational span of airports eight years from now, this would require an average aircraft size of 290 seats, equivalent to the A330. In reality, as demand will be driven by the peaks and troughs of daily and possibly even seasonal demand, it will be served by aircraft ranging from single-aisle to VLA. By 2015, in addition to the Beijing-Shanghai route, Beijing airport will serve over 180 domestic and international cities.

Increasing traffic demand implies that airports will remain under constant pressure to expand capacity. The capacity potential of an airport is dependent on one or more of its limiting components such as noise, runway systems, aircraft parking positions, gates, passenger terminals and surface access. Terminal capacity and gate availability are among the most important constraints in all regions. Apron constraints, such as parking space, are also important, especially in India.

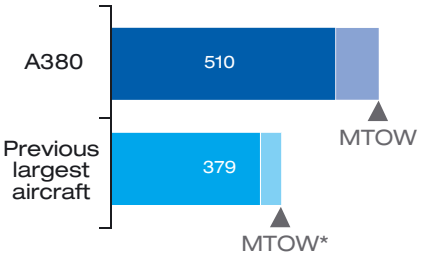


Larger capacity aircraft will bring significant relief from all of these issues, including environment constraints like noise, which currently limits 32% of European airports. The attention given to reducing the noise of new aircraft means that bigger will also mean quieter, on a cumulative basis. For example, the A380 not only carries more payload, it also reduces the noise footprint by almost 50%, or 3.3 square kilometres, compared to the largest aircraft previously available. The A380 noise footprint is now contained within the airport perimeter.

Airports will rely more and more on the noise-efficiency of new generation aircraft, as environmental constraints become increasingly acute. Given the difficulties of opening new airports or expanding current facilities in developed countries, managing capacity expansion on the ground will largely depend on using what we already have more efficiently. Air traffic control and aircraft productivity, either through better turnaround time or increased size, will have to contribute to the capacity expansion.

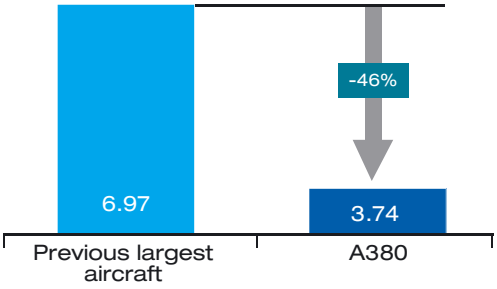
When bigger is also quieter

Take-off weight (tonnes)



* maximum take off weight

Noise contour surface (km^2)



Congestion worst in fast growing markets

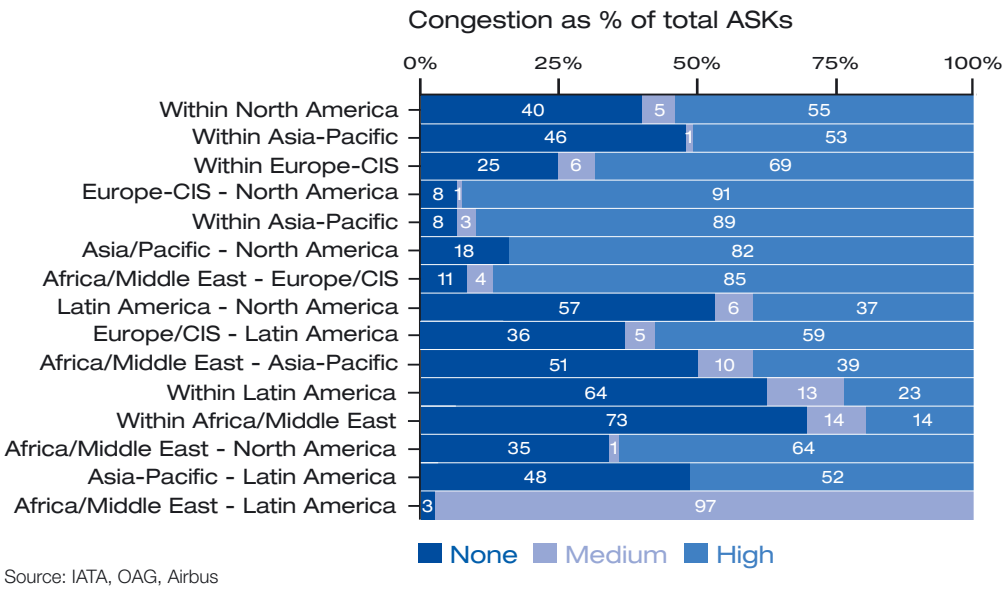
Large and fast growing flows of traffic will be the most constrained by congestion. These are the flows with most airports constrained on either side of the city-pairs, such as Europe-North America, Asia-Europe and Asia-North America. This means that a significant portion of the traffic growth will need to be accommodated by an increase of aircraft seating capacity rather than frequency.

Because these long intercontinental flows involve flying over several time zones, scheduling constraints will continue to present an intractable problem of providing convenient departure and arrival times that avoid airport curfews. For example, flights between London Heathrow and Hong Kong are massively concentrated. Nine flights depart within five hours, arriving during the same time interval. The majority of these flights are currently carried out using 747s. This hectic schedule is driven by noise restrictions, slot constraints and, in part, by passenger preference.

The longer the flight, the more limit there is to increasing frequencies. On long-haul flights, even as short as those across the North Atlantic, airlines can stimulate traffic on a particular route by offering more departure times. As a result it is common to see an airline offering two to three flights per day on the same route, leaving within three to four hours of each other. However, offering more than three daily long-haul flights creates diminishing returns; bringing marginal benefits to both the airline and its passengers, while substantially increasing the airline's marginal costs. As a result, once a sufficient number of daily frequencies is reached, the best response to any additional growth in passenger demand is to provide larger aircraft on the route.

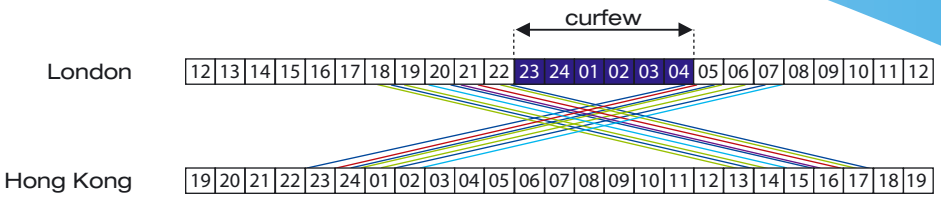
In Asia, many of the region's airports are already operating at or near design capacity, therefore, many of the airlines based at Asian airports have already ordered higher capacity aircraft including the A380.

Congestion worst on fastest growing flows



Source: IATA, OAG, Airbus

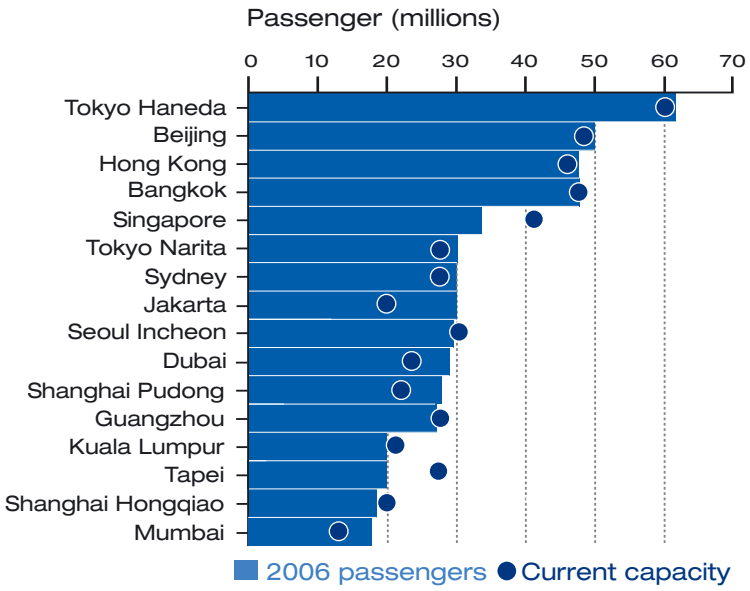
Scheduling constraints limit frequency



London - Hong Kong	
Departure	Arrival
18.05	14.05+1
18.40	14.40+1
19.25	15.50+1
20.10	15.40+1
20.25	16.15+1
21.15	17.00+1
21.30	17.50+1
21.50	18.05+1
21.55	17.50+1

90% of direct flights within 4 hours
(operated with 747s)

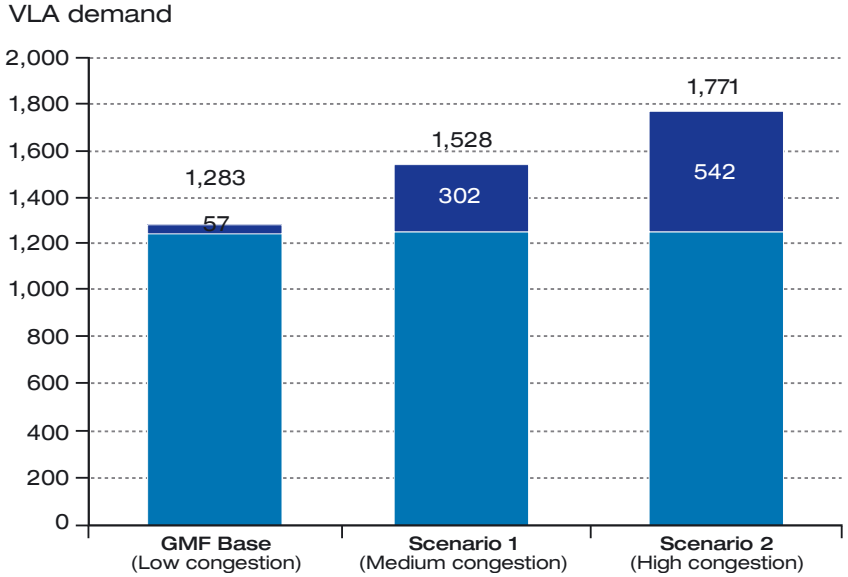
Already operating at or near design capacity



Source: CAPA, ACI, Airbus

This GMF conservatively assumes that ATC and airports will be able to meet the challenging task of capacity expansion although a number of airports, about 90 worldwide, will find the challenge increasingly more difficult. In this case, the baseline GMF scenario indicates demand for a total of 1,283 passenger VLA, such as the A380, and 1,615 intermediate twin-aisles, such as the A350-1000 XWB. However, if congestion worsens or becomes very severe, there will be demand for greater numbers of larger, more eco-efficient aircraft, across all segments from regional and single-aisle to VLA. Where the congested airports of the base case become even more congested, and other airports are added as congestion intensifies, 1,528 VLA will be required. In a more severe high congestion scenario, 1,771 VLA will be needed.

Worsening of congestion could push VLA demand higher



A limit to frequency growth

Forecast frequencies to grow by 3.1% per year and capacity by 1.1%

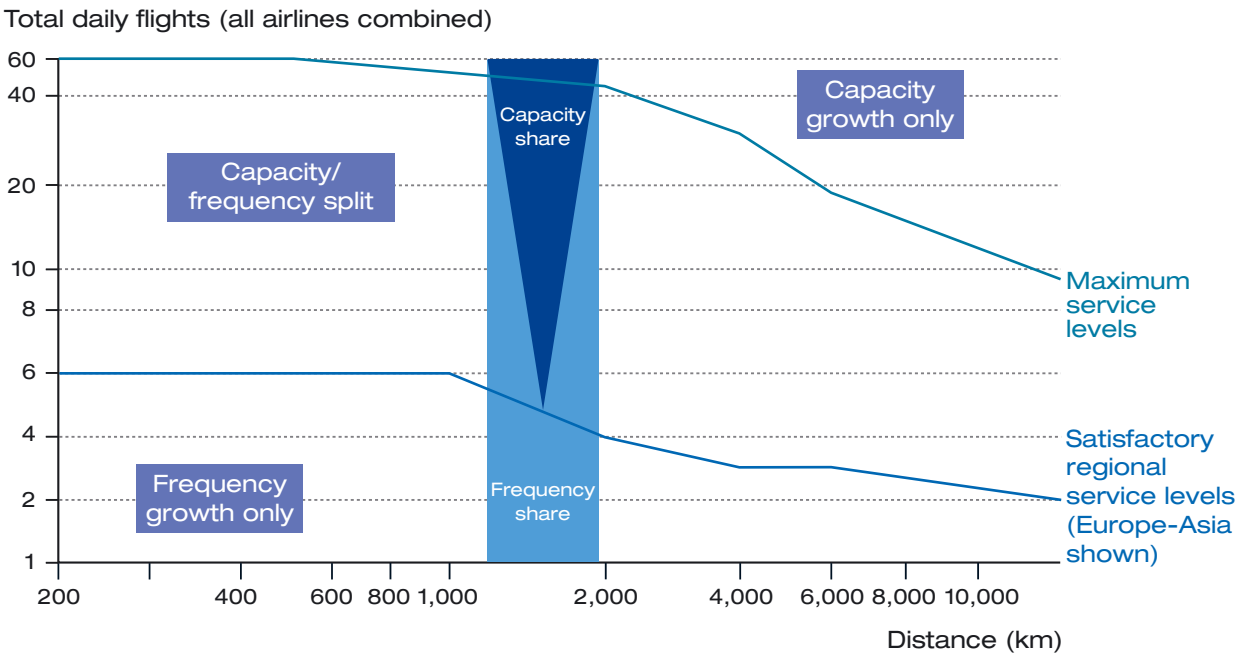
Over the next 20 years, combined productivity parameters such as higher utilisation, speed and load factors will deliver a 0.7% annual increase in RPK per seat. Consequently, to accommodate the forecast average traffic growth of 4.9% per year, the world's airlines will be aiming to increase the number of seats they operate at an average of 4.2% per year. These additional seats will be provided partly by an increase in frequency and partly by an increase in the number of seats per aircraft.

Both frequency and capacity needed

Frequency or capacity are distributed depending on the specific characteristics of each individual city pair, within every one of the 155 traffic flows forecast.

When service starts on a particular route, airlines typically offer one flight per day as soon as possible and then increase frequencies to capture market share and to stimulate demand. However, as mentioned earlier, the benefits of convenient schedules reach a point beyond which there are diminishing returns and no further generation of travel demand. That is why mature markets have just a handful of domestic city pairs with 60 daily flights, equivalent to one every 18 minutes.

The GMF assumes liberal frequency development

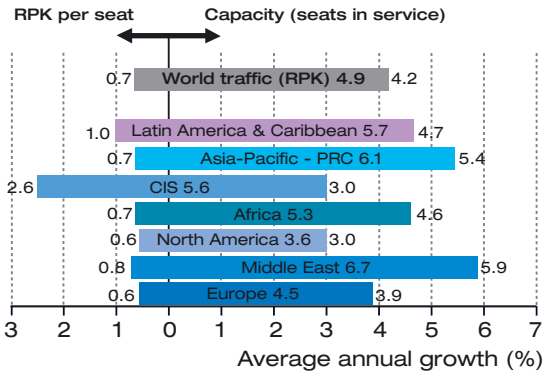


As traffic grows on any particular route, the extent to which it will be accommodated by an increase in aircraft seat capacity, as opposed to an increase in frequency, will depend on where it is situated between the two thresholds.

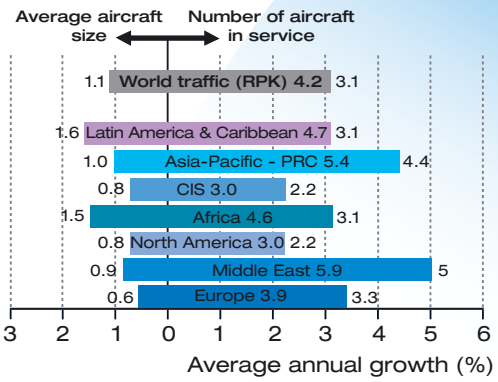
This analysis for each airport pair shows that by 2026, assuming the infrastructure can cope with the greater volume of flights, airlines worldwide will increase the number of departures they offer, by an average of 3.1% per year. This is significantly higher than the 2.5% per annum increase achieved since 1980 and will present a major challenge to the world's airports and air traffic control systems.

Meanwhile, the number of seats per aircraft (including regional aircraft) will increase by 1.1% per year, from an average of 134 in 2006 to 167 by 2026, in comparison to a 0.5% yearly increase since 1980.

Travel demand growth accomodated by productivity and capacity



Capacity growth accommodated by bigger and more numerous aircraft



Single-aisle aircraft demand:

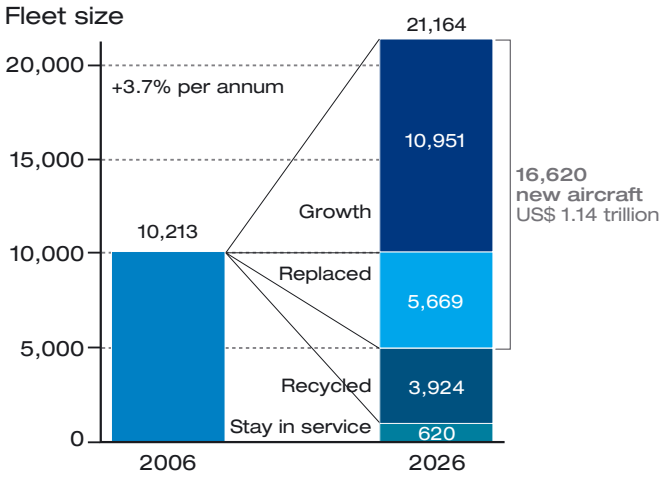
70% of total world deliveries

By 2026 the world's major airlines will need 20,544 new and recycled single-aisle passenger aircraft to accommodate traffic growth and renew their fleets. Of these, 3,924 aircraft will be replaced by their current operator and recycled back into the fleet to continue service with another airline. Therefore, there will be demand for deliveries of some 16,620 new, more efficient aircraft.

The demand for single-aisle aircraft will be largely focused on North America. Deliveries to Asia-Pacific, which has a growing low-cost presence and emerging markets, will be roughly comparable to Europe. Latin America, the Middle East and Africa will take a significant 14% of deliveries between them.

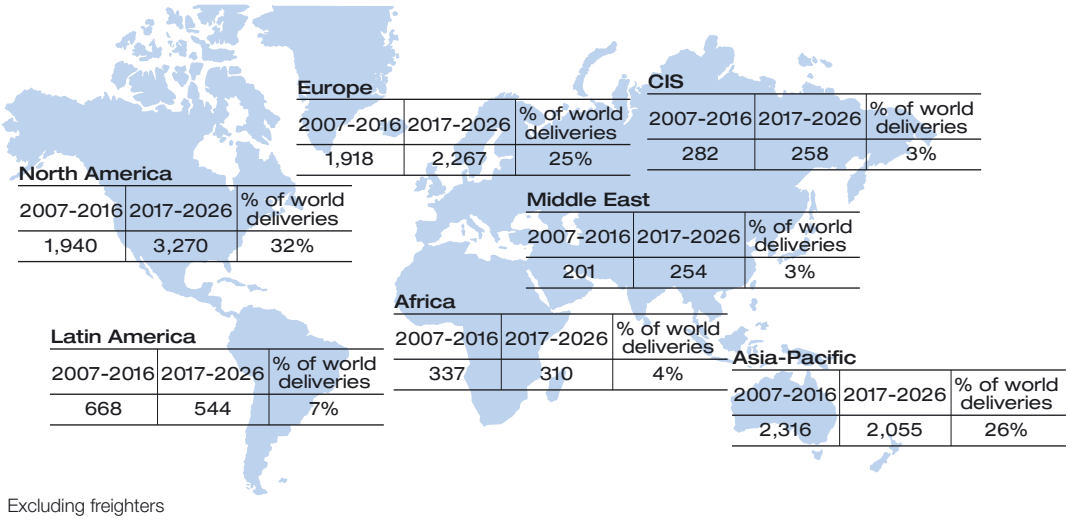
By 2026, the active fleet of 21,164 single-aisles will be operating out of 1,846 airports, linking 13,200 airport pairs. Unsurprisingly operations will be largely focused on domestic US routes. In fact, of the top ten airports, measured by aircraft utilisation, only three (London Heathrow, Roissy-Charles-de-Gaulle and Schiphol), will not be in the US. Some 10% of the world's single-aisle fleet is forecast to be operating out of those ten airports.

Single-aisle fleet will grow to more than 21,000 aircraft



Excluding freighters

Asia becoming a large single-aisle market



North America

2007-2016	2017-2026	% of world deliveries
1,940	3,270	32%

Europe

2007-2016	2017-2026	% of world deliveries
1,918	2,267	25%

CIS

2007-2016	2017-2026	% of world deliveries
282	258	3%

Middle East

2007-2016	2017-2026	% of world deliveries
201	254	3%

Africa

2007-2016	2017-2026	% of world deliveries
337	310	4%

Latin America

2007-2016	2017-2026	% of world deliveries
668	544	7%

Asia-Pacific

2007-2016	2017-2026	% of world deliveries
2,316	2,055	26%

Excluding freighters

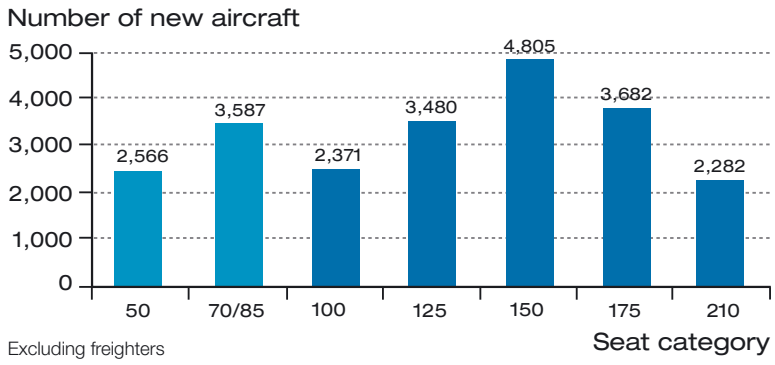
Overall, the use of single-aisles will actually be relatively dispersed when compared with the total world fleet. Flights from the top 25 airports, led by Atlanta and Chicago O'Hare, will absorb 20% of the fleet's productive capacity.

Single-aisle aircraft will be overwhelmingly flown on short flights and by 2026, 45% of them will be used on flights of 1,100 kilometres/600 nautical miles or less, which is the equivalent of Paris to Rome or Hong Kong to Manila.

Just over a third of the demand for single-aisles will come from the replacement of older less eco-efficient aircraft in the fleet. About 85% of the replaced aircraft will concern the network airlines' fleet. Over the next 20 years, existing LCCs will represent as much as 37% of the demand for growth, requiring a total of 4,800, or 29%, of the world's new single-aisle aircraft. Asia-Pacific LCCs are expected to develop their single-aisle fleets quickly from a relatively low base of 247 today, to about 1,250 by 2026.

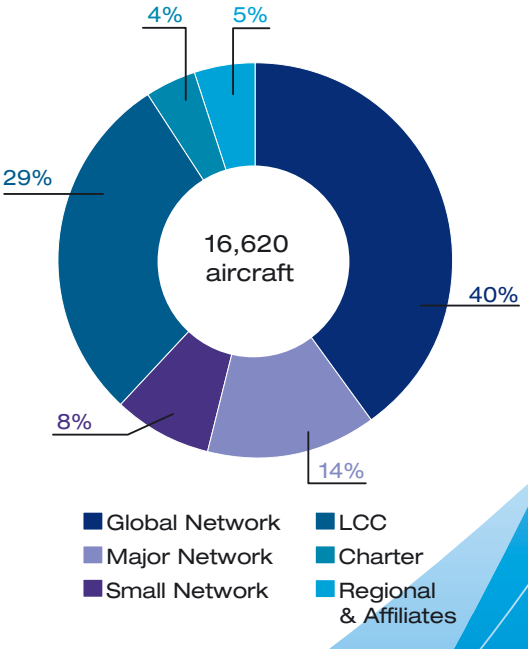
With the shift to larger regional aircraft, a significant portion of deliveries is expected to be in the bigger categories, particularly the 70 to 85-seat category. They could also possibly include the introduction of larger turbo-prop aircraft for the shorter range operations. Overlap between mainline jets and regional jets with around 100 seats is expected to continue. However, the spread of demand, either upward or downward for a particular airline, and the desire for commonality benefits will both help define aircraft demand in this sector. Meanwhile, above 100 seats, demand remains centred around the 150-seat segment, which is currently characterised by the extremely successful A320 Family.

2007-2026 new regional aircraft and single-aisle demand



Excluding freighters

2007-2026 new single-aisle aircraft demand



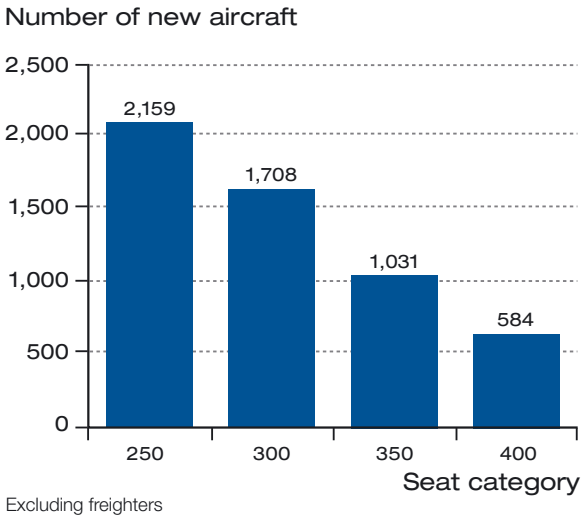
Twin-aisle aircraft demand:

More than 40% of the total value

Over the next 20 years, combined productivity parameters such as higher utilisation, speed and load factors will deliver a 0.7% annual increase in RPK per seat. Consequently, to accommodate the forecast average traffic growth of 4.9% per year, the world's airlines will be aiming to increase the number of seats they operate at an average of 4.2% per year. These additional seats will be provided partly by an increase in frequency and partly by an increase in the number of seats per aircraft.

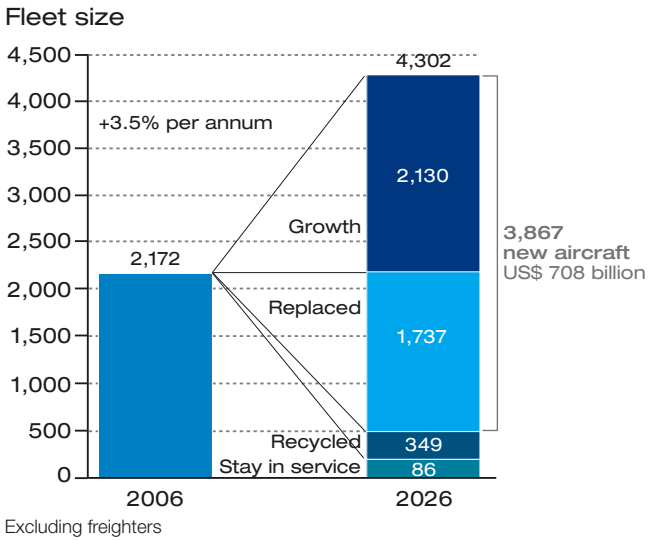
Unsurprisingly, about two thirds of the demand for twin-aisles will come from airlines that operate large global networks and will, therefore, make use of the size and range capability of these aircraft, largely on routes from major hubs to secondary airports. Most of these airlines will require aircraft in all sizes, making across the different segments a key asset. The A350 XWB Family will address demand from the 250-seat segment all the way to the 400-seat segment, while retaining commonality with other Airbus family aircraft ranging from 105 to 525 seats.

2007-2026 new twin-aisle demand: 5,482 aircrafft



Excluding freighters

Small twin-aisle fleet will grow to more than 4,000 aircraft



Excluding freighters

Small twin-aisle demand:

Europe and Asia share 59% of demand

There will be 4,302 aircraft in service in the 250 and 300-seat category by 2026. Demand for 349 of those aircraft will be met by aircraft being recycled back into the fleet as the original operators take delivery of one of the 3,867 new aircraft that will be required between 2007 and 2026.

