

ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)

**ESCWA STUDY ON AIR TRANSPORT
IN THE ARAB WORLD**

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ESCWA
AIR TRANSPORT IN THE ARAB WORLD

Abstract

The present study was carried out at the request of Economic and Social Commission for Western Asia member countries through the Commission's Committee on Transport. The Arab air transport sector has registered record growth during the past number of years and is expected to continue growing above the international average over the next 20 years.

This study, which was conducted by three consultants, reviews ways in which the region is responding to liberalization and commercialization and makes a number of recommendations addressed to Governments in the region regarding regional cooperation, a fair and open air transport market, harmonized air traffic control, the use of information and communication technologies, the protection of the environment and the elimination of procedural barriers to trade and transport.

Preface

This study was undertaken in line with the implementation of the Economic and Social Commission for Western Asia (ESCWA) work programme for the biennium 2006-2007. It was carried out at the request of the ESCWA Committee on Transport. While the outline of the study was developed through discussions with the Middle East office of the International Civil Aviation Organization, the responsibility for the study lies wholly with ESCWA.

The Arab Air Carriers Organization contributed to the two chapters on air transport liberalization, particularly in reference to open skies policies and air transport commercialization. Independent consultants contributed to the chapter on the air transport industry, the chapter on issues requiring Government attention and also to the chapter on cooperation, and air cargo, transport facilitation and security issues.

This study focuses on the current situation and developments in the air transport industry in the Arab world.

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ABBREVIATIONS AND EXPLANATORY NOTES

AACO	Arab Air Carriers Organization
AAGR	Average aggregate growth rate
ACAC	Arab Civil Aviation Commission
ADP	Aéroports de Paris
ASA	Air Services Agreement
ASEAN	Association of Southeast Asian Nations
ASK	available seat kilometres
ATAG	Air Transport Action Group
ATM	Air Traffic Management
AWB	air waybill
BOT	build-operate-transfer
CAA	Civil Aviation Authority
ECAA	European Common Aviation Area
ECR	efficient consumer response
EDI	electronic data interchange
EMAC	Europe Middle East Air Traffic Management Coordination
GCC	Gulf Cooperation Council
GDP	gross domestic product
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
HAWB	house air waybill
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICT	information and communications technologies
IMF	International Monetary Fund
JAA	Joint Aviation Authorities
JIT	just-in-time
LAC	Latin America and the Caribbean
LCC	low-cost carrier
MALIAT	Multilateral Agreement on the Liberalization of International Air Transportation
MENA	Middle East and North Africa
NAFTA	North American Free Trade Agreement
PLF	passenger load factor
QR	quick response
RFID	radio frequency identification
RPK	revenue passenger kilometres
TASA	Template Air Services Agreement
UN/LOCODE	Location code
UNWTO	United Nations World Tourism Organization
WTO	World Trade Organization

Note: References to dollars (\$) are to United States dollars, unless otherwise stated.

Executive summary

In 2005, the Arab air transport sector in the Middle East and North Africa (MENA) region registered record growth of 14.1 per cent compared with world passenger traffic growth of 7.6 per cent. This made MENA the world's fastest growing region and high growth is expected to continue in the next 20 years. This growth, however, is not equally distributed throughout the region and is concentrated in the countries of the Gulf Cooperation Council (GCC).

The Arab air transport sector has benefited from strong economic growth in the region, driven by high oil prices, as well as from a growing world air transport industry. Future growth of the Arab air transport industry is expected to be driven by an increasing number of tourist arrivals, which according to World Tourism Organization (UNWTO) estimates will grow at an average rate of 5 per cent per year through 2020.

Despite this, the Arab air transport industry constitutes a mere 3 per cent of the world industry. Challenges to the future growth of the Arab air transport industry include economic and security risks as well as increasing competition and uneven development of regulatory frameworks. Moreover, the industry suffers from ageing facilities in some countries and a history of wars and neglect in others. Coupled with economic stagnation and recessions in several Arab countries, all of these factors have served as impediments to the development of the air industry.

Still, airports in the Middle East have become important stopover points for travellers between Europe and Asia. According to Airbus, they will record the world's largest traffic growth between 2004 and 2013 with a 10.7 per cent average annual increase, and will have the second largest 20-year growth, after China, with a 7.1 per cent average annual increase.

One of the main catalysts of Middle East traffic growth has been restrictive bilateral agreements between Asian and European countries. For example, India's restrictive bilateral agreements have kept capacity between India and Europe at artificially low levels by forcing passengers en route to India to connect via Gulf countries. After India's Cabinet approved the liberalization of routes between India and the United States of America in April 2005, the possibility of a similar agreement emerging with Europe seems highly likely. If this happens, and direct long-haul flights between Europe and Asia increase, transit traffic and some of the regional airlines' most profitable routes could be adversely affected. Nonetheless, the International Air Transport Association (IATA) predicts that the European and Middle Eastern route will continue to grow at an average annual growth rate of 7.7 per cent until 2008, the second highest growth rate in the world after intra-Asian routes.

Arab airlines carried 71 million international and domestic passengers in 2005, up from 64 million in 2004. Likewise, cargo carried by Arab airlines continued the trend of doubling in volume every four years, reaching 2.6 million tons in 2005. However, industry development is uneven, and the three big Gulf-based carriers, Saudi Arabian Airlines, Emirates and Qatar Airways accounted for two-thirds of the above-mentioned increase in passenger traffic. These three airlines have 50 per cent of the total aircraft fleet in the region. An impressive performance was also recorded by the Abu Dhabi-based Etihad Airways, which carried over a million passengers in its first year of operation, and from the Sharjah-based low-cost carrier Air Arabia which more than doubled its customers from half a million in 2004 to over a million passengers in 2005, thereby achieving the highest growth in the region.

Arab airlines took delivery of 82 new aircraft and phased out 54 in 2005. The Arab fleet is thus younger than ever, and the average aircraft capacity is greater than ever. MENA airlines have pending orders for 274 planes representing 40 per cent of the current fleet. The great majority—90 per cent—of these orders originate from the Gulf region and all the large orders have been placed by Government-subsidized airlines. Boeing and Airbus predict that airlines in the Middle East will take delivery of some 1,000 new aircraft up to 2023 for a price of approximately \$100 billion. This sounds impressive but only represents some 4 per cent of world deliveries.

Low-cost carriers (LCCs) are a relatively new phenomenon in the region and several have been established, including Air Arabia, Atlas Blue and Jazeera Airways. However, given the efficiency and success of this model, similar airlines are likely to be established in the future. For example, Saudi Arabia introduced the low-cost carrier Sama Airlines in 2007. LCCs are shaping a new vision of the MENA aviation industry with new business plans and ideas, opening new market segments and creating new economic opportunities.

All major Arab air carriers are 100 per cent Government-owned, but this is slowly changing; MENA's largest carrier, Saudi Arabian Airlines, is expected to be privatized in 2007. Lebanon's Middle East Airlines was a candidate for partial privatization in 2006, but the process was interrupted by the 2006 summer war between Israel and Hezbollah and then by the political crisis in the country. Jordan is also considering privatizing the flag carrier Royal Jordanian after having privatized several of its non-core entities.

Arab airports handled 137 million passengers in 2005 compared to 124 million in 2004, a healthy growth of 10 per cent. However the growth was uneven with Dubai International Airport, Doha International Airport and King Abdul Aziz International Airport in Jeddah accounting for over half the 12.2 million net addition in passenger numbers.

In line with the industry growth, Arab States have realized that there is a need to increase airport capacity and currently plan airport investments of nearly \$30 billion. This will raise Arab airport passenger capacity from approximately 170 million to 480 million per year. Most of this added capacity will take place in the Gulf where several mega airport projects—in Dubai, Abu Dhabi, Doha and Jeddah—will add capacity for 270 million passengers per year at an estimated cost of \$26 billion. The new Dubai World Central International Airport is set to become the region's largest with a planned capacity of 120 million passengers per year.

The bulk of Arab airports are owned and operated by national Governments. However, national authorities are beginning to realize that to cope with demand the private sector has to be allowed to play a certain role, either by increasing efficiency through management contracts, or by building new airports under build-operate-transfer (BOT) contracts.

In Egypt, for example, Aéroports de Paris (ADP) signed a six-year contract to manage five of the country's international airports while Frankfurt Airport Services will manage Cairo International Airport, the busiest airport in the country. Marsa Alam International Airport in Egypt, which opened in 2001, is the first privately run aviation facility in the Middle East: it is owned by the Kharafi Group of Kuwait and managed by ADP.

Despite the good performance of the Arab air transport sector during the past few years and the anticipated growth over the coming years, the sector faces many challenges and much competition. Arab air transport capacities, volumes and expansion projects are concentrated in the Gulf region. Passenger air travel and cargo shipments in GCC countries have developed much faster than those in the Levant and the Maghreb. Ongoing expansion projects of airports and airlines emphasize long-haul networks between the Gulf and global destinations with much smaller increases in capacities linking the Levant and the Maghreb. Interregional air transport among MENA countries through low-cost and full-service carriers is still a comparatively undeveloped area.

The imbalances in Arab air transport development include distorted competition among subsidized flag carriers in some parts of the Middle East while other routes—that are important for intraregional development of trade and economic integration—may receive insufficient support for their growth.

The Arab air transport sector is creating jobs in airports, airlines and in the auxiliary industries. However, only a few countries take an active interest in the potential of air transport liberalization to create new jobs in the various sectors of the region's economies, particularly tourism.

This study presents nine recommendations, which are addressed to Governments in the Arab world, and which focus on the need to do the following:

- (a) *Recommendation one:* Strengthen cooperation among Arab States with regard to air transport;
- (b) *Recommendation two:* Work towards a fair and open air transport market in the Arab world;
- (c) *Recommendation three:* Work towards a common aviation space with the European Union;
- (d) *Recommendation four:* Work towards a harmonized air traffic control space in the Arab world;
- (e) *Recommendation five:* Optimize the exploitation of airports in the Arab world;
- (f) *Recommendation six:* Reduce procedural and regulatory barriers with regard to air cargo transport and introduce other transport facilitation measures;
- (g) *Recommendation seven:* Support National Transport and Trade Facilitation Committees in which air transport stakeholders should be active participants;
- (h) *Recommendation eight:* Facilitate and promote, through appropriate legislation and regulations, the effective use of information and communication technologies (ICTs), particularly electronic data interchange (EDI) as well as e-ticketing and e-freight initiatives;
- (i) *Recommendation nine:* Address environmental issues related to air transport.

Introduction

International air transport has undergone dramatic changes over the past two decades. Air transport has traditionally been a highly regulated industry, dominated by national flag carriers and State-owned airports; rights related to air transport between two countries were governed by bilateral agreements that often defined, and restricted, landing rights, capacity and many other aspects of air transport between the two countries.

Deregulation of the airline industry started with the United States Airline Deregulation Act of 1978, which liberalized the country's domestic market. This domestic regulatory reform initiative was followed by many other countries, particularly Europe where the European Union established a single market for aviation in the 1990s.

The European Union succeeded in removing all commercial restrictions for airlines flying within the Union, such as restrictions on routes, number of flights and the setting of fares. All European Union airlines can operate air services on any route within the Union.

According to the Air Transport Portal of the European Commission, prices have fallen dramatically, particularly on the most popular routes, while the choice of routes has grown impressively. European policy has profoundly transformed the air transport industry by creating conditions for competitiveness and ensuring both quality of service and the highest level of safety. Consumers, airlines, airports and employees have all benefited as this policy has led to more activity, new routes and airports, greater choice, low prices and an increased overall quality of service.

Deregulation in the air transport industry relates both to the lifting of restrictions on the participation of the private sector in the ownership and operation of both airlines and airports as well as to the lifting of restrictions of traditional bilateral air transport agreements. The latter are referred to as 'open skies' agreements and involve granting as many freedoms of the air as possible, in particular the so-called 'fifth freedom', which is the right to land in the territory of the first State and board passengers travelling on to a third State where the passengers disembark. For example, a scheduled flight from the United States to France could pick up traffic in England and take all traffic to France. This is sometimes termed 'beyond rights'.

More liberal open skies agreements can also include the right to so-called 'cabotage' traffic where one State grants the right to the airline of another State to perform a service entirely within the territory of the granting State. For example, a British airline is permitted to operate a service between Perth and Sydney in Australia.

In 1998, members of the Arab Council of Civil Aviation, agreed to a multilateral accord to liberalize air transport in the Arab world, which included the expectation of introducing the fifth freedom by 2007. Arab countries that have introduced open skies policies include Lebanon, which adopted this policy in 2001, including the fifth freedom, without reciprocity. Bahrain and Qatar both have open skies policies, while Jordan contracted open skies agreements with the United States in 1996, as did Morocco in 2001. In 2006, Morocco was the first non-European country to sign a complete aviation agreement with the European Community.

The transition from State-owned and -supported airlines to commercially driven and privatized ones is taking place at a very slow pace in the Arab world. In 2005, the Kuwait-based LCC, Jazeera Airways, was the only major private airline in the region.

While the great majority of Arab airports are owned and operated by national Governments, in some countries the private sector is beginning to play an important role in the management of airports. In Egypt

for example, five of the country's international airports are managed by the French company ADP, and in 2001, the Marsa Alam International Airport in Egypt became the first privately owned airport in the region.

The Arab world is located very strategically at the intersection between Europe, Asia and Africa and as a result the MENA region is currently the world's fastest growing region in terms of air transport traffic. Great investments in airlines and airport infrastructure are being made, particularly in the Gulf, to keep up the momentum.

This study reviews the current status and future prospects of the air transport industry in the Arab world and discusses the importance of introducing modern regulations to allow the Arab air transport industry to flourish thereby promoting economic development and creating jobs.

Chapter I presents an overview of the air transport industry in the Arab region, beginning with a review of passenger traffic in the world and in the Arab region, followed by an economic outlook as the context for current and future developments. Arab airlines and airports are highlighted, including ongoing and planned investments. This chapter concludes with an outlook for the Arab air transport industry.

Chapter II examines air transport issues that require Government attention and cooperation, for example, international and regional regulations, and navigation and safety issues. The necessity of considering environmental issues related to air transport is also discussed.

Chapter III discusses the current status and trends in air transport liberalization and the implementation of open skies policies. This includes a presentation of the concept of 'freedoms of the air', a historical overview and a discussion of the current situation. The regulatory environment for air transport in the Arab world is then reviewed in considerable detail.

Chapter IV reviews the trend towards the privatization of airlines and the commercialization of airports in the world as a whole and in the Arab world in particular.

Chapter V examines the role of air cargo and discusses the importance of simplifying regulations and procedures related to the transport of goods by air and the importance of effectively addressing the many security issues that arise from air cargo.

Chapter VI presents conclusions and recommendations.

The consultants who wrote the various chapters in this study completed their contributions by December 2006. Since then, two noteworthy developments have taken place that illustrate the dynamic nature of the air transport industry and the strong trends towards the continued liberalization and increasing participation of the private sector in the industry. These are as follows:

(a) *European Union-United States open sky agreement*: On 30 April 2007, the United States and the European Union signed an open sky agreement described as the most ambitious air services agreement ever negotiated.¹ The agreement is expected to bring in billions of euros in benefits, millions of additional passengers and up to 80,000 jobs over a five-year period.²

The European Union-United States agreement is not a true open sky agreement. European airlines will not be allowed to fly between American cities but it will allow any European airline to fly from anywhere in

¹ The traffic between the European Union and the United States of America represents approximately 5 per cent of total international seat capacity.

² European Union, press release, (30 April 2007). Available at: http://ec.europa.eu/transport/air_portal/international/pillars/global_partners/doc/us/press_release_signature_30_04_07.pdf.

Europe to anywhere in the United States as often and as cheaply as they like and will allow European carriers to merge without risking losing landing rights in the United States;

(b) *Saudi Arabian Airlines privatization*: In March 2007, Saudi Arabian Airlines invited expressions of interest for the sale of up to 49 per cent of its cargo unit. Earlier the same month, the airline completed the sale of a 49 per cent stake in its catering unit. Saudi Arabian Airlines will also privatize maintenance, ground services and pilot training. Once these five units have been privatized, the airline plans to sell a stake in its core passenger transport business.³

The continuing success of the Arab air transport industry depends on Governments maintaining cooperation with the Arab Air Carriers Organization (AACO) towards increased liberalization of Arab air space and more participation of the private sector, while at the same time safeguarding and improving safety and security, and facilitating the movements of goods and persons.

