



ECONOMIC BENEFITS FROM AIR TRANSPORT IN MEXICO



EXECUTIVE SUMMARY

- The **transport and communications sector, of which aviation is a key part, performed better than the overall Mexican economy** over the last ten years. It has been the fastest growing sector in the Mexican economy over the last two years and now accounts for 10.5% of total Mexican GDP. It is a key part of the transition of the Mexican economy away from manufacturing and primary industries towards a more service based economy.
- Mexico requires good air transport links to provide **fast and efficient links to the major global markets**. Air transport provides crucial connections to global business markets as well as greater access to Mexico for global tourists. Air transport is also vital for domestic connections within its wide spread geographic location.
- Mexico attracts over 22 million visitors a year, equivalent to 3-4% of the global total. Over 88% of tourist arrivals come from the US, leaving the industry vulnerable to changes in the US economy. Improved global air transport links can help to diversify the tourist sector towards high-spending visitors from Europe and Asia.
- Currently Mexico's tourism sector is strongly linked to the performance of the US economy. Arrivals fell significantly between 2001 and 2003, linked to a downturn in the US economy followed by increased security concerns post 9/11. Tourist numbers then recovered strongly to reach nearly 22 million in 2005, before falling back slightly in 2006 as US household expenditure growth began to slow
- Since 2002, **air traffic has grown at an increasingly faster rate than the rest of Mexico's economy**. A large proportion of the strong growth in additional international air passenger traffic since 2002 will have Mexico as its origin or final destination. Therefore, the significant benefits generated by increasing the level of business and leisure traffic will be received directly by the Mexican economy.
- The demand-side and supply-side benefits generated and supported by the air transport sector are shown in Table ES1.

Table ES1: Economic Benefits from Air Transport in Mexico, 2006

	Impact (US\$m)	% of Mexico's GDP
Economic benefits to passengers (consumer surplus)	\$4,820 million	0.6%
Supply-side benefits from a 10% increase in connectivity/GDP	\$628 million	0.07%
Demand-side benefits to GDP from air transport	\$25,108 million	3.0%
- Air Transport direct impact	\$2,288 million	0.3%
- Air transport indirect and induced impacts	\$4,188 million	0.5%
- Air transport facilitated tourism	\$18,632 million	2.2%
Jobs supported by air transport (inc. tourism impact)	1.08 million	2.4% of employment
Wage income generated by air transport (inc. tourism impact)	\$9,100 million	3.5% of income
Tax revenues generated by air transport (inc. tourism impact)	\$2,711 million	3.3% of revenues
Export earnings generated by air transport (inc. tourism impact)	\$9,379 million	3.5% of earnings

Source: Oxford Economics and IATA estimates

- The market for passengers flying to, from and within Mexico totals US\$9.63 billion. This is estimated to generate economic benefits to passengers (consumer surplus) of **\$4.82 billion**, equivalent to 0.6% of GDP.
- For a country such as Mexico, air transport connections to key markets are vital for long-term economic development and growth. In terms of connectivity, i.e. weighting the number of available seats by the importance of the destination within the airline network, **Mexico saw its connectivity rise by 20%** between 2002 and 2007. This rise in connectivity provides substantial wider economic benefits for Mexico from its connections to the global air network.

- Increases in connectivity, relative to GDP, can create significant wider economic benefits. Each 10% rise in connectivity, relative to GDP, can increase long-term GDP by \$628 million (0.07%) per annum.
- The connectivity of Mexico (as a proportion of GDP) is higher than some other Latin American countries but is relatively low compared to small, well-connected countries like Panama. This highlights the **substantial economic benefits that can be available through further increases in Mexico's connectivity levels.**
- Air transport also has an important demand side contribution to Mexico's GDP through the value-added it creates and the demand and employment that flows from that activity through its supply chain and other industries. Its direct impact is estimated to be **\$2.3 billion** in 2006, with a total impact of **\$6.5 billion** after the indirect and induced impacts created by the demand it generates in other sectors are included. This total value-added has increased by \$1,588 million since 2003.
- Air transport also facilitates and supports the tourism industry. Over 21.3 million tourists arrived in Mexico in 2006, of which at least 40% arrived by air. The impact from tourists is estimated to have boosted Mexico's GDP by a further \$18.6 billion in 2006, equivalent to around 2.2% of its GDP
- Adding the demand-side contributions from air transport to those facilitated in tourism gives a **total demand-side value-added of \$25.1 billion, equivalent to 3.0% of Mexico's GDP.** It also supports over 134,000 jobs in Mexico makes a contribution of between 2.4% and 3.5% of Mexico's wage income, tax receipts and exports.
- Looking forward, **we expect the contribution to increase in both absolute and proportionate terms,** especially as the Mexican economy seeks to expand its services base and to attract further inward investment and tourism growth.
- **The importance of investing in improved connections to major overseas markets is shown by an analysis of the addition of new direct services from Monterrey and Cancun to Madrid airport.** These new services generated over 40,000 passengers each way in 2006, representing around 0.2% of overall traffic to, from and within Mexico. The services are estimated to generate at least \$10 million in consumer surplus for passengers, \$13 million for GDP and support at least 270 jobs. They also generate at least \$7 million in wage income and \$2 million in additional tax revenues for the government.
- **The importance of keeping airport charges and taxes in line with efficient costs is shown by** estimating the impact of an hypothetical 50% increase in departure charges from their current average level of \$15.6 per departing passenger. It is estimated that this would add 1.6% to the average return fare, reducing passenger departures by more than 360,000. This would cause economic costs to passengers, due to higher travel costs, totalling \$87 million. There would also be wider costs for the Mexican economy, with GDP down \$116 million, a loss of more than 2,400 jobs, wage income down \$66 million and tax revenues down \$16 million.