Unlike for single-aisles, the North American market represents only 19% of worldwide demand in this category. European and Asia-Pacific airlines will take 59% of all deliveries in this class, representing some 2,297 aircraft.

By 2026, these small twin-aisle aircraft will be operating at 649 airports, linking a total of almost 3,300 airport pairs. The top ten airports in this category include three in Europe and one in the US, with Dubai in the Middle East, as well as Narita and Beijing in Asia also featuring prominently. Flights from the top 50 airports led by Beijing and London Heathrow will use the productive capacity of half the total demand.
As much as 70% of the small twin-aisle demand is concentrated with 49 airlines.

Intermediate twin-aisles:
A ready home in Asia

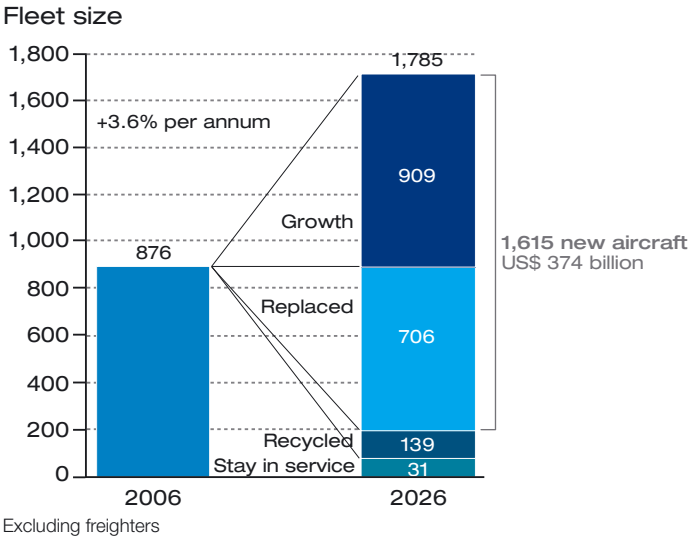
The world's major airlines will operate a total of 1,785 passenger aircraft in the 350 and 400-seat category by 2026; a market segment covered by the A340-600 today as well as the A350-1000XWB in the future. Of these, 1,615 aircraft will be new which will replace 706 of the existing fleet and provide 909 for growth. The distances and types of operation involved in Asia-Pacific mean that it will need the bulk of all deliveries in this category, with 781 aircraft, or 48%. Europe will take 341 aircraft, or 21%, and the growing Middle Eastern market will take 162 aircraft, or 10%.

Operations concentrated in Europe and Asia-Pacific

Twenty years from now, 1,785 intermediate twin-aisles will be operating at 322 airports, linking a total of about 1,190 airport pairs. Of the top ten airports served, seven will be in the Asia-Pacific region, including two in China, and the remaining three will be in Europe.

Compared with the world fleet as a whole, the operation of intermediate twin-aisles will be relatively concentrated, led by London Heathrow, Narita and Beijing airports. Half of these aircraft will be used on flights from the top 26 airports. In addition, half of intermediate twin-aisles will be used on flights of no more than 6,100 kilometres/ 3,300 nautical miles, which is roughly the equivalent of Paris to Washington, while the other half will be used on flights over 7,400km/4,000nm, which is roughly the equivalent of Hong Kong to Sydney.

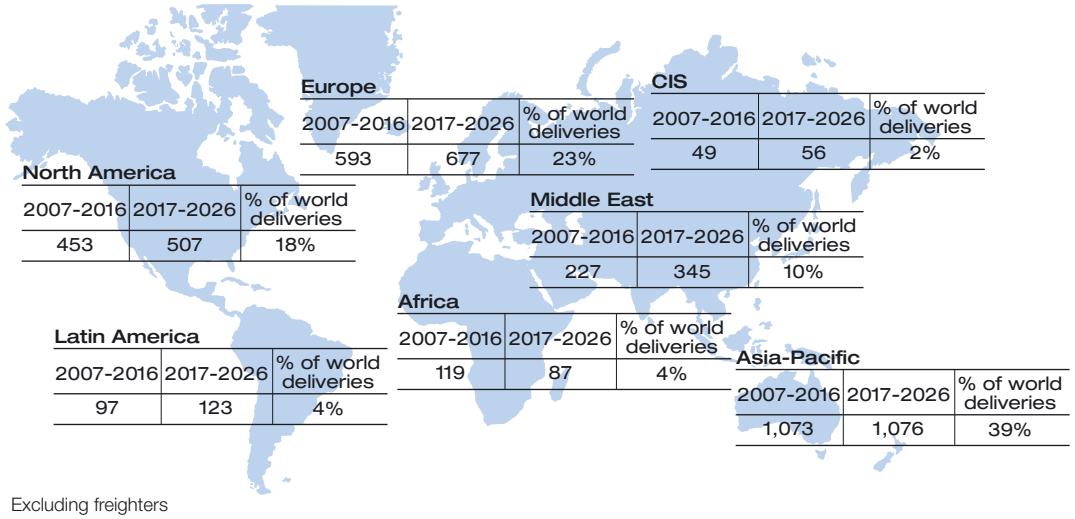
Intermediate twin-aisle fleet will grow to almost 1,800 aircraft



Excluding freighters

Twin-aisle operations in 2026 will be concentrated largely on Asia-Pacific and Europe

New twin-aisle (small and intermediate) demand concentrated in Asia-Pacific and Europe



Europe

2007-2016	2017-2026	% of world deliveries
593	677	23%

CIS

2007-2016	2017-2026	% of world deliveries
49	56	2%

North America

2007-2016	2017-2026	% of world deliveries
453	507	18%

Middle East

2007-2016	2017-2026	% of world deliveries
227	345	10%

Africa

2007-2016	2017-2026	% of world deliveries
119	87	4%

Latin America

2007-2016	2017-2026	% of world deliveries
97	123	4%

Asia-Pacific

2007-2016	2017-2026	% of world deliveries
1,073	1,076	39%

Excluding freighters

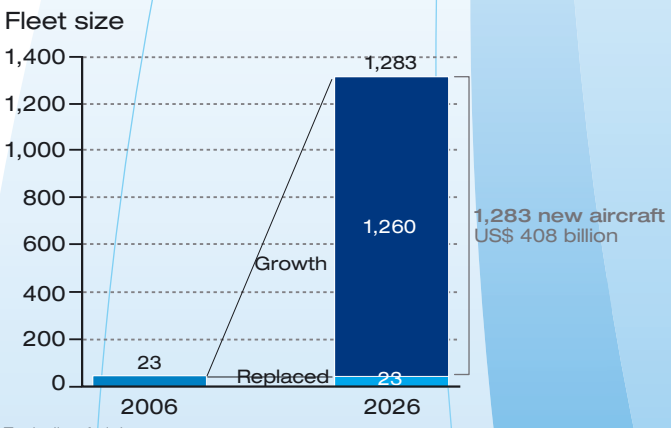
Very large aircraft:

Demand for 1,283 new VLA passenger aircraft

To maximise the profit potential of operations in an era characterised by severe price competition, a need to differentiate airline product offering through comfort, as well as increasingly stringent infrastructure and environmental constraints, airlines will operate 1,283 very large aircraft (VLA) such as the A380, by 2026.

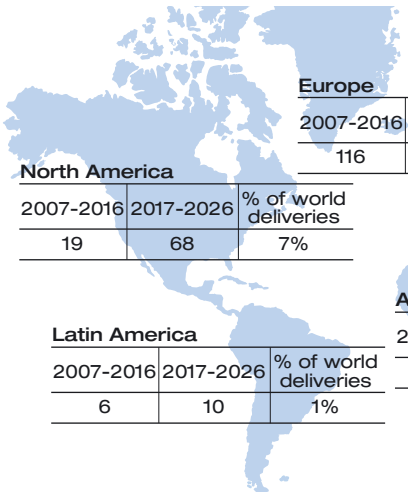
Regional demand for VLA, will be centred on the Asia-Pacific region, with 711 aircraft, or 56%, of world demand. Europe's airlines will need 274 aircraft, or 21%, to meet growing demand to the Asia-Pacific region, while North America and the Middle East will take 244 aircraft, or 19%, between them.

1,283 new VLA passenger aircraft will be needed



Excluding freighters

VLA New deliveries concentrated in Asia-Pacific and Europe



Europe

2007-2016	2017-2026	% of world deliveries
116	158	21%

CIS

2007-2016	2017-2026	% of world deliveries
9	2	1%

North America

2007-2016	2017-2026	% of world deliveries
19	68	7%

Middle East

2007-2016	2017-2026	% of world deliveries
78	79	12%

Africa

2007-2016	2017-2026	% of world deliveries
8	19	2%

Latin America

2007-2016	2017-2026	% of world deliveries
6	10	1%

Asia-Pacific

2007-2016	2017-2026	% of world deliveries
284	427	56%

Excluding freighters

By 2026, these VLA will be serving 195 airports, linking 491 airport-pairs and operating in a diverse set of markets. They will operate out of many of the airports that handle the 747, including the top 20, which currently account for 67% of 747 operations. Similarly, Airbus anticipates that flights from just these top 20 airports will use the productive capacity of 889 aircraft, or 69% of the 2026 VLA fleet. London, Hong Kong, Narita and Dubai will require nearly 340 VLA. Although Los Angeles is the only North American city within the top ten, together with San Francisco and New York, they will use the productive capacity of nearly 100 VLA, as already confirmed with the routes announced by current A380 customers. The top three VLA airports will be London Heathrow, Hong Kong, and Dubai.

62% of VLAs at 32 mega hub cities

The VLA will be used on the complete range of domestic, intra-regional and intercontinental routes. With many of the top routes being centred in Asia-Pacific, it is understandable that most of the VLA deliveries will be made to the region. However, with the strength of traffic between Europe and Asia and demand on some trans-Pacific routes, other regions' airlines, notably the Middle East, will take a significant share of VLA deliveries over the next 20 years.

The global network airlines will use as much as 82% of the world's large aircraft to meet their requirements on routes between the mega hub cities like London, Beijing, Tokyo, New York. Very large eco-efficient aircraft, like the A380, are able to move people at lower seat mile costs than other aircraft in airline revenue service today. This class of aircraft will also be of interest to LCCs and charter airlines, that may find themselves in competition on certain long-haul routes in the future.

By 2026, 12 of the top 20 large aircraft airports will be in Asia-Pacific

Asia-Pacific

Where the future potential is as exciting as today's reality

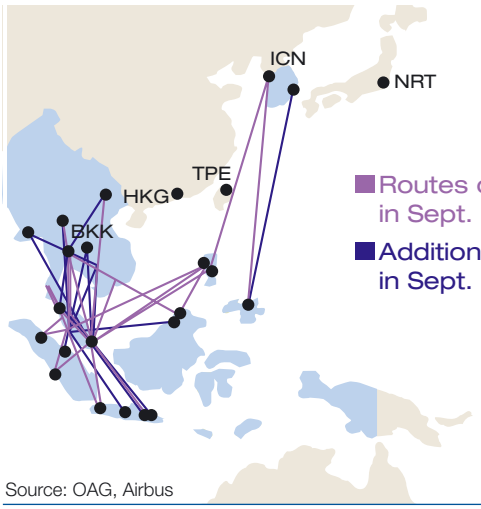
Fuelled by its emerging markets, Asian regional economic growth has maintained impressive momentum. China and India alone account for 55% of the region's total output (excluding Japan). With a surging domestic demand and accelerating exports, India's economy expanded at its fastest rate for 18 years during the financial year 2007. China meanwhile, grew at 11.5% in annual terms for the first half of the year. One effect of this growth has been to stimulate intra-region exports, which will probably require increased trade liberalisation between Asian states and possibly at a more global level, if it is to achieve its full potential. Over the 20 year forecast period of the Global Market Forcast (GMF), the Asia-Pacific real Gross Domestic Product (GDP) is expected to grow at an average of 4.2% per year, or 5.9% if Japan is excluded from the assessment.

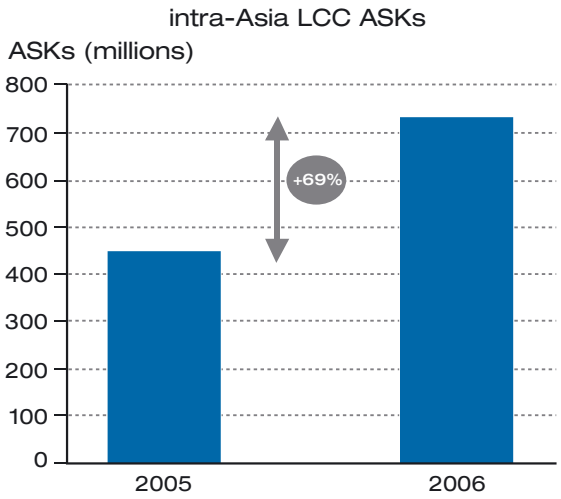
However, the most important factor influencing Asia's outlook in the next few years will come from its 3.5 billion consumers. A new paradigm is emerging that will shift our view from Asia as "the world's producer" to "the world's largest consumer".

Air transportation in the region has also benefited from these economic and demographic developments. For the first ten months of 2007, international traffic growth of 4.7% was significantly higher than capacity growth of 2.2%, according to the Association of Asia Pacific Airlines (AAPA), with revenue subsequently outpacing expenditure growth. As a result, many of the region's carriers have announced positive and, in some cases, record-breaking earnings. Industry analysts expect this trend to continue in the short term. A study by American Express suggests that high demand could increase airfares in the region by 1-3% on short-haul services and 3-6% on long-haul operations in 2008, partly as a result of the Beijing Olympics.

What is even more encouraging is that this has all been achieved in a market where there is so much additional potential demand as the people of Asia want and need increased mobility. This is particularly true in terms of domestic and inter-regional flying, and for those nations considered as emerging economies and markets. For example, China and India are encouraging greater regional flying, with plans to promote more green field airport developments and to further develop regional and provincial airports. In China, the change of role or dual use of some military airfields for commercial activities is being considered to help facilitate growth and provide secondary airport alternatives for airlines on the domestic market.

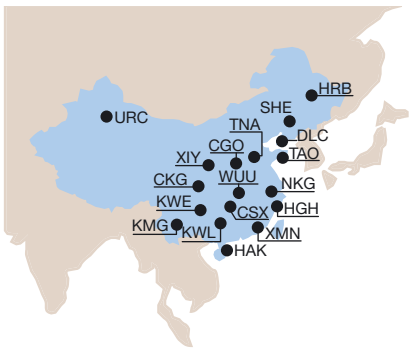
LCC growth in intra-Asia: +69% in one year





Source: OAG, Airbus

China's primary cities dominate today, but domestic opportunities exist



5 primary cities
71% of seats are linked to these cities

18 secondary cities
62% of seats are linked to these cities

111 tertiary cities
39% of seats are linked to these cities

Source: OAG, Airbus

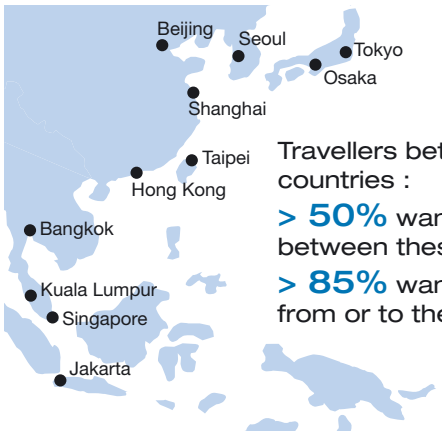
Low-Cost Carriers (LCCs) continue to go from strength to strength in the region, with the number of seat kilometres offered by these airlines increasing by 69% between September 2005 and the same month in 2006.

China is also considering the potential for LCCs to further enter the country's market. The Chinese market is attracted by the "every one can fly" vision of the region's LCCs and by the opportunity to increase domestic services to secondary airports in the country. While five key cities dominate the domestic network (71% of traffic is linked to these cities), further LCCs in operation would help in the development of the 129 secondary and tertiary cities in China today.

More than any other region in the world, the demand for air transport in Asia is focused on key population centres. In fact more than 50% of the people travelling between Asian countries want to travel between just 11 hub cities, with 85% of passengers wanting to fly either to or from these same points.

Internationally the picture is very similar, with 72% of the demand between Asia and Europe in terms of Revenue Passenger Kilometres (RPKs) being centred on the same 11 Asian hub cities. Over the next ten years, air traffic

Big cities, big demand



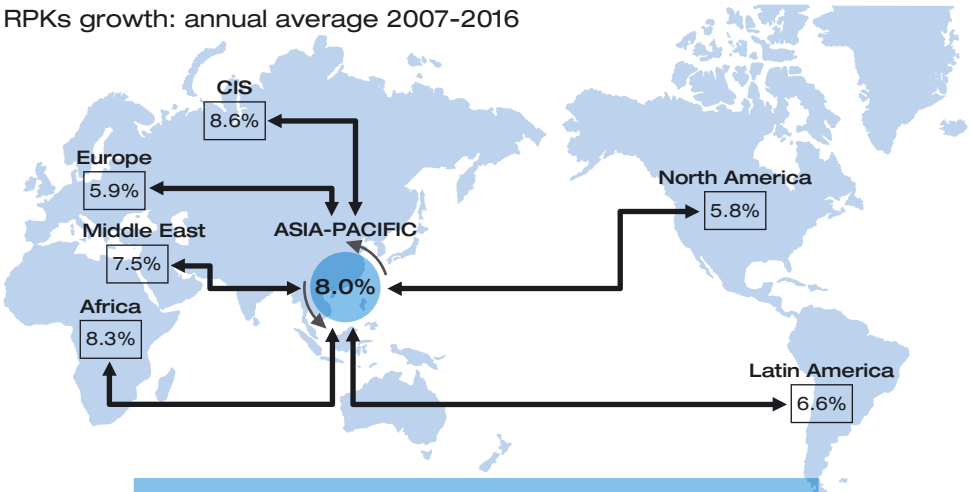
Travellers between Asian countries :

> 50% want to travel between these cities only.

> 85% want to travel from or to these cities.

Significant growth maintained in Asia-Pacific

RPKs growth: annual average 2007-2016



Asia-Pacific			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
7.2%	5.0%	6.1%	5.4%	4.4%	4.9%

growth within Asia-Pacific is expected to average 8% per annum, higher than anywhere in the world, except Africa. This impressive growth will be stimulated by the continued expansion of the region's LCCs, as well as its tiger and emerging economies. This will subsequently act as a catalyst for growth in other more mature parts of the region, such as Japan. Traffic growth to all other regions of the world is forecast to far exceed the world average of 4.9% per annum.

Asia's fleet of aircraft with over 100 seats is, expected to grow from 2,975 to 7,923 over the next 20 years. Asia's fleet of regional aircraft will grow from 834 to 1,230 aircraft. The dedicated freighter fleet is also set to increase substantially, growing five-fold to 1,412 aircraft, which will significantly raise the freight market share of the region's airlines from levels that are currently low in some areas.

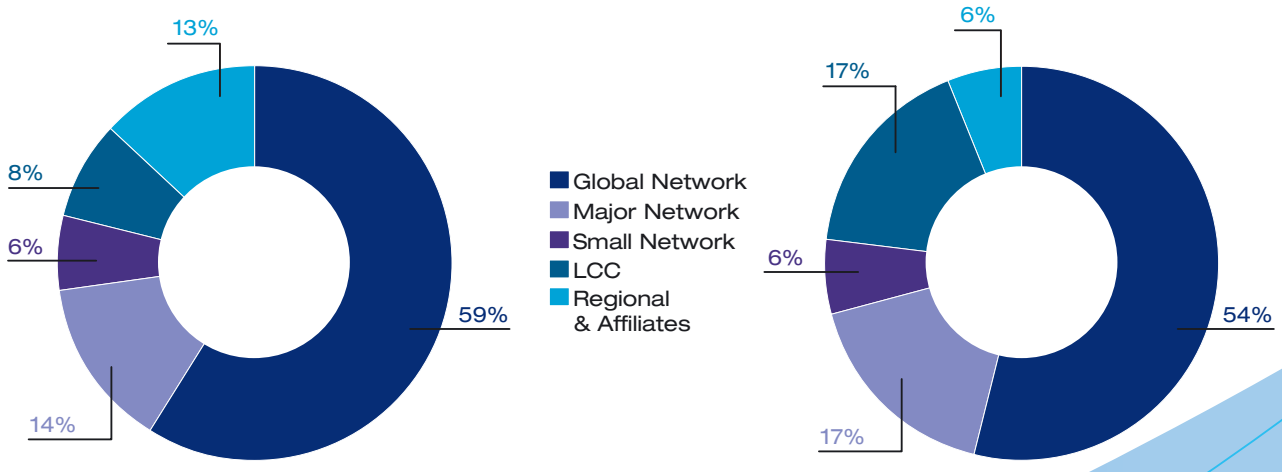
The global passenger network airlines will continue to dominate in the Asia-Pacific over the next 20 years, expanding their presence both internationally and inter-regionally. However, the current LCCs will also be evolving and growing their share of the fleet. They will nearly double their presence from 8% to 17% of Asia's fleet total, as they take advantage of potential within the Asian market.

Asia-Pacific air transport demand summary

Asia-Pacific Traffic (yearly growth)	2007 -2016	2007 -2026
Total passenger traffic	**7.2%**	**6.1%**
Domestic & intra-regional traffic	8.0%	6.5%
International traffic	6.2%	5.6%
Total freight traffic	**7.3%**	**6.0%**

Asia-Pacific Fleet in service	2006	2026
Passenger (< 100 seats)	834	1,230
Passenger (≥ 100 seats)	2,975	7,923
Freighter	245	1,412
Total	**4,054**	**10,565**

Asia-Pacific passenger fleet evolution



Fleet at end 2006
3,809 aircraft

Fleet at end 2026
9,153 aircraft

Includes regional aircraft

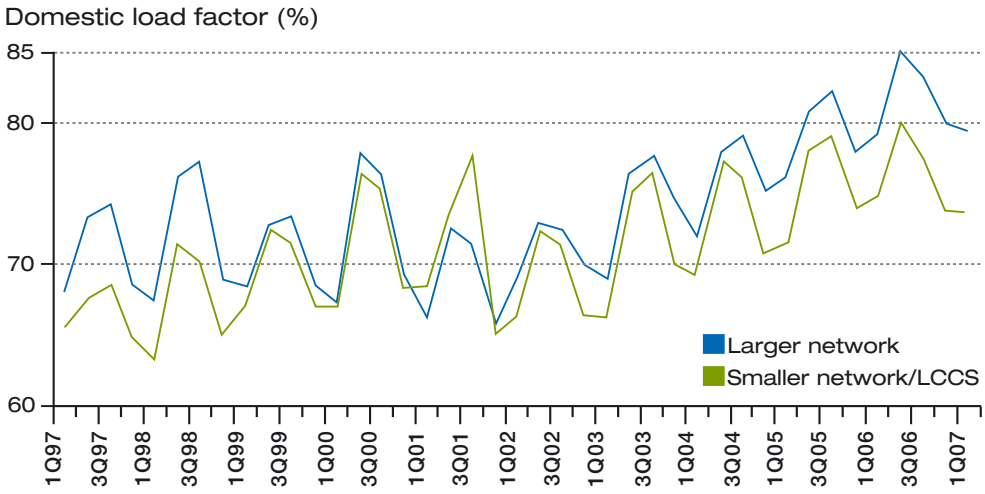
North America

The need for air transport is set to continue and to grow

North America has been and will continue to be one of the most important markets in the world for aviation. In 2026, the United States (US) domestic market alone will still be responsible for more than 13% of all passenger traffic. Historically, the region's economy, and particularly that of the US, has influenced the pace of air transport worldwide. Recent financial turmoil in the US, combined with a slowing of both the housing and job markets, has been partially offset by solid growth from other regions of the world and from the boost given to US exports by the low value of the dollar.

Longer term economists believe that among the "industrialised" nations, future regional economic patterns will remain similar to those seen in the last 20 years, with North America remaining a growth leader. This is thanks to positive factors such as favourable demographics, abundant natural resources, efficient financial institutions, the sheer size of this huge market and its tremendous capacity for innovation and entrepreneurship. For the 2007 to 2026 period covered by this forecast, the US economy is anticipated to grow at an average of 2.5% per year, which is the same as for North America as a whole.

US Domestic load factors have increased significantly



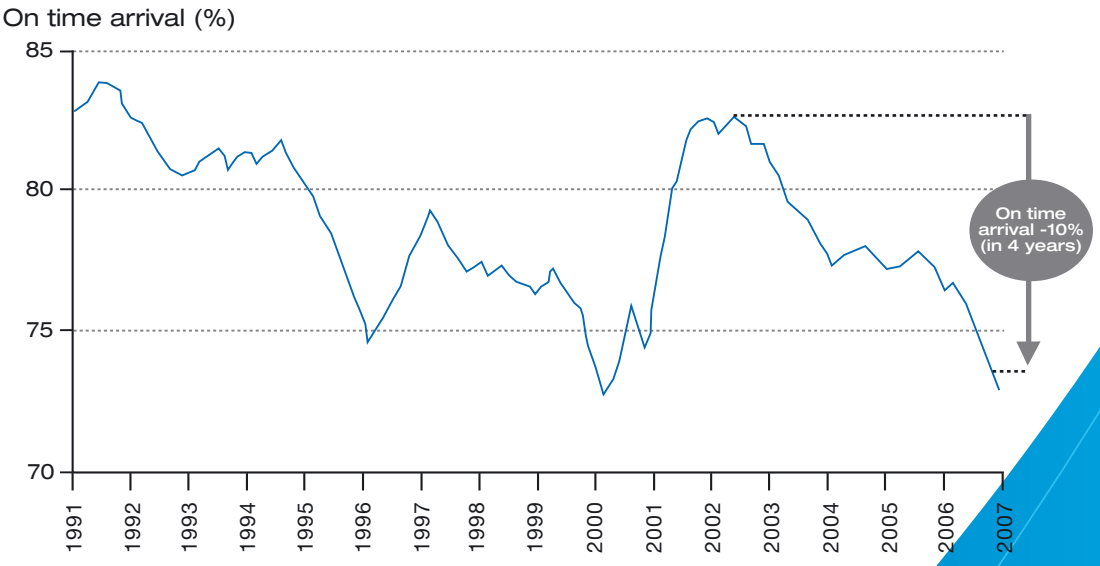
US traffic has continued to grow steadily, setting a monthly record of 72 million scheduled domestic and international passengers in last summer, which is 2% more than the previous record set in July 2005. Traffic growth continues to outpace capacity, with airlines managing to improve load factors by 0.4 percentage points in 2007. Based on the US Bureau of Transportation Statistics, it would also appear that international load factors might have peaked at around 85%, as there has been no overall improvement in the year to end July. Therefore, domestic load factors were responsible for all improvements in load factor, with up to 81% recorded over the period.

One result of this increased demand, is the increase in the number of delays that passengers have experienced in the region in 2007. This demonstrates the need to find ways to accommodate growth other than by increasing frequency, which at certain times and at certain airports is not easy, or by improving productivity in terms of load factor.

In fact, the sheer number of delays has meant that on time arrivals are at the lowest point since 2000, causing passengers and politicians at the highest level to call for action. Possible solutions suggested centre on various market-based incentive schemes, including congestion charging and schedule reduction at New York's JFK airport, where airlines increased their operations by 41%, between March 2006 and August 2007. This would not be the first time that a major US airport has been subject to scrutiny in this way. A similar process was undertaken at Chicago's O'Hare International airport in 2004 due to congestion issues. However, longer term, possible ways to reduce pressures on scarce airport and infrastructure resources would appear to be based around enhanced Air Traffic Control (ATC), the use of restricted airspace or simply increasing the size of aircraft on the routes most affected. Some airports in the region have already begun adopting the latter solution across all aircraft types with more than 50 seats. Average seating for the larger network airlines has been increasing rapidly in the last six years, growing from 148 in the second quarter 2001, to 158 seats in the first quarter 2007, while growth in the average stage length, which had been witnessed in recent years, now appears to be moderating. This trend is likely to continue. Indeed, one airline has already announced that its plans to help address congestion at JFK include ending all of its turbo-prop flights at the airport and increasing its two-class flights, with between 70 and 270 seats, from 43% to 65% of operations at peak times, from lower capacity operations.