³ *ArabianBusiness.com*, "Saudi Air kicks off cargo privatisation", (11 March 2007). Available at: http://www.arabianbusiness.com/index.php?option=com_content&view=article&id=9227&Itemid=1.

I. OVERVIEW OF THE AIR TRANSPORT INDUSTRY

A. WORLD AND ARAB PASSENGER TRAFFIC

The Arab air transport sector experienced another good year in 2005, and growth was expected to continue through 2006 and 2007. The sector benefited from booming economic growth in the region, driven by buoyant oil prices, and also from a growing world air transport industry. In fact, the MENA⁴ region has surpassed all expectations, with Arab airlines registering 14.1 per cent growth in 2005 in terms of revenue-passenger-kilometers, and reached 71 million passengers, making it the world's fastest growing region.⁵ World passenger traffic growth was 7.6 per cent for the same period.⁶ The focal areas of Arab air transportation growth, and most of the region's capacities in the sector, are concentrated among member States of GCC.

Given that air transport is the best way of carrying out the long-haul and interregional transport of people and is also most suited to high-value freight, it will continue to benefit from rising international demand. The importance of air transport has also grown in line with global economic growth, which means more international tourism, more business and investments, more globalization and more need for cross-border trade and exchange.

The situation in the Arab world is no different from the global one. Air transport in the Arab world is expected to benefit from the fact that the region is far from being saturated in tourism. According to United Nations World Tourism Organization (UNWTO) forecasts, while the Americas and Europe will continue to account for the lion's share of world tourist arrivals through 2020, these mature regions are anticipated to see lower than average growth rates. The less saturated market of the Middle East is forecast to be the fastest growing tourist area in the world with an annual average growth rate of 7.1 per cent per year throughout the period 1995-2020, followed by the East Asia and Pacific region, and the South Asia regions, which have projected average annual growth rates of 6.5 per cent and 6.2 per cent respectively. UNWTO forecasts that by 2020 the world will have 1.6 billion international tourist arrivals, up from 565 million in 1995, representing an average annual growth rate of 4.1 per cent.⁷

UNWTO estimated the number of international tourist arrivals in 2006 at 842 million, a 4.5 per cent growth over the previous year. In the Middle East, international tourist arrivals were estimated to have risen by 4 per cent in 2006 despite the difficult overall geopolitical situation, particularly the Israel-Lebanon war in the summer of 2006.⁸

⁴ The Middle East includes different countries depending on the context. For example, the International Civil Aviation Organization (ICAO) Middle East statistical region includes: Afghanistan, Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Oman, Pakistan, Palestinian Authority, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, United Arab Emirates and Yemen.

The United Nations World Tourism Organization (UNWTO) defines the Middle East as: Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Oman, Palestine, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen.

See: <http://www.unwto.org/facts/menu.html>.

According to the World Bank, the Middle East and North Africa (MENA) region includes: Algeria, Bahrain, Egypt, Djibouti, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen.

⁵ Arab Air Carriers Organization (AACO), "Arab air transport statistics 2006". Available at: <http://www.aaco.org>.

⁶ International Air Transport Association (IATA), "IATA monthly traffic results", (31 January 2006). Available at: <http://www1.iata.org>.

⁷ UNWTO, *Tourism Highlights 2006 Edition*. Available at: <http://www.unwto.org>.

⁸ UNWTO, "News release", (29 January 2007). Available at: <http://www.unwto.org/newsroom/Releases/2007/january/recordyear.htm>.

Many Arab countries are exerting considerable efforts to develop the potential of their tourism sectors, by creating new attractions as well as promoting their cultural heritage and natural beauty. The region is also strategically located between East and West, pointing towards a major role as a transit stop connecting Asia to Europe, bearing in mind that long-haul travel is growing even faster than interregional travel. Most importantly, the region is witnessing an oil-driven economic boom, which is reflected in more investments in the region and has translated into more regional business hubs. Even non-oil Arab States are reaping the benefits of this.

Despite the various obstacles to international air transportation in the past few years, such as terrorist attacks, health scares, oil price rises, exchange rate fluctuations, natural disasters and economic and political uncertainties, airlines worldwide, carried a total of 2,022 million domestic and international passengers on their scheduled services in 2005, an increase of 134 million over the previous year. Of this, 704 million, or approximately one third, were international, and 1,318 million were domestic passengers.⁹

The Middle East air transport market remains small by international comparison and constitutes a mere 4.5 per cent of the world market.¹⁰ This, however, is still more than proportional to the population of the Middle East, which amounts to 190 million, and which constitutes approximately 3 per cent of the world population.¹¹

In the Middle East, passenger traffic is heavily skewed towards international traffic of which it has a 7 per cent market share, while domestic traffic represents only 1.1 per cent of the market share of total world traffic (see table 1).

TABLE 1. REGIONAL DISTRIBUTION OF INTERNATIONAL AND DOMESTIC TRAFFIC, 2005
(Passenger-kilometres performed)

	International (Percentage)	Domestic (Percentage)
Africa	3.3	0.8
Asia/Pacific	28.3	22.7
Europe	39.4	9.1
Middle East	7.0	1.1
North America	17.7	62.1
Latin America/Caribbean	4.3	4.2
Total	100.0	100.0

Source: International Civil Aviation Organization (ICAO), *Airline Traffic Forecasts and Financial Trends – 2006-2008*, (Cir312) (AT/133), January 2007.

Given rising demand, many Arab Governments have realized the need to advance air transport industry services to a level that meets expectations and needs. While most Governments have started planning expansion and upgrades to both their airlines and airports, some have also started planning and executing privatization and liberalization reforms for their air transport sectors, aware of the intrinsic value of such policies in terms of their respective economies and travellers.

Some Arab countries have ambitions to play a leading role in the industry by offering internationally competitive services. In addition, a growing number of Arab airlines, for example, Emirates, have become leading players on the international scene. Similarly, some Arab airports, such as Dubai, have become major stops and hubs.

⁹ ICAO, *Airline Traffic Forecasts and Financial Trends – 2006 to 2008*, (Cir312) (AT/133), January 2007.

¹⁰ In 2005, the Middle East region accounted for 4.5 per cent of total world passenger-kilometres performed. Ibid.

¹¹ Population estimates according to the Economic and Social Commission for Western Asia (ESCWA), 2005.

The sector is an important source of employment and a motor for socio-economic development in the MENA region. According to recent statistics, the top 20 Arab airlines accounted for the direct employment of some 136,000 people.¹²

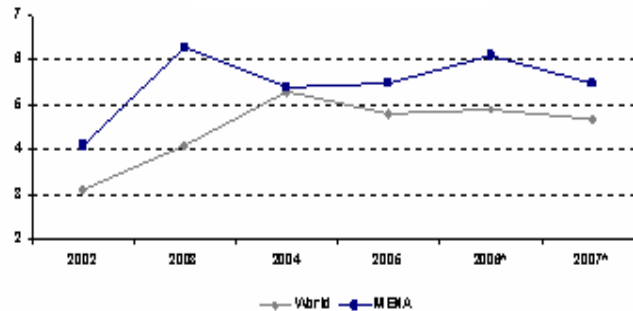
Challenges to the future growth of the Arab air transportation industry include economic and security risks, increasing competition and uneven development of regulatory frameworks with conservative authorities in some countries hindering if not preventing progress. Moreover, the industry suffers from ageing facilities in some countries, a long history of wars and neglect in others—Iraq, Palestine, and to some extent, Lebanon—economic stagnation and recessions, and various other similar factors that keep growth figures low in many Arab States, and serve as impediments against development and improvement.

B. ECONOMIC OUTLOOK

Growth continues to be mainly driven by robust economic growth in the MENA region and this can largely be attributed to buoyant oil revenues on the one hand, and a rising global demand for air transport services on the other.

Oil-rich Arab States have benefited from massive rises in world oil prices since 2004, thereby reaping huge oil revenues and surpluses, which in turn have contributed to an economic boom. The International Monetary Fund (IMF) put economic growth in the Middle East at 5.7 per cent in 2005, compared with a world average of 4.9 per cent (see figure I).¹³ In 2006, record current account surpluses and strong fiscal revenues allowed oil producers to reduce their public debt and economic growth was expected to persist well into 2007, given oil price forecasts of an average \$76 per barrel.¹⁴

Figure I. World and MENA real GDP growth



Source: Zawya, based on International Monetary Fund data.

Global economic growth remains robust despite the continuous increase in oil prices and the recurrence of natural disasters. While the United States remains the main engine of growth, Japanese expansion is well established, and there are more signs of a sustained recovery in the euro area. Growth in

¹² Zawya, “Top 20 airlines”, *Aviation Insight*, (October 2005). Available at: <http://www.zawya.com/transport/aviation/carriers.cfm>.

¹³ International Monetary Fund (IMF), *World Economic Outlook; Financial Systems and Economic Cycles*, (September 2006). Available at: <http://www.imf.org>.

¹⁴ IMF, *Regional Economic Outlook: Middle East and Central Asia*, (September 2006). p. 12. Available at: <http://www.imf.org>.

most emerging and developing countries remains solid, with a particularly striking buoyancy of activity in China, India and Russia.

The implications of the global and regional economic outlook support growth expectations for the Arab air transportation industry. With business hubs booming in the Gulf, and rapid growth in East Asian and Indian economies, Middle Eastern airports have become an important stopover for business travellers and transit passengers wishing to cover the European-Asian route. According to Airbus, Middle Eastern airlines will record the world's highest traffic growth between 2006 and 2015, with an 8.1 per cent annual average increase and the largest 20-year growth with a 6.4 per cent annual average increase.¹⁵ Table 2 looks at the real gross domestic product (GDP) growth of Arab countries.

TABLE 2. REAL GDP GROWTH OF ARAB COUNTRIES

Country	2002	2003	2004	2005	2006	2007
Algeria	4.7	6.9	5.2	5.3	4.9	5.0
Bahrain	5.2	7.2	5.4	6.9	7.1	6.3
Egypt	3.2	3.1	4.1	4.9	5.6	5.9
Iraq	-7.8	-41.4	46.5	3.7	4.0	14.4
Jordan	5.8	4.2	8.4	7.2	6.0	5.0
Kuwait	5.1	13.4	6.2	8.5	6.2	4.7
Lebanon	2.9	5.0	6.0	1.0	-3.2	5.0
Libyan Arab Jamahiriya	3.3	9.1	4.6	3.5	5.0	4.6
Mauritania	1.1	5.6	5.2	5.4	14.1	10.6
Morocco	3.2	5.5	4.2	1.7	7.3	3.3
Oman	2.6	2.0	5.6	6.7	7.1	5.7
Qatar	7.3	5.9	11.2	6.5	6.7	4.7
Saudi Arabia	0.1	7.7	5.3	6.6	5.8	6.5
Sudan	6.4	4.9	5.2	7.9	12.1	11.3
Syrian Arab Republic	3.7	1.0	3.1	2.9	3.2	3.7
Tunisia	1.7	5.6	6.0	4.2	5.8	6.0
United Arab Emirates	2.6	11.9	9.7	8.5	11.5	5.8
Yemen	3.9	3.1	2.6	3.8	3.9	2.5
MENA	4.1	6.3	5.4	5.5	6.1	5.5
GCC	1.6	0.5	6.6	7.1	7.2	6.1

Source: International Monetary Fund, compiled by Zawya.

However, one of the main catalysts of traffic growth in the Middle East has been restrictive bilateral agreements between Asian and European countries. For example, India's restrictive bilateral agreements have kept capacity between India and Europe at low levels, by forcing passengers to connect via the Gulf countries. After India's Cabinet approved the liberalization of its routes with the United States in April 2005, the possibility of a similar agreement emerging with Europe seems imminent. If this materializes, and long-haul direct flights between Europe and Asia increase, transit traffic could be adversely affected, and so will the most profitable routes of regional airlines. Nevertheless, the International Civil Aviation Organization (ICAO) has still predicted that the scheduled passenger traffic of Middle Eastern airlines will continue to grow at 12 per cent, 10.5 per cent and 9.5 per cent in the years 2006, 2007 and 2008—the fastest rate in the world for all three years.¹⁶

With economic growth envisaged to continue globally and in the MENA region, air transport is set to continue to benefit from this supporting economic environment, and also to play a role in helping and sustaining economic development in the region.

¹⁵ Airbus, *Global Market Forecast 2006-2025*, p. 34. Available at: <http://www.airbus.com>.

¹⁶ ICAO, *Airline Traffic Forecasts and Financial Trends – 2006 to 2008*, (Cir312) (AT/133), January 2007.

C. ARAB AIRLINES

Arab airlines carried 71 million international and domestic passengers in 2005, up from 64 million passengers in 2004, which was growth of 11 per cent. Moreover, AACO reported that the growth of Arab airlines in revenue passenger kilometres (RPK) was 70 per cent higher than that of the world industry in 2005, and that cargo uplift by Arab airlines continued its trend of doubling in volume every four years. Members of AACO increased their seat capacity by 10.4 per cent, and were able to fill 70.3 per cent of their seats, which is referred to as the passenger load factor (PLF). Cargo traffic also continued to score high growth rates in 2005, in excess of 20 per cent, which translated into the handling of over 2.6 million tons in total (see table 3).

The industry's three big Gulf-based players Qatar Airways, Emirates and Saudi Arabian Airlines grabbed two-thirds of the 7 million increase in passenger travel, by adding 5.1 million passengers in 2005. The United Arab Emirates' Etihad Airways also gave an impressive performance, carrying over 1 million passengers in its first year of operation, as did Sharjah's low cost carrier, Air Arabia, which was able to more than double its customer numbers from half a million in 2004 to over 1 million passengers in 2005, thereby achieving the highest growth in the region. Most remaining carriers achieved satisfactory growth figures while very few saw a decline in their traffic.

Emirates airlines carried over 45 per cent—1.2 million tons—of the total cargo handled by Arab carriers. The industry giant achieved the highest RPK and available seat kilometres (ASK) in the region, followed by Saudi Arabian Airlines (see table 3).¹⁷

TABLE 3. INDICATORS OF SELECTED ARAB CARRIERS (2005)

Carrier	Passengers (000)	Growth (Percentage)	PLF (Percentage)	RPK	ASK (000)	Cargo (Tons)
Air Algérie	2 970	-15.2	57	3 800	5 427	15 952
Gulf Air	735	-1.7	72	13 258	24 355	232 615
EgyptAir	5 332	3.3	61	10 049	16 446	103 367
Royal Jordanian	1 821	4.9	70	5 504	7 931	82 100
Kuwait Airways	2 460	9.8	72	6 958	9 995	70 880
Middle East Airlines	1 088	-4.6	59	2 168	3 693	18 649
Royal Air Maroc	3 587	-3.1	62	6 840	10 695	41 359
Oman Air	1 135	15.5	76	1 715	2 271	5 044
Qatar Airways	6 041	74.1	72	17 891	24 788	416 512
Saudi Arabian Airlines	16 900	7.2	70	27 455	43 147	392 487
Syrian Arab Airlines	1 228	...	60	n/a	3 889	7 692
Tunisair	3 755	3.7	62	5 493	7 887	12 616
Emirates Airline	13 976	11.5	76	62 260	77 814	1 187 057
Etihad Airways	1 050	...	60	n/a	20 000	0
Air Arabia	1 133	107.5	79	n/a	n/a	n/a
Yemen Airways	1 158	15.8	66	n/a	4 597	17 981

Source: Individual airlines and AACO, compiled by Zawya.com.

1. Fleet size and expansion

According to AACO, Arab airlines added a net of 28 aircrafts to their fleet in 2005. While 82 new aircraft were delivered in that year, 54 were phased out. The Arab fleet is now younger than ever and the average capacity per aircraft is greater than ever.¹⁸

¹⁷ AACO, "Arab air transport statistics 2006". Available at: <http://www.aaco.org>; and data from Zawya.

¹⁸ AACO, "Arab air transport statistics 2006". Available at: <http://www.aaco.org>.