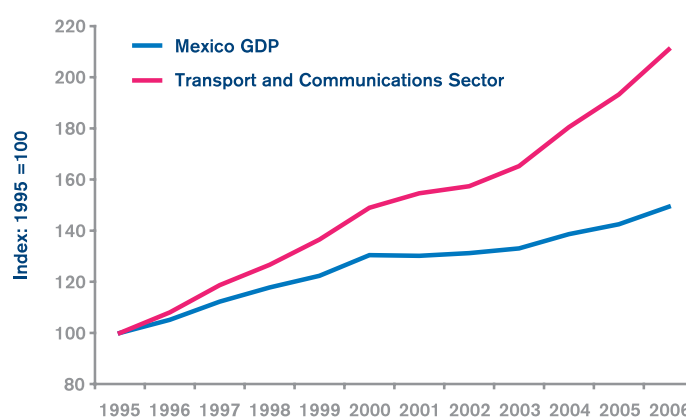
ECONOMIC GROWTH IN MEXICO

Mexico's economic performance is closely tied to the economic cycle in the US. GDP growth slowed in 2001 and 2002 as demand from the US slowed, before picking-up again between 2004 and 2006. However, as the US economy shows signs of slowing, so Mexico's GDP growth is expected to slow to 3-3.5% in 2007 and 2008 as demand from the US for Mexican exports begins to weaken. Growth in Mexican domestic demand continues to be constrained by an inefficient and costly physical infrastructure, and by the lack of labour market reform to encourage employment growth.

The transport and communications sector (including aviation) has performed better than the overall Mexican economy over the last ten years. The contribution of the transport and communications sector to Mexican GDP has more than doubled since 1995, while total GDP has risen by just over 40% (see Figure 1). The gap in growth rates between the transport and communications sector and total GDP has widened since 2003.

Indeed, the transport and communications sector (including aviation) has been the fastest growing sector in the Mexican economy over the last two years. It now accounts for 10.5% of total Mexican GDP. It is a key part of the transition of the Mexican economy away from manufacturing and primary industries towards a more service based economy. Growth in transport, especially international aviation, also helps to support growth in the tourism sector, though it is difficult to separate this trend within the wider "retail, restaurants and hotels" sector.

Figure 1: Mexico GDP Growth



Source: INEGI

Table 1: Mexico GDP by Sector

Sector	Share of GDP, 2006	% growth 2005 (real)	% growth 2006 (real)
Agriculture and Fishing	3.9	-2.1	4.8
Mining	1.6	2.1	2.2
Manufacturing	18.0	1.4	4.7
Electricity, Gas and Water	1.4	1.7	5.0
Construction	5.7	3.3	6.9
Retail, Restaurants, Hotels	21.2	2.7	3.7
Transport and Communications	10.5	7.1	9.1
Financial Services and Real Estate	12.9	5.8	5.4
Public Sector and Other Services	24.8	1.8	2.8
Total	100.0	2.8	4.8

Source: INEGI

LINKING MEXICO'S ECONOMY TO THE WORLD

Mexico has a central geographic location between North and South America, providing a key link between the two continents and their economies. However, given the poor quality of land-based transport infrastructure, Mexico requires good air transport and shipping links to provide fast and efficient links to the major global markets. Therefore, air transport provides an essential link between Mexico and the global economy, creating significant wider economic benefits that would not exist in its absence. Air transport provides crucial connections to global markets for Mexico's businesses as well as greater access to Mexico for global tourists.