More than a quarter of all flights in the US delayed: a return to pre-September 2001 level

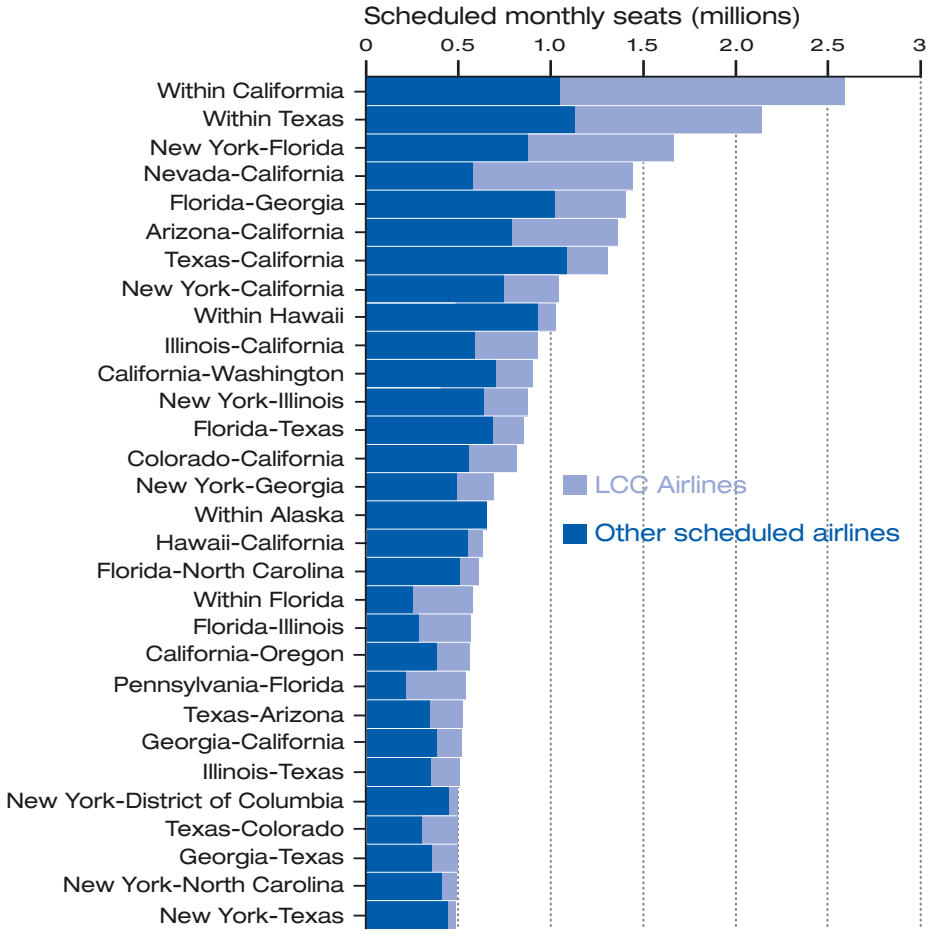
Yearly rolling average on time* arrival



* A flight is considered delayed when it arrives 15 or more minutes later than the schedule
Source: FAA, Airbus

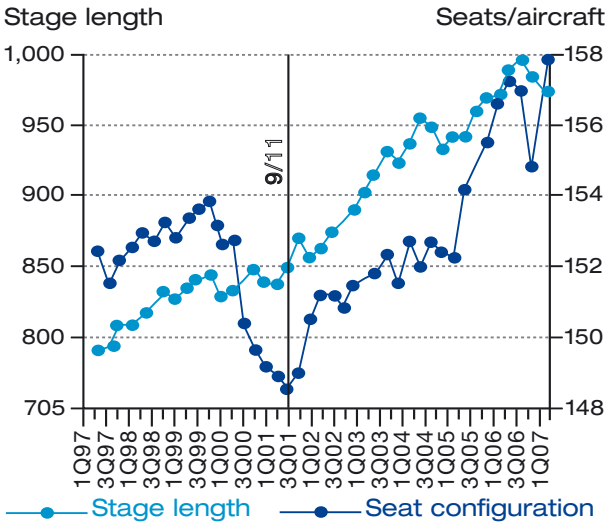
Liberalisation is one of the drivers for continued international passenger traffic growth, particularly between large population centres across continents. The subsequent benefits to passengers and economic growth are clear, therefore, efforts to further liberalise markets to and from North America have continued. A new Air Transport Agreement signed between the US and Europe on April 30, 2007 will be provisionally applied on March 30, 2008, for all 27 European Union Member States. Airlines are already positioning themselves in the market, in terms of operations and commercial relationships, to take advantage of this agreement. An expanded bilateral has also been signed between the US and Japan. This allows an increase in both scheduled and charter flights, an element of "beyond Japan" flying by some US airlines and greater fare setting flexibility. Negotiations are expected to continue to further liberalise this market by the middle of next year. Canada signed a similar agreement with Japan earlier in 2007, which is expected to be further developed and improved in 2008. While such agreements have resulted in new opportunities, largely for the network airlines, the Low-Cost Carriers (LCCs) have continued to expand their presence in the US domestic market. By the third quarter of 2007, US LCCs provided 50% of the seats on the top five US interstate markets, including flights within California and Texas, and between New York and Florida.

LCCs account for over 50% of top five domestic US markets



Source: Airbus, OAG September 2007

Large US network airlines increase aircraft size

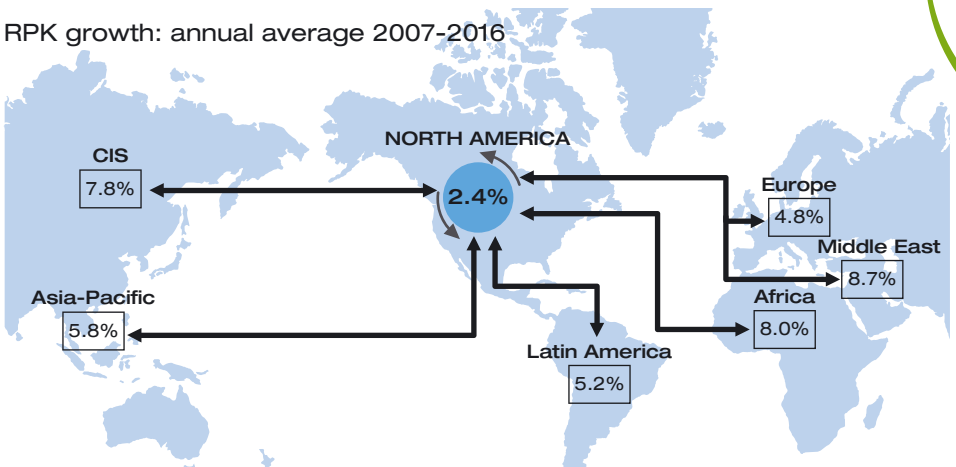


North America is the largest and most mature of the regional markets. This is reflected in the fact that 20 year average annual growth is forecast to be below the world average, at 3.7%. However, the US domestic market will remain the largest in size throughout the next 20 years. The international market is expected to grow twice as fast as domestic or intra-regional traffic at 5.3% for the next ten years and 5.0% for the complete 20-year forecast period. This is caused by the need to connect North America with regions that are developing rapidly, both economically and in terms of air transportation. These include flows to Asia-Pacific with 5.8% growth, the Commonwealth of Independent States (CIS) with 7.8% and the Middle East with 8.7%. Growth will be driven internationally by the major US carriers continuing to seek new opportunities outside of the US domestic market.

New for old would save 15 million tonnes CO_2 each year in the US

New markets, new international growth

RPK growth: annual average 2007-2016



North America			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
3.8%	3.7%	3.7%	5.4%	4.4%	4.9%

Over the next 20 years, the region's fleet is forecast to grow from 7,011 to 10,901 passenger aircraft, as a result of increased passenger traffic and the need for replacement aircraft, particulary in the single-aisle market segment.

The average US fleet is 12 years old, two years older than the world average. However, today nearly 40% of the aircraft in the US fleet can be classified as either old or mid-generation aircraft, when excluding regional jets. Given rising fuel prices and growing environmental pressures, these aircraft are not as efficient, either economically or ecologically, as new generation aircraft like the A320 Family. If tomorrow, all of these aircraft were replaced with the equivalent new generation aircraft, this would save approximately five million tonnes of fuel and 15 million tonnes of CO_2 emissions per year. The airlines concerned are expected to address this in the coming years to reduce costs, while minimising the impact on the environment.

The structure of the North American fleet will remain fairly stable, in terms of operator segmentation. The majors, eight operators who on the whole can be considered as global network airlines, will continue to operate most of the aircraft in the region, nearly 4,500 aircraft in 2026. The regionals and their affiliates will operate 31% of the fleet, mainly aircraft with less than 100 seats (jets and turbo-props). The current LCCs are expected to increase their share of North America's 2026 fleet to more than 2,600 aircraft.

North American air transport demand summary

North American Traffic (yearly growth)	2007-2016	2007-2026
Total passenger traffic	**3.8%**	**3.7%**
Domestic & intra-regional traffic	2.4%	2.5%
International traffic	5.3%	5.0%
Total freight traffic	**5.6%**	**5.3%**

North American Fleet in service	2006	2026
Passenger (< 100 seats)	2,787	3,576
Passenger (⩾ 100 seats)	4,224	7,325
Freighter	1,008	1,884
Total	**8,019**	**12,785**

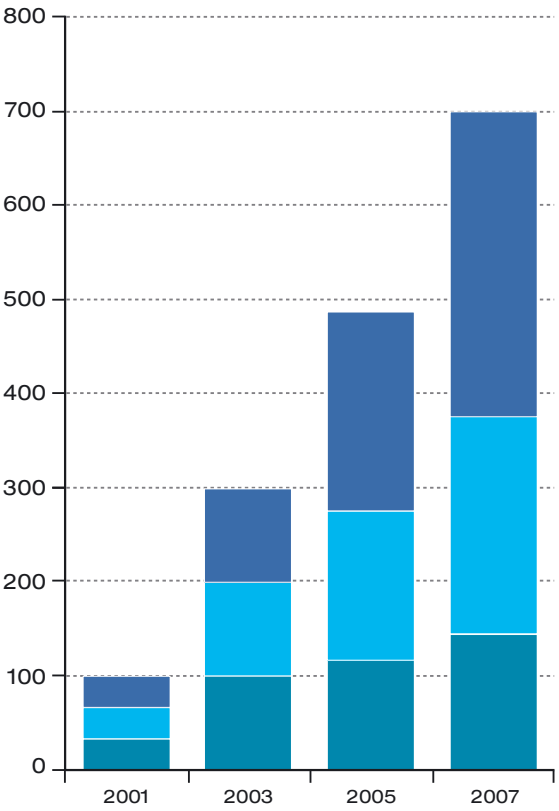
Europe

Exploring new opportunities

Despite modest economic growth, Europe has experienced solid air traffic growth for the last decade, with 65% more capacity being offered in the intra-regional market than in 1997. Most of this growth has come from European Low-Cost Carriers (LCCs), who are now offering more seats per day than their counterparts in the United States (US). Today, 30% of global capacity is connected to Europe. On international operations, growth will remain strong on flows to the Far East and Latin America with average Revenue Passenger Kilometres (RPKs) expected to grow by more than 6% per year, over the next ten years. However, the North Atlantic will remain the top flow in terms of volume added, helped by the recently signed Open Skies deal between the US and the European Union (EU).

LCC growth is on longer routes

Daily seats classified by range (thousands)



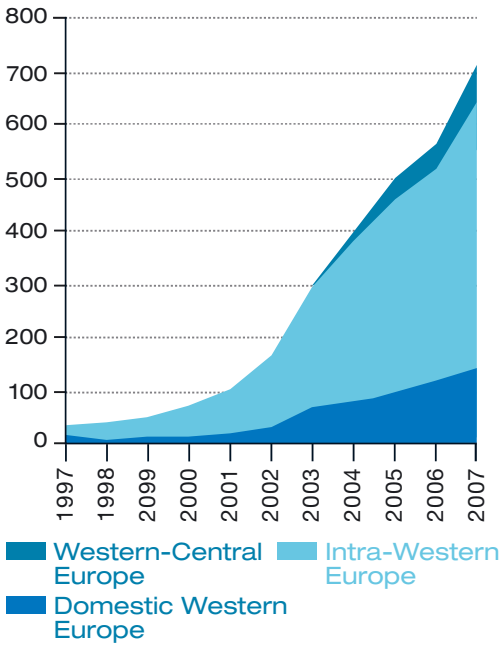
Source: OAG, Airbus

Low-Cost Carriers

LCCs now account for almost a third of the scheduled capacity within Europe (30% when including charter operations). This is a five-percentage point increase in market share compared to last year. As in the past, most of the growth has come from route openings, with 83% as a result of network development (i.e. total number of new minus the number of dropped routes). With LCCs operating 2,000 city pairs across Europe, the potential for growth through new markets is decreasing. Setting up new bases generates new opportunities for network development, but the current trend is to investigate the potential of more distant markets. For example, in 2007, less than 15% of the growth was on routes of less than 500 kilometres (km)/270 nautical miles (nm), with the majority being on routes of over 1,000km/540nm. In fact, 70% of the seats on new city pairs to be opened by the LCCs in the next 20 years will be on routes over 1,000 km (1,323 km on average). However, some opportunities still remain for shorter-range operations, including within Spain or Italy.

The European LCC sector continues its expansion

Daily seat capacity (thousands)



Source: OAG, Airbus

Long-haul LCCs

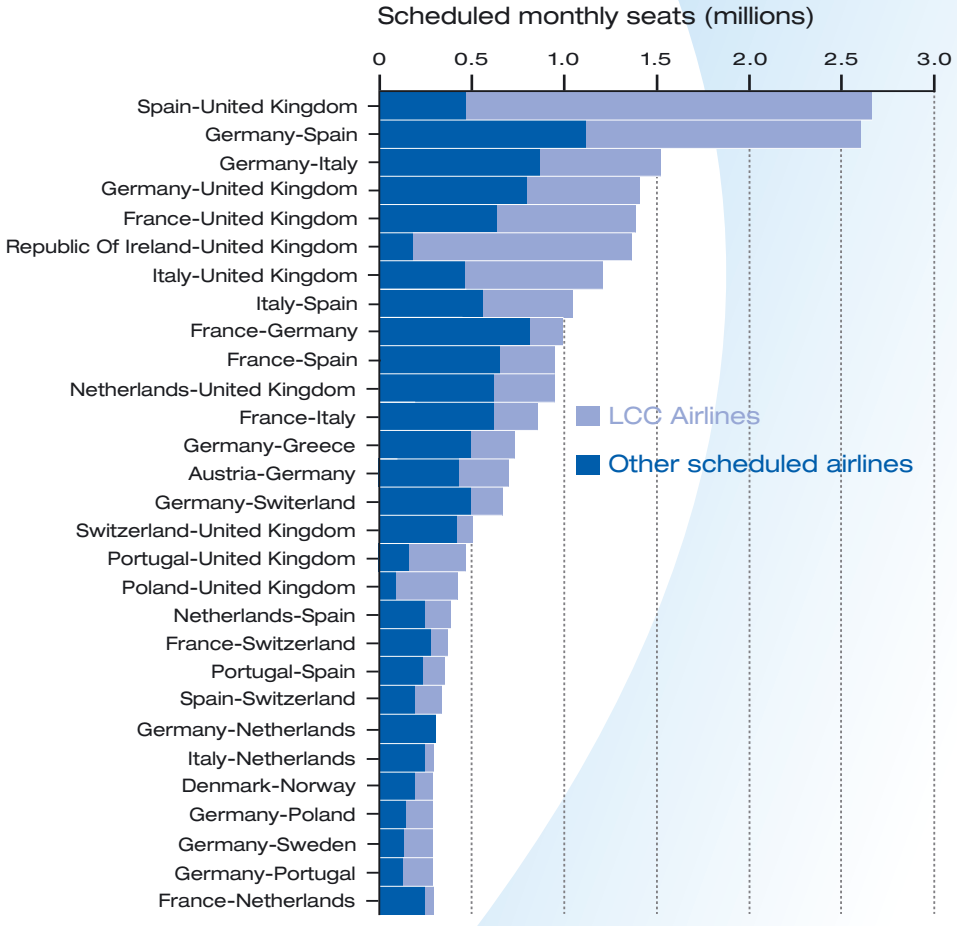
Most LCC traffic is intra-European, with many of the largest markets dominated by low-cost routes. Growth rates to Central Europe are much lower in 2007 than in 2005 and 2006, but the figures are similar in terms of the volume of seats added. Some additional countries, like Bulgaria, are opening up to LCCs. In the future, almost a quarter of the new LCC routes will be to Central European countries. LCC markets are also developing even further to the East, with new operations to Russia and the Commonwealth of Independent States (CIS). Significant growth to North Africa and the Middle East is also expected.

Overall, LCCs are anticipated to open almost 900 routes in Europe in the next 20 years, both by entering already served city pairs and by opening completely new ones. With the European market growing at 4.2% per year for the next 20 years, in terms of RPKs, the opening of new low-cost routes will continue to absorb a significant part of this growth.

For the last ten years, European LCCs have been quick to respond to new opportunities, such as EU expansion, and are constantly looking for new ways to extend their network and feed growth. The new Open Skies deal between the US and the EU potentially provides opportunities for new entrants, with some LCCs operations already on trans-Atlantic routes. Today, 45 LCC routes are operating worldwide on routes longer than London - New York and they have even captured significant shares on some flows like Australia - Japan.

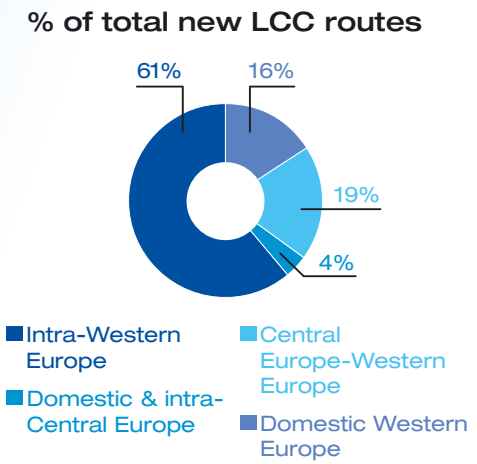
One asset is the LCC bases, many of which offer more flights and destinations than a lot of traditional international hubs. To reduce costs, passengers may be asked to practice 'self-hubbing' through connecting operations, which would not be optimal. However, these bases are located near large catchment areas such as London, where less connecting traffic is required and, more importantly, where most high yield demand originates. How much of that demand would consider a change from current to new operators, will depend on many parameters, with fares likely to be one of the more significant. While there appears to be a consensus that LCC long-haul operations could result in the ability to offer lower fares, incumbent carriers on these routes are likely to be better positioned to respond than was the case on domestic or intra-European flows.

LCCs exceed 50% market share on some large intra-European markets

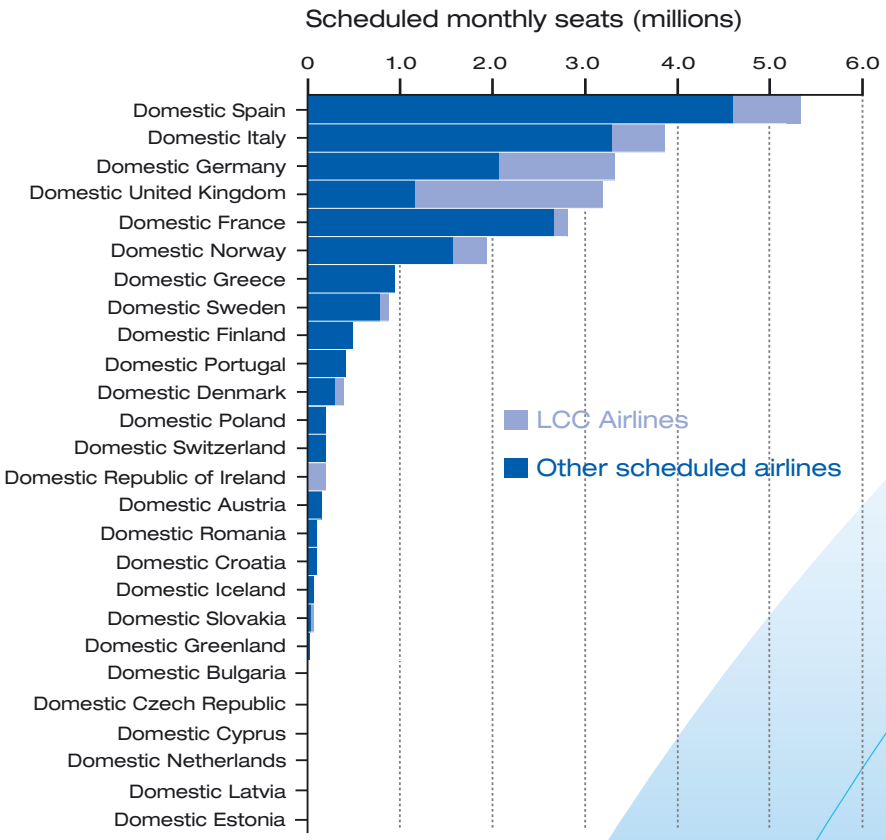


Source: Airbus, OAG September 2007

Future low-cost route openings in Europe next 20 years



Some large markets with limited LCC operations in Spain and Italy



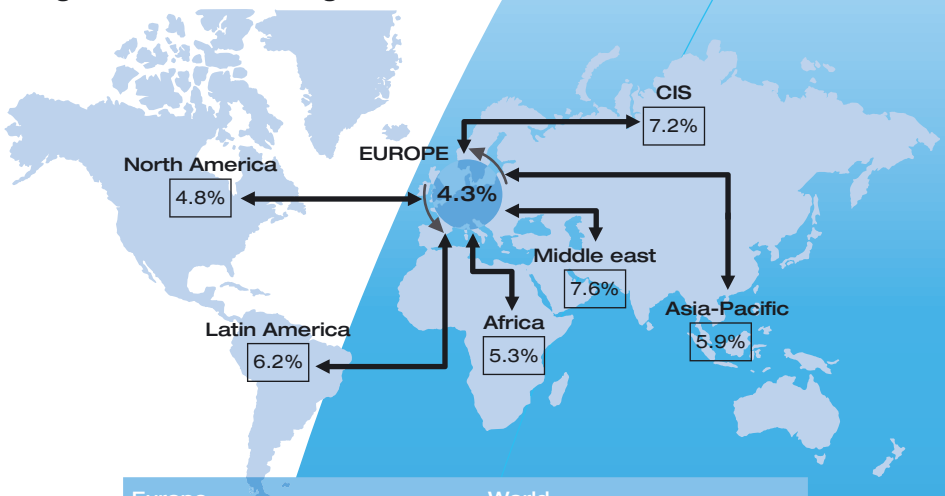
Source: Airbus, OAG September 2007

Network carriers in Europe

Despite the challenges faced from LCCs and other modes of transport, other European carriers have also experienced significant growth, particularly on cross border operations in Europe. Capacity on these markets as a whole grew by 7% between 2005 and 2006, with some markets growing even more quickly. For example, capacity within Central European countries is still booming, with growth excess of 15%, helped by EU enlargement and a more mobile workforce.

Europe

RPK growth: annual average 2007-2016



Europe			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
5.2%	4.5%	4.9%	5.4%	4.4%	4.9%

International flows

European fleet to double

With 185,000 seats offered between Europe and the US every day, the North Atlantic is by far the busiest long-haul flow in the world. Following the recent 'Open Skies' agreement between the US and EU member states, which comes into effect in March 2008, airlines are preparing themselves for significant changes.

Under this agreement, carriers will be able to fly from any EU city to any US city. If a surge of new non-stop routes is expected, it should be noted that the majority of EU member states already had an open sky or bi-lateral agreement with the US. The existing 200 non-stop city pairs make it possible for 60% of today's passengers to fly point-to-point between Europe and the US. However, this Global market Forecast (GMF) predicts that deregulation and growth will drive the opening of 80 additional city pairs, with traffic forecast to increase by about 50% in the next ten years. The vast majority of these new routes will be operated from a main airline hub or base to a secondary city and, therefore, will be smaller routes. In 2016, despite 40% more city pairs, 90% of the passengers will still be flying between city pairs already served directly today.

If Europe-US remains by far the largest long-haul direct flow from Europe, its relative importance has decreased for scheduled European carriers, as new or growing markets to Asia become attractive propositions. Trans-Atlantic capacity share fell from 37.5% of the Available Seat Kilometres (ASKs) in 1996 down to 30% in 2007. This said, the actual number of ASKs on this flow, increased by nearly 44% over this period. China is now fast becoming the largest flow between Asia and Europe, propelling this country to the number one Asian destination from many European countries.
By 2026 the fleet of aircraft with over 100 seats operated by European airlines will have more than doubled to 7,110. Likewise, today's dedicated freighter fleet will grow significantly from 264 aircraft, to more than 600 in 20 years time.

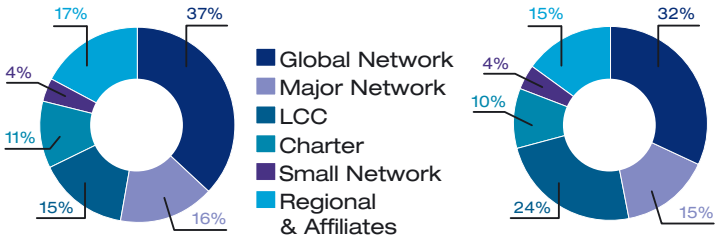
By 2026, nearly a third of the European fleet will be operated by large global airlines, of which there are currently nine. LCCs are set to become the next most significant group of airlines in terms of their fleet size, which will increase through expansion on existing services, new more distant opportunities and, possibly, some long-haul operations.

European air transport demand summary

European Traffic (yearly growth)	2007 -2016	2007 -2026
Total passenger traffic	**5.2%**	**4.9%**
Domestic & intra-regional traffic	4.3%	4.2%
International traffic	5.7%	5.2%
Total freight traffic	**6.0%**	**5.5%**

European Fleet in service	2006	2026
Passenger (< 100 seats)	1,385	2,227
Passenger (≥ 100 seats)	3,450	7,110
Freighter	264	628
Total	**5,099**	**9,965**

European passenger fleet evolution



Fleet at end 2006
4,835 aircraft

Fleet at end 2026
9,337 aircraft

Includes regional aircraft

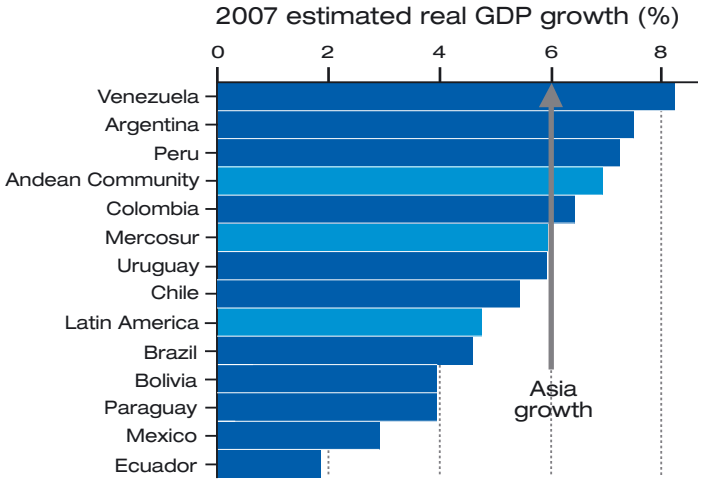
Latin America and the Caribbean

Brighter than ever

Latin America's prospects are brighter than at any time in the past century. However, today's boom period is unlikely to be followed by the usual significant negative swing, as Latin American countries are progressively succeeding in implementing and combining economic policies, political stability and social development.