The fleet size of Arab Air carriers varies from five aircraft, for Air Arabia, to 134 aircraft for Saudi Arabian Airlines. In 2005, Emirates airlines ranked second in terms of fleet size with 96 aircraft, followed by Qatar Airways with 46. These three key players operate 50 per cent of the region's total fleet.¹⁹

While Emirates and Qatar Airways have a clear vision to extend their networks to cover the four corners of the globe, Gulf Air and newcomer Etihad Airways are also pursuing similar strategies. Etihad Airways, for example, already has 26 planes on order and it forecasts that it will carry some 8 million passengers on 70 to 80 planes within five years.²⁰

Airlines in the MENA region have pending orders for a total—including leased planes—of 198 Airbus planes and 76 Boeing planes, representing over 40 per cent of total current regional fleet size. For both airplane manufacturers, Emirates is the single largest customer in the region with some 65 planes on order from Airbus and 30 planes from Boeing. Emirates airline is also considered Airbus's single largest A380 super-jumbo customer, having ordered 30 per cent of the world's current orders for such planes (passenger version). However, in June 2005, Qatar Airways announced that it would order up to 60 Airbus A350s and 20 Boeing B777s, with a price tag of some \$10.6 billion and \$4.6 billion respectively. If the order becomes reality, then Qatar Airways will turn out to be Airbus's prime regional 'new orders' customer. As such, Qatar Airways is recognized as one of the fastest growing carriers in the world with expansion averaging 40 per cent year-on-year.²¹

Airplane purchases are also emerging from more traditional airlines such as EgyptAir. Similarly, demand for jets is also coming from subsidiaries of major airlines such as Air Cairo—which is majority owned by EgyptAir—and Atlas Blue, which is wholly owned by Royal Air Maroc, and which is looking into expanding its stable of six Boeing 737s.

While fleet expansion figures look impressive, when scrutinized, figures illustrate that the majority of new fleet orders originate from the Gulf region, at a rate which stands at over 90 per cent. Similarly, all of the large orders have been placed by Government-subsidized airlines.

Nevertheless, according to Boeing and Airbus, fleet purchases are set to continue during the next 20 years. Boeing predicts that the Middle East will receive a total of 1,110 airplanes up to 2025 for a price tag of more than \$160 billion, while Airbus predicts the same figure for 940 passenger aircrafts. In both cases, the total deliveries account for only 4 per cent of world deliveries. The region's largest fleet request will be for twin-aisles planes, representing some 50 per cent of total regional orders. Additional plane manufacturers, such as Brazilian jet manufacturer Embraer expects the Middle East and Africa region to order some 230 jets between 2007 and 2026.²²

Even though these orders represent a fraction of world deliveries, they have raised eyebrows because the build up of new capacity is not fully based on underlying demand. This has resulted in low fares and has forced Governments to continue subsidizing operations on account of the fact that fares are often below actual cost. For example, Qatar Airways—a heavily subsidized airline that has not yet broken even—has a current fleet of 40 and is expecting to order a maximum of 105 planes within the next 10 years. This would be a huge fleet for a country that has one international airport that serves a population of some 885,000. However, this expansion is in line with Qatar Airways' goal to transport some 15 million passengers by 2015.²³

¹⁹ Ibid.

²⁰ Zawya, "Flying carpets", *Aviation Insight*. Available at: http://www.zawya.com/transport/aviation/2004_review.cfm.

²¹ Ibid.

²² Airbus, Boeing and Embraer market forecasts. Available at: <http://www.airbus.com/en/>; <http://www.boeing.com/>; and <http://www.embraercommercialjets.com/english/content/home/>.

²³ Zawya, "Flying carpets", *Aviation Insight*. Available at: http://www.zawya.com/transport/aviation/2004_review.cfm.

2. Economics: Fuel cost, revenues and profits

Given that the global airline industry depends heavily on energy to operate, burgeoning fuel prices have had a major impact on it. Arab airlines have had to contend with surging fuel costs over the past two years that considerably exceeded their set budgets. However, even with extra costs, in terms of financial performance, regional airlines coped well with price increases, mainly as a result of an increase in traffic and fuel surcharges.

According to AACO, the financial statements of 10 of its member airlines showed an 18.2 per cent increase in operating revenues in 2005, reaching \$15 billion, and an increase of 3.1 per cent in net profit to \$688 million. During that year, passenger revenues grew by 18 per cent to reach \$11 billion and freight revenues grew by 24 per cent to reach \$2 billion.

AACO noted that Arab carriers faced rising operating expenses in 2005 as a result of soaring fuel costs linked to an increase in worldwide fuel prices of 42 per cent. This increase in fuel cost pushed the price of jet fuel to \$1.65/gallon, which raised the total fuel cost of Arab airlines by 66.5 per cent to reach some \$3 billion. The Organization has warned that this rise is heavily affecting the operating results of Arab airlines and if it continues, could lead to more serious problems for the entire airline industry. It comes as no surprise that while Arab carriers have tried to share half the additional fuel cost with customers, customers have shifted to low cost carriers where available.²⁴

Table 4 highlights the revenues of selected airlines as compiled by Zawya.

TABLE 4. REVENUES OF SELECTED AIRLINES, 2004 AND 2005
(Millions of United States dollars)

Carrier	Revenues 2004	Revenues 2005	Growth (Percentage)
Air Algérie	563	663	17.8
Royal Jordanian	511	546	6.8
Kuwait Airways	739	860	16.3
Middle East Airlines	351	382	8.8
Royal Air Maroc	834	982	17.7
Oman Air	140	198	41.4
Qatar Airways	800	1 146	43.3
Saudi Arabian Airlines	3 607	3 948	9.4
Tunisair	607	644	6.1
Emirates Airline	4 797	6 300	31.3
Air Arabia	59	114	93.9
Total	13 008	15 783	21.3

Source: Zawya.

3. Low-cost carriers

There are several LCCs in the region, namely, Air Arabia, Atlas Blue and Jazeera Airways; there is also Lebanon's MenaJet and Saudi Arabia launched Sama Airlines in 2007. An increasing number of similar airlines are expected to be established as regional air traffic increases, and as this model demonstrates its efficiency and potential for success. There has also been speculation that Saudi Arabian Airlines will launch low cost services.

No-frills airlines have revolutionized the economics of the aviation industry over the past three decades, starting with Southwest Airlines in the United States in the early 1970s, followed by Ryanair and

²⁴ AACO, "Arab air transport statistics 2006". Available at: <http://www.aaco.org>.

EasyJet, among others, in Europe. The basics of the low-cost model are now familiar: ruthless cost reduction at every opportunity, a single fleet type, high seat density, high fleet utilization rates, quick turnarounds, no connectivity, no interlining, direct sales through the Internet or call-centres, and the use of simple, efficient airports. This recipe has proven to be successful as seven of the eight most profitable airlines in the world in 2004 were low-cost, with the exception of Emirates.²⁵

The first no-frills airline in the region, Air Arabia, made its inaugural flight in October 2003 and has since surprised many people. Not only did the airline break even within a year of operation, it also transported over 540,000 passengers in 2004 on five Airbus A320s, a figure that increased by 107 per cent in one year to 1.13 million in 2005. In March 2006, Air Arabia reached the milestone of having carried 2 million passengers.²⁶

The real impact of Air Arabia, however, is much more significant than it may have seemed at first glance. Its success has shown that budget airlines can operate in a region where the skies have so far been controlled by State-run national carriers, and they can still grab a significant market share. This has sent major shock waves throughout the industry, where traditional airlines rely heavily on profitable regional routes to make money. It can already be said that the recent arrival of LCCs is radically changing the way airlines in the MENA region function.

In fact, LCCs have prompted an entirely new vision of the MENA aviation industry, sparking new business plans and ideas, and opening up new market segments and economic opportunities.

4. Privatization and commercialization

Major Arab carriers are mostly owned by their respective Governments. This has been a competitive advantage in some cases, especially where oil-rich Governments were capable of subsidizing their air carriers. However, given the lack of the necessary funding, willingness, know-how and other factors, being a Government entity has, in many cases, been a major obstacle in terms of developing and improving carriers, and has also been a drain on Government coffers.

The transition from State-owned and -supported airlines to commercially driven and privatized ones is taking place in the Arab world, albeit at a very slow pace. In 2005, the Kuwait-based LCC, Jazeera Airways, was the only private major airline company in the region. However, the number of private air carriers is expected to rise with some Governments planning to implement full privatization in the near future, and some preferring to wait until their carriers show profits before selling them. Others have chosen to start privatizing their non-core entities as part of their restructuring plans.

In March 2007, the largest carrier in the MENA region, Saudi Arabian Airlines, invited expressions of interest for the sale of up to 49 per cent of its cargo unit. Earlier the same month the airline completed the sale of a 49 per cent stake in its catering unit. The company will also privatize maintenance, ground services and pilot training. Once these five units have been privatized, the airline plans to sell a stake in its core passenger transport business. Saudi Arabian Airlines will be transformed into a holding company in the last phase of its privatization programme and will have a group of companies under its administration.²⁷

Lebanon's Middle East Airlines was a candidate for partial privatization through a flotation on the Beirut Stock Exchange in 2006 but the process was hindered by the summer war in Lebanon and afterwards

²⁵ Zawaya, *Aviation Insight*, (September 2005).

²⁶ Air Arabia. Available at: <http://www.airarabia.com/passenger-statistics.html>.

²⁷ *ArabianBusiness.com*, "Saudi Air kicks off cargo privatisation", (11 March 2007). Available at: http://www.arabianbusiness.com/index.php?option=com_content&view=article&id=9227&Itemid=1; and *Khaleej Times*, "Saudi Arabian Airlines plans to sell 49 per cent of catering arm", (7 March 2007).

by the country's political crisis; and while the Government of Kuwait was set to transform Kuwait Airways into a public shareholding company as the first step to privatizing the company, this was refused by the country's National Assembly. Jordan is also in the process of privatizing its flag carrier, Royal Jordanian Airlines, which announced that its privatization project will be completed before the end of 2007.²⁸

D. AIRPORTS

Arab airports handled 134 million passengers in 2005 compared to 125 million passengers in 2004, a healthy growth of 6.6 per cent. However, the distribution of air traffic among the 24 commercial airports in the MENA region was uneven, with three major airports accounting for over half of the 12.2 million net addition in passenger numbers. These were Dubai International Airport, Doha International Airport, and the King Abdulaziz International Airport in Jeddah, all in the Gulf region (see table 5).

Nonetheless, most airports in the Arab region recorded good growth figures. Sharjah International Airport and Aéroport Marrakech Menara were well above the region's average at 35 per cent and 33 per cent growth, respectively (see table 5). Cargo handled in major Arab airports exceeded 3.5 million tons in 2005 and over 1.3 million aircraft movements were recorded, an increase of 8.2 per cent and 4.9 per cent in 2005 respectively.²⁹

TABLE 5. INDICATORS FOR SELECTED ARAB AIRPORTS (2005)

Airport	Traffic (000)	Growth (Percentage)	Capacity (000)	Aircraft movements (000)	Cargo (Tonnes)
Houari Boumedienne Int'l Airport	3 403	2.1	5 500	48 347	22 600
Bahrain International Airport	5 582	8.5	10 000	73 891	334 832
Aswan International Airport	1 032	-11.7	4 800	10 627	n/a
Cairo International Airport	10 218	7.2	11 000	99 204	232 548
Hurghada International Airport	4 525	-1.2	4 200	34 211	n/a
Luxor International Airport	2 257	7.9	7 000	21 703	n/a
Sharm El Sheikh Int'l Airport	4 756	3.4	2 700	38 582	n/a
Queen Alia International Airport	3 272	9.7	4 500	35 091	96 794
Kuwait International Airport	5 381	6.6	6 000	66 929	160 667
Rafic Hariri International Airport	3 285	-1.5	6 000	53 160	63 285
Aéroport Agadir Al Massira	1 314	13.3	3 000	14 407	713
Aéroport Marrakech Menara	2 215	32.9	3 000	20 696	2 000
Mohammed V Int'l Airport	4 456	17.2	4 000	59 623	50 285
Seeb International Airport	3 778	4.9	2 500	44 408	75 332
Doha International Airport	9 377	32.5	12 000	59 671	207 988
King Abdulaziz Int'l Airport	15 360	7.4	13 000	86 881	221 343
King Fahd Int'l Airport	3 456	15.1	9 000	32 146	51 220
King Khaled Int'l Airport	10 573	7.0	14 000	84 555	198 221
Djerba Zarzis Int'l Airport	2 417	8.0	4 000	21 292	300
Monastir Habib Bourguiba Int'l Airport	4 105	11.9	4 000	31 107	400
Tunis-Carthage Int'l Airport	3 650	5.8	4 500	38 410	n/a
Abu Dhabi International Airport	5 448	4.5	6 800	76 634	215 283
Dubai International Airport	24 782	14.1	25 000	217 165	1 333 014
Sharjah International Airport	2 238	34.6	2 000	38 699	505 392

Source: Zawya.

²⁸ Royal Jordanian Airlines, press release, (6 February 2007).

²⁹ AACO, "Arab air transport statistics 2006". Available at: <http://www.aaco.org>.

1. Investment projects and forecasts

Taking into consideration industry growth, the Governments of Arab countries have understood the importance of raising the capacities of their airports and services to meet rising demand. In 2005, traffic in Arab airports accounted for over 80 per cent of available capacities. Accordingly, most Arab States have planned, and in many cases, started to implement airport expansion programmes. Nearly \$30 billion of investment in projects—both airport-expansion and new-airport projects—is expected to raise the passenger capacity of 19 Arab airports from approximately 100 million per year to over 473 million.³⁰ Most of the capacity increase will take place in the Gulf States through five mega airport projects, which in themselves are expected to add 270 million passengers at an estimated cost of \$26 billion.

Data related to various projects for selected Arab airports are highlighted in table 6 below.

TABLE 6. PROJECTS OF SELECTED ARAB AIRPORTS

Airport	Country	Estimated cost (Millions of \$)	Capacity before project (000)	Capacity after project (000)
Houari Bouemeddine Int'l Airport	Algeria	200	5 500	11 000
Bahrain International Airport	Bahrain	212	10 000	25 000
Cairo International Airport	Egypt	350	9 600	20 600
Sharm El Sheikh Int'l Airport	Egypt	70	270	6 500
Hurghada International Airport	Egypt	67	3 750	12 000
Queen Alia International Airport	Jordan	n/a	3 000	10 000
Kuwait International Airport	Kuwait	862	6 000	20 000
Mohammed V Int'l Airport	Morocco	153	4 000	8 000
Marrakech Menara Int'l Airport	Morocco	77	2 000	3 500
Seeb International Airport	Oman	300	2 500	12 000
New Doha International Airport	Qatar	5 500	7 500	50 000
King AbdulAziz Int'l Airport	Saudi Arabia	1 500	13 000	30 000
Khartoum International Airport	Sudan	530	0	6 500
Enfidha International Airport	Tunisia	456	0	5 000
Dubai International Airport	United Arab Emirates	4 100	22 000	70 000
Abu Dhabi International Airport	United Arab Emirates	6 800	6 200	50 000
Sharjah International Airport	United Arab Emirates	62	2 000	8 000
World Central Int'l Airport	United Arab Emirates	8 100	0	120 000
Sana'a International Airport	Yemen	240	1 500	5 000

Source: Zawya.

While Arab airport projects vary in size from a few million dollars to billions of dollars, they are all aimed at upgrading the facilities of airports, adding capacity, introducing new technologies and improving services, for example, free zones, duty free and cargo. While most airports are looking for a better location on the domestic and regional air transport map, some of the Gulf-based airports are aiming to become major international air transport hubs.

Similarly, three completely new airports are currently being built, one in Tunisia, Enfidha International Airport, another in Dubai, World Central International Airport, and a third in Sudan, Khartoum International Airport.

A large proportion of nearly \$30 billion of investments in airport infrastructure over the next 15 years, 65 per cent—or \$19 billion—is concentrated in the United Arab Emirates alone. Such significant expansion is based on projections that passenger traffic will grow from 29 million—as registered in 2004—to 78

³⁰ This calculation only includes the capacity of airports listed in table 5.

million by 2010. Dubai World Central International Airport, the United Arab Emirates, seventh airport, is set to become the region's largest with a planned capacity to handle 120 million passengers, which would represent over 26 per cent of the entire new capacity to be added across the region.³¹

2. *Private sector participation*

The bulk of Arab airports are owned, managed and operated by national Governments. However, with passenger arrivals increasing rapidly, airport authorities have started to realize that to cope with demand the private sector has to be allowed to play a role—either by contributing expertise to increase efficiencies and improve quality of service through management contracts, or by contributing finance by building new airports under BOT contracts.