Mexico is also a wide spread country, with a land mass of 1.96 million square kilometres, but with the capital, Mexico City, located 3,000 kilometres from Tijuana in the north and 1,780 kilometres from Cancun in the south-east. As such, air transport is vital for domestic connections for the 85 million of its 108 million population that live outside of the region around the capital. It helps to facilitate economic growth and the distribution of wider economic benefits beyond the capital city.

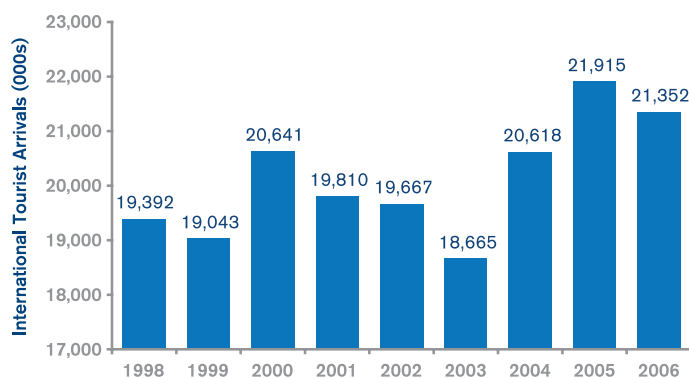
Mexico's natural attractions and vibrant cultural heritage helps to attract millions of international tourists each year. Mexico captures around 3-4% of all global tourism. It is the eighth most popular tourist destination in the world and the most popular in Latin America, with nearly four times as many tourists as Brazil. It has looked to promote its tourism industry through infrastructure investment and through the development of high-value niche markets such as eco-tourism.

However, Mexico's tourism sector is strongly linked to the performance of the US economy. Arrivals fell significantly between 2001 and 2003, linked to a downturn in the US economy followed by increased security concerns post 9/11. Tourist numbers then recovered strongly to reach nearly 22 million in 2005, before falling back slightly in 2006 as US household expenditure growth began to slow.

Air transport accounted for around 40% of international tourist arrivals in 2006. Further investment in air transport infrastructure and services can play a key role in developing significant further growth in tourism, especially from high-spending tourists from Europe and Asia. Over 88% of international tourists visiting Mexico are from the US, though tend to concentrate their visits on towns close to the border or the major beach resorts. A further 3.7% of tourists arrive from Canada, with only 2.7% from Latin America. Europe accounts for 4.8% of tourists, with the remaining 0.6% from elsewhere.

Business travel is also expected to expand significantly as Mexico continues to grow in importance as a key link between the North and South American economies. Mexico is a major developing economy with a large and fast-growing population. Multinational firms are attracted by the geographic and economic benefits of locating in Mexico, though further liberalisation is required in several areas to fully develop this potential growth.

Figure 2: International Tourist Arrivals (thousands)



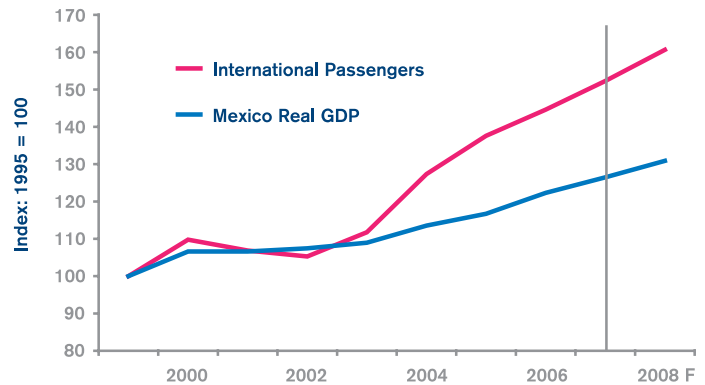
Source: Economist Intelligence Unit

AIR TRAFFIC IS GROWING AT A FASTER RATE THAN GDP

The number of international air passengers to and from Mexico has increased by around 45% since 1999 and is expected to grow by a further 5.3% in 2007 and 5.5% in 2008. Since 2002, air traffic has grown at an increasingly faster rate than the rest of Mexico's economy (see Figure 3).

Mexico's geographical location means that it can act as a hub for international transfer and connecting traffic between North and South America. However, it faces significant competition in its ability to serve as a hub from the expansion of direct north-south flights and from other hubs in small Central American countries like Panama. As such, a large proportion of the strong growth in additional international air passenger traffic since 2002 will have Mexico as its origin or final destination. Therefore, the significant benefits generated by increasing the level of business and leisure traffic will be received directly by the Mexican economy.