Gross Domestic Product (GDP) in the region is projected to grow by 4.9% in 2007, which although slightly below the 5.4% seen in 2006, is still characterised as strong. While this growth might seem modest compared to that experienced in China or India in recent years, it contrasts sharply with that witnessed in Latin America during the past 25 years, when the region's economy barely grew at 2%. However, with a real GDP of US$ 3 trillion in 2006, the region is equal to China and is three times as big as India, with Andean and Mercosur countries growing much faster than the other countries in the region.

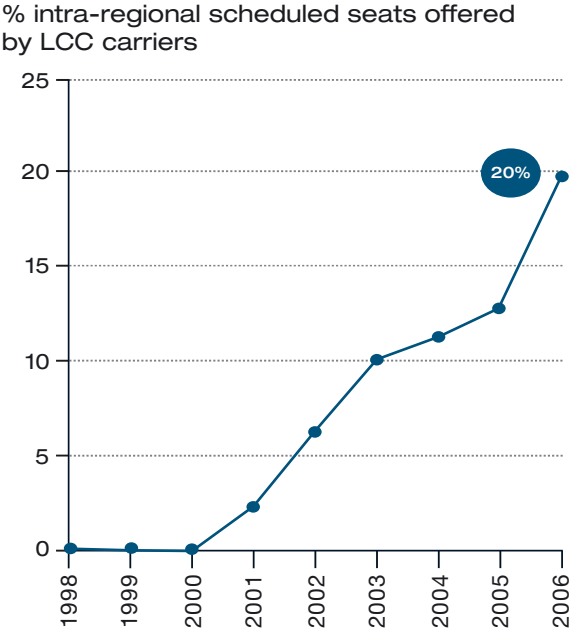
Strong economic growth in Latin America



Andean Community: Bolivia, Colombia, Ecuador, Peru & Venezuela
Mercosur: Argentina, Brazil, Paraguay, Urugay, Venezuela, Bolivia, Chile, Colombia, Ecuador & Peru

Source: Global Insight, Airbus

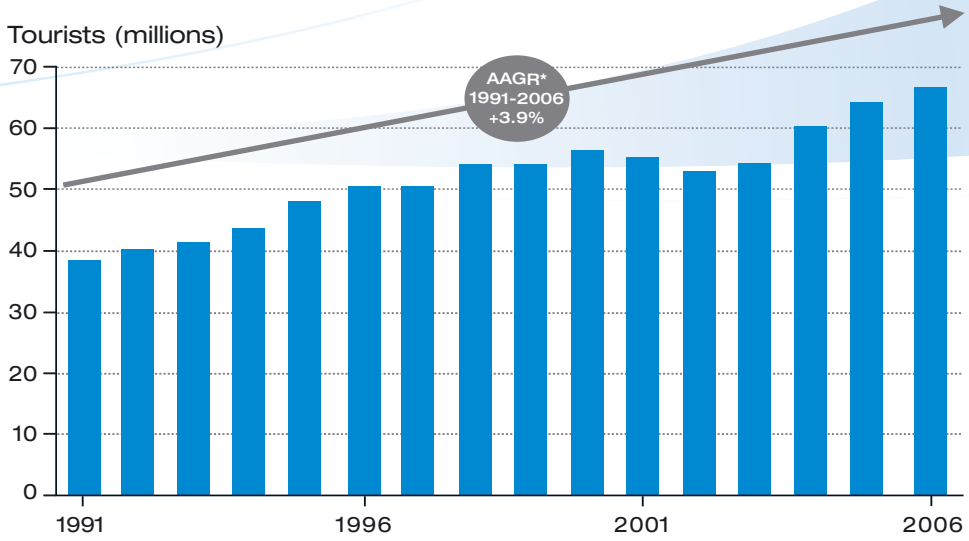
20% of intra-Latin America scheduled traffic is now carried by LCCs



Source: OAG, Airbus

Fast growing tourism demand to Latin America...

Latin America inbound tourism



*AAGR: Average Annual Growth Rate
Source: World Tourism Organisation, Airbus

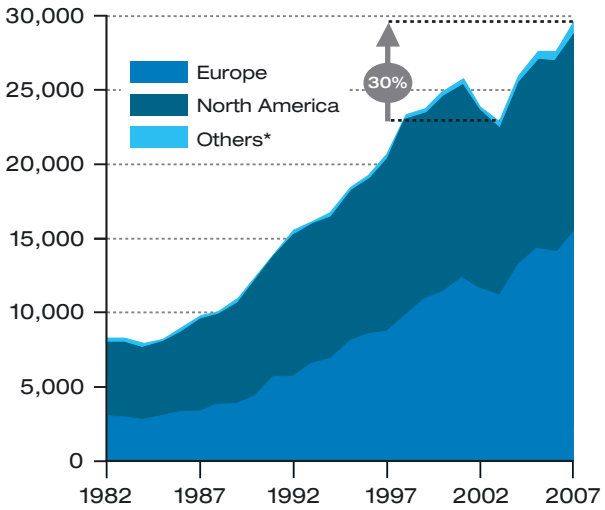
As Latin American countries continue to address market liberalisation, infrastructure and productivity, there is no reason why the region should not reach Asian-style growth in the near future. Chile is the perfect example of this unleashed potential. Faster growth, inflation at a 40-year low, expanding credit and increasing trade liberalisation are already producing a wave of new middle class consumers, similar to the one in Asia. While this trend is further advanced in Chile, it is most dramatic in Brazil and Mexico, which together account for more than half of Latin America's population of 560 million. As wealth increases in the region, new consumers typically start by purchasing cars and durable goods, then take out mortgages for property, before quickly moving on to more discretionary spending such as consumer electronics and air transport. In turn, this creates a new pool of first time flyers. In Mexico for example, almost 50% of Low Cost Carriers' (LCC's) passengers have never flown before. In addition to the better income being enjoyed by people in the region, the introduction of LCCs has greatly accelerated their propensity for air travel.

As in other developing regions, the gradual liberalisation of the Latin American market has continued. Such moves, although not as rapid and wide ranging as in some other regions, will nevertheless encourage further growth in Latin America. Eventual liberalisation agreements are expected to boost the relatively untapped, but potentially large, trans-border markets within the region.

These measures have also coincided with increased tourism in and out of the region. Inbound tourism has increased 3.9% a year for the last 15 years, growing 80% between 1991 and 2006.

... met by 30% increased capacity on international market since 2003

Capacity from/to Latin America (million ASKs)



* includes Asia-Pacific, Africa, Middle East & CIS
Source: OAG September 2007, Airbus

Over the last four years, the Latin American international market has increased the number of Available Seat Kilometres (ASKs) offered by 30%, with as much as 63% of these additional ASKs added to the European market. The high demand, driven by international tourism from and to Latin America, has also caught the attention of European carriers who have been returning capacity to this lucrative market for the last four years following a period where they were reducing it. In fact, the Europe - Latin America market has been one of the world's most

dynamic inter-continental markets since 2004. As much as 8.3% capacity has been added every year in the last four years with more to come, as demand still far exceeds supply. Europe is the destination of choice for international travel from the region, representing 53% of the total Latin American international market.

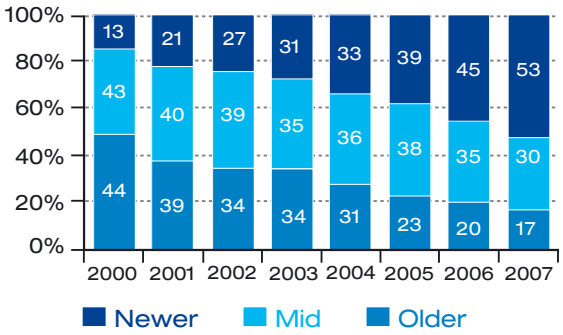
Load factors on the Europe - South Atlantic flow are now well above 85%, a level never seen before in Latin America or on most international markets. This is clearly unsustainable as more and more passengers are turned-away, requiring onerous payments to compensate these passengers, thereby reducing potential revenues. Larger aircraft and, when possible, more frequency, are necessary to meet the high demand.

Clear way towards consolidation creating large and profitable airline groups

- Lan Group in Chile, Ecuador, Peru, Argentina
- TACA Group + Volaris in Mexico
- Gol with new Varig
- Synergy in Colombia, Brazil and Ecuador
- COPA + Aerorepublica in Colombia
- Aerolineas, part of Groupo Marsans (Spain)
- Still big independents: MXA, AMX, TAM

Latin America's modern aircraft fleet helping productivity and profitability

Fleet by share of aircraft generation

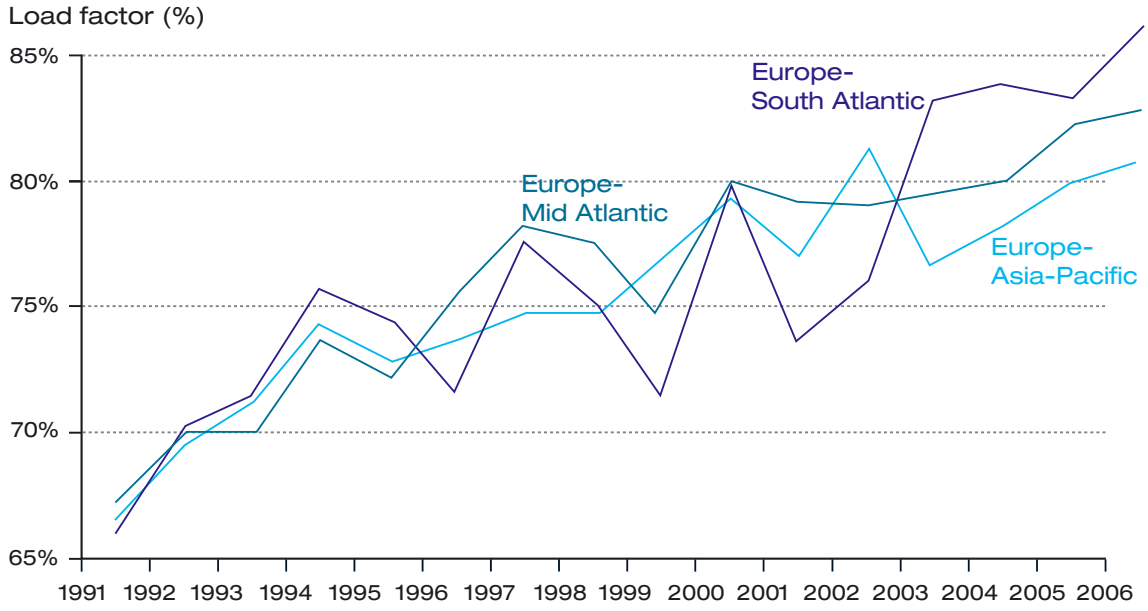


The Latin American carriers have been increasingly effective in competing with the increased European capacity offered and are quickly recovering market share. The main enablers of this recovery have been (1) some airline consolidation and (2) the introduction of new more eco-efficient aircraft into the Latin American airline fleets. The region's economic development and the increasing capital markets have resulted in significant opportunities for shrewd Latin American airline leaders to create value by consolidating, restructuring or evolving their business models. The airline industry could be seen as the precursor for a more general industrial consolidation and restructuring of other fragmented industries within the region. Airlines in Latin America have not only shown that such progress helps profitability, but also positively drives economic development in the region, a further step towards the greater well-being of the population.

With this growth and a number of the region's countries recovering from recession in recent years, the airlines have continued to build their fleets and networks. Tangible evidence of the growing strength of the region can be seen in the average age of the fleet, now 12.5 years, some three years younger than it was a decade ago. This has been achieved through the introduction of numerous new single and twin-aisle aircraft by an increasing number of trendsetting airlines in recent years. This younger fleet has helped bring greater profitability with 20% better aircraft utilisation and US$1.4 billion operating profit for the top 55 airlines of the region.

At 5.3% per annum, traffic growth in Latin America during the next 20 years is forecast to exceed the world average. New and emerging markets to Africa and the Commonwealth of Independent States (CIS) are expected to exhibit the strongest growth, with 8.0% and

Europe-South Atlantic load factors at historic highs



Source: Association of European Airlines, Airbus

8.5% respectively. Traffic within the region is also expected to grow strongly, at an average annual rate of 6.2%. However, depending on the pace of economic policies, social development, innovation and consolidation of its industries, the region could experience Asian growth levels in the future. There is much more potential in reserve for Latin American air travel.

As a result of the forecast traffic growth and deliveries, new and used, Airbus predicts that the fleet of passenger aircraft with over 100 seats in Latin America will more than double from 865 aircraft to 2,019 over the next 20 years.

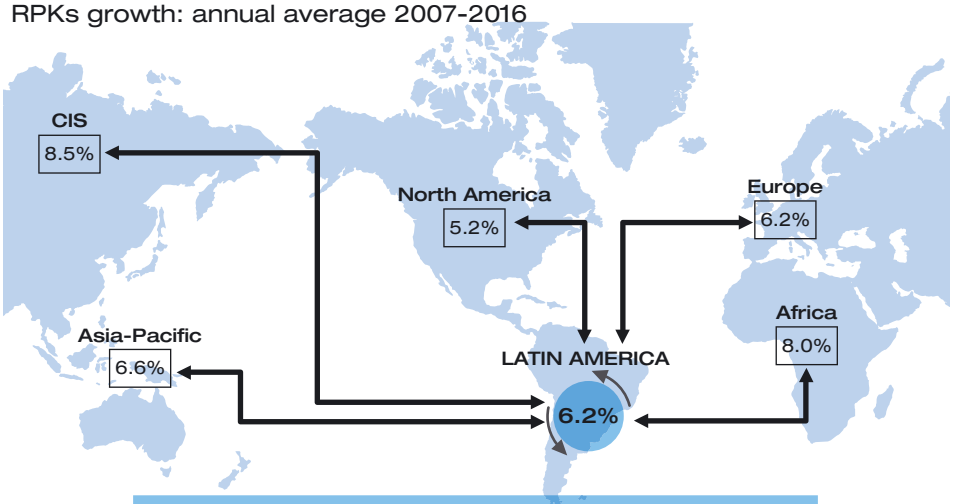
Latin American air transport demand summary

Latin American Traffic (yearly growth)	2007 -2016	2007 -2026
Total passenger traffic	**5.9%**	**5.3%**
Domestic & intra regional traffic	6.2%	5.5%
International traffic	5.9%	5.2%
Total freight traffic	**6.4%**	**5.6%**

Latin American Fleet in service	2006	2026
Passenger (< 100 seats)	562	625
Passenger (≥ 100 seats)	865	2,019
Freighter	79	132
Total	**1,506**	**2,776**

Latin America

RPKs growth: annual average 2007-2016



Latin America			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
5.9%	4.7%	5.3%	5.4%	4.4%	4.9%

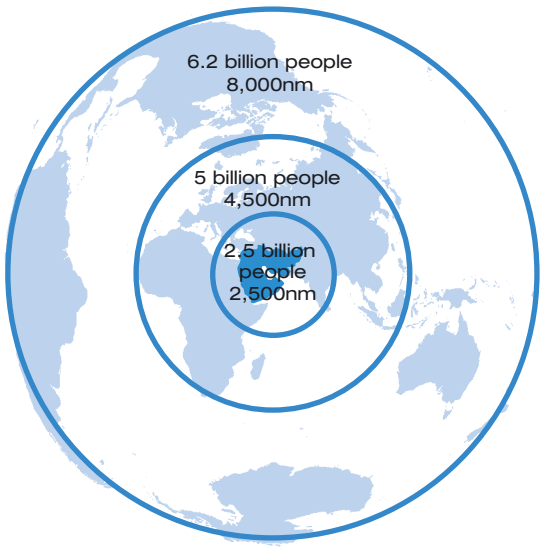
Middle East

Location, location, location

The Middle East has long been a traditional point of contact for commercial and cultural exchanges between Europe, Africa and Asia. Today, through vision, commercial focus and the availability of the right tools for the job, in terms of the latest aircraft and technology, the region is beginning to take full advantage of its geographical location, which is quite literally at the very centre of the world.

In other words, the Middle East lies within 4,500 nautical miles (8,300 kilometres) of 80% of the world's population and within 8,000 nautical miles (14,800 kilometres) of virtually every destination in the world. Thanks to new generation aircraft such as the A340, A350 XWB and the A380, airlines operating out of the region can, therefore, provide non-stop flights to all of these destinations.

The Middle East has a geographical advantage



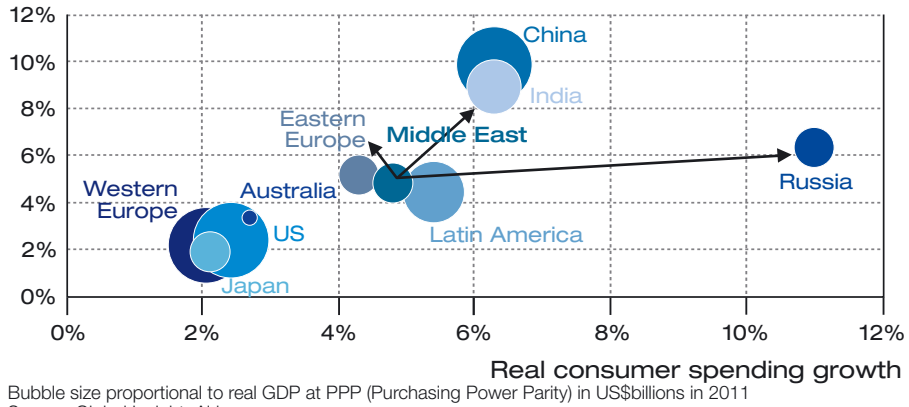
The hubs of the region are ideally placed to offer to the world's air travellers any origin-destination choice.

Likewise, short-range single-aisles are well suited for operations between any point of the CIS to East Africa or from Central Europe to the Indian Subcontinent. Therefore, more new low-cost carriers are expected to initiate their operations, within an initial zone which has 2.5 billion people to target their operations.

The region has always been of interest to people wanting to visit ancient sites like Babylon and Petra, but today, new luxury holiday resorts and hotels also draw tourists looking for desert safaris, water sports, shopping or beach holidays. Commerce, which has always been central part of life in the region, is taking on new modern dimension, with banking, property development and today even a growing film industry.

Middle East has three emerging markets in its backyard

GDP growth 2006-2011



Bubble size proportional to real GDP at PPP (Purchasing Power Parity) in US$billions in 2011
Source: Global Insight, Airbus

Such activities, combined with the benefits from the region's natural resources, have seen Gross Domestic Product (GDP) in the Middle East grow at a healthy average of 4.8% per year between 2000-2006. Five countries could be described as the locomotives of economic development in the region, with GDP growth ranging from 6% to 8%. These five countries account for just 7% of the region's population, but have been responsible for as much 32% of its total GDP.

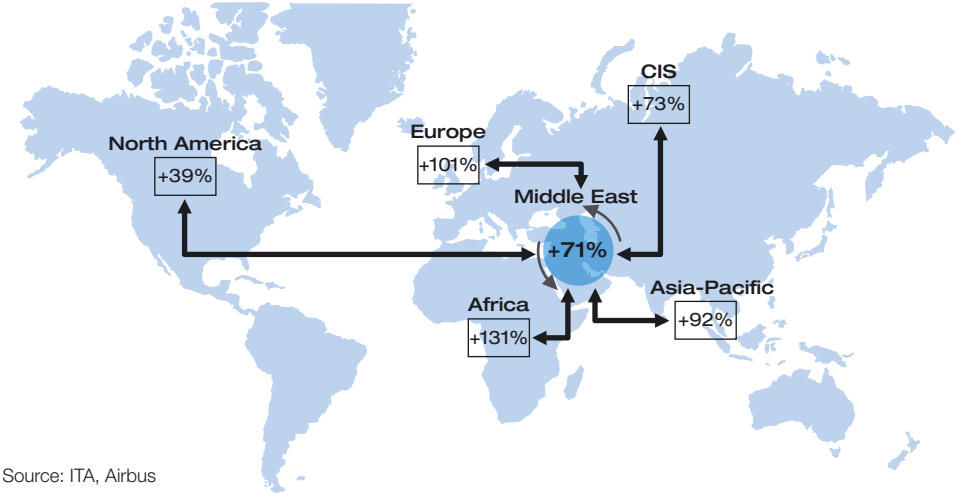
Since the year 2000, traffic to, from and within the Middle East has almost doubled, showing an annual average growth of 11%, which is much higher than the average world traffic rate of 4.1%.

As a result of strong business and leisure activities within the region, the intra-Middle East traffic has increased by more than 70% since 2000. Domestic traffic increased by a more modest, but never-the-less impressive 50%.

Long-range traffic to and from Asia-Pacific and Europe has doubled in the last six years. The Middle East has become attractive as an alternative hub between the Far East and Europe or Africa, as well as between the Commonwealth of Independent States and Africa. Traffic to North America has shown more moderate growth, currently limited to the East coast markets. Still, future deliveries of aircraft capable of flying more than 8,000 nautical miles (14,900 kilometres) will enable Middle Eastern airlines to reach the west-coast destinations and offer convenient connecting opportunities.

Strong traffic growth on short, medium and long-range

RPKs - 2006 versus 2000



Source: ITA, Airbus

The latest statistics from IATA clearly show that the total traffic growth to, from and within the Middle East, was generated by seven major international operators domiciled in the region.

The combined international operations of these seven airlines generated nearly 110 billion Revenue Passenger Kilometres (RPK) growth, in comparison to the 124 billion RPK total traffic reported by all airlines flying there in 2000. The Gulf Emirates' airlines contribution alone accounted for 84% of this growth, demonstrating the attractiveness of their service and the catchment area's potential as state-of-the-art hubs. Interestingly, airlines in the region who have purchased the A380 were responsible for 83% of the regions' growth in traffic, growing at 31% per annum.

This growth is even clearer when the position of one of the region's most prominent cities and airports is examined in relation to other key world's hubs. In 1997, Dubai was positioned 28th worldwide by the number of international Available Seat Kilometres (ASKs) offered to other regions. By 2002, the city had risen ten places to 18th position. In 2007, as a result of activities by the region's airlines and the region growing importance worldwide for tourism and commerce, the city took its place amongst the top ten hub cities worldwide, with still the potential to continue its rise through the rankings.

During the next ten years, traffic is expected to double again growing at 7.7% per annum, even faster than Asia. The intercontinental network in particular will continue to grow quicker than the regional one, as more very long-range and very large aircraft join the fleets of the leading airlines of the region.

The total passenger and freighter fleet of airlines domiciled in the Middle East will grow from 564 aircraft with more than 100 seats today, to 1,622 by the end of 2026.

In addition, the rapid development of cargo operations at the region's major hubs means that the freighter fleet will have to grow from 31 dedicated aircraft in operation today, to 106 large freighters by 2026.

The region's global airlines, of which there are three today, are expected to continue their current domination of growth makets over the next 20 years. Share distribution by market segment will not change dramatically as inter-continental traffic will continue to grow quicker than average.

Current LCC growth might not be impressive in terms of market share, due in large part to the relative importance of long-haul traffic volume, however their traffic volume is expected to increase at 9% per annum as a minimum.

Dubai entering the top ten hub cities

1997	2002	2007
1- London	1- London	1- London
2- Tokyo	2- Tokyo	2- New York
3- New York	3- New York	3- Paris
4- Los Angeles	4- Paris	4- Tokyo
5- Paris	5- Frankfurt	5- Frankfurt
6- Frankfurt	6- Los Angeles	6- Hong Kong
7- Hong Kong	7- Hong Kong	7- Los Angeles
8- Singapore	8- Singapore	8- Singapore
9- Bangkok	9- Amsterdam	9- Bangkok
10- Amsterdam	10- Bangkok	**10- Dubai**
...	...	
28- Dubai	**18- Dubai**	

Ranking by international ASKs between Airbus GMF regions
Source: OAG, Airbus

Given the low number of LCCs in the region currently, and the pace of liberalisation, new LCC entrants will more than likely further stimulate traffic. The region's ideal geographical location near to growing markets like those of India, the CIS and Eastern Europe in particular, combined with the capabilities of modern aircraft, such as the A320 Family will also serve to provide opportunity for airlines and conti-

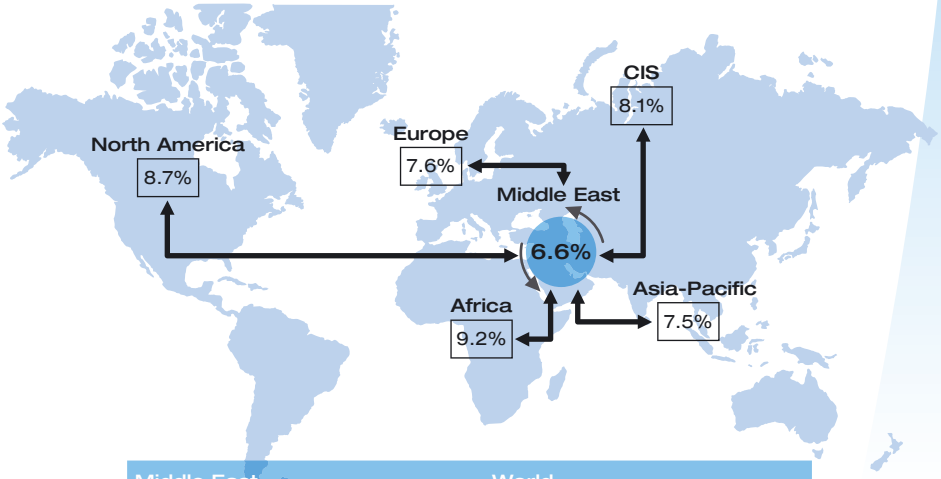
Middle East fleet will almost treble by end-2026

Middle East Traffic (yearly growth)	2007 -2016	2007 -2026
Total passenger traffic	**7.7%**	**6.5%**
Domestic & intra-regional traffic	6.6%	5.8%
International traffic	7.8%	6.6%
Total freight traffic	**5.7%**	**5.0%**

Middle East Fleet in service	2006	2026
Passenger (> 100 seats)	533	1,516
Freighter	31	106
Total	**564**	**1,622**

Middle East will sustain very strong traffic growth

RPK growth: annual average 2007-2016



Middle East			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
7.7%	5.4%	6.5%	5.4%	4.4%	4.9%

The Commonwealth of Independent States

Where the east, meets far eastern growth

The Commonwealth of Independent States (CIS) consists of twelve nations, spanning some 22 million square kilometres. Spread across 17 million km^2 in Asia and 5 million km^2 in Europe, the region encompasses 11 time zones and a myriad of geographical constraints, which means that transportation remains a challenge. One consequence of this is a high urbanisation rate of around 70%: the CIS has 22 cities with more than one million inhabitants, which already concentrate most of the wealth and economic development in the region.