In Egypt, the French giant ADP signed a six-year management contract with the Egyptian Airports Company to supervise five of the country's international airports: Sharm El Sheikh, Hurghada, Luxor, Aswan, and Abu Simbel. The contract focuses on improving the quality of service, developing non-aeronautical revenues and optimizing security procedures. Cairo International Airport, the country's busiest airport, will be managed by Frankfurt Airport Services (Fraport), the company that manages Frankfurt International Airport. Similarly, ADP's management arm also signed a two-year technical assistance contract with Algeria's Etablissement de Gestion de Services Aéroportuaires d'Alger and a one-year technical assistance contract with Ras Al Khaimah International Airport in the United Arab Emirates. Both contracts are designed to train staff and develop the airports.

The Marsa Alam International Airport in Egypt, which opened in late 2001, is the Middle East's first private airport, and is owned by Kuwait's Kharafi Group and managed by ADP. The airport has opened up new opportunities for the private sector in the region. For example, the Tunisian airport authority, Office de l'Aviation Civile des Aéroports, is studying the possibility of issuing a BOT contract for the new Enfidha International Airport.

Jordan has also expressed plans to privatize Queen Alia International Airport while Saudi Arabia has opted to build the Hajj (pilgrimage) terminal in Jeddah on a BOT basis with a view to possibly inviting the private sector to help develop its other 23 airports in the future.

3. *Reform and liberalization*

The growing role and importance of the air transport sector has underlined the need for reform to increase efficiency on one hand, and to prepare for competition with international players on the other. Arab airlines are in a transition period from being heavily controlled and restrictive environments to more liberal ones, and from being state-owned and supported airlines to commercially driven and privatized ones.

So far, few Arab States have adopted an open skies policy, seeking instead to allow national flag carriers to prosper without having to face competition on their home-turf. However, positive experiences with such policies in regional airports have helped to ease the minds of sceptics, especially in such countries as Algeria and Egypt, which are considering opening their skies. Opening skies will help to increase the traffic of airports and airlines and to offer more choices for consumers, but will also increase competition, particularly from European airlines.

Since the late 1980s, airlines have strengthened their competitive position by extending and optimizing their networks through code sharing with other airlines. The most important alliances are Star Alliance, OneWorld and SkyTeam, which have market shares of 23.6 per cent, 13.5 per cent and 20.7 per cent respectively. The only Arab airline to participate in any of these alliances is Royal Jordanian Airlines which

³¹ Zawya, "Flying carpets", *Aviation Insight*. Available at: http://www.zawya.com/transport/aviation/2004_review.cfm.

was expected to join OneWorld as of 1 April 2007.³² The first pan-Arab alliance comprising EgyptAir, Gulf Air, Middle East Airlines, Oman Air, Royal Jordanian Airlines and Saudi Arabian Airlines, to be called Arabesk, will coordinate the schedules of these carriers, allow for reduced capacity duplication, link networks and destinations, generate market demand through improved customer connectivity and maximize capacity through route sharing and rationalization.

4. *Employment and macroeconomic benefits*

Worldwide, the aviation industry is a major source of direct and indirect employment. According to the Air Transport Action Group (ATAG), an industry lobby organization, aviation contributes some 8 per cent to global GDP through direct, indirect, induced and catalytic economic activity. In terms of employment, the industry claims to be the source of 13.5 million jobs, of which 5 million are direct, contributing to the creation of another 15.5 million jobs in tourism and related sectors.³³

According to ATAG estimates for GCC and Levant nations, there were 165,000 jobs directly related to the industry in 2004; the total number of air transport-related jobs reached 1 million, and GDP contributions were \$16.1 billion directly, indirectly and induced, and another \$46 billion in catalytic terms. Moreover, as a capital-intensive industry, air transport tends to create direct employment with an above average contribution to per capita GDP.

Given that a number of air transportation hubs worldwide—for example, Amsterdam and Singapore—have demonstrated the socio-economic advantages of achieving what has been described above, it can be expected that leading GCC airports with expansion programmes will generate long-term economic benefits. This assumption is especially valid for Dubai, which has the region's most ambitious growth plans. Airports in other GCC countries, notably Qatar, could emerge as transportation hubs in their own right.

However, the socio-economic impact of these mega-projects in air transportation deserves more study. It is possible that employment in the air transport industry in smaller GCC countries will be substantially related to importing labour rather than adding jobs to the domestic job market. In addition, tourism growth and air transportation growth are probably even more strongly linked in the Arabian Gulf region than in the Mediterranean, owing to the prevalence of passenger air travel as means of reaching destinations such as Dubai and Doha.

E. CONCLUSION AND FORECAST

Western Asia is a growth region for international air transportation. The three main factors driving this development are the role of the region as a hub for travel between Europe and south-eastern and eastern Asia, growth of tourism, and overall economic growth in the area, which is driven largely by oil.

Arab air transport capacities, volumes and expansion projects are concentrated in oil-producing countries. In terms of intraregional traffic, the density of networks and routes varies greatly; passenger air travel and cargo shipments in GCC countries have developed much faster than those in the Levant region and the Maghreb. Ongoing expansion projects for airports and airlines point to an emphasis on the growth of long-haul networks between the Gulf and global destinations, and a much smaller increase of capacities for linking the Levant with the Maghreb. Another focus for development is passenger traffic with Europe in countries which aim to increase tourism. Intraregional air transport across MENA countries through both low-cost and full-service carriers is still a comparatively undeveloped area.

³² Wikipedia, "Airline alliance". Available at: http://en.wikipedia.org/wiki/Airline_alliance.

³³ Air Transport Action Group (ATAG), *The Economic and Social Benefits of Air Transport*. Available at: <http://www.atag.org/files/Soceconomic-121116A.pdf>.

Despite the positive performance of the Arab air transport sector during the past few years and its anticipated growth over the coming years, the sector faces many challenges, particularly competition from international carriers and the likelihood that India and other Asian countries will open their skies to direct flights from Europe and thus threaten the Middle East's position as a natural stopover on this lucrative route.

In addition, there are imbalances in Arab air transport development, including the danger of unhealthy competition—because it is distorted—of subsidized flag carriers in some parts of the Middle East while other routes, which are important for intraregional development of trade and economic integration, receive insufficient support for their growth.

The Arab air transport sector is creating jobs in airports, airlines and their auxiliary industries, ranging from catering and ground transport to financial expertise in new regional aircraft leasing companies. However, while the potential of liberalized air transport development to create new jobs in the region, especially in tourism, is an active concern in some countries, others continue to view air transport primarily in terms of prestige, national proprietorship, or even political control.

It follows that Arab Governments and authorities should not only endeavour to expand their airports and airlines capacities, but also on focus on growing competition and other challenges. Steps to further enhance the sector's performance and sustain its growth must include improving regulatory frameworks, seeking and signing more bilateral agreements, adopting favourable and forward thinking policies—including aligning national economic development plans with regional growth potential through air transport—liberalizing and opening up the sector, upgrading services and facilities, encouraging the introduction of new technologies and welcoming the participation of the private sector.

After all, as much as a growing economy contributes to a boom in the air transport sector, a booming air transport sector benefits the economy. Governments should not only seek to meet demand, but also to generate demand.

II. AIR TRANSPORT ISSUES REQUIRING GOVERNMENT ATTENTION AND COOPERATION

A. INTRODUCTION

The air transport industry combines business and Government infrastructures so that aircraft can carry passengers, freight, mail and couriered items. Air transport companies offer scheduled services and non-scheduled services. They may offer these services via local or regional routes, and also on domestic or international routes. A wide range of specialist or general purpose aircraft is deployed for these purposes, as are airports and their terminal operations. These operations are underpinned by a large set of supporting services and industries and a variety of national, international and industry agencies regulate and promote these services and operations.

Factors of general influence in the industry include the following:

(a) *Airline ownership*

Most airlines established before the 1980s were State-owned, and a source of national pride, known as the flag carrier. However, there has been a pattern of deregulation and private ownership for several years now, albeit principally in more economically developed countries or regions.

(b) *Overall demand*

This is growing, in line with demographic and population growth and commensurate economic activity. While growth rates vary within the region, they are most rapid in those areas with the highest levels of deregulation and competition, leading to greater pricing flexibility, and resulting in lower prices.

(c) *Economic activity*

The demand for all major air transport services is dictated by economic activity; in fact, airline operations are a bellwether for regional and international economic activity. The industry follows, in general, a four to five-year economic cycle. However, even in good years airline profitability is low in comparison with other industries, typically at approximately 2 per cent to 3 per cent.³⁴ In bad years, however, results can be disastrous. This has been the case, for example, for airline operators who have recently been working through Chapter 11 arrangements in the United States, and has been witnessed in the number of airline takeovers and consolidation.³⁵ According to the International Air Transport Association (IATA), the reasons for this low rate of return include a number of cyclical pressures on the industry, such as high fuel prices. However there are also more fundamental structural issues to consider, including a lack of competition among suppliers (such as airports), leading to inefficiency, and the incomplete deregulation of the airline industry, which prevents a rational restructuring of capacity.³⁶

(d) *The costs of financing*

The costs of financing are an important factor in terms of developing competitive new services and acquiring new equipment. With such slim margins very few airlines meet acceptable financial expectations, with the exception of a small number of niche operators.

³⁴ Wikipedia, "Airline". Available at: http://en.wikipedia.org/wiki/Scheduled_air_transport.

³⁵ Chapter 11 is part of the United States Bankruptcy Code and it governs the process of reorganization under the bankruptcy laws of the United States.

³⁶ IATA, *Annual Report 2006*. Available at: http://www.iata.org/iata/Sites/agma/file/2006/file/annual_report_06.pdf.

(e) *Consolidation*

The issue of consolidation is vital for the future of the industry. By the middle of the 1990s, approximately 1,000 scheduled airlines operated some 18,000 aircraft worldwide. While general aviation aircraft numbers worldwide may be as high as 400,000 (although there are no accurate figures for this),³⁷ the large number of single-engine general aviation aircraft has reduced as a result of tighter regulations on liability, security demands, insurance costs among other things. Given that most national airlines are owned by their Governments, there is significant potential for subsidy, preference and obscured or undeclared results. Therefore, most consolidation and merger activity takes place within a country, for example the United States, or a region, namely, Europe. In addition, international traffic rights are traditionally negotiated between Governments according to bilateral agreements. Therefore, it is possible that an airline will lose important landing rights when it merges with another airline that is under different national ownership.

Airline consolidation can take the form of mergers, acquisitions, business alliances, shared marketing, passenger code-sharing, equity arrangements and facilities management. However, the market is obscured by the national carrier's financial arrangements, and also by a series of restrictive arrangements pertaining to routes, landing and take-off slots. Greater consolidation is necessary to permit better use of resources and higher returns.

Other operational issues include security, environmental issues and associated regulation and, in the case of cargo, the simplification of trade and transport procedures and efficiencies throughout the supply chain, particularly procedures and controls imposed by customs and other Government agencies.

Despite threats from terrorism, economic challenges and a bewildering array of operational and legislative issues, the industry marches on. The emerging economic powers of China and India will provide a new stimulus to passenger and cargo traffic. New aircraft designs are providing a whole new generation of potential air services, routes and economic models. While the industry will change shape and have to overcome an ever expanding array of challenges it will survive and grow.

B. CURRENT STATUS

The first recorded flight of a powered aircraft was in 1903. A century later, and two world wars on, a great deal has changed. The Second World War, in particular, has caused the most dramatic changes. By the end of the war, large, long-range four-engine aircraft, pressurized for high altitude flying and complete with instrumentation for flying and landing under reduced visibility, were carrying passengers and freight. Capacity, speed, economy and range have been progressively enhanced as wide-bodied, jet engine-powered aircraft have been introduced. By December 2005, scheduled airlines carried more than 165 million passengers and 3 million tons of freight per month.³⁸

Support services for modern air transport include the following:

- (a) Maintenance of air frames and engines;
- (b) Training and flight proficiency, including simulators for technical operations for the following:
 - (i) Engineers;
 - (ii) Pilots and flight crew;
 - (iii) Cabin staff;

³⁷ Freight carrying general aviation aircraft are covered by several IATA categories. ICAO lists some 8,600 general aviation freight carriers. Wikipedia says that there are approximately 400,000 aircraft; however, this number is being reduced as larger capacity aircraft and courier/messenger companies begin to alter industry dynamics.

³⁸ Calculated by ESCWA from ICAO data; see ICAO, *Airline Traffic Forecasts and Financial Trends – 2006-2008*, (Cir312) (AT/133), January 2007.

- (c) Ticketing and marketing organizations and their staff;
- (d) Technical and freight operations ground staff;
- (e) Information technology (IT) systems for reservations, scheduling, capacity planning, administration and accounting;
- (f) Food preparation and catering;
- (g) Operation of ground transport, hotels, resorts and associated services.

Airports may be publicly or privately owned and operated but they all provide support services for aircraft arrivals, departures and transit operations. They provide navigational services, safety and security services, freight and passenger handling facilities, and a range of ground operations for storage, duty free operations, customs and immigration formalities, as well as vast retail and visitor handling infrastructure.

The main services offered by air transport operators include the following:

- (a) Scheduled passenger services;
- (b) Non-scheduled passenger services;
- (c) Non-scheduled private services;
- (d) Scheduled shared passenger/cargo services;
- (e) Non-scheduled shared passenger/cargo services;
- (f) Scheduled cargo services;
- (g) Non-scheduled cargo services;
- (h) General aviation services;
- (i) Air courier, messenger and postal services.

All of these services can be point-to-point or multi port pick up/drop off services, operated locally, regionally, nationally or internationally.

As compared to road, rail, water and maritime transport, air carriage is still expensive in terms of unit cost. For example, it is estimated that the cost per kilo is six times higher for air freight than it is for ocean container freight.³⁹ These costs include, primarily, capital equipment, interest and leasing costs, operational costs and fuel costs. Other significant costs include landing costs and airport charges, security costs and a range of costs related to regulatory and national/international legal agreements. However, the relatively high cost of air cargo is offset by speed to destination and the resulting reduced inventory and warehousing costs.

C. ECONOMIC FACTORS

While many airlines are privatized, the publicly owned end of the market (part or wholly owned by a Government) suffers from the same economic problems of all highly capital intensive and market sensitive businesses. While Governments justify their interventions and subsidies on the basis of market growth and potential, this exacerbates the overall industry's lack of profitability and increasing need for capital. As privatization gradually has an impact on all sectors and the air transport industry reaches some sort of equilibrium between supply and demand, and as low-cost suppliers and full service suppliers mature their businesses, the industry's tenuous grip on profitability should ease.

³⁹ John D. Kasarda, Stephen J. Appold and Makoto Mori Appold, "The impact of the air cargo industry on the global economy", International Air Cargo Association Air Cargo Forum, Calgary, Canada, 13 September 2006. Available at: <http://www.tiaca.org/2006/presentations/impact.doc>.

The issue of financing new and upgraded equipment will always be a key economic factor in airline operations. As airlines seek to upgrade their fleets to establish new routes, markets and services and to make their operations more economical with the latest aircraft models, capital is always an issue. In response to this, leasing from third party owners, short-term leasing and various other financial instruments are rapidly evolving as airlines seek to balance the needs of competition with cash flow and financial results.

Currency hedging for revenue protection is also a critical issue, as is hedging against fuel and oil price fluctuations.

Moreover, other activities, such as labour, maintenance and IT operations are becoming more global as the industry seeks cost reductions. The outsourcing of these functions is becoming quite common, especially at major hubs.