Figure 3: Mexican GDP and International Air Passenger Traffic



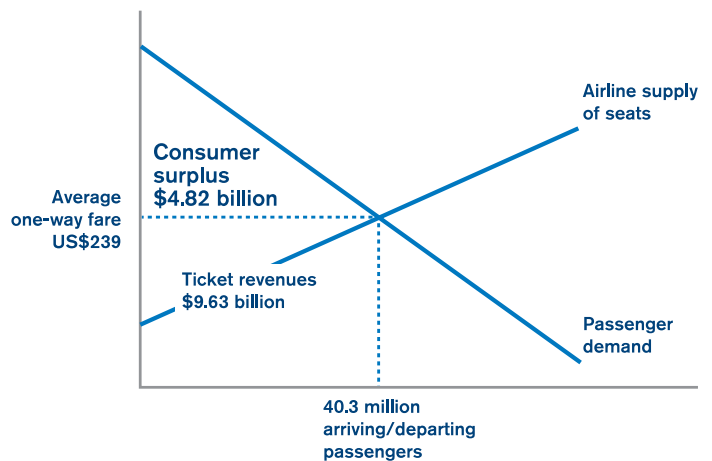
Source: EIU, ACI

SIGNIFICANT ECONOMIC BENEFITS TO AIRLINE PASSENGERS

The key economic value from air transport is the benefit received by airline passengers and shippers themselves. Passengers are obviously willing to pay their air fare. But a large number of passengers will also value the trip far more than the cost of the fare, for the pleasure of the tourist visit or for the value of the business contact achieved through the trip.

Economists call the value received, over and above the cost of the fare, consumer surplus. The market for passengers flying to, from and within Mexico is estimated to total US\$9.63 billion, with an average one-way fare of \$239 and 40.3 million passenger enplanements. Using an average price elasticity for passenger demand of minus 1, the consumer surplus for passengers is estimated to be worth \$4.82 billion (see Figure 4)

Figure 4: The Consumer Surplus for Passengers, 2006



Source: Pax-IS Plus, IATA

SUPPLY-SIDE BENEFITS FROM CONNECTIVITY

Mexico's geographical location provides a central position between North and South America. It can act as a hub connection between the two regions, though faces competition from direct north-south flights as well as fast-growing hubs in small, central American countries such as Panama. However, it is connections to key markets in the US and Europe, as well as to fast-growing markets in Asia, that are vital for long-term economic development and growth. As such, it is important to introduce or expand routes to major destinations within the global air transport network.

In 2002, Mexico's international services were concentrated on Latin America and the US but also had several routes to Europe (see Figure 5). By May 2007, Mexico had further developed its route network in the US and Europe, while also adding important new routes to economically important destinations in Canada and Japan (see Figure 6).

Figure 5: International Routes, May 2002



Figure 6: International Routes, May 2007



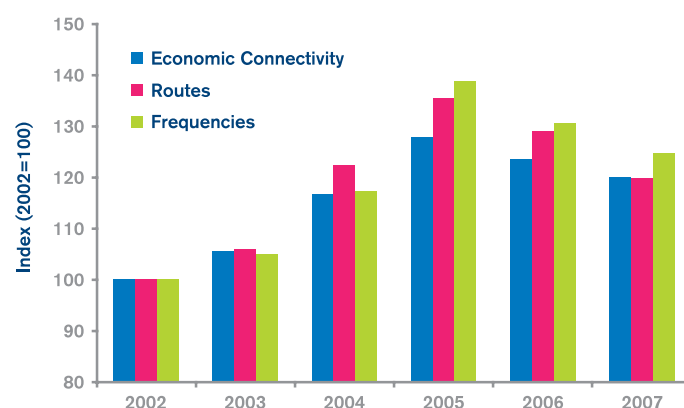
Source: SRS Analyser

The overall number of international routes increased by 20% between 2002 and 2007, as an already relatively well connected Mexican network sought to access new, but smaller, routes. The overall frequency of international flights increased by 25% over the same period.

In terms of connectivity, i.e. weighting the number of available seats by the importance of the destination within the airline network, Mexico saw its connectivity rise by 20% between 2002 and 2007 (see Figure 7). The number of available seats increased on several routes to important destinations in North America and Europe. These destinations are not only economically important but also provide significant onward connections within the global airline network, providing greater access to a large number of new destinations and markets. For example, capacity increased by 15% between Mexico City and Chicago and by 30% between Mexico City and London Heathrow. In addition, capacity on new routes to important destinations was expanded, such as new direct routes from Cancun to Paris and to Madrid.