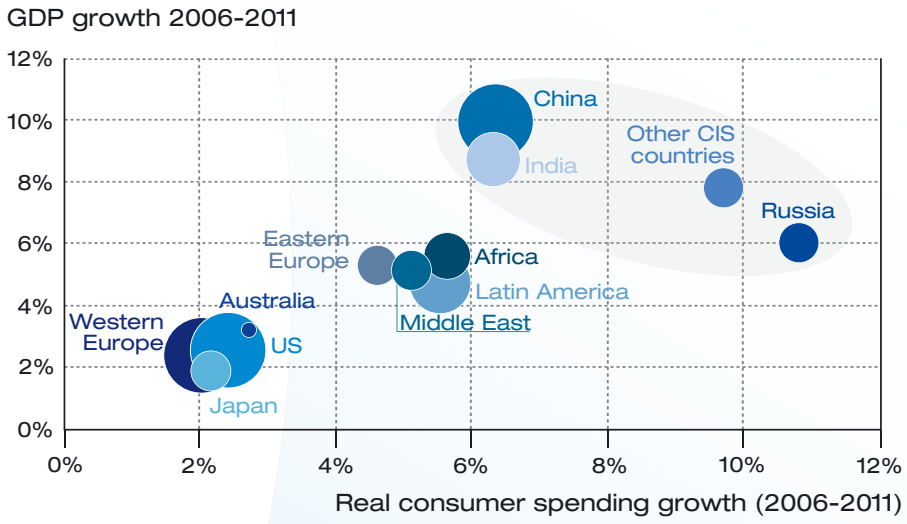
The economic performance of the CIS has been impressive over recent years, averaging 7.2% GDP growth per annum from 1999 to 2006. This has been achieved through strong inflows of energy export earnings, expansion in the manufacturing and construction sectors, and booming domestic demand. The current global economic development and the energy commodity price, which is anticipated to remain high, provide the basis for robust future growth. CIS countries are expected to mirror Indian and Chinese economic development with Gross Domestic Product (GDP) set to grow at 6.8% per annum for the next five years. In addition, domestic demand growth is expected to be the highest in the world, at over 10% a year between 2006 and 2011.

Another consequence of this recent economic development is that the real disposable income of households has risen considerably in the last eight years; averaging 23.5% a year, to give a cumulative growth of 340%. This has enabled an increasing number of the region's inhabitants to consider international travel, leading to a 125% growth of outbound tourism since 1999. In fact, Russian travellers, are now the fourth largest source of tourists travelling from the European continent.

Over the same period, the capacity offered to, from and within the CIS countries has grown steadily, with international and regional markets doubling to eight billion Available Seat Kilometres (ASKs) a month, reflecting average growth of more than 8% a year. Airlines in the region now benefit from operating both within the region and more internationally, relying less on the traditional routes and traffic flows.

In fact, operations between the CIS and other significant international destinations, offering over 4,000 monthly seats have doubled from 55 international city pairs operated in 2000 to 110 today.

CIS countries' household spending growing faster than China and India

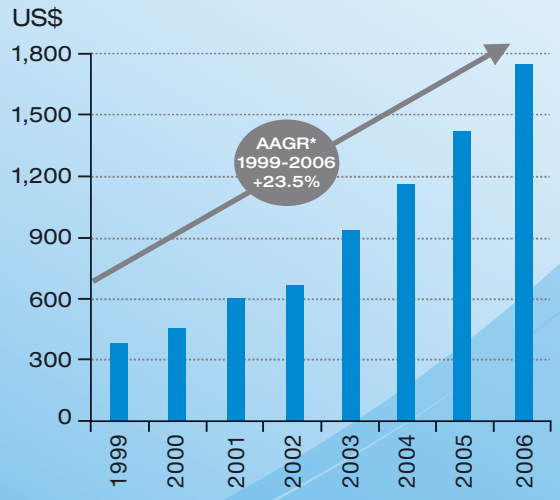


Bubble size proportional to real GDP at PPP (Purchasing Power Parity) in US$billions in 2011
Source: Global Insight, Airbus

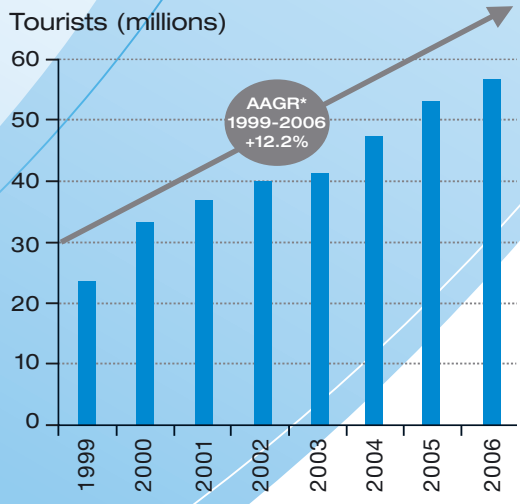
340% personnal income growth created 125% more outbound tourism

Booming disposable income leading to strong outbound tourism

CIS real disposable income per capita

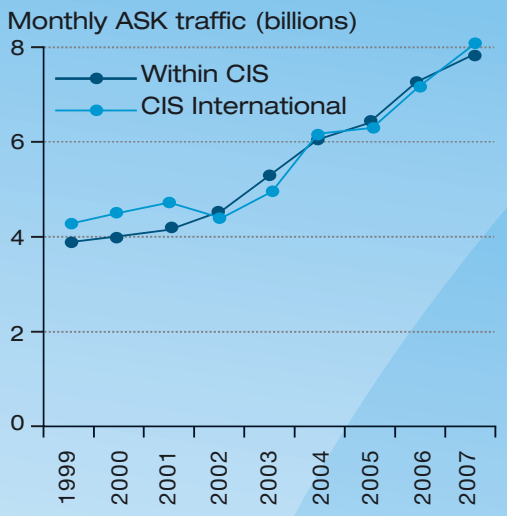


CIS outbound tourism



* Average Annual Growth Rate
Source: Global Insight, World Tourism Organisation, Airbus

CIS international and regional markets have doubled in parallel



Source: OAG September 2007, Airbus

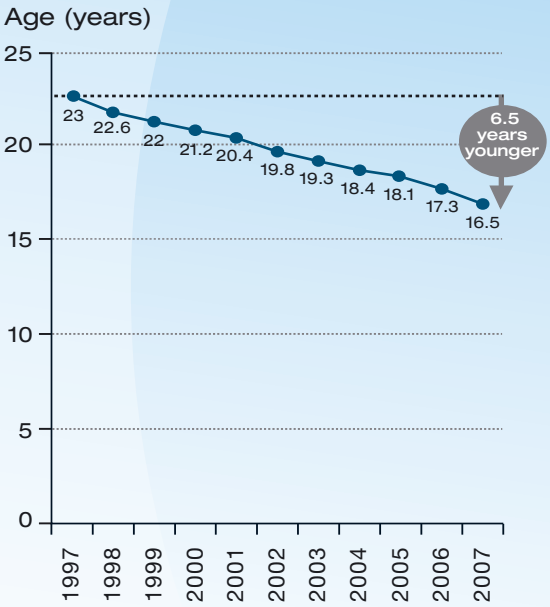
Strong traffic growth for all CIS countries over last eight years

CIS countries	Sept. 2007 ASK share	AAGR* ASKs 1999-2007
Russia	71%	+8.4%
Ukraine	8%	+13.4%
Kazakhstan	6%	+11.0%
Uzbekistan	5%	+4.7%
Azerbaijan	2%	+6.6%
Armenia	2%	+8.8%
Tajikistan	1%	+72.9%
Kyrgyzstan	1%	+9.2%
Turkmenistan	1%	+3.1%
Georgia	1%	+7.4%
Belarus	1%	+4.0%
Moldovia	1%	+6.8%

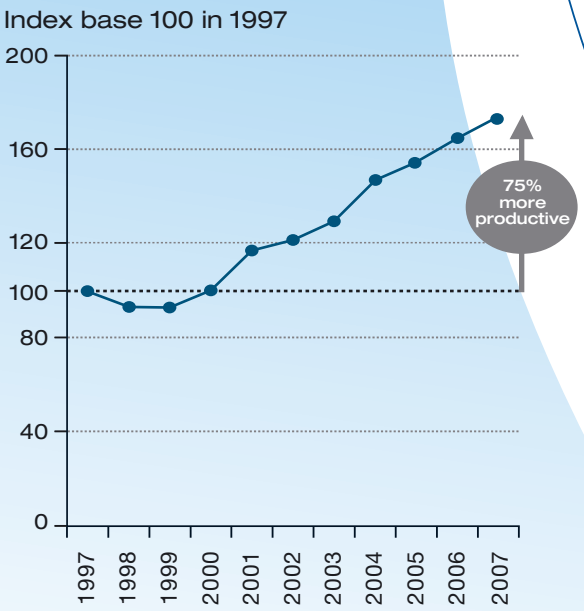
* Average Annual Growth Rate
Source: OAG, Airbus

Younger and more productive CIS fleet in service

CIS fleet* in service average age



RPK per aircraft in service index



* Passenger aircraft > 100 seats, freighters excluded
Source: Airclaims, Airbus

Airlines in the CIS have realised that in order to accommodate their strong demand for air transport and build competitive strength, they have to match the productivity and efficiency of other airlines. This has been achieved in part by adding newer and more efficient aircraft to the CIS fleet, which is now an average 6.5 years younger and 75% more productive than it was ten years ago. The current order backlog suggests this trend will continue. Further airline consolidation is expected in the region, as the means to improve market coverage, efficiency and productivity.

This strong growth of traffic to, from and within the CIS will continue. The region's annual average growth of 6.3% will far exceed the world average. In fact, the next ten years will see even more significant growth of 7.5%. International markets are expected to grow slightly quicker than domestic or intra-regional traffic, which is forecast to grow at 7.2% over the next ten years. Traffic to Asia-Pacific, Africa, the Middle East, Europe and the Americas are all expected to grow in excess of 8% a year to 2016.

The CIS is atypical for an emerging market in the sense that the fleet's size increase is not as dramatic as elsewhere. However, in terms of additional productive capacity, airlines of the CIS will grow in a similar fashion to those in India and China. A significant portion of future capacity requirements will be achieved through an increase in aircraft productivity, gained through the replacement of older equipment with newer and more eco-efficient aircraft. These newer aircraft typically represent the productive equivalent of 1.6 older generation aircraft. As a result, the CIS fleet of passenger aircraft with more than 100 seats is expected to double from 696 aircraft today to 1,322 by 2026. Most of these will be single-aisle aircraft, such as the A320 Family, which are currently prominent in the region's fleet. The number of twin-aisle aircraft will also grow steadily to satisfy the higher demand for international travel.

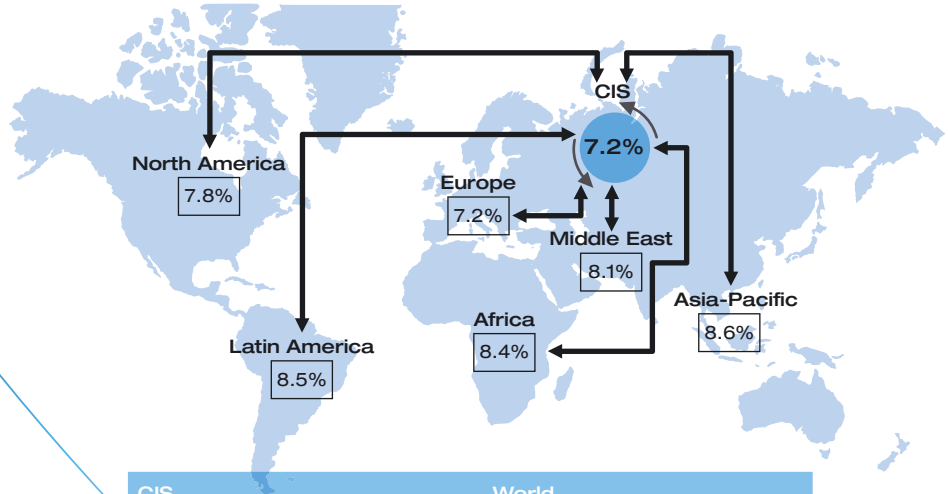
CIS air transport demand summary

CIS Traffic (yearly growth)	2007-2016	2007-2026
Total passenger traffic	**7.5%**	**6.3%**
Domestic & intra-regional traffic	7.2%	6.1%
International traffic	7.7%	6.4%
Total freight traffic	**6.4%**	**5.5%**

CIS Fleet in service	2006	2026
Passenger (⩾ 100 seats)	**696**	**1,322**

CIS international traffic will grow strongly

RPKs growth: annual average 2007-2016



CIS			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
7.5%	5.1%	6.3%	5.4%	4.4%	4.9%

CIS fleet 6.5 years younger & 75% more productive than 10 years ago

Africa

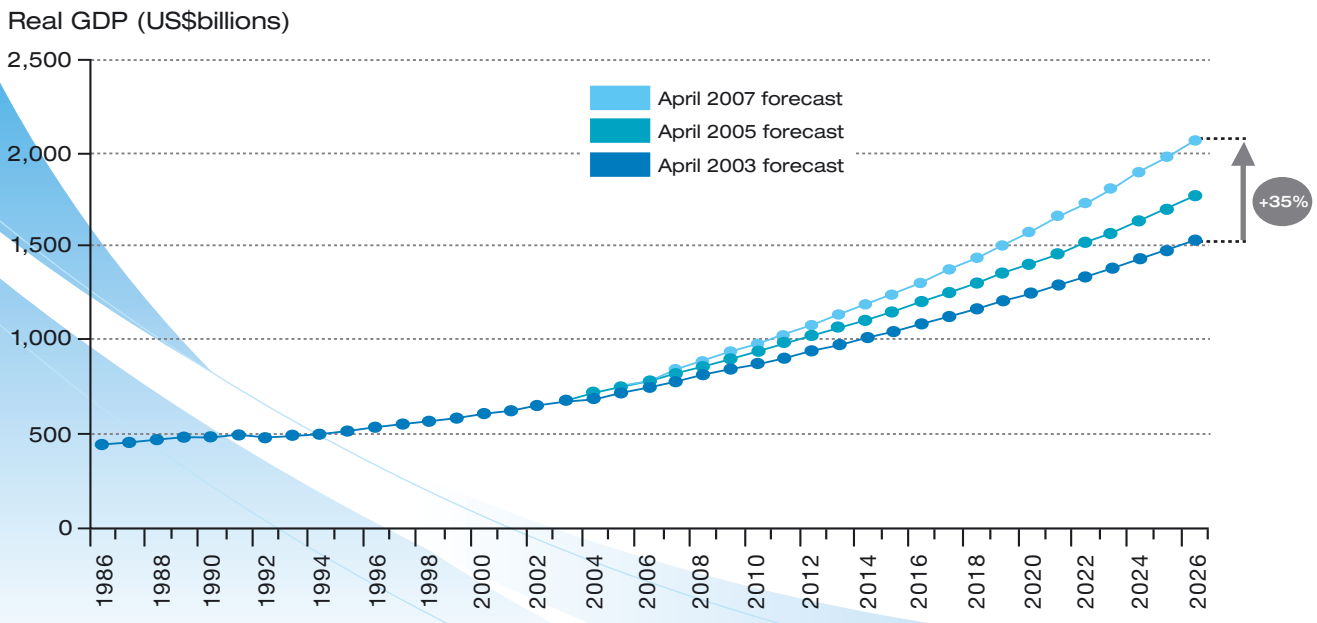
Growth, with much potential still unexplored

By the end of 2006, Africa was home to 14% of the world's population with some 900 million people spread across more than 50 countries. Spanning 30 million square kilometres, the continent accounts for 20% of the world's total land area, equivalent to the combined surface area of China, Europe and the United States. Such a vast expanse makes interconnecting travel within Africa by road and rail prohibitive. Therefore, expanding the air transport network appears to be the quickest and simplest way forward in linking the countries, their people and trade both within this massive region and with the rest of the world.

African economic performance has been very robust in recent years with average growth of 5.2% per year between 2003 and 2006. This momentum has been achieved through (1) high export revenues and the resulting fiscal expansion, (2) rapid growth in foreign direct investment inflows, particularly to the energy sector, (3) expansion in the construction sector, (4) improved performance in agriculture and (5) increased tourism activities. The current global economic development and elevated natural resource prices provide the basis for an acceleration of growth in Africa.

As a consequence, economists have continued to revise their economic forecast, with the latest being 35% higher than those prepared four years earlier. This echoes the repeated, upward revision of forecasts that have been necessary for China in recent years. Africa is expected to enjoy an average of 5% annual growth in real Gross Domestic Product (GDP) over the next 20 years, which is impressive when compared with the 3.2% average growth expected each year for the world as a whole.

African long-term economic forecast revised upward by 35% in last four years



Source: Global Insight, Airbus

150% tourism growth
120% trade growth
in 15 years

While political instability has been an issue in the region, many of the longer term disputes have now been consigned to the past. Combined with a world focus on the continent, this has led to actions such as debt relief for some nations and, therefore, a gradual improvement across the region.

As a further result of these positive developments, contacts between Africa and other world regions have surged over the last few years, leading to booming tourism and trade activities.

Trade activities with Africa have been driven by demand from countries with resource-intensive economies and almost double digit economic growth, such as China, India and a number of other industrialised nations.

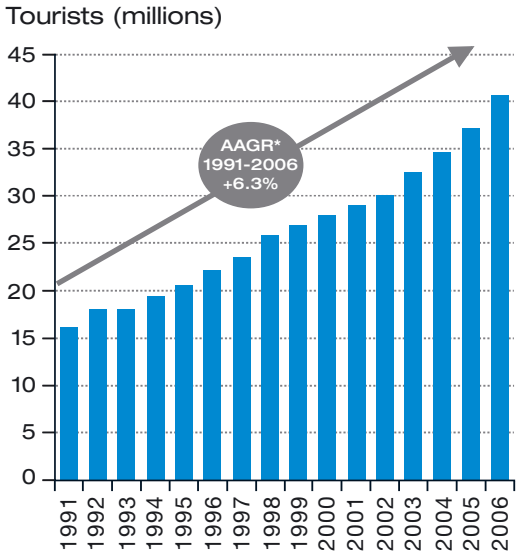
Tourism contributes to GDP and jobs in Africa, with an increasing number of countries taking advantage of the geographical position, history, flora and fauna, that make the region attractive for the growing eco-tourism market. This approach is already delivering benefits for countries like Kenya, Tanzania, Namibia and South Africa. According to the World Tourism Organization, with a 10% increase, Africa was the only region to experience a double-digit growth in tourism in 2006, with inbound tourism having grown 30% between 2003 and 2006.

Tourism infrastructure continues to develop all over Africa. This is especially true in the north of the region, which has a more mature air travel market than other parts of the continent and where low-cost carriers are expected to further stimulate demand. The region's image will also benefit from the massive media coverage that will accompany the 2010 football World Cup, which will no doubt accelerate international recognition of sub-Saharan Africa as a major tourist destination.

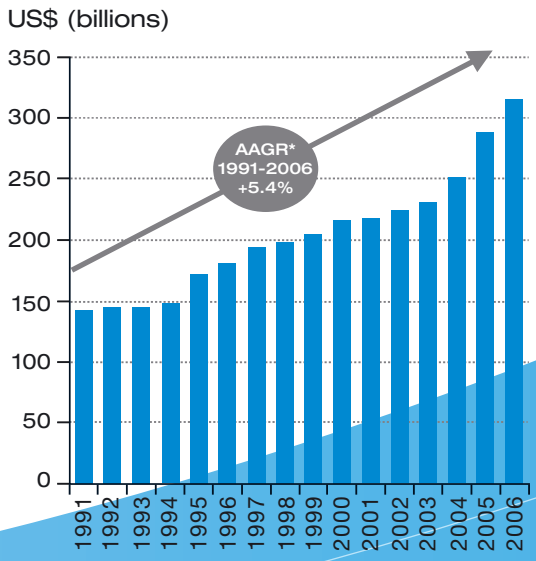
Changes in the policy framework regulating air transport services in Africa began in the 1960's, when efforts were made to transform hitherto national regulations to a regional level. This continued effort led to the declaration of a new African Air Transport Policy, which was endorsed by the African Heads of States in 2000 with the Yamoussoukro Decision. The objective of this policy is to liberalise the air transport market in Africa by focusing on gradual elimination of all non-physical barriers and to lift restrictions linked to fifth freedom traffic rights, air carrier capacity, and the frequency of passenger and cargo flight operations.

Booming tourism and trade activities with Africa

African inbound tourism



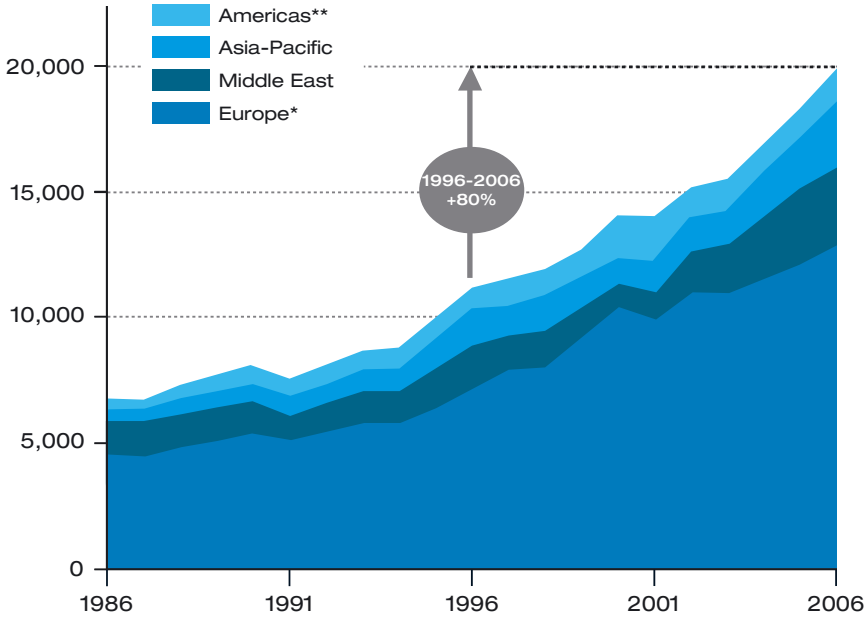
African trade



* Average Annual Growth Rate
Source: Global Insight, World Tourism Organisation, Airbus

African international markets up 80% in ten years

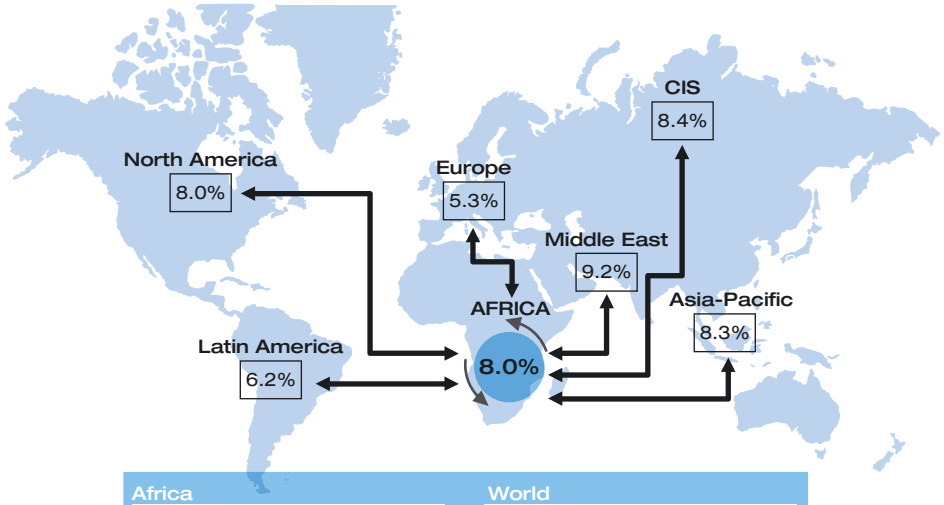
Monthly traffic from/to Africa (million ASKs)



* includes CIS
** includes North America and Latin America
Source: OAG September 2007, Airbus

African intra-regional traffic set to grow strongly

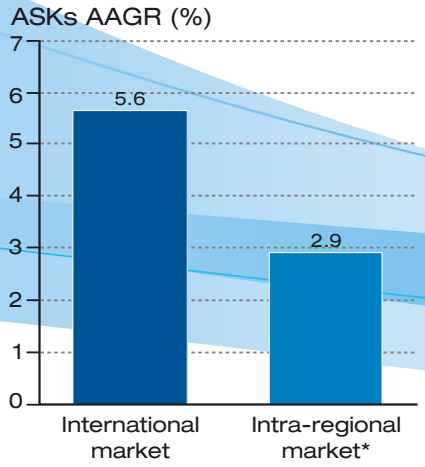
RPKs growth: annual average 2007-2016



Africa			World		
2007-2016	2017-2026	20-year growth	2007-2016	2017-2026	20-year growth
6.6%	4.9%	5.8%	5.4%	4.4%	4.9%

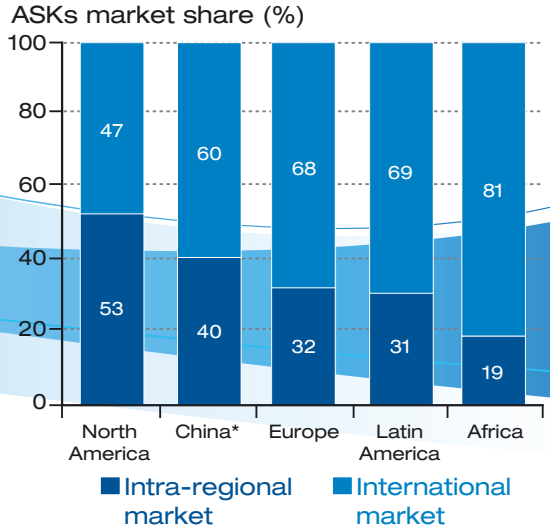
African intra-regional market largely untapped

1986-2006 African traffic development



* Intra-regional includes domestic capacity

2006 ASKs market share



* includes Hong Kong and Macao
Source: OAG, Airbus

Over the last ten years, the African international market has gained 80% more Available Seat Kilometres (ASKs) with African airlines retaining between 40% to 50% market share, despite strong competition from foreign carriers. As much as 70% of these additional ASKs have been added to the European market, leaving many opportunities to further expand the African international market.

Intra-regional demand in Africa has remained largely untapped over the last 20 years. Indeed, from 1986 to 2006 it grew at a very low average rate of 2.9% per year, far below the 5.6% achieved by the African international market. In 2006, the African intra-regional market represented just 19% of the entire African market, compared to 31% for Latin America, 32% for Europe, 40% for China and 53% for North America. This is largely due to delays in fully implementing the Yamoussoukro Decision mentioned earlier. In the future, full implementation of the policy is expected to boost the potentially large and currently untapped trans-border markets within Africa.

By more effectively capitalising on the African intra-regional market, the region's carriers will be in a much better position to counter increases in capacity implemented by foreign airlines. Furthermore, consolidation, which has the potential for trend setting airlines to emerge alongside the introduction of new, more efficient aircraft, will allow African carriers to improve their competitive strength. The average age of aircraft in the African fleet, which is 15 years, has remained unchanged for the last ten years. With fuel prices remaining stubbornly high, improving competitiveness through fleet renewal will be a significant consideration for the region's airlines.

A growing regional economy, flourishing trade and tourism, greater liberalisation and the emergence of a low-cost sector will drive a strong increase in Africa's passenger traffic. Airbus forecasts that revenue passenger kilometres will grow well above the world average, at 5.8% per annum over the next 20 years, with more significant growth of 6.6% over the next ten years. If Africa achieves full liberalisation, intra-regional traffic has the potential to grow at an impressive 8.0% per year. International markets are also expected to grow strongly. Traffic to North and Latin America will increase by 8.0% and 6.2% respectively, while traffic to Asia-Pacific will rise by a remarkable 8.3% per year over the next decade.

Over the next 20 years, the African passenger aircraft fleet is expected to more than double to 1,319 aircraft. This is the result of strong passenger demand, which together with aircraft replacements, particularly in the single-aisle market, will result in inceased productivity levels as the region replaces its existing fleet with more efficient new built aircraft.