It is also worth noting that operating costs are complicated by the vast army of supply industries that support the global aviation industry. During the period 1992-1996, airlines earned an average of 6 per cent on capital employed, which was somewhat less than the costs of capital over that period. Over the same period other players in the airline supply chain earned the following return on capital: airports, 10 per cent; catering companies 10 per cent to 13 per cent; handling companies, 11 per cent to 14 per cent; aircraft leasing companies, 15 per cent; aircraft manufacturers, 16 per cent; and global distribution companies, more than 30 per cent.⁴⁰

Another important point is that ticket prices often do not reflect the operating costs incurred: why does it cost twice as much to fly from Europe to Australia than it does to fly in the reverse direction, and why can the ticket price for similar seats on the same flight vary by a factor of 10? Airlines seek to avoid flying with empty seats while maximizing the total net revenue by attracting customers from competing airlines and holding on to existing customers.⁴¹ Load factor, which is the number of seats filled relative to seats available, yield (revenue per ton-kilometre flown), seasonal—even daily—and local demand fluctuations, competition, promotions, frequent flyer points and many other factors complicate ticket pricing. Hence the popularity of the Internet for ticket purchases as it allows flyers some control in finding the cheapest fares.

Ticket and freight revenues must cover all of these expenses, and this poses a serious management control challenge. In addition, the industry acts as a collector for a range of taxes, fees and surcharges and as the Government's agent in the enforcement of rules and regulations, such as returning unauthorized passengers to their point of embarkation.

At this stage of the industry's economic development it can be expected that there will be many business failures, large and small. Moreover, there will be many new start-ups as new business models evolve, and as niche operators create businesses at both the high and low ends of the market.

D. REGULATION

National airlines are frequently owned and operated by their Governments, partly for historical reasons but just as often for political reasons and for national prestige. However, all airlines, whether State-owned, or partially or fully privatized, are subject to a great deal of Government regulation for safety, security, economic, political, competitive and nationalistic reasons. Hence, Governments control taxes and may control fuel surcharges, routes, pricing (to some extent), as well as some operational details and labour activity.

Airlines, however, are increasingly outgrowing State control as a result of deregulation and privatization. Domestic airline deregulation started in the United States in the late 1970s and in Australia in

⁴⁰ Rigas Doganis, *Flying Off Course: The Economics of International Airlines*, third edition, (New York, Routledge, 2002, as quoted in Wikipedia, "Airline". Available at: http://en.wikipedia.org/wiki/Scheduled_air_transport.

⁴¹ The Mathematical Association of America, Devlin's Angle, "The crazy math of airline ticket pricing", (September 2002). Available at: http://www.maa.org/devlin/devlin_09_02.html.

the early 1990s. The European Union started liberalizing air transport among member countries in 1987 and by 1997 established the freedom to provide cabotage, which is the right for an airline of one member State to operate a route within another.

There are some unintended consequences as a result of a fully deregulated market. Barriers to entry are lower, allowing rapid start up—and often rapid failure—of new airlines. This new entry-generated activity can lead to price wars, a diversification of service levels and standards, but with enhanced demand from new consumers, especially in the discount or sub-economy markets. Full service airlines often feel compelled to compete and match these cost-reduced services, which damage both ends of the market, but benefit the new consumer, unless failure occurs, in which case it becomes a political issue. Hence, deregulated markets are proving challenging for both established and new entrants. While they have seen failures and reduced profits/increased losses, there have also been many new customers.

Despite the fact that deregulation is and has been a challenge for many airlines it has generally been beneficial for consumers. In the United States it has been estimated that deregulated fares are 10 per cent to 185 per cent lower on average than they would have been under the previous regulatory regime,⁴² while in Europe between 1992 and 2003 the single market has seen intra-community routes increase by 40 per cent and the number of companies by 25 per cent, with LCCs representing more than a fifth of the capacity offered within the Union.⁴³

E. INTERNATIONAL REGULATORS AND AGENCIES

The key international agencies for the air transport industry are ICAO and IATA.

ICAO, which is an agency of the United Nations, is a global forum for civil aviation and “works to achieve its vision of safe, secure and sustainable development of civil aviation through cooperation amongst its member States”.⁴⁴ Therefore, ICAO works either through Ministries of transport or aviation, or other Ministries with similar responsibilities, and effectively through national airlines in many countries.

The Organization has the following near-to-mid term objectives:

- (a) Enhance global civil aviation safety;
- (b) Enhance global civil aviation security;
- (c) Minimize the adverse effect of global aviation on the environment;
- (d) Enhance the efficiency of aviation operations;
- (e) Maintain the continuity of aviation operations;
- (f) Strengthen law governing international civil aviation.⁴⁵

IATA is the global trade organization of the international air transport industry, and comprises some 260 airlines representing 94 per cent of international scheduled air traffic. The Association’s areas of activity include the following:⁴⁶

- (a) Airport operations;
- (b) Airport and air navigation services;
- (c) Cargo;

⁴² Alfred E. Kahn, “Airline deregulation”, *The Concise Encyclopedia of Economics*, The Library of Economics and Liberty. Available at: <http://www.econlib.org/LIBRARY/Enc/AirlineDeregulation.html>.

⁴³ Air Transport Portal of the European Union. Available at: http://ec.europa.eu/transport/air_portal/internal_market/index_en.htm.

⁴⁴ ICAO, “Strategic objectives of ICAO”. Available at: http://www.icao.int/icao/en/strategic_objectives.htm.

⁴⁵ Ibid.

⁴⁶ IATA, “Areas of activity”. Available at: <http://www1.iata.org/whatwedo/>.

- (d) Airline economics;
- (e) Environment;
- (f) Airline finance issues;
- (g) Passengers;
- (h) Policies and regulations;
- (i) Safety and security;
- (j) Simplifying business.

These two bodies address, at some level, virtually all issues of concern to airlines and their operations today. However, each country has its own regulators. Quite often several national regulators cover all aspects of an airline's operations. Similarly many specialized trade organizations represent airlines and their individual lines of business, often organized among national and regional lines.

F. AIR TRANSPORT IN THE ARAB WORLD

At present, the Arab aviation sector is considered the fastest growing in the world. As a result, Arab countries face many challenges concerned with forecast growth. Many are now engaged in building up their fleets and improving infrastructure by purchasing new aircraft and constructing new international terminals and airports. Construction and expansion of 21 airports in the Arab region at an estimated cost of at least \$32 billion has been committed to date. In 2005 alone, an extra 10 million passenger capacity was added, increasing the total capacity of the top 26 airports in the Arab region to 175 million. Once all airports projects are completed, the region's total airport capacity will amount to more than 400 million passengers per year.⁴⁷

The regional equivalent of ICAO and IATA are the Arab Civil Aviation Commission (ACAC),⁴⁸ which has headquarters in Rabat, and AACO,⁴⁹ with headquarters in Beirut.

According to the latest figures from AACO for 2006, the passenger traffic of Arab airlines grew by 14.1 per cent and cargo traffic by 8.2 per cent, while Arab airports handled some 134 million passengers. Further forecasts are bullish on both passenger and freight growth.⁵⁰

In order to safeguard and encourage sound growth of the sector, Arab Governments must rethink the way they regulate air transport across a whole range of issues, including open skies, landing slots, routes, ownership, security and safety, fuel pricing policies, passenger rights, airport construction, and access and integration of road, rail, marine and water transport to facilitate trade and transit.

In terms of air transport reform, Arab countries are still well behind industrialized countries, despite impressive growth in 2005 by a few Gulf-based carriers such as Qatar Airways, Emirates, Saudi Arabian Airlines and Etihad Airways. Many Arab aviation services are still controlled by State-owned airlines and airports. Government interference, outdated institutional structures and red tape are continuing impediments to achieving a competitive air transport industry in the Arab region that is capable of maintaining and growing its market share in the globalized air transport industry.

The European Union has followed the strategy of liberalizing, privatizing and integrating their aviation market for the past two decades to ensure its efficiency and survival. The Union deregulated licensing regimes, market access and tariffs. Preventing monopolistic tendencies, encouraging competition and

⁴⁷ Zawaya, Aviation Insight, (September 2005) "Major Airport projects".

⁴⁸ Arab Civil Aviation Commission (ACAC). Available at: <http://www.acac.org.ma/>.

⁴⁹ AACO. Available at: <http://www.aaco.org/>.

⁵⁰ AACO, "Arab air transport statistics 2006". Available at: <http://www.aaco.org>.

reducing State aid and subsidies have all been part of the policy framework. In addition, deregulated ground-handling operations and regulations on fair slot allocation have been enacted. The Union has also put into place a mechanism to standardize aviation regulations throughout the region, and as of 2002, the European Commission—which is the Government of the European Union—has had jurisdiction to establish international air services agreements with some States, something that had traditionally been governed by bilateral agreements between States.⁵¹

This set of best practices, which builds on European Union experience, can be of great assistance to Arab entities in that it articulates a clear vision that emphasizes the importance of doing the following:

- (a) Establishing a common regional transport policy;
- (b) Fostering regional liberalization;
- (c) Facilitating regulatory harmonization;
- (d) Achieving commercial integration through restructuring and privatizing national airlines;
- (e) Restructuring civil aviation authorities and establishing an independent Civil Aviation Authority (CAA) as sole regulator in each country and for each airport, establishing an independent and commercialized airport authority as sole operator;
- (f) Empowering ACAC to play the role of regional aviation regulator;
- (g) Encouraging ACAC and AACO to formulate a common aviation-airline action plan.

G. REGULATORY ISSUES FOR ARAB GOVERNMENTS

ACAC has been leading its members towards adopting an open sky policy as part of the Arab League's road map for the liberalization of air transport amongst Arab countries. However, given that the Commission is having difficulties implementing its recommendations through the existing decision-making process, amendments must be made to its charter, as well as to its internal rules and regulations. ACAC can then play a key role along with AACO, in defining the regional framework for a common Arab aviation policy.

A new school of thought has been gaining ground in the Arab world focusing on the importance of consolidating the forces of Arab airlines to compete with worldwide carriers. This has given birth to the above-mentioned Arabesk, the first pan-Arab airline alliance, which comprises EgyptAir, Gulf Air, Middle East Airlines, Royal Jordanian Airlines, Saudi Arabian Airlines and Yemen Airways (Yemenia).⁵² This alliance is aimed at reducing the duplication of capacity, linking networks and destinations, generating market demand through improved customer connectivity, maximizing capacity utilization through route sharing and rationalization, and achieving efficiency through cooperation.

Nevertheless, even if Arab countries join forces and airports increasingly open their skies, privatization is still not a priority for Arab Governments. For example, countries such as Kuwait and Lebanon have postponed their privatization plans. However, there are positive indicators that the Arab world's aviation sector is embracing reform. In Saudi Arabia, for instance, authorities are moving from a protectionist policy to a more liberal approach of allowing several private airlines. Most importantly,

⁵¹ Air Transport Portal of the European Commission. Available at: http://ec.europa.eu/transport/air_portal/international/index_en.htm.

⁵² AACO, press release, (10 February 2006). Available at: <http://www.aaco.org/pubnews.asp?id=942&lang=1>.

restructuring through privatization of non-core entities has started to take place. Saudi Arabian Airlines is preparing five important sectors for privatization (see above). EgyptAir, Royal Jordanian and Lebanon have been following this example. The private sector in Lebanon operates duty free areas, parking garages, catering services, as well as the ground-handling services at Beirut Rafic Hariri International Airport. In Jordan, only duty free and catering were handed over to the private sector. Encouraging the participation of the private sector in the aviation business is a prerequisite for achieving tangible benefits to the industry.

The extent of private sector participation in airport infrastructure (operation or ownership) varies tremendously in the Arab region. In many countries, for example, Algeria, Jordan, Lebanon, Morocco and the Syrian Arab Republic, the operation and ownership of airports are the sole prerogatives of the Government. In others, there are an increasing number of BOT projects in the pipeline, mainly in Egypt where the Government has invited the private sector to participate in nine airport projects, and also in Cyprus, Tunisia and Turkey.

The open sky policy is gaining more ground in comparison to traditional bilateral air service agreements (ASA). Lebanon adopted such a policy in 2001 including the fifth freedom right without reciprocity. Both Bahrain and Qatar have open skies policies while Jordan contracted an open skies agreement with the United States in 1996, as did Morocco in 2001. In 2006, Morocco was the first non-European country to sign a complete aviation agreement, with the European Community acting as a regional group. In addition to removing all capacity restrictions, this agreement comprises a number of fundamental market regulation objectives such as enhancing flight safety and security, harmonizing rules related to competition, State-aid and consumer protection, improving environmental protection and streamlining administrative procedures. The agreement also allows cross-investment between European and Moroccan companies.⁵³ Most Arab countries, however, still use traditional bilateral agreements.

Safety and efficiency of air transport operations is dependent upon air traffic management (ATM). ATM is directly linked to the status of infrastructure, equipment, techniques and procedures. With the exception of the Syrian Arab Republic, where ATM is relatively poor in terms of infrastructure and equipments, most Arab countries are well advanced. The Global Navigation Satellite System (GNSS) is a promising technology for the transport aviation sector. However, it seems that few Arab countries have yet to express an interest in the adoption of the European version of GNSS, Galileo. While this applies to Lebanon, Jordan and the Syrian Arab Republic, Egypt and Tunisia are competing to host the Galileo Cooperation Office.

The status of aviation security and safety varies considerably among Arab countries. While some countries have already been audited and certified by ICAO, others have just initiated the process. Furthermore, some Arab countries, such as Tunisia,⁵⁴ already apply European Joint Aviation Authorities safety standards and aspire to become members to benefit from technical assistance and other support.⁵⁵

Europe Middle East Air Traffic Management Coordination (EMAC) comprises five States, namely, Cyprus, Egypt, Jordan, Lebanon and Syrian Arab Republic. It serves as a platform to facilitate regional cooperation in ATM and as the interface for the implementation of European programmes. Galileo, the European programme for global navigation services, is one such programme. Unfortunately, EMAC is lacking adequate funds to sustain its activities and the intervention of the European Union in supporting this platform to ensure suitable ATM integration is vital.

⁵³ European Union, press release, (12 December 2006).

⁵⁴ EuroMed Transport Project – Main Contract, *Diagnostic Study Part II: Country Issues Module 11 – Tunisia*, December 2004. Available at: http://www.euromedtransport.org/fileadmin/download/maincontract/diagnostic/part2_tunisia_en.pdf.

⁵⁵ European Joint Aviation Authorities. Available at: <http://www.jaa.nl/introduction/introduction.html>.

Environmental protection remains a critical issue in many Arab countries. While some Governments are well advanced in adopting European Union environmental regulations, these are very loosely regulated in many others, such as Lebanon and the Syrian Arab Republic. There is a clear lack of Arab regulations pertaining to aircraft noise and emissions, storage and management of hazardous wastes, disposal of used oil, filters, batteries and many categories of dangerous goods.

In conclusion, liberalization within the European Union best practice framework should be a priority for the Arab air transport industry, especially given that the Union is the main partner for most Arab countries. A total of 80 per cent of Tunisia's international traffic is with the Union. In addition, 60 per cent of scheduled and 90 per cent of non-scheduled, international flights to and from Morocco are with the European Union. The gradual accession of the Arab countries to the European Common Aviation Area is the best strategy towards the creation of a common air transport space across the Euro-Mediterranean region. This would also contribute to the development of security, safety, efficiency, cost effectiveness and to the environmental friendliness of the air transport industry in the Arab region.

III. AIR TRANSPORT LIBERALIZATION AND OPEN SKIES

A. AIR TRANSPORT LIBERALIZATION

States regard their national carriers—and transport rights—as strategic and national resources, as part of their sovereignty, and as part of their de facto and de jure control over all land, sea and air space within defined territorial boundaries. A large number of airlines are still State-owned, or State-supported, and consequently Governments have resorted to imposing various degrees of protectionism to defend their airlines.

The term ‘open skies’ refers to a bilateral or multilateral Air Transport Agreement, which liberalizes the rules for international aviation markets and minimizes (or eliminates) Government intervention: the provisions apply to passenger, cargo and combination air transportation on scheduled and charter services.

Open skies agreements allow air carriers designated by signatories to make decisions on routes, capacity and pricing, and fully liberalizes conditions for charters and other aviation activities, including permitting unrestricted code sharing rights, allowing air carriers unlimited access to points in the signatory countries and allowing unlimited access to intermediate and beyond points. Such agreements provide maximum operational flexibility for airline alliance partners.