The increase in connectivity creates substantial wider economic benefits for Mexico, providing a boost to its long-run productivity and GDP growth. Recent research has shown that there is a significant link between air connectivity and business productivity and long-term GDP growth. It is important for Mexico to retain good connections to key hub airports within the network to support and expand the long-term benefits to GDP that this can provide.

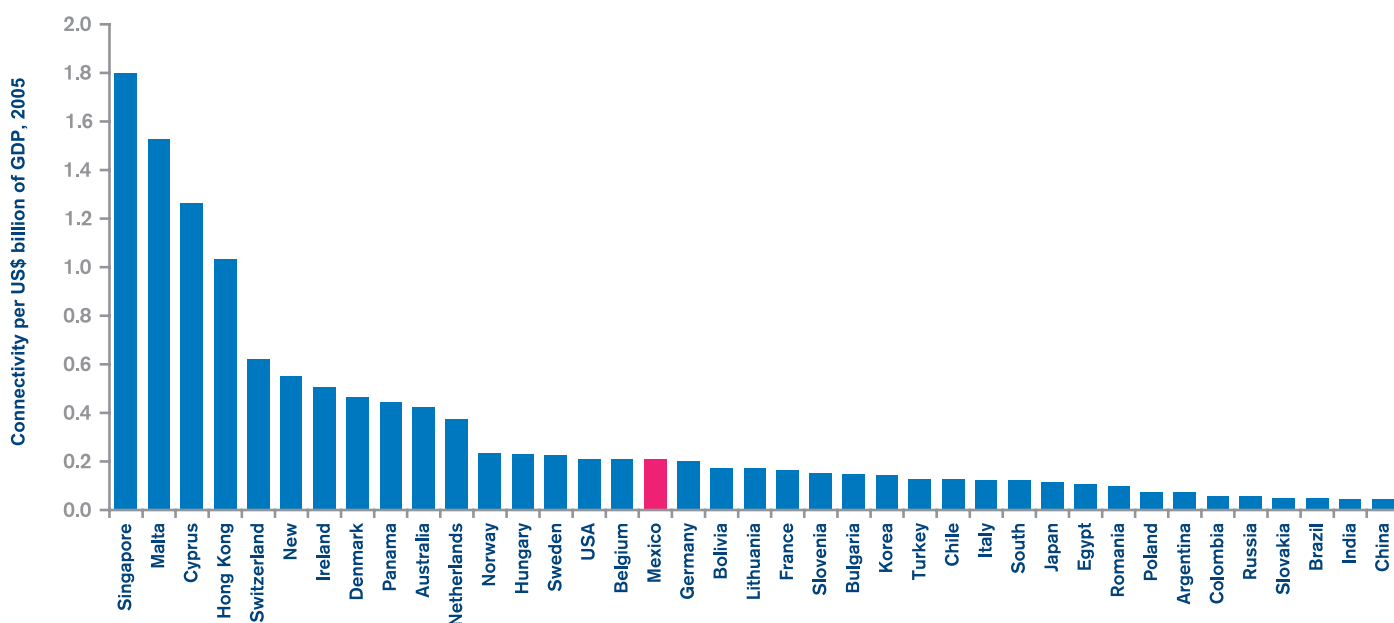
Figure 7: Mexico's Connectivity to the Global Air Network



Source: SRS Analyser, IATA

Though Mexico is well-served for air routes to the US and its overall connectivity has increased since 2002, it still remains relatively low (as a proportion of GDP) compared to other countries (see Figure 8). However, it is higher than two other large economies in Latin America; Brazil and Argentina.

Figure 8: Air Connectivity by Country



There are several major economic factors that determine the long-run level and growth of a country's economy. Assets such as natural resources, larger well-educated populations and energy resources are critical. However, all other things being equal, the level of air connectivity can also have an impact on long-run economic performance. IATA estimates that Mexico would receive a US\$628 million per annum increase in its GDP from each 10% increase in connectivity, relative to GDP. This highlights not only the constraint that relatively low connectivity can place on economic growth, but also the substantial economic benefits that can be available through increases in Mexico's connectivity levels.