African air transport demand summary

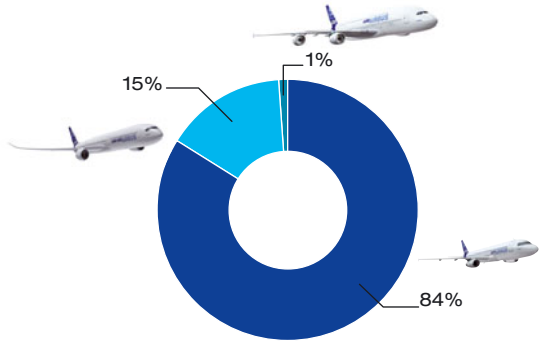
African Traffic (yearly growth)	2007 -2016	2007 -2026
Total passenger traffic	**6.6%**	**5.8%**
Domestic & intra-regional traffic	8.0%	6.8%
International traffic	6.4%	5.6%
Total freight traffic	**6.4%**	**5.5%**

African Fleet in service	2006	2026
Passenger (⩾ 100 seats)	541	1,319
Freighter	58	74
Total	**599**	**1,393**

Latin America, Middle East & Africa to represent 15% of 20-year new passenger aircraft demand

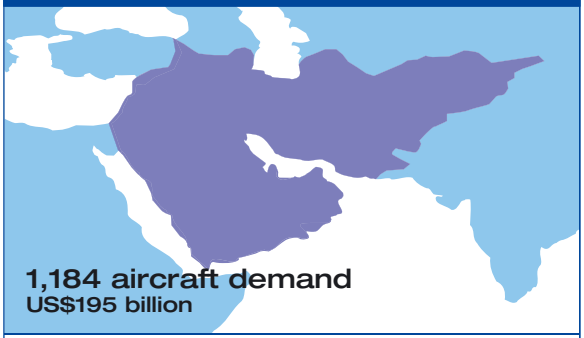
Latin America

1,448 aircraft demand
US$124 billion

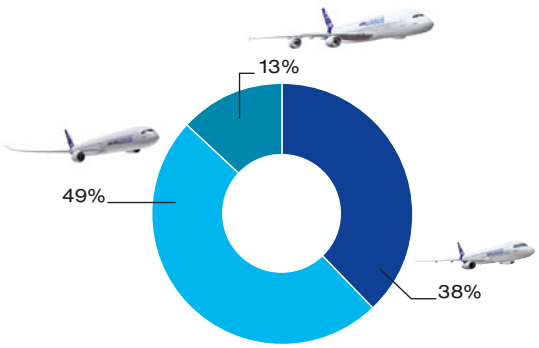


- Stability and new confidence
- Many emerging markets
- Benefiting from consolidation
- Potential for Asian style growth

Middle East



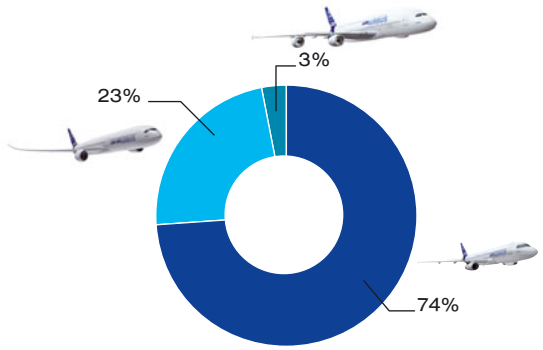
1,184 aircraft demand
US$195 billion



- Location, location, location
- 5 billion people in the neighbourhood
- Home to 1 of top 10 world hubs
- High growth

Africa

880 aircraft demand
US$89 billion



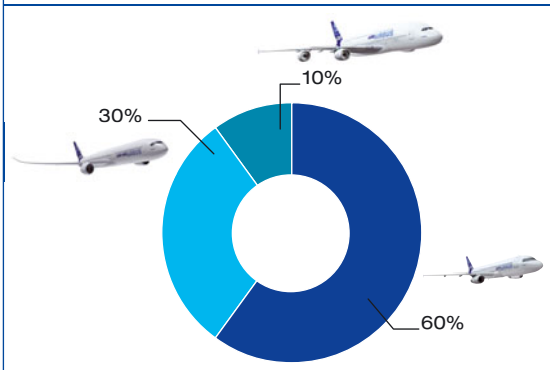
- Home of the next India
- Economic promise to reality
- Sustaining the momentum
- Intra-regional market untapped

20-year new passenger aircraft demand (excluding freighters)

Asia-Pacific: largest and most diverse market

Asia-Pacific

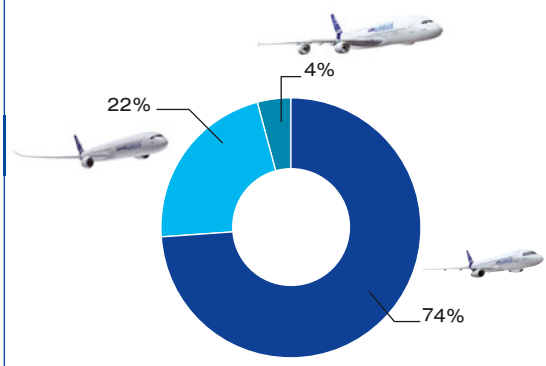
7,231 aircraft demand
US$987 billion



- High growth
- Large developing markets
- Large cities
- Fast developing LCCs

Europe & CIS

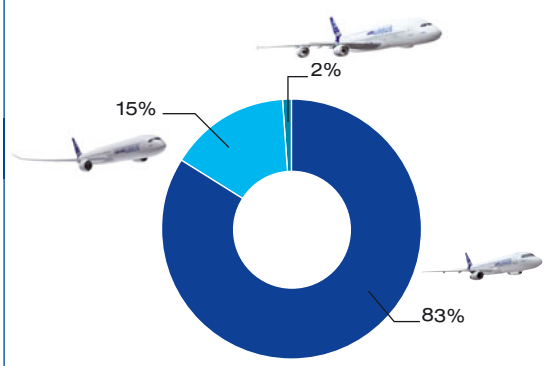
6,385 aircraft demand
US$689 billion



- Sustained growth
- Still untapped Central European markets
- Strong long haul international market
- Asia's largest international market

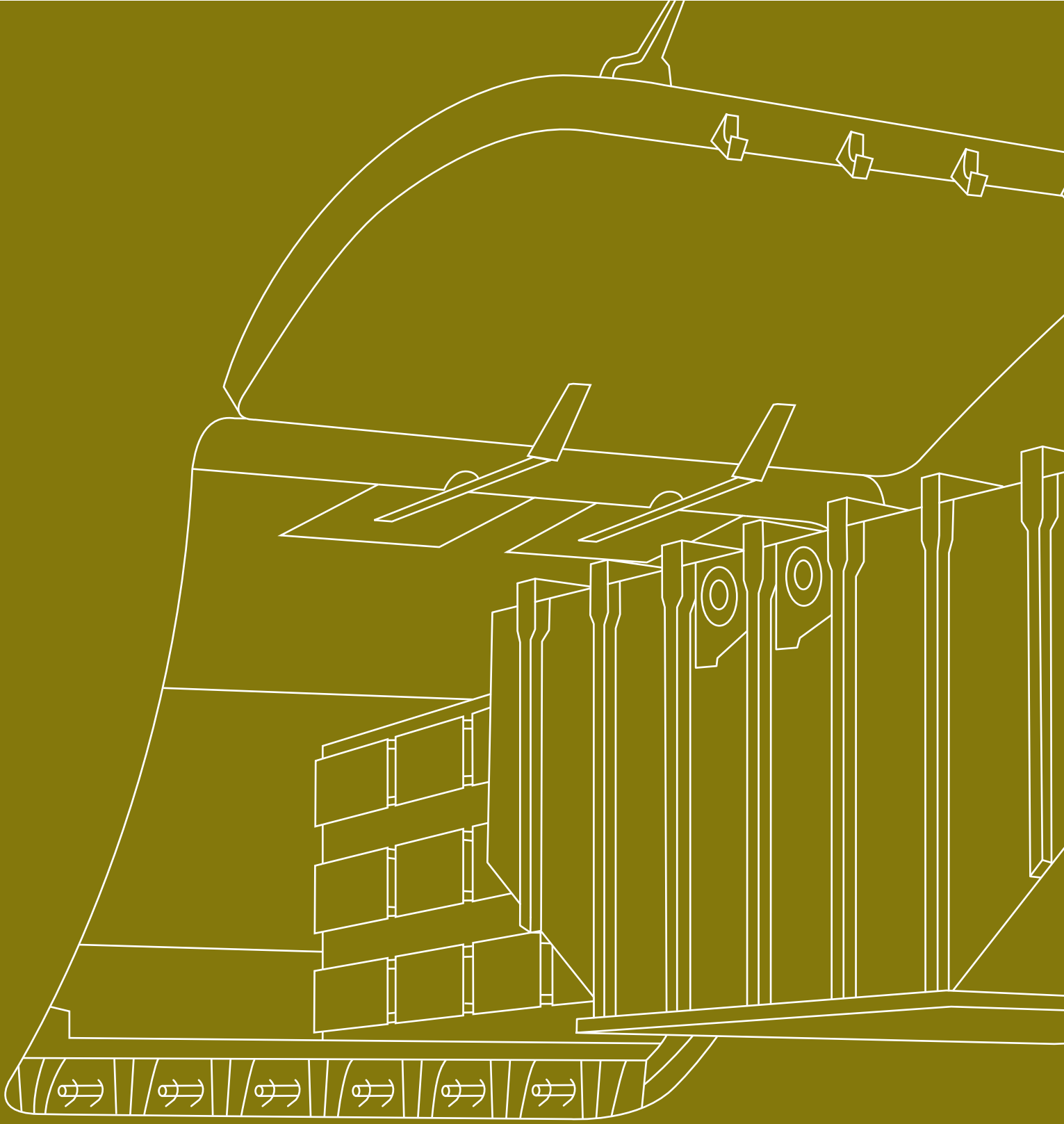
North America

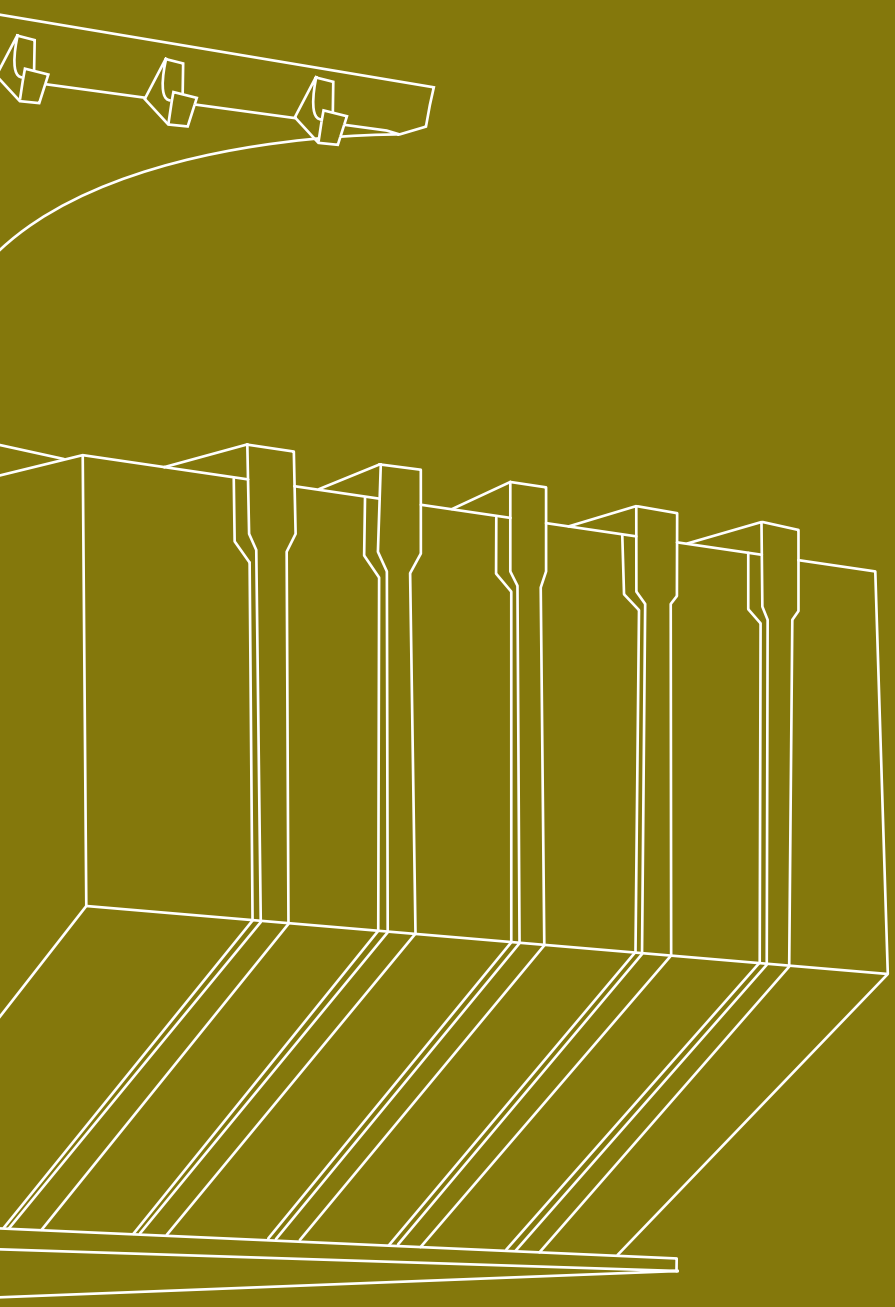
6,257 aircraft demand
US$546 billion



- Large replacement market
- Mature domestic market
- Still developing international market
- Largest freight base

20-year new passenger aircraft demand (excluding freighters)





Air cargo forecast

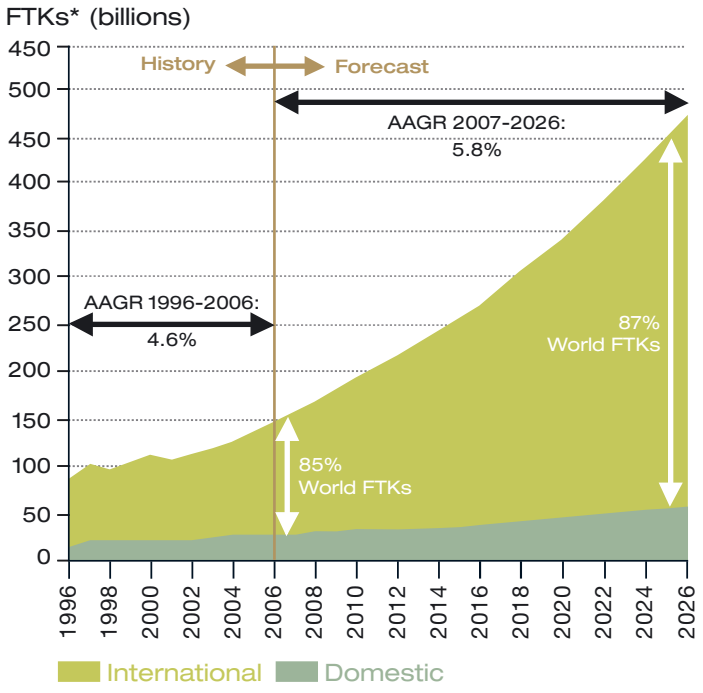
Large emerging markets, more

5.8% traffic growth to 2026

In this freight forecast, Airbus examines international and domestic freight traffic for 144 traffic flows between and within 14 world regions covering 97% of total global traffic. As for passenger traffic, the freight forecast is mostly based on econometrics. However, it is analysed in both directions for each flow, because freight movements between destinations are often imbalanced, and it incorporates an extensive analysis of the type of goods traded.

The type of goods exchanged, such as sub-segments of high tech, consumer or foods, is an important driver of traffic development. Their value and time sensitivity greatly influence the type of transport that shippers will select, which, in turn, influences the type of freighters used in each market segment. The analysis of structural industry shifts, such as the new express markets and the emerging markets, is also important in determining the growth drivers of the freight market.

Freight traffic to triple in twenty years



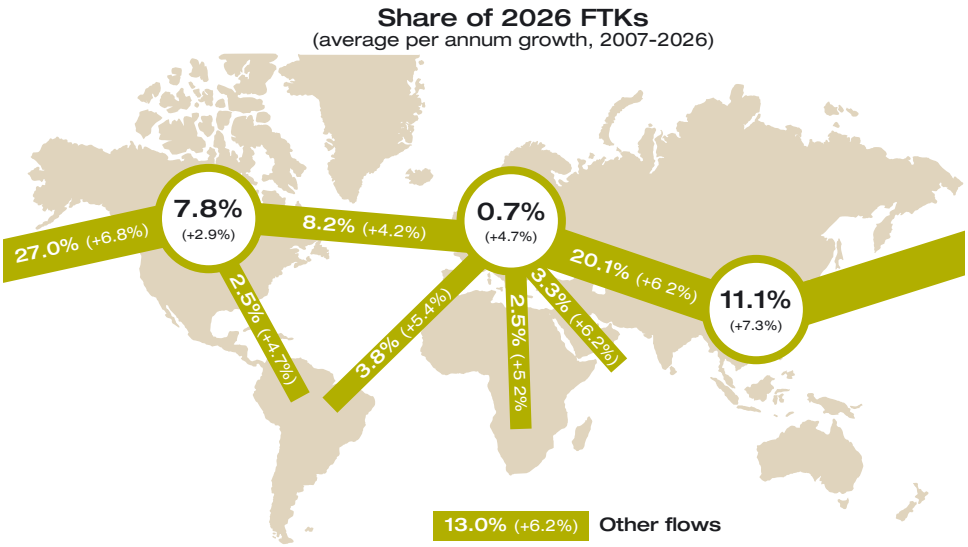
AAGR: Annual Average Growth Rate
* FTKs: Freight Tonne Kilometres

e dedicated freighters

Airbus forecasts that air cargo traffic will increase by an average of 5.8% per year between 2007 and 2026. This healthy growth will be driven by the two largest international flows, People's Republic of China (PRC) to North America and PRC to Europe, which are expected to increase by as much as 9% per year. Europe-North America, which is more mature and much smaller in volume, will grow at a moderate pace of 4.2% per year. Today, domestic cargo traffic represents 15% of total worldwide traffic, most of which comes from the mature United States (US) market.

Despite several years of stagnation in the volume of express packages and the concurrent development of ground based services, the US domestic air cargo market, which is still driven by express operations, is expected to grow long-term at 2.9% per year. This is consistent with long-term US economic forecasts. However, domestic markets around the world are expected to almost triple over the next 20 years, largely due to emerging express freight demand within the PRC.

Traffic in Asia-Pacific will exceed that of North America

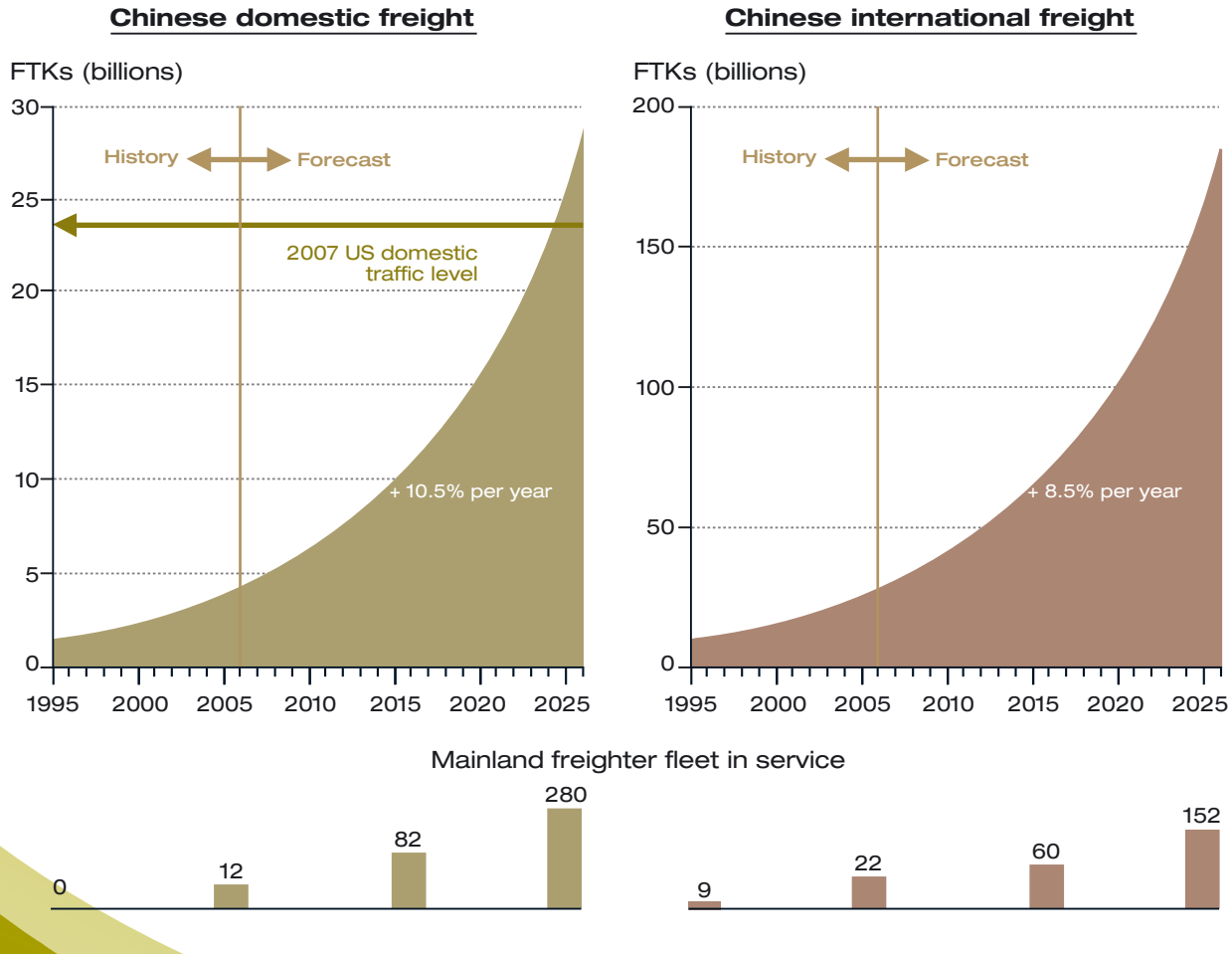


Although PRC domestic airfreight is currently small, a large part of its growth is expected to come from the enormous potential for express package demand. The emerging express market is driven by the growing importance of manufacturing and the assembly of electronics and telecommunication components; the shift towards lean, capital intensive manufacturing; the growing banking sector; and the increased personal consumption of more discretionary goods. Although modest in volume for the next few years, growth will accelerate after the turn of the next decade. With just a few dedicated freighter aircraft in service, the current level of express services in China is still a long way from those offered by the US and European integrators. However, a solid express freight system infrastructure is currently being built and major integrators are gearing up their operations in China. Further development of such services will require a large number of dedicated freighters, starting from smaller converted jets such as A320s and expanding to larger regional freighters over time. Airbus anticipates that the fleet of domestic freighters in China will grow from 12 in 2006, to 280 by 2026.

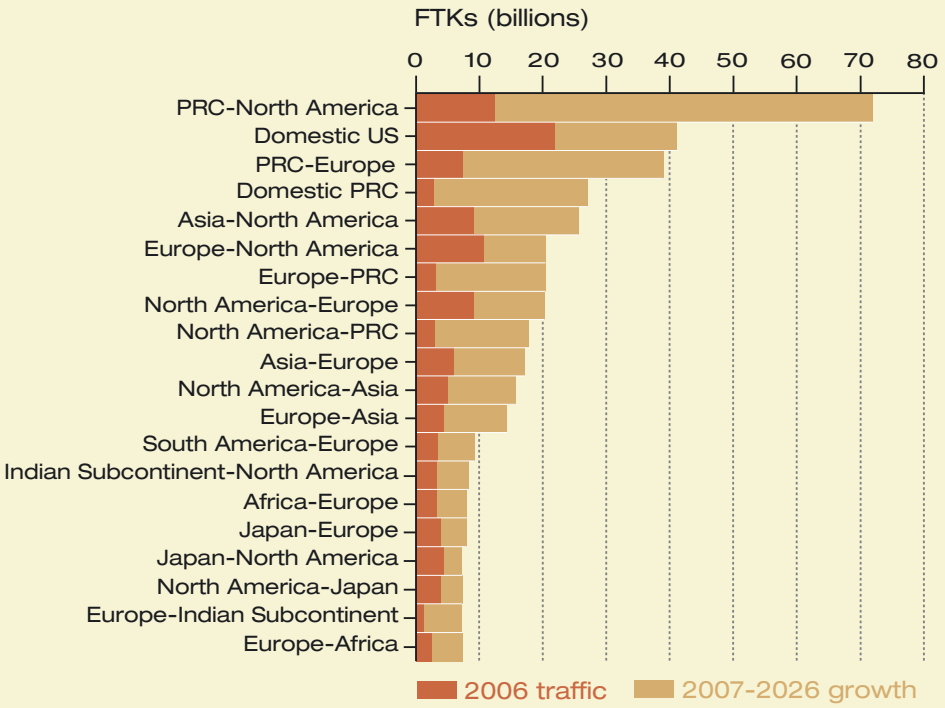
Chinese domestic freight to reach current US levels within next 20 years

Over the next 20 years, Chinese exports and the emerging express market will radically change the hierarchy of the top freight traffic flows. Three flows involving the PRC will grow at a double-digit yearly pace for the next ten years, before moving into the world's top five by 2026. Today, the domestic US market is the largest flow, twice as big as that from PRC to North America. However, by 2026 the ranking of those two flows will be reversed. In fact, with almost 10% growth per year, the flow from PRC to North America will become almost twice the size of the US domestic market by 2026.

Chinese freight to grow six-fold over the next 20 years



PRC markets dominate international traffic



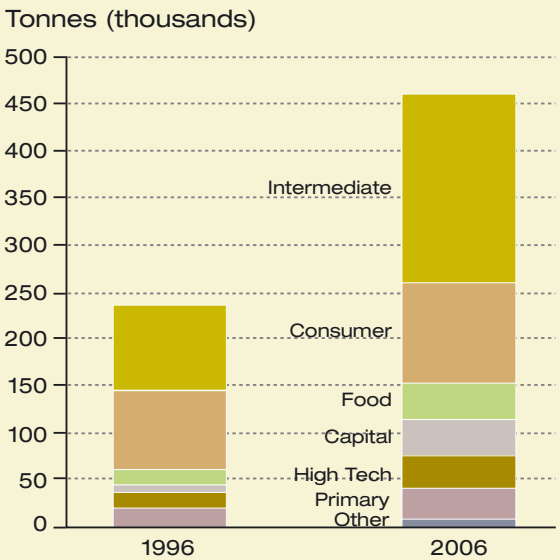
	2007 -2016	2007 -2026	20 year growth	% of 2026 World FTKs
PRC-North America	10.6%	7.6%	9.1%	13.3%
Domestic US	3.0%	2.8%	2.9%	7.6%
PRC-Europe	9.7%	7.3%	8.5%	7.2%
Domestic PRC	11.9%	9.2%	10.5%	5.2%
Asia-North America	6.1%	4.7%	5.4%	4.6%
Europe-North America	4.5%	4.0%	4.2%	4.4%
Europe-PRC	10.0%	6.6%	8.3%	3.8%
North America-Europe	3.5%	4.8%	4.2%	3.8%
North America-PRC	9.4%	7.2%	8.3%	3.0%
Asia-Europe	5.1%	4.0%	4,5%	3.0%
North America-Asia	4.7%	4.7%	4.7%	2.8%
Europe-Asia	5.6%	4.3%	5.0%	2.3%
South America-Europe	7.5%	5.2%	6.3%	1.6%
Indian Subcontinent-North America	6.1%	4.5%	5.3%	1.4%
Africa-Europe	7.1%	4.3%	5.7%	1.3%
Japan-Europe	4.7%	4.3%	4.5%	1.3%
Japan-North America	3.4%	3.9%	3.6%	1.3%
North America-Japan	4.1%	3.7%	3.9%	1.2%
Europe-Indian Subcontinent	9.3%	7.0%	8.2%	1.2%
Europe-Africa	5.3%	4.2%	4.7%	1.2%

India's air express market takes off

Another development of note has been the appearance of two Indian Subcontinent flows in the top 20 markets, one to Europe and one to the US. There has been high growth in the export of intermediate goods, such as textiles and industrial products, by air. This is a sign of India's economic expansion and its growing importance as a leading exporter of manufactured goods. While intermediate goods are likely to dominate in the future, higher value goods will also constitute a much larger share of the airfreight out of India. This will enable passenger airlines to extract more revenue from freight operations and will cause the freight business in India to flourish.