An open skies environment promotes a system based on competition, where air transport is run like any other business, and which facilitates the expansion of the air transport industry, eliminates the abuse of a dominant position, offers the public better services at lower prices, and eventually creates new economical opportunities and helps to achieve economical growth—provided that the highest degree of aviation safety and security remains in place, and that possible abuses and market instabilities, such as capacity dumping and cutthroat competition, are avoided.

The Convention on International Civil Aviation of 1944 (also known as the Chicago Convention) was signed in Chicago to serve as a framework for the development of civil air transport. It introduced freedoms of the air for States that adopted the Convention, allowing them to enter into bilateral treaties capable of granting rights or privileges for scheduled international air services. The Chicago Convention gave rise to the bilateral system we have today, with negotiations conducted on a one-on-one basis with each trading partner.

1. *Freedoms of the air*

These can be defined as follows:

(a) *First freedom*: This is the right to fly and carry traffic over the territory of another partner to the agreement, without landing;

(b) *Second freedom*: This is the right to land in those countries for technical reasons, such as refuelling, without boarding or deplaning passengers;

(c) *Third freedom*: This is the right of an airline from one country to land in a different country and deplane passengers coming from the airline’s own country;

(d) *Fourth freedom*: This is the right of an airline from one country to land in a different country and board passengers travelling to the airline’s own country;

(e) *Fifth freedom – or beyond rights*: This is the right of an airline from one country to land in a second country, to then pick up passengers and fly on to a third country where the passengers then deplane;

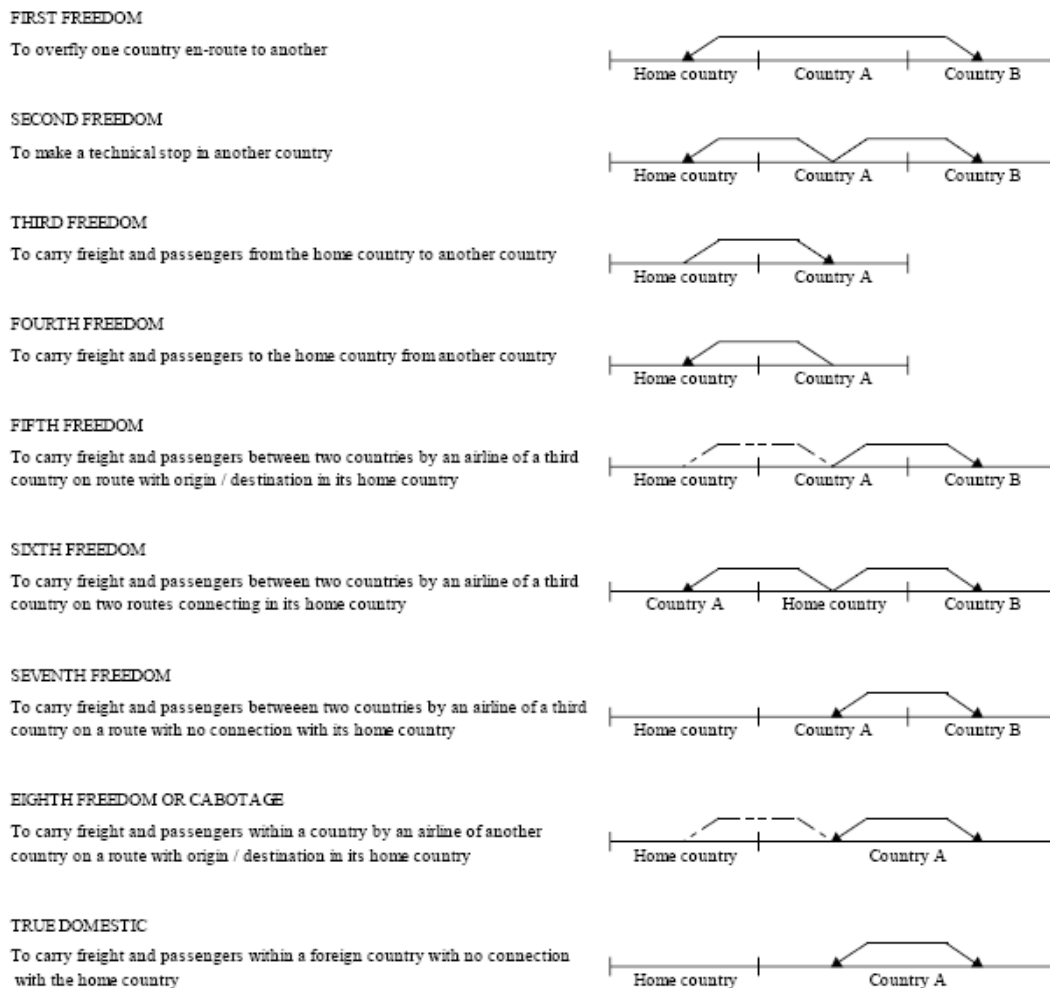
(f) *Sixth freedom*: This is the right to carry traffic from one State through the home country to a third State;

(g) *Seventh freedom*: This is the right to carry traffic from one State to another State without going through the home country;

(h) *Eighth freedom or cabotage*: This is the carriage of air traffic that originates and terminates within the boundaries of a given country by an air carrier of another country.

Figure II below illustrates air freedom rights in air services' agreements.

Figure II. Air freedom rights in air services agreements



Source: Organisation for Economic Co-operation and Development, *Workshop on Regulatory Reform in International Air Cargo Transportation*, Paris, 5-6 July 1999, Background Paper. Available at: <http://www.oecd.org/dataoecd/1/28/1821288.pdf>.

2. Open skies provisions

Open skies agreements set liberal ground rules for international aviation markets. Provisions apply to passenger, all-cargo and combination air transportation. They encompass both scheduled and charter services. Key provisions include the following:

- (a) Free market competition;
- (b) Pricing determined by market forces;
- (c) Fair and equal opportunity to compete;
- (d) Cooperative marketing arrangements;
- (e) Provisions for dispute settlement and consultation;
- (f) Liberal charter arrangements;
- (g) Safety and security;
- (h) Optional seventh freedom all-cargo rights.

B. HISTORICAL OVERVIEW AND CURRENT SITUATION: OPEN SKIES

The past two decades have seen significant and beneficial changes in airline regulation. The United States began pursuing open skies agreements in 1979, and by 1982, it had signed 23 bilateral air service agreements worldwide, mainly with smaller nations. That was followed in the 1990s by agreements with some individual European States. The creation of a single European market for air transport services between 1987 and 1997 contributed to a surge in air transport within Europe. It is expected that the Arab market, which ranks among the fastest growing in the world, will benefit enormously from easing restrictions on air transport.

1. *The United States and the world*

The United States, like other States, adopted the bilateral model with a strictly balanced trade of rights with its partners.

In 1978, the liberalization of the domestic air transport market in the United States removed barriers to market entry. By eliminating protected domestic markets, liberalization in the United States also prompted airlines to seek new opportunities for growth in international markets. This involved route rights, as well as charter operating rights and other commercial opportunities concerning pricing freedom. In 1995, the United States conducted a broad review of its aviation goals and strategies, and by the end of 1995, it concluded nine open skies agreements with European countries.

The United States continues to seek to conclude open skies agreements and its policy revolves around the following:

(a) Direct and one-to-one contact with each country based on the particulars of each country, allowing code-sharing, including third party code-sharing: to date, the United States has concluded open skies agreement with more than 76 countries around the world, including agreements with seven Arab countries, namely, Bahrain, Jordan, Kuwait, Morocco, Oman, Qatar and United Arab Emirates;

(b) Multilateral agreements to liberalize international air transport: the first such agreement, the Multilateral Agreement on the Liberalization of International Air Transportation (MALIAT), entered into force on 21 December 2001, and includes Brunei Darussalam, Chile, New Zealand, Samoa, Singapore and Tonga, as well as the United States.⁵⁶ The Cook Islands joined the Convention recently, on 23 July 2006. The agreement includes open traffic rights, including the seventh freedom and is aimed at creating new investment opportunities for airlines, and launching new airlines in concerned markets, particularly through the elimination of many restrictions regarding foreign ownership stipulated in the bilateral agreements;

(c) Euro-American talks to liberalize skies across the Atlantic: the air transport industry is awaiting the wrapping up of the biggest open skies accord in the history of the air transport industry between the European Union and the United States. This agreement will draw on a market of 750 million inhabitants and

⁵⁶ Multilateral Agreement on the Liberalization of International Air Transportation. Available at: <http://www.maliat.govt.nz/>.

26 States to become the largest liberalized air transport market in the world. Negotiations between Europe and the United States began in June 2003 with a view to reaching an agreement on the liberalization of air transport across the Atlantic, and lasted until mid-2004. Following a lull, negotiations between the European Union and the United States were revived in October 2005. At that time, the United States rejected the request of the European Union to award the right of cabotage within the United States to European airlines. Other issues involve American laws of airline ownership and control that are partly designed to protect American carriers but also to satisfy the United States military, which maintains the Civil Reserve Air Fleet by drawing on commercial fleets for airlift during national emergencies. The airlines, as a quid pro quo, benefit with priority over the carriage of military and Government personnel. Other issues include the tax free position of European Union-United States aviation and the harmonization of antitrust policies to protect against predatory behaviour.

The parties agreed on the principle of the liberalization of airspace between them, and began negotiations on a draft agreement. The United States was expected to review foreign ownership laws in August 2006 in order to announce the results in time for the meeting of the Ministers of the European Union, which was scheduled for October 2006. A vote was expected at that meeting on the proposal of the agreement on the liberalization of airspace across the Atlantic.

Talks between the Europeans and Americans were aimed at accomplishing a final agreement by the end of 2006. However, the Americans decided to postpone the review of restrictions on foreign ownership. Still, both parties are hopeful that they will be able to reach an early final agreement, and roll it out in the summer of 2007 as previously scheduled.

It is also worth noting that on 5 December 2006, the United States Department of Transportation withdrew a proposal regarding the International Investment Rule and expressed its commitment to working on an open skies agreement. This proposal would have changed rules governing international investment in United States airlines. The withdrawal came after the Department reviewed a multitude of public comments, including those from the United States Congress.

The original proposal, first issued by the Department in November 2005, and later amended in May 2006, would have allowed international investors more input into the marketing, routing and fleet structures of United States airlines while at the same time retaining current domestic ownership and labour protection.

2. Regulatory developments within the European Union

In November 2002, the European Court of Justice ruled against national ownership in existing bilateral agreements between any country in the European Union and a third country.⁵⁷ Consequently, the European Union is seeking an amendment of bilateral agreements between the States of the European Union and other countries, including Arab States. Despite the fact that the basis for this request is legal; the implications are undoubtedly economic.

Arab-European talks

AACO and ACAC initiated several rounds of discussions with the European Commission on bilateral agreements between the European Union and Arab States. Accordingly, ACAC drafted the collective Arab mechanism for negotiations with regional or subregional blocs to negotiate collectively with their European counterpart. Thirteen Arab States signed the agreement, four countries have ratified it and two are currently in the process of ratifying it. This agreement came into effect on 15 June 2006.

⁵⁷ Air Transport Portal of the European Commission. Available at: http://ec.europa.eu/transport/air_portal/international/index_en.htm.

Moreover, AACO and ACAC have jointly entered into discussions with the European Commission and have drafted an agenda that has the following aims:

- (i) This phase must become part of a dialogue that is aimed at reaching a Euro-Arab aviation agreement according to the authorization of Arab Ministers of transport and civil aviation on the establishment of an Arab mechanism to negotiate with regional and subregional blocs;
- (ii) Operations must be maintained at current levels without a change in operators, number of flights, or offered capacity except through negotiations between Arab and European countries on a bilateral level, or under the Euro-Arab aviation agreement;
- (iii) Operations must be disallowed under the European airline ownership clause from European countries that do not have a bilateral air transport agreement with the Arab country concerned;
- (iv) Arab countries must be allowed to appoint other Arab carriers to operate on European routes on a code sharing basis agreed with the Arab national carriers.

The European Commission agreed to deal with the Arab party as a single entity based on the jurisdiction granted by Arab Ministers of transport and civil aviation. The two parties agreed to maintain operations at their current levels, and not to introduce changes except through negotiations between Arab and European countries at the bilateral level or under the Euro-Arab aviation agreement.

The European Commission made it clear that any European airline that begins operations from a European point to any Arab country across a European country that has an agreement with the Arab countries is bound by the existing bilateral agreement between the two States.

The European Commission announced that as it does not have a mandate for code sharing agreements under its Council of Ministers it will introduce this issue during horizontal negotiations.

One of the most important outcomes of the joint discussions was the European Commission's pledge to apply the results of Euro-Arab negotiations automatically to any bilateral agreement between Arab authorities and the European Commission if the Arab side so wishes: in other words, to incorporate the results of the Euro-Arab negotiations within bilateral agreements.

During its nineteenth session, which was held in Cairo in 2006, the Council of Arab Transport Ministers decided, at the request of AACO, to call on Arab States to support the current negotiations with the European Commission and to adhere to the conditions of the agenda above if they hold bilateral negotiations with European countries.

C. ARAB AIR TRANSPORT: REGULATORY ENVIRONMENT

A gradual change has been taking place in the Arab air transport environment towards increased liberalization of market access. National agendas for Arab countries still determine Governments' policies on traffic rights. However, this goes hand in hand with initiatives from ACAC, particularly a programme to liberalize air transport gradually, on the basis of bilateral agreements, and at a later stage, through multilateral agreements.

ACAC is pressing for the gradual liberalization of air transport between Arab States, and aims to liberalize the fifth freedom by 2007 on bilateral basis.

In addition, ACAC adopted an agreement at a ministerial level for a multilateral Arab accord to liberalize air transport: 12 Arab States have signed the accord and three ratified it, while five are in the process of ratification. This accord needs the ratification of five States to come into effect. It comprises

crucial protocols on monopoly, capacity dumping, and governmental subsidy. Those protocols are an integral part of the accord because the actual implementation depends on the presence of laws that regulate doing business according to these protocols.

This agreement includes clauses on the following issues, including the call to liberalize the movement of goods and passengers between Arab States, scope of application and general rules:

- (a) Awarding air traffic rights;
- (b) Implementing air traffic rights;
- (c) Operating licenses and permits;
- (d) Commercial requirements of airlines and cooperation;
- (e) Government subsidies to airlines;
- (f) Taxes and charges;
- (g) Flight safety and civil aviation security;
- (h) Protecting the environment and consumer interests;
- (i) Consultations on the interpretation and implementation of the agreement and resolving disputes;
- (j) Relationship with regional blocks and organizations.

It remains that the national policy of each Arab State is the determinant of the extent of liberalization in that State and other related issues. In view of this, airspace liberalization varies from one State to another. Such States as Bahrain, Lebanon, Oman and the United Arab Emirates have adopted open skies policies. Seventeen open skies agreements have been signed between ACAC States namely: Bahrain, Egypt, Jordan, Lebanon, Morocco, Oman, Qatar, Syrian Arab Republic, Saudi Arabia and United Arab Emirates. In other cases, some Arab States have implemented liberalization with regard to third and fourth freedoms. At the same time, many major Arab States are in the early stages of liberalization.

AACO is pressing on with its coordination work with ACAC, representing Arab civil aviation authorities, and Arab airlines, stressing the importance of developing an Arab regulatory environment towards more liberalization of market access, coupled with the need to do the following:

- (a) Reduce restrictions on movement of people and goods, in preparation for lifting them completely between conceding States;
- (b) Ensure equal economic opportunities in operations, whereby States ensure that operators within their markets operate within the framework of the economic conditions of national airlines, safeguarding long-term economic competition;
- (c) Draft laws to protect consumers and airlines from uneconomic dumping of capacity and predatory prices in a manner that would drive out market competitors;
- (d) Reconsider laws on national ownership and control without jeopardizing the strategic interests of concerned States, and embark on privatization programmes in countries that prioritize the importance of a bigger role for the private sector in the aviation business.

1. Liberalization and national agendas

No doubt, the issues of air transport liberalization and market access continue to be among the greatest challenges facing airlines around the world, especially in the Arab region. The way in which stakeholders deal with this issue will serve as the foundation for how airlines plan their future, the role they want to play, or how they identify their competitive advantage against others. Overall, Government protection of airlines through limiting capacity, setting prices and defining flight frequencies is coming to an end around the world, including in the Arab region. This issue, however, remains a matter of national policy and is an integral part of the economic agenda of each State.