Table 3: The impact on Mexico's long-run GDP from its level of air connectivity

	Air connectivity per US\$ billion of GDP	Impact on GDP from a 10% increase
Mexico	0.182	+ \$628 million (0.07%)

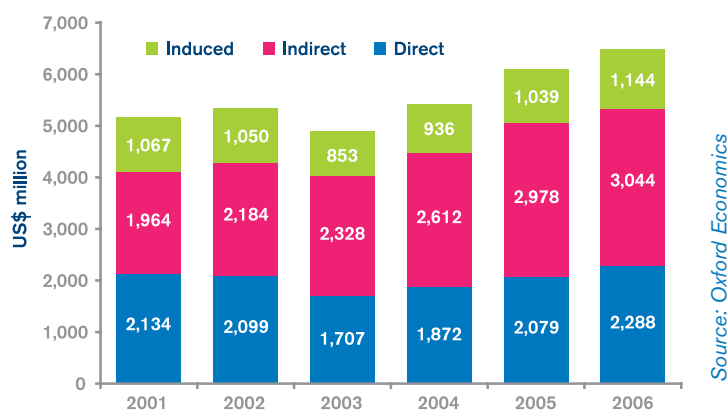
Source: IATA

DEMAND-SIDE BENEFITS FOR MEXICO'S ECONOMY

Air transport also has an important demand side contribution to Mexico's GDP through the value-added it creates and the demand and employment that flows from that activity through its supply chain and into other industries.

The contribution of air transport to the Mexican economy has increased since 2001. Its direct impact – in terms of the benefits it creates through employment and economic activity in the airline industry – has increased from US\$2,134 million in 2001 to \$2,268 million in 2006 (see Figure 9). Its impact declined in 2002 and 2003 as the Mexican airline industry was affected by a slowdown in the US economy and by the post-9/11 restructuring in the US airline industry. However, it has risen by over a third since 2003.

Figure 9: Mexico Air Services – Economic Benefits



In addition to the direct contribution to Mexico's GDP from the airline industry, there are further impacts through the employment and economic activity that is stimulated within the industry supply chain (indirect impacts) and through the benefits generated by the spending of wage income earned within the aviation industry on goods and services in other industries (induced impacts). The total value-added created by air services in Mexico – including the direct, indirect and induced benefits – is estimated to be \$6.48 billion in 2006, equivalent to 0.8% of Mexico's total GDP. This total value-added has increased by \$1.6 billion since 2003 (see Table 4).

Air transport is highly capital intensive but nonetheless remains a large employer. It also generates a number of additional jobs in the supply chain and supports jobs in other industries through the induced impacts it generates. Air transport directly employs nearly 34,000 people in Mexico, but supports a total of over 134,000 jobs within its economy.

Table 4: Mexico Air Services – Economic Benefits

	2001	2002	2003	2004	2005	2006
GDP Summary (US\$m)						
Direct	2,134	2,099	1,707	1,872	2,079	2,288
Indirect	1,964	2,184	2,328	2,612	2,978	3,044
Induced	1,067	1,050	853	936	1,039	1,144
Total	5,165	5,334	4,888	5,420	6,096	6,476
Employment Summary (jobs)						
Direct	31,612	32,123	32,384	31,227	32,162	33,930
Indirect	47,823	52,199	57,700	61,790	64,581	61,665
Induced	43,169	41,665	35,143	36,780	37,441	38,490
Total	122,604	125,987	125,226	129,797	134,184	134,085
Wages Summary (US\$m)						
Direct	2,045	1,955	1,605	1,833	1,868	2,023
Indirect	836	929	966	1,038	1,184	1,210
Induced	454	447	354	372	413	455
Total	3,335	3,331	2,925	3,244	3,465	3,689
Tax Summary (US\$m)						
Direct	489	463	395	489	584	507
Indirect	221	254	259	261	288	294
Induced	120	122	95	93	100	111
Total	830	839	749	843	972	912

The jobs that are supported by air transport are typically highly productive because of the high capital intensity of the industry and because of the specialist skills required in many job functions. Consequently, a large proportion of the employment generated also has relatively higher wages compared to many other sectors of the economy. Air transport is supports 0.3% of employment within Mexico but a significantly higher 1.4% of its wage income.

Table 5: Mexico Air Services – Economic Impact (includes direct, indirect and induced effects)

	GDP	Employment	Wages	Taxes	Exports
2001	5,165	122,604	3,335	830	497
2002	5,334	125,987	3,331	839	428
2003	4,888	125,226	2,925	749	415
2004	5,420	129,797	3,244	843	506
2005	6,096	134,184	3,465	972	642
2006	6,476	134,085	3,689	912	716
Contribution to Mexico's Totals					
	GDP	Employment	Wages	Taxes	Exports
2001	0.8%	0.3%	1.6%	1.2%	0.3%
2002	0.8%	0.3%	1.6%	1.1%	0.2%
2003	0.8%	0.3%	1.4%	1.1%	0.2%
2004	0.8%	0.3%	1.6%	1.2%	0.3%
2005	0.8%	0.3%	1.5%	1.3%	0.3%
2006	0.8%	0.3%	1.4%	1.1%	0.3%

Source: Oxford Economics

There is also a strong contribution towards taxation and therefore, to supporting government spending programmes. Direct payments of tax by the airline industry are estimated to be \$507 million in 2006. Adding indirect and induced impacts generates a total contribution to government tax revenues of \$912 million, equivalent to 1.1% of Mexico's total tax revenues.