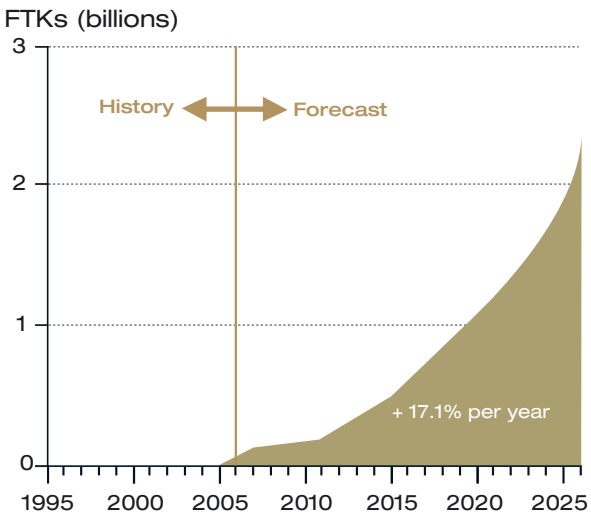
In addition, the Indian domestic market is forecast to develop in a similar manner to that of China, in terms of growth, but will differ in the types of goods carried. It is expected that general cargo will continue to be mainly carried in the belly of passenger aircraft, benefitting from increased capacity available as a result of the simultaneous growth of passenger traffic. However, a large share of India's domestic growth will come from the express cargo market, which requires a dedicated freighter fleet. The express market will be largely driven by a strengthening economy, as already seen in China. It will be further accelerated by the increase in manufacturing and the growing number of Indian households that consume time sensitive, manufactured goods purchased on the Internet. The express market is expected to require more than 140 small or regional freighters by 2026. Meanwhile, international freight to and from India will grow as the economy and manufacturing develop in the country and as indigenous airlines begin to focus more on freighter operations. As such the dedicated Indian freighter fleet is expected to grow from three aircraft today to 45 in 2026.

Textiles and clothing currently dominate India's air exports

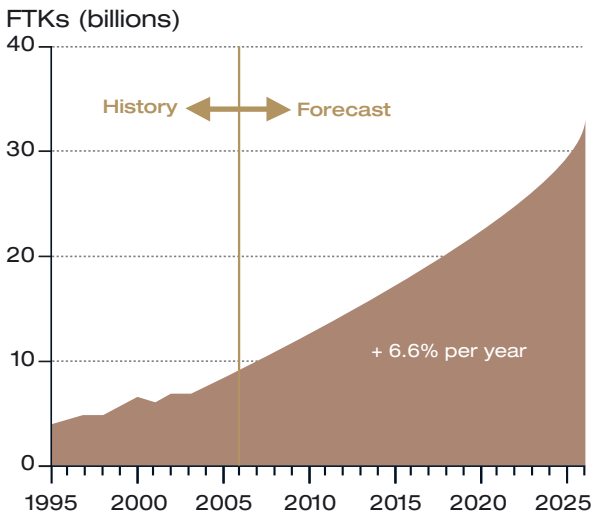


Source: MGI, Airbus

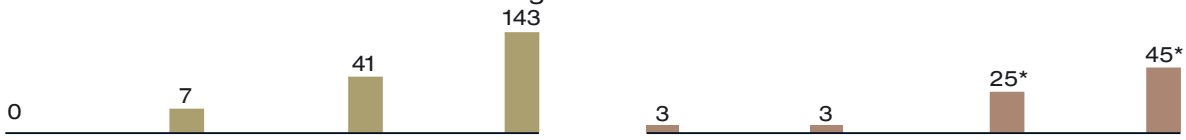
India domestic express freight



India international freight



India's freighter fleet in service



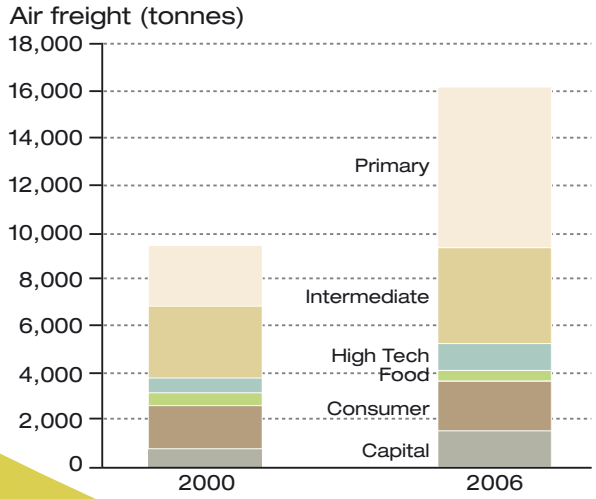
* at 50% market share for Indian carriers

China ↔ India air freight at the dawn of a new era

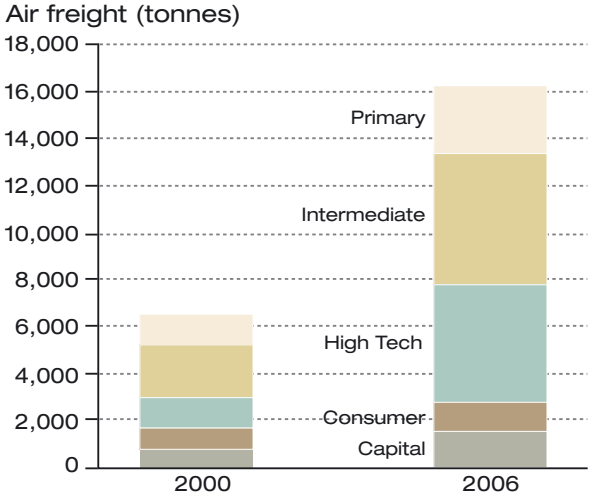
As described in the air traffic section, trade between the two largest emerging countries is opening up. Airfreight is the major benefactor. Although the volume of airfreight between China and India is relatively small in comparison to what it could be in a totally liberalised environment supported by better airfreight services, it has more than doubled in the last five years. As much as 16,000 tonnes moved each way in 2006. In a market where bi-directional imbalances often occur, the fact that export and import via airfreight are at the same level in terms of tonnage, makes this market even more attractive for operators. However, the commodities from India are still dominated by valuable stones, finished textiles, leather products and chemicals, while exports from China to India largely consist of electronics and textile fibres. China - India airfreight traffic will be one of the faster growing freight markets worldwide. The GMF anticipates average growth of 8% per annum over the next ten years, with real upside potential.

China ↔ India air trade: growing fast and balanced

India to China



China to India



Source: MGI, Airbus

When air is better than water

There are four categories of long-distance freight:

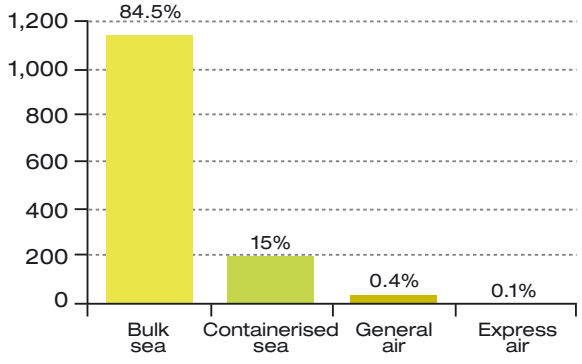
- Bulk sea freight: such as petroleum and derived products, grain or minerals
- Containerised sea freight: used for many consumer and industrial products
- General airfreight: carried on pallets by dedicated freighters or in the under-floor space of passenger aircraft
- Express airfreight: most often carried as small packages in containers on dedicated freighters

The selection of the mode of transport is essentially governed by volume, cost, value, speed, security, geography and environmental impact. Simply put, transportation costs should not add an excessive burden to the product cost. In addition the higher the value of the goods, the greater the financial penalty for lengthening the time-to-market. But there is also a significant grey area, where, for reasons independent of the intrinsic value of the goods, air shipment becomes more desirable. In particular, the risk of losing a customer or of stopping large-scale production for lack of a spare part, often justify the cost of air transport. In these instances, time is quite literally money. Taking the US as an example, airfreight represents less than 1% of total exports, which highlights that the use of bulk sea freight and even containerised sea freight, far exceed the use of aircraft to move cargo.

Over the North Pacific, airfreight offers a significant time saving of almost two weeks. The advantage of air over sea is even greater on the Asia-Europe flows. It takes 1.5 days for express airfreight, compared to 25 days for ocean traffic between Chinese and European seaports, giving air transport a three-week advantage.

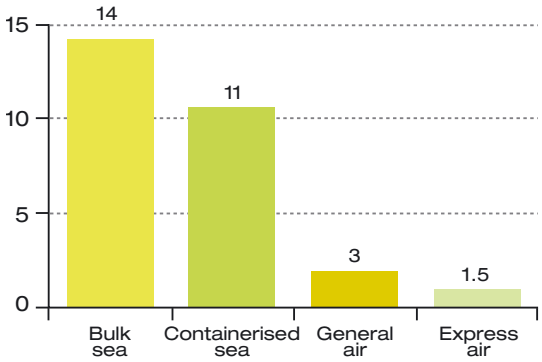
US trade by transport mode

Total of US import and export
all transport modes (million tonnes)



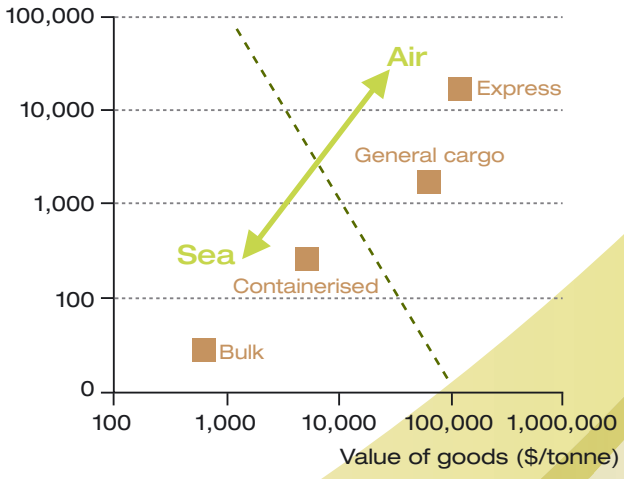
For the North Pacific, air offers a one to two week advantage over sea

Transit time on North Pacific
(Number of days)



Transport mode linked to the value of goods

Transport costs
Pacific eastbound (US$)



Source: MGI, US Department of Commerce, US Army Corps of Engineers, US Maritime Administration, Airbus

Long distances and mountainous areas, combined with a lack of road and rail infrastructure also drive freight towards aircraft. Some fish exports from Africa would just not be possible as there is often no reliable refrigerated ground transportation between production sites and suitable seaports. Air transport, despite its higher unit cost, can be a cheaper alternative to investing in large ground-based infrastructure projects, like new rail or road links.

Advances in processes, technology and time-definite sea freight services raise the question of transferring shipments from one transportation mode to another. It is believed that consumer good shipments could ultimately shift between modes as small improvements in sea journey times and better port security offer an opportunity for more sea transportation for large and regular shipments.

However, most sectors are unlikely to move from air to sea. The development of e-commerce, which depends on a quick-distribution model, also increases the reliance on airfreight, and high value goods will continue to be drawn to air transportation. Capital goods, but also lower value goods from the primary and intermediate sectors, travel by air out of occasional necessity, such as unexpected delays, which will always occur. Therefore, this small percentage from what is a very large sector, is likely to remain. Food trade does not appear to be too sensitive to shifts in the mode of transport, as quality and time to market are paramount. While there is some opportunity to transfer business either way between air and containerised sea freight, airfreight is expected to retain a 3% share of the total US freight exchanged, in terms of tonnage.

Potential mode shifts by commodity

Commodity	2005 US airfreight (thousands of tonnes)	Airfreight share*	Mode shift (air ⟷ sea)
Capital and high-tech	2,819	16%	Limited
Consumer goods	1,643	5%	Possible
Intermediate	1,478	2%	No
Food	792	3%	No
Primary	195	1%	No
Total	6,927	3%	

* share of commodity's total trade

Limited transport mode shifts expected

The need for (F)air trade

The ability to move goods quickly from the area in which they are produced to a more lucrative market has always been a crucial factor in commerce. Indeed the tea clippers of the 19th century, the pinnacle of transportation technology at that time, were renowned for "clipping" journey times between Europe and Asia or across the Atlantic. They brought goods from such places as the West Indies, India and China to markets in the West, in turn, bringing jobs and economic wealth to those regions. Today, the pinnacle of transport technology is the aircraft, which can move goods between anywhere in the world in a fraction of the time of other modes of transport. This has enabled industries to develop and flourish in parts of the world where access to these same lucrative markets is an important element of their economic activity.

In Kenya, the production of flowers, fruit and vegetables are among the country's most important exports and form part of an agricultural sector that is responsible for more than 25% of the country's GDP. In fact, Kenya is the world's third largest and Africa's largest exporter of cut flowers, with 70,000 jobs directly associated with their production. Yet, this is an industry that would be impossible to sustain without the timely delivery to market that airfreight can provide, with up to 80% delivered by air today.

Beyond the economic and social benefits that such industries can have for countries and their populations, in certain cases it would also appear to make environmental sense. A study carried out by Cranfield University early in 2007, concluded that roses grown in Kenya and then flown to European markets, produced up to 83% less CO_2 emissions than similar flowers grown in heated greenhouses and then transported within Europe.

In general, the airfreight of fruit and vegetables from the whole of Africa accounts for less than one tenth of one percent of the UK's greenhouse gas emissions. It should also be remembered that the people of Kenya, many of whom work in and rely on these industries, as well as other wealth-creating sectors like tourism, are responsible for fifty times less CO_2 per person than an individual from a typical European country.

One thing is clear, the environmental impact of aircraft must be considered in the overall context of global economic equality and the entire production lifecycle of the goods involved, rather than in the over-simplified context of emissions created by individual delivery flights.

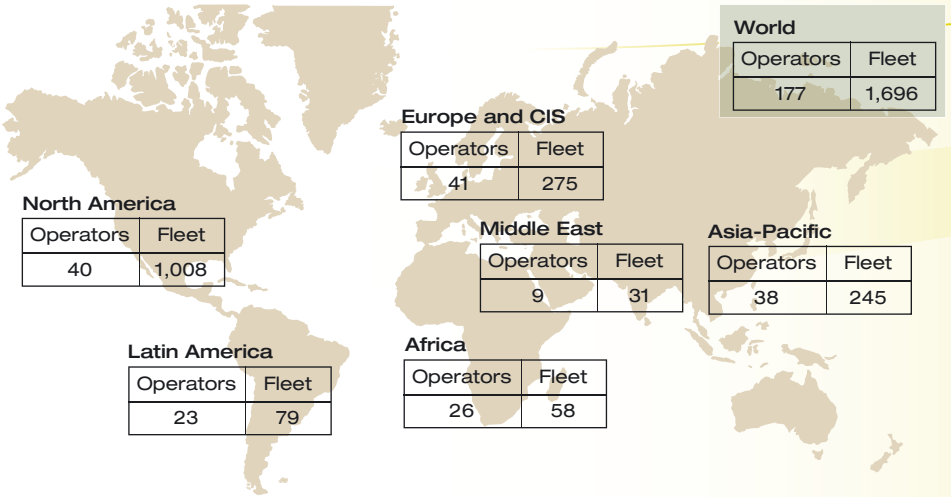
Freighter fleet development

A total of 850 aircraft, or 50% of the active fleet, are operated or controlled by just four express companies or integrators. About 300 aircraft are operated by combination carriers, while about 50 are operated by ACMIs, which are companies that offer the aircraft as a complete package including crew and maintenance. The balance of the fleet is operated by specialised freight companies, many of whom have less than five aircraft.

1,225 freighters to be replaced by more efficient ones

Among the 1,696 aircraft included in this Global Market Forecast (GMF) are 49 quick-change aircraft, which can be converted from an all-passenger role to all-cargo role in a few hours. There are also 61 combi aircraft, which carry both passengers and freight on the main deck. The role of combis will diminish over time, as they are gradually converted into full freighters. No new combis have been delivered to airlines since 2002 and only ten small freighter jets have been converted into combis or quick-change aircraft since 2000.

2006 Freighter operators and fleets



World

Operators	Fleet
177	1,696

Europe and CIS

Operators	Fleet
41	275

North America

Operators	Fleet
40	1,008

Middle East

Operators	Fleet
9	31

Asia-Pacific

Operators	Fleet
38	245

Latin America

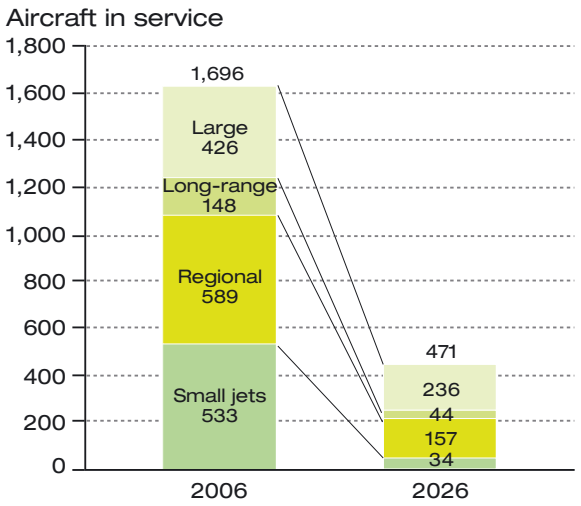
Operators	Fleet
23	79

Africa

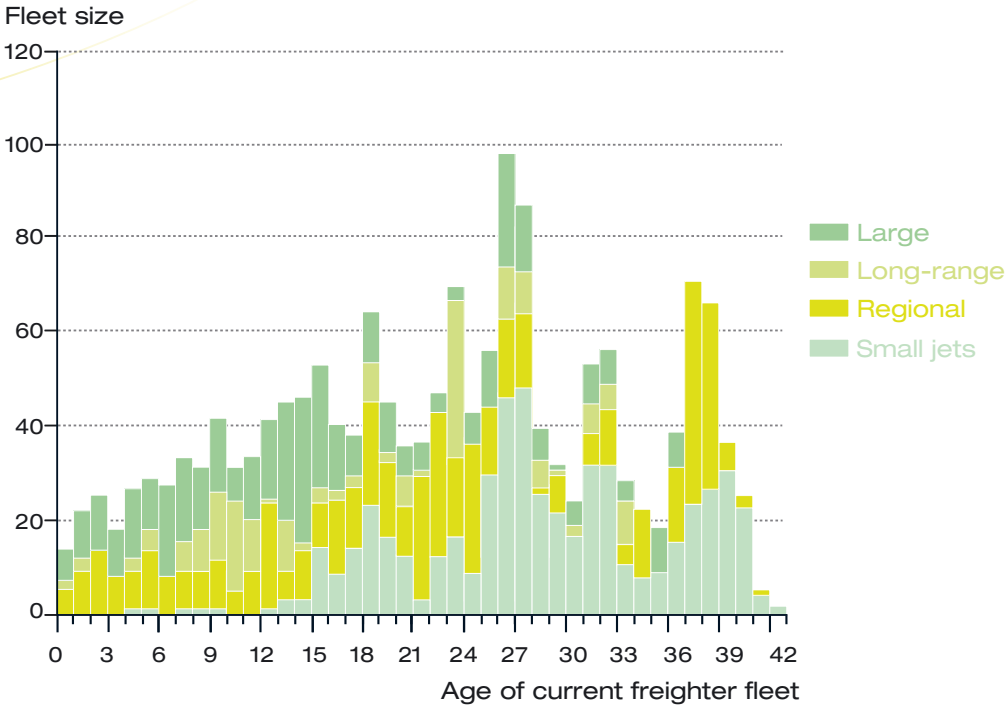
Operators	Fleet
26	58

The GMF assumes that freighters are generally definitively retired at 35 years of age. Small freighters are typically retired after 37 years of operation, while combis are converted into full freighters at 20 years of age. Over the next 20 years, 83% of the current fleet, or some 1,225 freighter aircraft, will be definitely withdrawn from use. Almost 500 of these will be small jets, for which retirements will accelerate from 2010. Long-range freighters will see smoother retirement patterns, starting by the middle of the next decade. Large freighter retirements will be marked by a large wave of 747 freighter removals starting after 2015.

83% of today's small and regional freighters will leave service in the next 20 years



More than 700 aircraft to be retired over the next ten years



Freighter demand: new build versus conversion

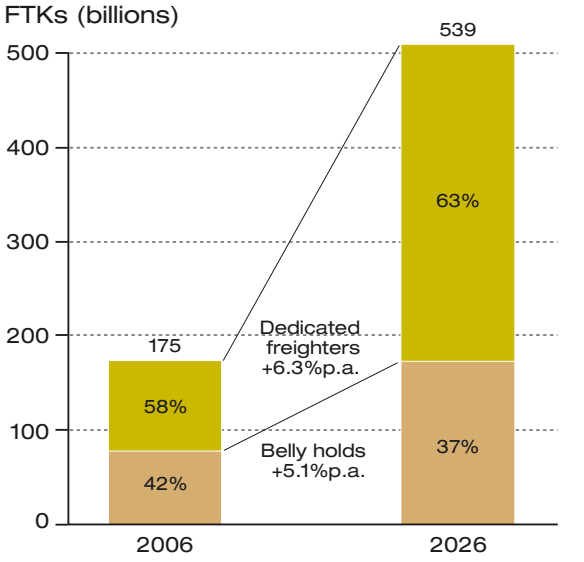
The tripling of freight traffic over the next 20 years will be achieved through a combination of more dedicated freighters, more larger freight aircraft, higher utilisation and higher load factors. It is estimated that the freighter fleet will grow by 150% with average aircraft payload increasing 21% from 52.9 tonnes to 64.1 tonnes.

In addition, Airbus expects that operators will fly their aircraft for more hours each year and will be able to modestly increase load factors. These two elements are expected to contribute another 11% to the increase in the number of Freight Tonne Kilometres (FTKs).

Freighter fleet requirements result from the difference between traffic demand and capacity used in the underfloor compartments of passenger aircraft. Underfloor capacity is abundant on high-volume passenger routes, but can often be inadequate for express operations. On some long, high-load factor passenger routes it can be almost non-existent. This availability, coupled with the respective growth of passenger and freight markets, shapes the demand for freighter capacity.

More dedicated freighters required

Freighter role to grow



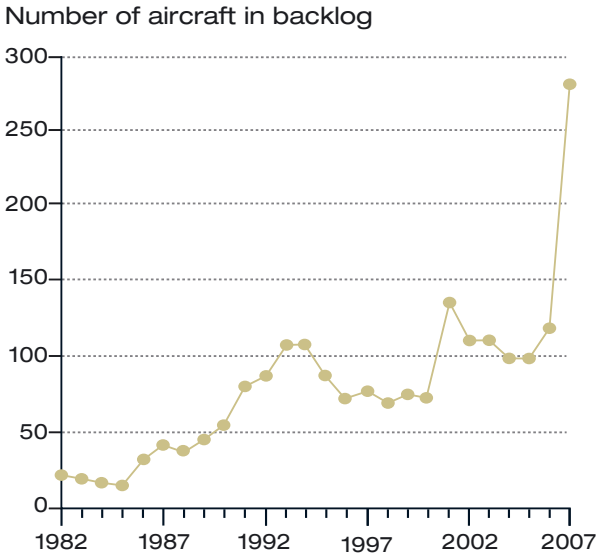
North American operators fly 60% of the world's freighters and 55% capacity offered

Today's fleet

	Small	Regional	Long-range	Large	Total
North America	74/258	226/203	53/16	58/120	411/597
Europe and CIS	30/41	15/77	16/5	67/24	128/147
Asia-Pacific	11/37	10/10	30/3	105/39	156/89
Middle East	2/6	2/9	0/0	11/1	15/16
Latin America	14/33	10/6	10/5	0/1	34/45
Africa	12/15	10/11	3/7	0/0	25/33
Total 2006	143/390	273/316	112/36	241/185	769/927

* New/Converted

Freighter backlog reaching new heights



Firm orders for new-build freighters and scheduled conversions

Today the backlog for new aircraft is higher than ever. Since 2000 the average order to delivery period for freight aircraft has been 2.3 years. However, recent orders include delivery dates that are an average of almost four years ahead. This reflects the operators' confidence in future demand, the availability and benefits of eco-efficient new aircraft, and the tensions existing on the conversion market. Ordering has also been driven by the launch of new build freighter programmes, like the A330-200F.

A detailed, aircraft by aircraft analysis and an assessment of conversion centre capabilities, indicate that few widebody aircraft will be available for conversion to freighter before the end of the next decade. This scarcity is the result of strong international passenger demand, a lack of suitable aircraft and, conversion slots. This has pushed orders for new widebody freighters to new heights, a situation likely to continue until the end of the decade.

GMF freighter segmentation

	Payload	Aircraft types	Future deliveries payload
Small jet freighters	Below 30 tonnes	BAe 146, DC-9, 727, 737, Tu-204, A320P2F	22 tonnes
Regional freighters	30 to 60 tonnes	707, DC-8, 757, 767, A300, A310, A321 P2F, DC10-10, A330, A330P2F*	45 tonnes
Long-range freighters	40 to 80 tonnes	DC-10-30/40, 767, 747 Combi, A330, A330/A340P2F*	60 tonnes
Large freighters	Over 80 tonnes	MD-11, 777, 747, A350*, A380*	120 tonnes

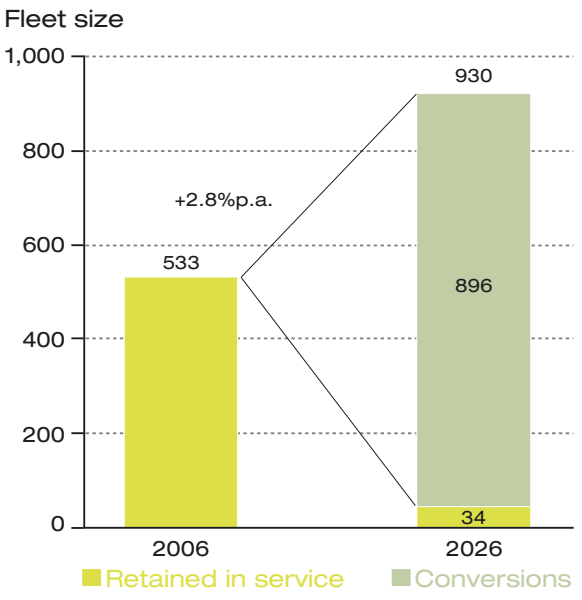
* Expected developments

Small jet freighters

North American operators dominate this segment today. This reflects the extension of express air transportation by the big US integrators, which require large fleets of smaller aircraft to serve destinations across North America.

The US domestic market is more mature, with low growth expected for the future. US operators are turning to larger, more economic aircraft and multi-stop flights, to avoid the point-to-point, one return flight per day operations that have been typical of express operations. Growth in this segment will come from the development of express markets in the fast-growing Chinese and Indian economies: a market that is ideal for aircraft like the A320, now available as a freighter conversion.