2. Liberalization process in Arab world

ACAC and AACO agreed in Rabat in 1999 that ACAC would evaluate the application of bilateral open skies agreements in view of reaching a multilateral agreement by the end of 2003. ACAC prepared regional arrangements for gradual liberalization in four stages. ACAC liberalization guidelines recommended a number of phases, beginning with the liberalization of irregular flights, and culminating in the complete liberalization of regular air transport among Arab States, as follows:

(a) Phase one: This started in November 2000 and pertains to deregulating cargo and non-scheduled passenger operations;

(b) Phase two: This started in March 2003 and pertains to deregulating the third and fourth freedom rights for passenger traffic by allocating capacity 60 per cent and 40 per cent between the parties;

(c) Phase three: This started in March 2005 and involves unrestricted deregulation of the third and fourth freedom rights for passenger traffic;

(d) Phase four: This started in March 2007 and pertains to deregulating fifth freedom rights.

A legal mechanism was established based on a bilateral regime for the signing of a Memorandum of Understanding between any two States wishing to pursue liberalization in respect of the first three phases of the programme. To cover the fourth phase, a regional agreement, comprising all components and controls of the liberalization process, has been developed.

The third phase has already been launched in relation to the liberalization of the third and fourth freedoms for scheduled air transport and moving from the 40 per cent to 60 per cent capacity split between the parties of the bilateral agreement towards lifting all imposed restrictions in the fourth phase, while asserting the principle of equal opportunities and non-discrimination.

It is vital that any decision regarding open skies is carried out in line with regulations and laws that guarantee equal opportunities on the economic level; if not, there could be undesirable upshots. The procedures and regulations that need to be put in place include prevention of capacity dumping and a shift of governmental support to airlines from operational subsidies to capitalization input.

3. Regulated Government intervention

In principle, AACO is in favour of regulating Government intervention, including financial support as a form of capitalization, but not financial support at the operational level. The stand taken by AACO is that in the event that the issue of Government support is brought to the negotiating table, it must include all forms of direct or indirect support in order to consider all the issues that lead to unbalanced competitive opportunities. Airline support must be balanced and at the same level for all airlines in the world, including those protected under bankruptcy laws.

4. Progressive liberalization and multilateral agreement

At the Arab level, AACO believes that progressive liberalization and a multilateral agreement for the liberalization of air transport are essential steps towards creating a single Arab aviation market, thereby paving the way for the development and growth of the market and raising the ratio of passengers to population from 1:3, as is currently the case, to a ratio of 1:1 as is the case in Europe and the United States.

5. *Easing visa restrictions*

AACO has always called for the easing of visa restrictions between Arab countries as a step forward for the promotion of travel. In this context, the Organization views the efforts of some Arab countries positively with regard to cancelling some visa requirements, or to moving towards issuing electronic visas, which are characterized by speedy delivery. These initiatives have significantly stimulated the market. It is useful in this regard to invite Governments to consider the adoption of a uniform visa between all, or some of the Arab countries, along the lines of the European Schengen visa, which would greatly facilitate access to the Arab tourism market.

6. *Taxes and charges*

Having called on Arab Governments to strengthen the growing inter-Arab tourism market and improve the attractiveness of tourism in the Arab region, AACO believes it is essential that Governments adopt a taxation and charges policy on air transport that is in line with the concept of the promotion of tourism. It is unreasonable to ask the air transport sector to increase competition when taxes and charges on air transport and related services are the highest in the world. Despite the fact that the problem is global in nature, it is crucial that Governments in the Arab world revisit these taxes and charges, especially in the short flight sector where the value of the taxes and duties may be as high as the price of the ticket.

D. CONCLUSION

AACO believes that air space liberalization and the liberalization of market access is a must. Developed countries have adopted policies to reform and restructure their national airlines through recapitalization and to enact laws that guarantee equal opportunities, consumer protection, and prevent capacity dumping, predatory pricing, and government operational subsidies. At that point, they open up the market for competition while still playing the role of regulator in a manner that thwarts monopoly, guarantees consumer protection, while at the same time, Governments shoulder social and strategic services costs that otherwise would be the responsibility of the airlines.

IV. AIR TRANSPORT COMMERCIALIZATION IN THE ARAB WORLD

A. INTRODUCTION

The evolution of the regulatory framework will, to a great extent, affect the trend towards privatization in the air transport industry in the years to come. Deregulation and globalization will continue as the leading drivers for Governments to transfer State-owned airlines to the private sector.

Deregulation means freeing certain sectors from regulations, both with regard to, among other things, the provision of services and charges levied, and conditions of work and employment. Privatization refers to the process of transferring certain potentially high profit making State-owned enterprises—such as airlines—to the private sector.

The privatization process was, in part, initiated in response to immediate economic demands, such as the need to attract new capital to the air transport industry. A primary objective of privatization is to promote economic efficiency. Ideally, economic efficiency is achieved by fostering well-functioning markets and competition.

Airline privatization is now a global trend, and is taking different forms in different parts of the world. A systematic and well-planned approach, with clearly identified objectives, followed by a well-implemented programme, is essential for a successful privatization. Each ownership transaction must be customized and tailor-made to suit each country and the particular set of circumstances pertaining to individual airlines.

Some Arab Governments are keen to promote privatization at the national level, including air transport. However, only few have taken serious steps in that direction, and even fewer have implemented those steps in the aviation sector.

Arab airlines facing privatization are likely to encounter many challenges at different levels and must address financial, political, economic, cultural and governance issues. However these challenges, if prioritized and carefully identified throughout the process by the airline in question, with the support of a Government, can be overcome and the airline should be able to complete its privatization programme successfully, and thus achieve its objective.

B. CHANGES IN AIR TRANSPORT

Air transport is changing rapidly; this creates many challenges at different levels, and these affect airlines directly in terms of financial difficulties and new competitive pressures. International, regional and national industry and governmental bodies, such as ICAO and IATA, and the United States and the European Union, are promoting a more liberal air transport environment, with the latter negotiating a new agreement for open skies.

Given that it is the primary way to achieve greater efficiency in the air transport industry many Governments have started the process of airline privatization.

C. DEREGULATION OF AIR TRANSPORT: HISTORIC OVERVIEW

Airlines are facing rapid changes in the global air transport environment. State-owned carriers are not in the best position to participate in the dynamic global consolidation movement. Therefore, countries determined to foster domestic competition, spur productivity gains and encourage new private entrants are increasingly opting for the liberalization of air transport. In this environment, State-owned carriers operate under a marked competitive disadvantage.

The transfer of State-owned airlines to the private sector has spread across the globe. This trend followed a long period that was characterized by airline nationalization dating back to the Second World War and which continued after the war ended.

The deregulation of the American airline industry in the late 1970s can be seen as a primary cause of this change. Shortly afterwards the United Kingdom of Great Britain and Northern Ireland set out on its first large-scale privatization programme, which was to encompass all State-owned enterprises in the country. Many other Governments, including those of Argentina, Canada, Chile, France, Italy, Germany, New Zealand and Spain, replicated this by converting non-competitive Government-owned companies into competitive private enterprises.

Air transport is a deeply paradoxical industry. By its nature and in its daily operations, it is cosmopolitan and dedicated to making mobility easier. It is also one of the most tightly regulated industries, and one in which State ownership is still pervasive.

The above-mentioned 1944 Chicago Convention established general rules for the allocation of traffic rights based on existing national regulations following the nationality principle. It gave States the sole right to authorize air transport services across borders, through bilaterally negotiated ASAs, specifying routes, number of carriers, and capacity to be offered. This regime was updated at the ICAO Worldwide Air Transport Conference: Challenges and Opportunities of Liberalization, which was held in Montreal from 24 to 29 March 2003, thereby opening the door for a more liberal air transport environment with a newly suggested template for multilateral and bilateral agreements, the Template for Air Services Agreements (TASA). TASA is not binding, but a choice for those States willing to use it.

1. *Multinational airlines*

The Chicago Convention assumed that Governments controlled their airlines, but it did not assume that airlines have only one nationality, or that they are State-owned. However, in most bilateral air service agreements Governments have inserted a “substantial ownership and effective control” clause, which added to other restrictions on foreign ownership of aircraft and airlines, is a major obstacle to the creation of any multinational enterprise in air transport that involves a cross-border purchase of controlling equity. The existence of that restriction explains the development of international alliances and code sharing agreements between airlines. Now, however, the European Commission has challenged the status quo on the basis of a European Court of Justice ruling and will be negotiating on behalf of its member States with third countries—including Arab States.

It must be noted that multinational enterprises do exist in commercial aviation, but in the three cases that are usually cited, Air Afrique, Gulf Air and SAS, States that own these carriers have had to include provisions in special Memoranda of Understanding with other parties to exempt these carriers from clauses pertaining to substantial ownership and effective control to avoid the clause on the termination of operating authorizations contained in bilateral agreements.⁵⁸

2. *Globalization and alliances*

Globalization has been the prevailing trend since the 1990s. In the aviation industry, this means that airlines are seeking to offer and operate their services in as many parts of the world as possible. To realize that objective, they must have a global presence, and that can only be achieved by setting up global alliances, and by acquiring foreign airlines that serve markets in other parts of the world.

⁵⁸ “Substantial ownership and effective control”, a paper presented by ACAC at the ICAO Worldwide Air Transport Conference: Challenges and Opportunities of Liberalization, Montreal, 24-29 March 2003. Available at: http://www.icao.int/icao/en/atb/atconf5/docs/ATConf5_wp065_en.pdf.

Alliances, namely, transatlantic alliances, have developed because European Union airlines have a large stake in transatlantic routes and they want access to the domestic market of the United States but face the obstacles of United States ownership and control rules whereby United States citizens must hold a majority stake and foreigners cannot own more than 25 per cent of voting shares. However, partners in an alliance are not focused on takeovers, or even equity participation. Member airlines remain independent entities from air policy, economic, and legal points of view. Each partner retains its traffic rights and its 'legal personality' under national and international law.

Acquiring a foreign airline can often be an attractive proposition in a time of privatization of the airline industry worldwide, especially considering the "multi-nationalization" of other service sectors, such as banking and insurance, as well as the General Agreement on Trade in Services, which serves as a framework for a freer flow of services. However, the nationality provisions in bilateral agreements prevent airlines from utilizing foreign acquisitions to become global carriers.

D. PROGRESSIVE PRIVATIZATION IN THE AIRLINE INDUSTRY

Several countries have legislation or agreements that are intended to prevent 'denationalization' of their carriers. Privatization, however, has again raised the issue that airlines that were once State-owned, and therefore invulnerable to takeovers, become vulnerable once their shares are publicly traded.

In the deregulated environment of the United States domestic market, the concept of flag carriers is considered to be outdated. The demise of the former United States flag carrier, PAN American World Airways has symbolized this change. In the United States there are major and smaller carriers, but all American carriers are private airlines with no Government ownership stake.

Australia's flag carrier, Qantas Airways, was privatized in 1992; New Zealand's flag carrier, Air New Zealand was privatized in 1989, with the Government holding on to a major share. However, Air New Zealand faced financial problems owing to the failure of its Australian subsidiary, Ansett, and was re-nationalized in 2001.

In terms of the European Community, three flag carriers are completely privatized, namely, British Airways, Iberia and Lufthansa. Other European carriers vary from having a Government minority stake to having a 100 per cent Government stake.

There are similar patterns in other parts of the world. In Asia, some carriers are entirely Government-owned, for example, Air India, Garuda and IranAir, and others are fully privatized, such as Japan Airlines, Cathay Pacific, and Korean Air. Others in which the Government has a majority stake include China Southern Airlines, Pakistan International Airlines, and Singapore Airlines. The Government of the Philippines has a minority stake in Philippine Airlines.

Privatization is a growing trend in Latin America, where Governments have substantially decreased their stakes in national carriers, for example, LanChile, Aerolineas Argentinas and Lloyd Aereo Boliviano.

Most of the flag carriers in Africa are fully, or more often 50 per cent Government-owned, with the exception of Kenya Airways, in which the Government has a 23 per cent stake. Plans are under way for privatizing other African airlines.

E. AIRLINE PRIVATIZATION IN THE ARAB WORLD

Arab airlines are those from the region covering North Africa, the Middle East and the Gulf. They are mostly Government-owned and amount to 20 carriers.

TABLE 7. ARAB AIRLINES: RESTRUCTURING AND OWNERSHIP

Airline	Government commitment and process progress	Government share (Percentage)
Air Arabia		
EgyptAir	Ongoing restructuring	100
Jordan Aviation		
Saudi Arabian Airlines	Ongoing restructuring	100
Middle East Airlines	Restructuring programme	99
Iraqi Airways	Not yet fully functioning	100
Syrian Arab Airlines	No plans	100
Sudan Airways	No plans	100
Tunisair	Talks	74.42 (Air France and local entities account for remaining shares)
Gulf Air	No plans	100
Trans Mediterranean Airways		Private ownership
Air Algerie	No plans	100
Kuwait Airways	Talks	100
Royal Air Maroc	Talks	92.7 (Air France accounts for remaining share)
Yemen Airways	No plans	51 (Saudi Arabia accounts for remaining share)
Royal Jordanian Airlines	Final stages	100
Libyan Arab Airlines	No plans	100
Emirates	No plans	100
Qatar Airways	No plans	100
Oman Air	No plans	35
Palestinian Airlines	No plans	100
Afriqiyah Airways	Declaration of intentions	100

Source: Compiled by ESCWA, from various sources.

F. PRIVATIZATION IN THE AIRLINE INDUSTRY: REGULATORY ENVIRONMENT

The regulatory environment in the Arab region is conservative and operations are governed by bilateral agreements. This restrictive environment encourages a slow pace of airline privatization, as airlines are less threatened by competition.

The position of Arab Governments and the strategy of each State towards the development of the economic area vis-à-vis privatization have had a major effect on how the process of privatization is addressed in each country and how different organizations and Government bodies are dealing with this matter.

In general, some Arab Governments are, in theory, trying to introduce the concept of privatization and are preparing the legal and financial environment for such a change. Others are implementing this theory in practical terms as they believe that this is the way forward for a healthier economy.

The way forward is to restructure Arab airlines, reassess their processes so that the airlines regain profitability and stability, and become more efficient. There is a need for the restructuring of national carriers, especially given that Governments are suffering from huge debts and need profitable airlines. The higher efficiency that would result from the restructuring process would allow airlines to increase their unit revenue and decrease their unit cost.

Arab airlines must take into account the fact that liberalization in the air transport sector will change the rules regarding competition, and those airlines not ready to face and fight competition in an economical

and efficient way must start their restructuring plan at the right moment, as this is the only way to secure a good future position in their home markets.

G. AIRPORT OWNERSHIP

Airlines and airports have long been considered vital national assets. However, a focus on airport operations and security came at the expense of commercial aspects. At best, Governments assigned those aspects to special units. Airports were beyond the regulatory economic and legal plans of Governments.

The ownership and management of airports is undergoing an exceptional market shift towards increased performance and higher competitiveness. This has resulted in the need for larger investment programmes to meet the forecast increase in demand for air transport, particularly in regions that are undergoing rapid growth, such as Asia, India and the Arab region.

Many airports around the world are still run under the traditional model of Government ownership and management, and suffer from poor performance and lack of funding. Then again, there has been some remarkable progress—though gradual—in viewing airports as profit-making units instead of as mere infrastructure installations.

The need for sizeable investments challenges the ability of Governments to provide much-needed capital to develop airports, and affects other related sectors that are positively influenced by airport developments, namely, the tourism and travel industry, and the business sector as a whole. In contrast, and given strong growth in air passenger traffic in past years, the private sector views the airport sector favourably, and is optimistic about further growth in passenger traffic in the future, all of which will create economies of scale and improve airport profit margins.

To date, more than 20 countries around the world have completed the privatization, or the leasing, of their airports. Moreover, ways of dealing with airport ownership vary from one region to another. In the United States, for example, commercial airports are owned by local or regional authorities rather than by a centralized authority. Airports also enjoy close relations with airlines. In Europe, the preferred privatization model has focused on the selling of airport shares. In Asia, several airports are expected to be privatized over the coming years, particularly in India and China, where the central reform process in the airport sector has attracted financing from capital markets and strategic investors.