Air transport also makes a significant contribution to export earnings, both directly through the activity of airlines and indirectly through the facilitation of exports by other sectors of the economy. It was estimated to generate \$716 million of exports in 2006, equivalent to 0.3% of Mexico's exports. Its share of exports is relatively low, reflecting the large impact that oil and other commodities currently have on Mexico's export base.

AIR TRANSPORT PROVIDES FURTHER BENEFITS FOR TOURISM

In addition to the direct and multiplier economic impacts generated from air transport, the industry also plays a key role in facilitating growth in the Mexican tourism industry. Over 21.3 million tourists arrived in Mexico in 2006, of which at least 40% arrived by air. Average spending per tourist was around US\$600, though is likely to be even higher for those arriving by air and who have travelled from regions such as Europe and Asia.

The impact from tourists is estimated to have boosted Mexico's GDP by a further \$18.6 billion in 2006, equivalent to around 2.2% of its GDP (see Table 6). Tourism is labour rather than capital intensive. It is estimated to support almost 140,000 jobs, equivalent to 2.2% of the total in Mexico. However, since labour in the tourism sector is typically less skilled than in the air transport sector, the wages are relatively lower and the total wage income generated by the tourism industry is \$5.4 billion or 2.1% of the total, i.e. similar to its proportionate share of employment. Tax income generated by tourism is 2.2% of the total. However, considerable export income is generated of \$8.7 billion, or 3.2% of the total.

Adding the demand-side contributions from air transport to those facilitated in tourism gives a total demand-side value-added of \$25.1 billion, equivalent to 3.0% of Mexico's GDP (see Table 7). It also makes a contribution of between 2.4% and 3.5% of Mexico's employment, wage income, tax receipts and exports.

The demand-side contributions have all increased in absolute terms since 2001, in some cases by over 50%. The proportionate contribution has also increased for all cases, but only slightly. This reflects improved growth in other sectors of the Mexican economy over the period rather than any decline in the importance of the air transport or tourism sectors.

Looking forward, we expect the contribution from both sectors to increase in both absolute and proportionate terms, especially as the Mexican economy seeks to expand its services base and to attract further inward investment and tourism growth.

Table 6: Mexico Air Services: Tourism Impact (includes contribution of air travellers' expenditure)

	GDP	Employment	Wages	Taxes	Exports
2001	11,377	671,662	3,397	1,281	5,220
2002	11,769	715,402	3,686	1,370	5,287
2003	11,931	745,198	3,610	1,326	5,831
2004	14,279	813,106	3,955	1,425	6,944
2005	16,310	858,363	4,555	1,576	7,696
2006	18,632	952,405	5,411	1,800	8,664
Contribution to Mexico's Totals					
	GDP	Employment	Wages	Taxes	Exports
2001	1.8%	1.7%	1.7%	1.8%	3.0%
2002	1.8%	1.7%	1.7%	1.8%	3.0%
2003	1.9%	1.8%	1.8%	1.9%	3.3%
2004	2.1%	1.9%	1.9%	2.1%	3.4%
2005	2.1%	1.9%	1.9%	2.1%	3.3%
2006	2.2%	2.1%	2.1%	2.2%	3.2%

Source: Oxford Economics

Table 7: Demand-side Contributions from Air Transport and Tourism

	GDP	Employment	Wages	Taxes	Exports
2001	16,542	794,265	6,732	2,111	5,717
2002	17,103	841,390	7,017	2,209	5,715
2003	16,819	870,424	6,535	2,074	6,246
2004	19,698	942,903	7,199	2,268	7,450
2005	22,406	992,548	8,020	2,548	8,338
2006	25,108	1,086,489	9,100	2,711	9,379
Contribution to Mexico's Totals					
	GDP	Employment	Wages	Taxes	Exports
2001	2.7%	2.0%	3.3%	3.0%	3.3%
2002	2.6%	2.0%	3.3%	2.9%	3.3%
2003	2.6%	2.1%	3.2%	2.9%	3.5%
2004	2.9%	2.2%	3.4%	3.3%	3.7%
2005	2.9%	2.2%	3.4%	3.4%	3.6%
2006	3.0%	2.4%	3.5%	3.3%	3.5%