Converted aircraft will supply all the small freighter demand

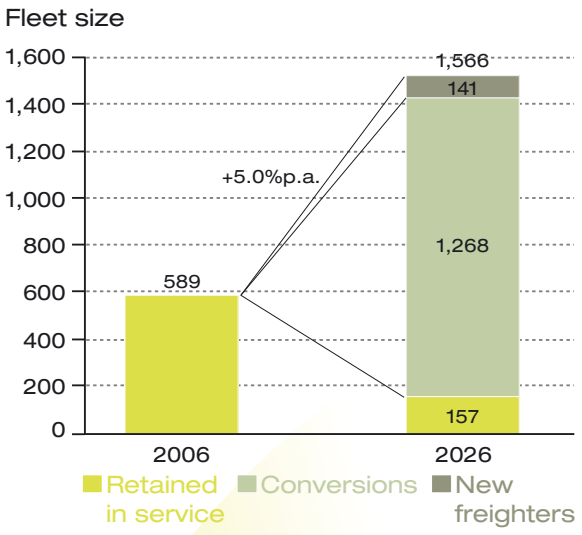


Regional freighters

Aircraft in the regional freighter category, best illustrated by the A310 and A300, are the workhorses of three of the four large integrators. DC8s are leaving operations, including some re-engined DC8-70s. These are being replaced by converted A300 and A310s, but also by 757s and 767-200s, which are trickling down from passenger service. More capable aircraft, like the 767-300ER and the A330, both factory freighters and conversions, will fulfil part of the demand for future regional freighters.

This segment will continue to benefit from the replacement of 747s being used inappropriately on regional routes. Regional freighters allow daily service on thinner or regional routes that are currently served by 747s on low weekly frequencies. Daily service is essential to attract high-value, just-in-time cargo. For example, in 2004, as much as 60% of the Hong Kong to Singapore freight demand was provided by 747s, but today, A300s provide 50% of the lift on that route.

Regional freighters benefit from express markets



Long-range freighters

Although the long-range freighter segment is witnessing a temporary contraction as some DC10s are retired from service and 747 combis are being converted to full freighters, the fleet of long-range freighters will almost triple over the next 20-years. High utilisation in this segment justifies the use of new-build freighter aircraft and makes their acquisition a simpler proposition.

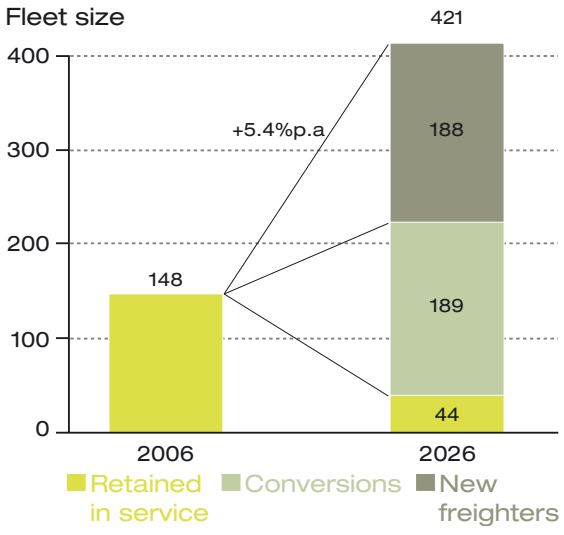
The growing reliance of Asia's manufacturing for just-in time and higher value commodities will further drive the need for more frequencies, longer range and dedicated freighters. Unlike in the small and regional segments, new factory freighters will contribute to half of the long-range freighters required. However, this share could become even higher because of the lack of efficient freighters and passenger aircraft available for conversion until the end of the next decade.

Large freighters

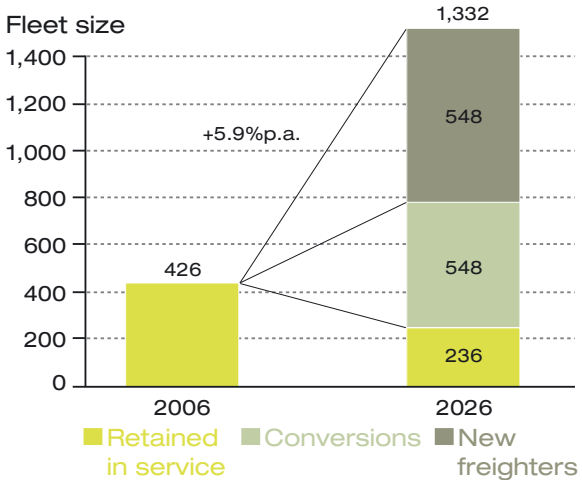
Large freighters are the most rapidly expanding segment of the market, with two thirds of these aircraft deployed on the fastest growing routes from Asia to North America and Europe. This segment also experiences the highest utilisations, averaging almost 3,900 hours per aircraft, which justifies more new factory built freighters. Over the next 20 years, there will be demand for 1,096 80-tonne plus freighters.

The top 30 hubs account for 70% of the cargo demand. That concentration of cargo traffic and the growing importance of high-value, high tech commodities from Asia are driving the need for efficient, high volume aircraft in this segment. Of the 548 new factory built freighters, some 415 will be of the very large, 120-tonne plus category.

New long-range freighters to contribute 50% of deliveries



Large freighters: highest fleet growth



World fleet development

The world's freighter fleet is expected to grow to 4,249 units by 2026, about 2.5 times the 2006 fleet, with each aircraft being more productive than the one it replaces. Allowing for aircraft retirement, some 3,778 deliveries will be needed. Of these, 2,901 will be converted from passenger or combi roles, while the remaining 877, or 23%, are expected to be new-built. In all cases, there are opportunities to replace, older generation freighters with more eco-efficient aircraft. The ratio of new deliveries to total demand is largely shaped by aircraft prices and utilisations, which drive passenger-to-freighter conversions. This ratio is expected to vary from zero, for small jets, to 50% for large aircraft.

900 new freighters worth US$200 billion

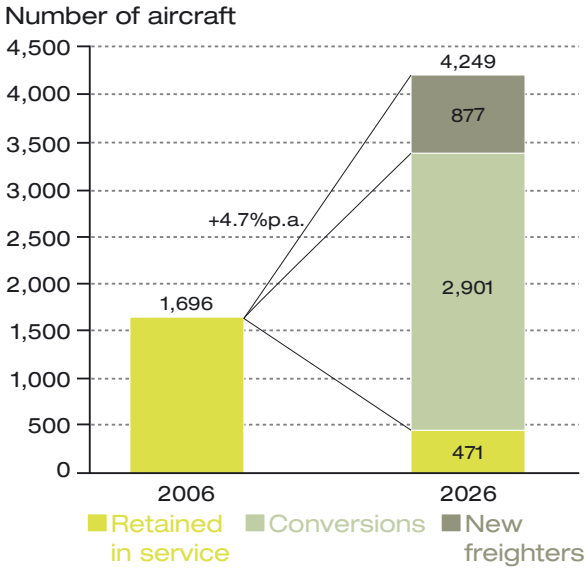
From 245 aircraft in 2006, the Asia-Pacific dedicated freighter fleet will grow to an impressive 1,400 aircraft by 2026, second in size only to the North America fleet, which will remain the largest. This strong growth is due to the development of an express fleet in the region and an increased forecast for long-range, high volume traffic.

Globally, new deliveries will continue to be dominated by the large freighters, which will account for almost two-thirds in quantity and more than 75% in value. At list price, new freighter deliveries are worth US$200 billion of business.

2007-2026 freighter demand by region

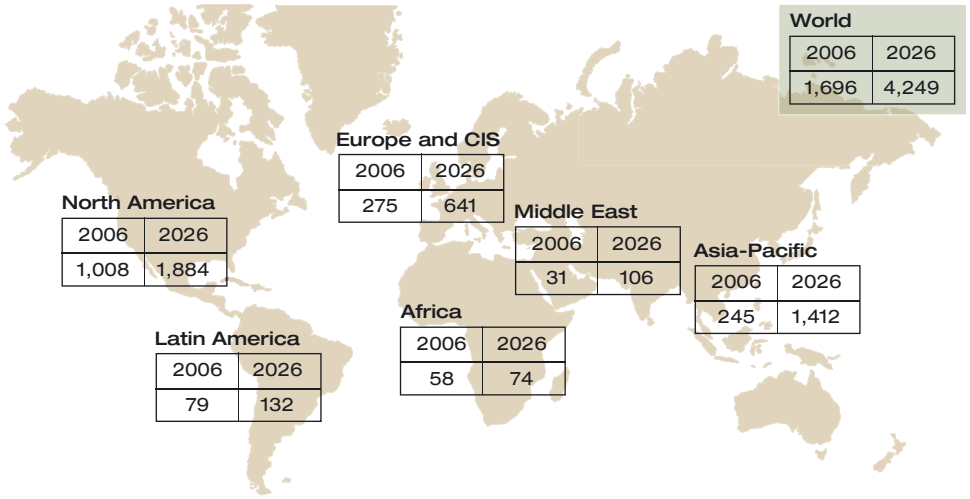
	Total
North America	1,630
Europe and CIS	557
Asia-Pacific	1,297
Middle East	95
Latin America	125
Africa	74
Total	3,778
New/Converted	877/2,901

The freighter fleet will grow to more than 4,200

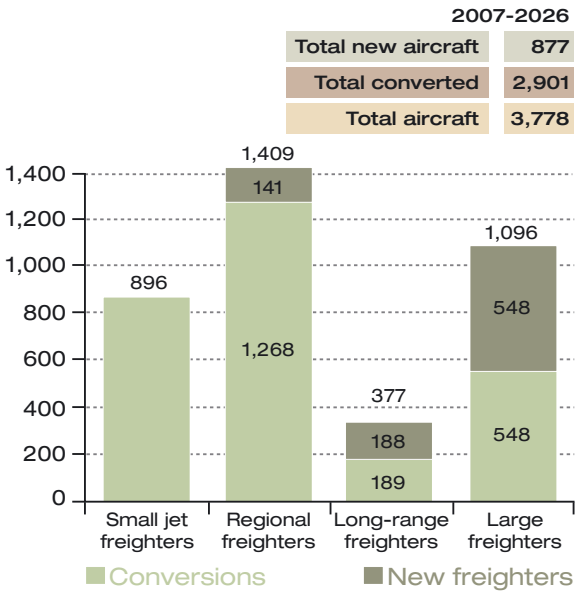


Asia-Pacific freighter fleet to increase six-fold

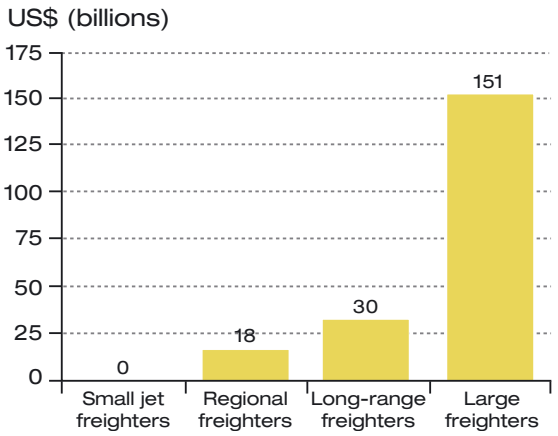
2006-2026 freighter fleet



2007-2026 freighter demand...



... with new deliveries worth US$200 billion



Summary tables

Passenger traffic forecast

Sub market	AAGR* 2007-2026
Africa Sub-Sahara - Asia	5.6%
Africa Sub-Sahara - Australia/New Zealand	5.4%
Africa Sub-Sahara - Indian Subcontinent	7.2%
Africa Sub-Sahara - Middle East	8.3%
Africa Sub-Sahara - North Africa	9.7%
Africa Sub-Sahara - P.R. China	8.0%
Africa Sub-Sahara - Russia	3.2%
Africa Sub-Sahara - South Africa	8.3%
Africa Sub-Sahara - South America	5.5%
Africa Sub-Sahara - US	5.3%
Africa Sub-Sahara - Western Europe	4.5%
Asia - Australia/New Zealand	4.8%
Asia - Canada	5.2%
Asia - Central Europe	6.2%
Asia - CIS	7.0%
Asia - Indian Subcontinent	7.5%
Asia - Japan	3.9%
Asia - Middle East	5.0%
Asia - North Africa	5.1%
Asia - P.R. China	6.8%
Asia - Pacific	3.5%
Asia - Russia	6.4%
Asia - South Africa	6.4%
Asia - South America	6.6%
Asia - US	5.9%
Asia - Western Europe	4.8%
Australia/New Zealand - Canada	5.8%
Australia/New Zealand - Indian Subcontinent	5.8%
Australia/New Zealand - Japan	4.1%
Australia/New Zealand - Middle East	8.2%
Australia/New Zealand - P.R. China	5.7%
Australia/New Zealand - Pacific	5.5%
Australia/New Zealand - South Africa	6.1%
Australia/New Zealand - South America	7.2%
Australia/New Zealand - US	5.8%
Australia/New Zealand - Western Europe	4.1%
Canada - Caribbean	3.2%
Canada - Central America	8.6%
Canada - Central Europe	7.1%
Canada - CIS	7.1%
Canada - Indian Subcontinent	8.9%
Canada - Japan	4.2%
Canada - Middle East	7.2%
Canada - North Africa	6.6%
Canada - P.R. China	6.1%

Sub market	AAGR* 2007-2026
Canada - Pacific	5.0%
Canada - Russia	5.6%
Canada - South America	5.5%
Canada - US	4.2%
Canada - Western Europe	4.8%
Caribbean - Central America	6.0%
Caribbean - Russia	6.7%
Caribbean - South America	4.7%
Caribbean - US	2.6%
Caribbean - Western Europe	4.3%
Central America - Japan	3.9%
Central America - South America	7.7%
Central America - US	4.4%
Central America - Western Europe	5.4%
Central Europe - CIS	8.3%
Central Europe - Indian Subcontinent	6.4%
Central Europe - Middle East	2.4%
Central Europe - North Africa	6.3%
Central Europe - P.R. China	7.5%
Central Europe - Russia	6.1%
Central Europe - US	4.8%
Central Europe - Western Europe	6.9%
CIS - Indian Subcontinent	6.7%
CIS - Japan	6.0%
CIS - Middle East	6.0%
CIS - North Africa	3.6%
CIS - P.R. China	7.2%
CIS - Russia	7.1%
CIS - US	7.1%
CIS - Western Europe	6.4%
Domestic Asia	5.2%
Domestic Australia/New Zealand	5.1%
Domestic Brazil	5.1%
Domestic Canada	2.8%
Domestic Caribbean	2.5%
Domestic Central America	6.2%
Domestic Central Europe	5.8%
Domestic CIS	6.5%
Domestic India	11.5%
Domestic Indian Subcontinent	7.0%
Domestic Japan	2.3%
Domestic Mexico	5.9%
Domestic Middle East	4.7%
Domestic North Africa	5.9%
Domestic P.R. China	8.4%

* AAGR: Average Annual Growth Rate

Sub market	AAGR* 2007-2026
Domestic Pacific	3.6%
Domestic Russia	5.8%
Domestic South Africa	6.5%
Domestic South America	4.5%
Domestic Turkey	6.6%
Domestic US	2.4%
Domestic Western Europe	3.5%
Domestic Africa Sub-Sahara	5.4%
Indian Subcontinent - Japan	5.2%
Indian Subcontinent - Middle East	6.6%
Indian Subcontinent - North Africa	5.1%
Indian Subcontinent - P.R. China	7.8%
Indian Subcontinent - Russia	6.7%
Indian Subcontinent - South Africa	7.5%
Indian Subcontinent - US	8.0%
Indian Subcontinent - Western Europe	6.5%
Intra-Africa Sub-Sahara	5.6%
Intra-Asia	6.0%
Intra-Australia/New Zealand	3.7%
Intra-Caribbean	2.1%
Intra-Central America	7.0%
Intra-Central Europe	7.0%
Intra-CIS	5.6%
Intra-Indian Subcontinent	5.5%
Intra-Middle East	7.3%
Intra-North Africa	5.3%
Intra-Pacific	4.3%
Intra-South America	5.4%
Intra-Western Europe	3.8%
Japan - Middle East	8.6%
Japan - North Africa	5.5%
Japan - P.R. China	5.5%
Japan - Pacific	3.0%
Japan - Russia	4.5%
Japan - South America	2.1%
Japan - US	4.2%
Japan - Western Europe	4.2%
Mexico - US	5.7%
Middle East - North Africa	6.1%
Middle East - P.R. China	7.3%
Middle East - Russia	6.5%
Middle East - South Africa	9.5%
Middle East - US	7.1%
Middle East - Western Europe	6.5%
North Africa - P.R. China	8.1%
North Africa - Russia	7.0%
North Africa - South Africa	8.3%
North Africa - US	7.5%
North Africa - Western Europe	4,7%
P.R. China - Pacific	5.7%
P.R. China - Russia	7.6%
P.R. China - South Africa	7.7%
P.R. China - US	6.2%
P.R. China - Western Europe	6.6%
Pacific - South America	2.3%
Pacific - US	4.2%
Pacific - Western Europe	4.8%
Russia - US	6.7%
Russia - Western Europe	5.8%
South Africa - South America	7.1%
South Africa - US	6.4%
South Africa - Western Europe	5.5%
South America - US	5.0%
South America - Western Europe	6.2%
US - Western Europe	4.5%
World	**4.9%**

Freight traffic forecast

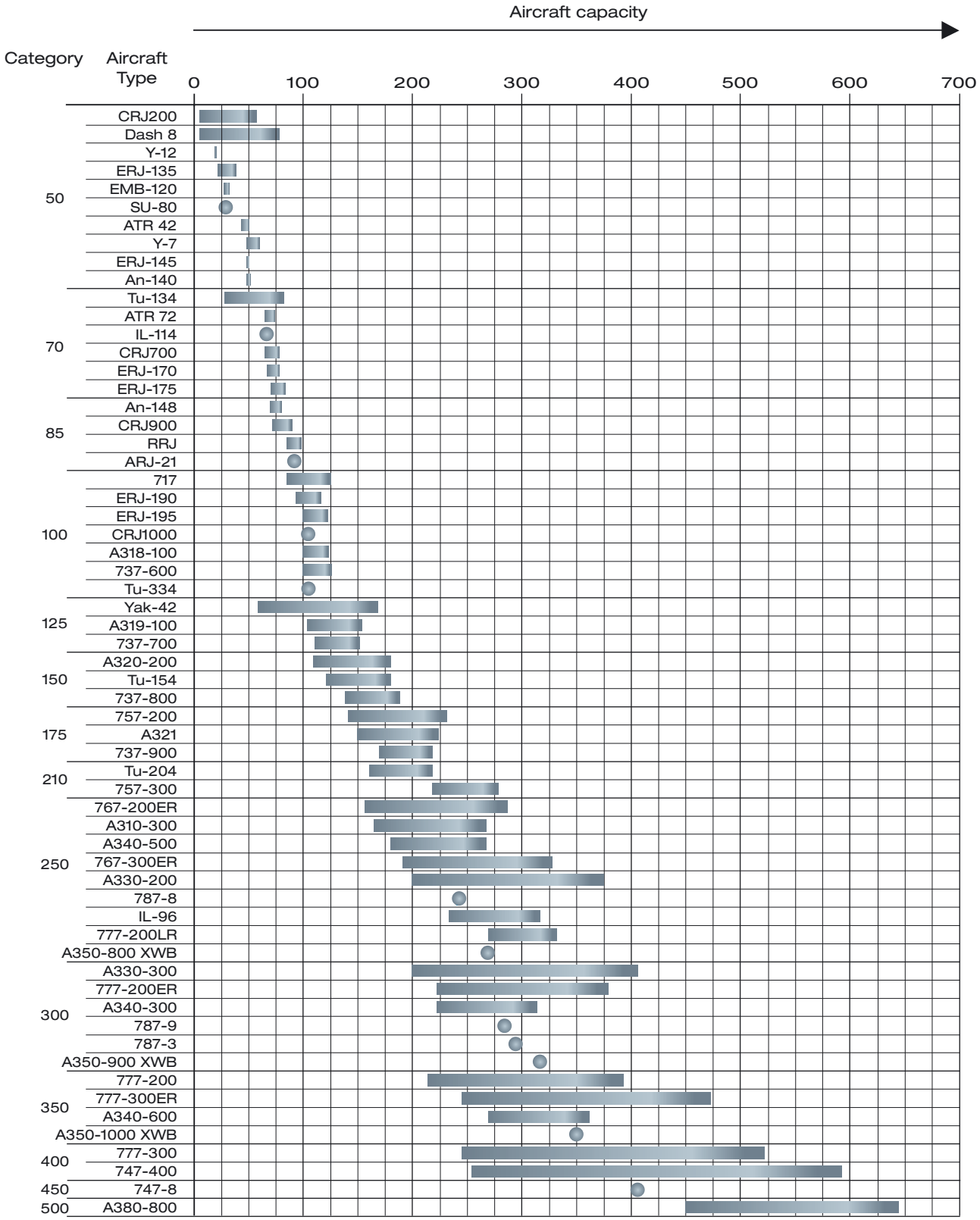
Sub market	AAGR* 2007-2026
Africa - Africa	4.6%
Africa - Asia	4.0%
Africa - Central America	6.4%
Africa - CIS	4.2%
Africa - Europe	5.7%
Africa - Indian Subcontinent	4.3%
Africa - Japan	1.4%
Africa - Middle East	5.2%
Africa - North America	5.2%
Africa - Pacific	4.0%
Africa - P.R. China	6.5%
Africa - South America	5.5%
Asia - Africa	4.6%
Asia - Asia	4.9%
Asia - Central America	7.0%
Asia - CIS	5.9%
Asia - Europe	4.5%
Asia - Indian Subcontinent	6.1%
Asia - Japan	4.0%
Asia - Middle East	3.9%
Asia - North America	5.4%
Asia - Pacific	4.9%
Asia - P.R. China	8.3%
Asia - South America	6.0%
Central America - Africa	6.4%
Central America - Asia	3.1%
Central America - Central America	3.7%
Central America - CIS	6.4%
Central America - Europe	4.8%
Central America - Indian Subcontinent	7.4%
Central America - Japan	4.3%
Central America - Middle East	4.3%
Central America - North America	4.2%
Central America - Pacific	5.8%
Central America - P.R. China	5.8%
Central America - South America	5.9%
CIS - Africa	2.9%
CIS - Asia	4.1%
CIS - Central America	5.6%
CIS - Europe	3.5%
CIS - Indian Subcontinent	3.9%
CIS - Japan	3.3%
CIS - Middle East	3.9%
CIS - North America	4.0%
CIS - Pacific	4.0%

Sub market	AAGR* 2007-2026
CIS - P.R. China	5.5%
CIS - South America	4.0%
Domestic India	17.1%
Domestic P.R. China	10.5%
Domestic US	2.9%
Europe - Africa	4.7%
Europe - Asia	5.0%
Europe - Central America	5.8%
Europe - CIS	5.5%
Europe - Europe	4.7%
Europe - Indian Subcontinent	8.2%
Europe - Japan	3.1%
Europe - Middle East	4.8%
Europe - North America	4.2%
Europe - Pacific	4.3%
Europe - P.R. China	8.3%
Europe - South America	4.2%
Indian Subcontinent - Africa	6.2%
Indian Subcontinent - Asia	5.1%
Indian Subcontinent - Central America	8.1%
Indian Subcontinent - CIS	3.8%
Indian Subcontinent - Europe	6.4%
Indian Subcontinent - Indian Subcontinent	5.0%
Indian Subcontinent - Japan	4.7%
Indian Subcontinent - Middle East	5.7%
Indian Subcontinent - North America	5.3%
Indian Subcontinent - Pacific	4.5%
Indian Subcontinent - P.R. China	6.6%
Indian Subcontinent - South America	6.9%
Japan - Africa	5.2%
Japan - Asia	4.4%
Japan - Central America	4.4%
Japan - CIS	5.3%
Japan - Europe	4.5%
Japan - Indian Subcontinent	4.8%
Japan - Middle East	4.6%
Japan - North America	3.6%
Japan - Pacific	5.3%
Japan - P.R. China	8.0%
Japan - South America	3.1%
Middle East - Africa	4.9%
Middle East - Asia	3.9%
Middle East - Central America	6.6%
Middle East - CIS	4.4%
Middle East - Europe	3.6%

* AAGR: Average Annual Growth Rate

Sub market	AAGR* 2007-2026
Middle East - Indian Subcontinent	5.4%
Middle East - Japan	2.2%
Middle East - Middle East	3.7%
Middle East - North America	4.6%
Middle East - Pacific	3.8%
Middle East - P.R. China	6.5%
Middle East - South America	4.0%
North America - Africa	6.5%
North America - Asia	4.7%
North America - Central America	3.8%
North America - CIS	6.3%
North America - Europe	4.2%
North America - Indian Subcontinent	8.9%
North America - Japan	3.9%
North America - Middle East	5.6%
North America - North America	3.3%
North America - Pacific	4.1%
North America - P.R. China	8.3%
North America - South America	6.0%
Pacific - Africa	4.5%
Pacific - Asia	3.5%
Pacific - Central America	5.3%
Pacific - CIS	5.3%
Pacific - Europe	4.0%
Pacific - Indian Subcontinent	4.5%
Pacific - Japan	3.5%
Pacific - Middle East	5.1%
Pacific - North America	2.5%
Pacific - Pacific	2.6%
Pacific - P.R. China	3.5%
Pacific - South America	8.3%
P.R. China - Africa	7.3%
P.R. China - Asia	7.7%
P.R. China - Central America	7.5%
P.R. China - CIS	6.8%
P.R. China - Europe	8.5%
P.R. China - Indian Subcontinent	7.4%
P.R. China - Japan	3.3%
P.R. China - Middle East	7.2%
P.R. China - North America	9.1%
P.R. China - Pacific	7.1%
P.R. China - South America	8.6%
South America - Africa	6.1%
South America - Asia	5.5%
South America - Central America	7.1%
South America - CIS	6.2%
South America - Europe	6.3%
South America - Indian Subcontinent	7.4%
South America - Japan	5.0%
South America - Middle East	3.4%
South America - North America	3.9%
South America - Pacific	5.7%
South America - P.R. China	7.9%
South America - South America	6.4%
World	**5.8%**

Aircraft segmentation and in service seating profile



New passenger aircraft deliveries by region

	Africa	Asia-Pacific	CIS	Europe	Latin America & Caribbean	Middle East	North America	**Total**
50-seat	80	352	78	590	183	19	1,264	**2,566**
70/85-seat	168	461	298	873	164	43	1,580	**3,587**
100-seat	174	219	85	617	237	63	976	**2,371**
125/210-seat	473	4,152	455	3,568	975	392	4,234	**14,249**
Small twin-aisle	153	1,368	78	929	196	410	733	**3,867**
Intermediate twin-aisle	53	781	27	341	24	162	227	**1,615**
VLA	27	711	11	274	16	157	87	**1,283**
Total	**1,128**	**8,044**	**1,032**	**7,192**	**1,795**	**1,246**	**9,101**	**29,538**

Passenger fleet development

	Fleet 2006	New Aircraft deliveries 2007-2016	New Aircraft deliveries 2017-2026	New Aircraft deliveries 2007-2026	Remaining in service		Fleet 2026
					Recycled	With same operator	
50-seat	5,586	712	1,854	2,566	2,331	92	4,989
70/85-seat	1,224	1,750	1,837	3,587	446	218	4,251
100-seat	1,507	1,311	1,060	2,371	176	77	2,624
125/210-seat	8,706	6,351	7,898	14,249	3,748	543	18,540
Small twin aisle	2,172	1,880	1,987	3,867	349	86	4,302
Intermediate twin-aisle	876	731	884	1,615	139	31	1,785
VLA	23	520	763	1,283	0	0	1,283
Total	**20,094**	**13,255**	**16,283**	**29,538**	**7,189**	**1,047**	**37,774**

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