Source: Oxford Economics

ESTIMATING THE BENEFITS FROM NEW SERVICES

There have been several new routes opening from regional Mexican airports since 2000 as well as several changes in route structure and frequencies from Mexico City airport. One of the key new routes from Mexico is to Madrid. Since 2000, two new direct routes have opened from Monterrey and from Cancun to Madrid, while frequencies have also been expanded from Mexico City. The two new routes account for around 2% of the increase in Mexico's connectivity since 2000, while the additional services from Mexico City added another 3.8% to connectivity. The two new routes provide a significant economic contribution within the overall totals (see Table 8).

Table 8: The Economic Contribution in 2006 of the CUN – MAD and MTY – MAD Route

	2006	Estimated contribution of the CUN/MTY-MAD routes in 2006
Departing passengers	20,150,000	40,190
Economic benefits to passengers (US\$m)	4,820	10
Boost to GDP (US\$m)	6,476	13
Boost to Employment	134,085	270
Boost to Wage Income (US\$m)	3,689	7
Boost to Tax Revenues (US\$m)	912	2

Source: Oxford Economics, IATA

In 2006, the routes from Cancun and Monterrey to Madrid were estimated to have around 40,000 departing passengers (with a similar number on the return legs), representing around 0.2% of the overall total of passengers to, from and within Mexico. As important routes, the benefits of these services are likely to be proportionately greater than an average service.

However, in the absence of more detailed estimates, assuming a linear impact for a change in passengers can provide an indication of the minimum benefits associated with the route. Table 8 shows that the two routes create at least US\$10 million of consumer surplus for passengers, \$13 million for GDP and boosts employment by at least 270 jobs. They also create wage income of at least \$7 million and \$2 million of additional tax revenue for the government.

ESTIMATING THE ECONOMIC COST OF CHARGES

It is important that airport charges and taxes are kept closely in line with the efficient cost of providing services at the airport. Otherwise, increases in airport charges and taxes can have a negative impact in terms of offsetting any revenue through a significant reduction in the economic benefits that aviation generates. By way of illustration, we consider the impact of a hypothetical 50% increase in departure charges on passengers at Mexican airports (see Table 9). Currently, the charges average around US\$15.6 per international and domestic, equating to 3.3% of the average return fare.

Table 9: The Economic Costs of Higher Airport Passenger Departure Charges

	2006	50% rise in Charges	Change
Aeronautical charge per passenger	15.6	23.4	+ 7.8
As a % of average return fare	3.3	4.9	+ 1.6
Departing passengers	20,150,000	19,788,300	-361,700 (-1.8%)
Economic benefit to passengers (US\$m)	4,820	4,733	- 87
Boost to GDP (US\$m)	6,476	6,360	- 116
Boost to Employment	134,085	131,678	- 2,407
Boost to Wage Income (US\$m)	3,689	3,623	- 66
Boost to Tax Revenues (US\$m)	912	896	- 16

Source: Oxford Economics, IATA

A 50% rise in departure charges would raise the cost of travelling to and within Mexico by 1.6%. Best practice academic studies show that on average there will be an 11% fall in passenger numbers for every 10% rise in air fares. Therefore, a 1.6% increase in fares would see a reduction of more than 360,000 in passenger departures.

There would be an increase in revenues from the departure charge of US\$154 million but this would be more than offset by the economic costs to passengers and the wider economy in Mexico. The direct impact on passengers is estimated to be a loss of economic benefit (consumer surplus), due to higher travel costs, of \$87 million.

The impact of reduced air traffic and the reduced spending of these passengers is estimated to reduce annual GDP in Mexico by \$116 million, cause a loss of over 2,400 jobs, reduce wage income by \$66 million, and reduce government tax revenues by \$16 million as a result of lower corporate and income tax payments.

METHODOLOGY

- Economic benefits to passengers are estimated as shown in Figure 4.
- Supply-side benefits from connectivity were estimated based on the methodology published in 'Airline Economic Benefits: IATA Economic Briefing No.8, July 2007'.
- Demand-side benefits to GDP and benefits from tourism were estimated by Oxford Economics using their global economic model and satellite models.
- The benefits from new services was estimated by measuring the addition to passenger numbers and using the analysis provided by Oxford Economics, assuming a linear impact from a percentage increase in passenger numbers.
- The economic cost of charges were estimated as explained in the last section together with the use of the analysis provided by Oxford Economics, assuming a linear impact from a percentage increase in passenger numbers.

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