In Latin America, the most common approach to airport privatization is through agreements that allow Governments to maintain ownership of airport assets, while the private sector carries out developments. These types of dealings have not attracted the necessary investments.

The African airport sector suffers from weak management, safety and financing. The sector requires a complete revamp to bring it up to par with international standards, and requires sizeable investments to utilize fully the severely underdeveloped air transport sector in the African continent.

The Arab region—the Middle East in particular—has not seen any movement towards airport privatization. However, current and projected future growth patterns for Arab airports are encouraging more and more Arab States to invest heavily in the development and expansion of airports and related infrastructure, especially in Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Tunisia, United Arab Emirates and Yemen. At the same time, it is worth noting that Arab airports do not have to deal with such challenges as capacity or landing charges.

Despite the potential benefits of airport privatization, Governments must approach the matter prudently with the aim of protecting public interests. This can be achieved through a comprehensive regulatory airport management framework that takes into account such issues as fees, safety, quality of service, and the planning of public and future needs.

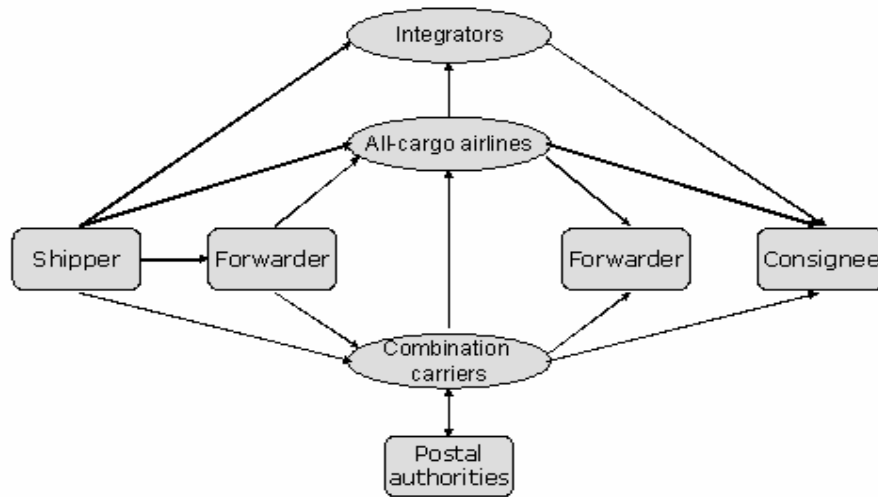
V. AIR CARGO, TRANSPORT FACILITATION AND SECURITY ISSUES

A. CHARACTERISTICS OF THE AIR CARGO INDUSTRY

This chapter looks at air cargo industry characteristics, traffic outlook, cargo facilitation and security issues, and the role of Government, and ends with a short set of recommendations. Air freight applies to merchandise trade.⁵⁹

Figure III below illustrates the interaction of customs services at origin and destination.

Figure III. Interaction of customs services at origin and destination



Customs Interact at Origin and Destination

Source: Airbus.

There are a number of intermediary players in the air freight industry, as figure III above indicates. However, one of the main bottlenecks and time/cost influencers are the formalities associated with national customs administrations and other Government agencies responsible for controlling the cross border flow of goods. In some countries there can be more than 30 different sets of approval needed before cargo can be transported—in addition to customs requirements.⁶⁰ World Trade Organization (WTO) agreements notwithstanding, red tape is a serious inhibitor to all international trade, and all forms of transport.

Some of the most important players in the air cargo industry include the following:

(a) *Shippers*

The shipper is the first link in the air cargo process, and initiates the domestic or international shipping process. The shipper can be the owner, manufacturer or assembler of the merchandise, an import/export company, or one of a range of trade professionals. This category includes freight consolidators and freight forwarders.

⁵⁹ Note: The terms 'air freight' and 'air cargo' are used interchangeably.

⁶⁰ These requirements are in addition to custom declaration requirements. Almost every Government department may require import/export control approval. In some cases, countries regularly demand 10 to 20 control documents plus Certificates of Origin. Many of these must be in original format with multiple copies. All require original signatures. Informal processes, also known as corrupt practices, can ease the administrative load and the time involved in clearing goods; see also: The World Bank, "Trading across borders", *Doing Business*. Available at: <http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/>.

The objectives of the shipper include minimizing the time and cost of physically moving the goods from shipper to customer. Where the shipper is also the manufacturer, it is increasingly common that shipping, distribution, assembling, testing, packaging, reprocessing scrap, handling returns, delivery and back-up functions are subcontracted to specialized service providers. Hence shippers need value-added transport and logistic services from the manufacturer right through to the consumer. The shipper must be able to rely on guaranteed, reliable service and continuous feedback throughout the air logistics chain. It is important to have the capability to monitor the progress of goods until they are delivered to the customer.⁶¹

Therefore, key factors affecting air cargo industry growth include the development of efficient, cost effective, integrated, industry-specialized intermodal and multimodal logistics operations. The adoption of ICTs, particularly electronic business techniques such as EDI, track and trace technologies such as bar codes, radio-frequency identification (RFID), and Global Positioning Systems (GPS), and standards-based single-window approaches to the clearance of goods, are central to industry growth and development.

(b) *Forwarders*

The key activities of a forwarder include organizing door-to-door transport through any number of transport companies that may be involved in different stages of the complete movement of the goods. This may involve land transport from factory or warehouse to airport or seaport. Air transport from the country of sale to the country of purchase and finally land transport from the airport to the purchaser's premises. A forwarder may also obtain suitable packaging and arrange for the completion of all the customs, certificates and formalities, lodgement and approvals. A forwarder must minimize time and costs to be competitive. Therefore, forwarders must be able to maximize the use of ICT, while complying with all legal and commercial requirements. Clearly, this represents a significant shift from a traditional service industry that used to emphasize personal contacts to a technology-based, mixed discipline, multimodal facilitating enterprise.

(c) *Airlines*

Given the need to grow both productivity and profit in all products and destinations, cargo airlines try to position themselves within the highest yield markets. At the same time, carriers that combine passenger and freight aim to fill aircraft hold space through effective air cargo pricing policies. This points to an eventual physical separation of passenger and cargo operations, and ultimately to cargo-specific airports—perhaps set well away from passenger locations and closer to major rail, road, waterway and inland port locations. Key issues for airlines include traffic rights, environmental issues, safety and security, performance standards as well as the simplification of customs procedures.

(d) *Air integrators*⁶²

Air integrators provide tailor-made door-to-door courier services with guaranteed delivery times. They integrate both forwarder and airline functions within the air cargo supply chain. Integrators aim to minimize door-to-door time for cargo and to provide an all-inclusive shipping and carrier service, complete with full online booking, billing and track and trace facilities, together with a number of ICT value-added information services. The key issues for an integrator's development are similar to those pertaining to airlines notably, security, environmental constraints, traffic rights, performance standards, and the availability of efficient and simplified customs procedures.

⁶¹ This continuous monitoring or 'track and trace' system is achieved through a growing range of technologies, including bar coding, radio-frequency identification, Global Positioning Systems and interactive mapping and messaging systems. Further information is available on the websites of the following: European Article Numbering, <http://www.ean.org>; TNT, www.tnt.com; UPS, www.ups.com; FedEx, www.fedex.com; DHL, www.dhl.com; and Intelligent Transport Systems of America, www.itsa.org.

⁶² An integrator is contracted to fill completely a specific aircraft with freight. The freight is therefore delivered to the integrator, who may also be a freight forwarder or integrated logistics operator. The integrator marshals the freight, aggregates it to meet his contractual obligations and delivers it to the freight area where it is loaded into containers and then into the freight compartment of an aircraft. This service is useful for small traders and for freight carriers alike.

(e) *Airports*

The role of airports is moving away from its traditional focus on passenger service towards becoming a major factor in community growth, economic development and a link to the global market place. The air cargo function is a key factor in this local participation in global markets. Air cargo service requirements differ from those of passengers. Hence, the airport is able to play a leadership role whereby it provides local solutions for local conditions. In the case of customs and formalities, while individual airlines are able to make little progress in service improvements, reduction of delays or extension of services, airports are able to make an impact: as a representative of its community, an airport can become the catalyst and spokesperson for those serving the airport and those using its cargo services. Airports can seek improvements in the interests of local and global industries, the carriers, the airport freight community, and most importantly, the shipper.

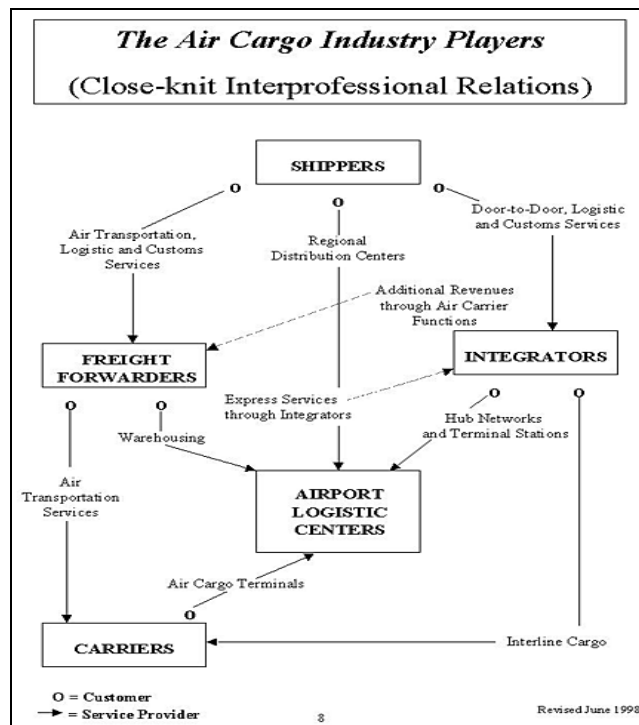
Air carriers and forwarders can relocate. Only the airport has a single-minded interest in local prosperity and the need to be competitive. Airports must assume the lead and take on this responsibility.

New problems have arisen in air cargo operations. The growing role of intermodal service has focused attention on airport access. Physical and commercial relationships with ground transport operators are a new and growing challenge, as is access to road, rail transport and inland/dry ports. Airports therefore need to continue and accelerate the role of becoming a central logistic tool serving the economic interest of its region. Airports must provide logistic centres that include cargo terminals, freight forwarder warehouses, integrators' hubs and regional distribution centres. Airports must also contribute to the economic development of the areas they are situated in, the quality of customer service and provide adequate links to world markets, as well as providing for intermodal integration.

Key issues for airports are adequate security, simplified customs procedures and trade formalities, adequate cargo access, minimal negative environmental impact, planned growth and global visibility.

Figure IV below illustrates air cargo industry players.

Figure IV. Air cargo industry players



Source: Airbus.

B. AIR CARGO IN THE ARAB WORLD

The following table lists the top Middle East cargo airports, above 50,000 tons. Comparison with world rankings provides a global context.

TABLE 8. TOP MIDDLE EAST FREIGHT AIRPORTS, 2005

Regional ranking	World ranking	Airport	UN/LOCODE	Country	Tonnage (Million)	Per cent change
1	18	Dubai	DXB	United Arab Emirates	1.315	12.5
2	54	Bahrain	BAH	Bahrain	0.335	10.8
3	56	Tel Aviv	TLV	Israel	0.315	(7.9)
4	75	Cairo	CAI	Egypt	0.233	6.8
5	77	Sharjah	SHJ	UAE	0.229	16.4
6	84	Jeddah	JED	Saudi Arabia	0.221	0.5
7	87	Abu Dhabi	AUH	United Arab Emirates	0.215	31.5
8	92	Riyadh	RUH	Saudi Arabia	0.194	1.5
9	105	Kuwait City	KWI	Kuwait	0.162	(1.0)
10	135	Amman	AMM	Jordan	0.101	5.4
11	163	Muscat	MCT	Oman	0.074	8.2
12	170	Beirut	BEY	Lebanon	0.063	(0.2)
13	195	Dammam	DMM	Saudi Arabia	0.050	3.2

Source: Airports Council International, as quoted in *Air Cargo World*, (July-August 2006), p. 26.

There were widespread fears in the trade world that when regional violence shut down Beirut Rafic Hariri International Airport in July 2006, the conflict would spill out into the rest of the region, undermining what has become the air freight industry's fastest-growing market. However, airborne shipping in the region from North Africa to the Gulf and beyond continued to expand. This is the latest example of the resilience of business in the Middle East in the face of the region's political conflicts and the rapid up-and-down swings of oil prices that drive many of the region's national economies. Business simply carried on growing.

After leading the world with an international air freight growth of 14.6 per cent in 2005, more than four times the worldwide growth rate, Middle East freight traffic was up 16.8 per cent in the first eight months of 2006. This was primarily as a result of booming economies in oil-producing countries. With regard to 2005, the region accounted for somewhere between 5.8 per cent to 7 per cent of the world's tonnage and nearly 5 per cent of the world's revenue ton-kilometres. In August 2006, the Middle East led all regions for cargo growth at 13.1 per cent while international freight worldwide grew 4.7 per cent over the same month a year before. In addition, over the past three years, annual economic growth has surpassed 5 per cent in the region and is expected to remain steady.⁶³

Hence, some Governments and airlines are investing in the potential for long-term air cargo growth in the region. Several Middle East carriers have decided to set up independent cargo units with their own global profit centres. Carriers such as Gulf Air, Qatar Airways, Etihad Airways and others have built aggressive freight strategies as a challenge to the continuing growth and reach of Emirates' SkyCargo. In addition, an increasing number of airlines are now consolidating cargo in their hubs and redistributing worldwide. However, some believe that the rapid growth in airline business in the region, and the longer reach by carriers into more distant markets, is placing stress on many airline operations.⁶⁴ Like its counterparts elsewhere, the Middle East air cargo market must become more efficient and rein in costs. This

⁶³ "Region focus: Middle East", *Air Cargo World*, (November 2006).

⁶⁴ Freight routes are being affected by longer-reach aircraft. It may be cheaper to fly cargo from Dubai to Thailand via Singapore than from Dubai to Thailand direct. This emerging economic/technology factor is making intra-Arab freight traffic more expensive as a result of smaller loads and more frequent stops at smaller airports.

means careful planning to balance oil price variations as well as closely monitoring the ongoing threat of worldwide terrorism and the associated security regimes demanded by sovereign nations.

The region’s air cargo business still lags behind its North American and European counterparts in terms of levels of automation and ICT investments. For example, electronic air waybills⁶⁵ have been around for some 17 years but only 15 per cent of Middle East cargo shipments make use of them.⁶⁶

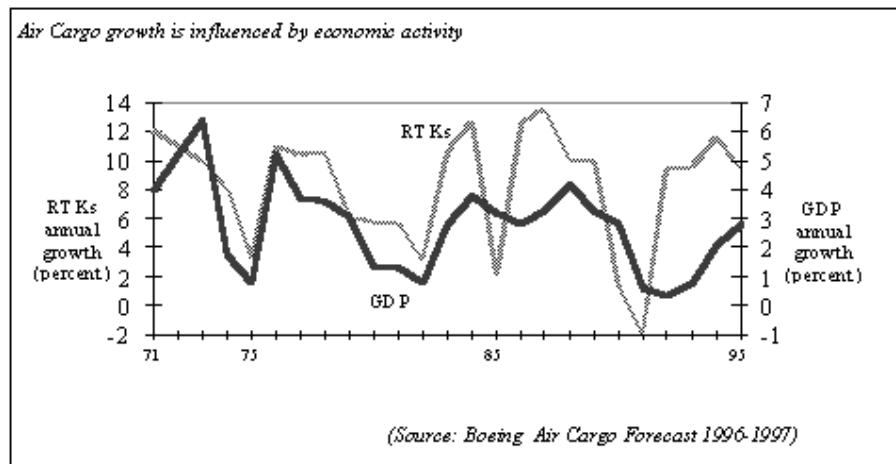
Some major challenges are endemic in the Middle East air cargo market. Restricted traffic rights remain the biggest challenge, coupled with inconsistencies and lack of clarity in regulations and procedures imposed by customs and other Government agencies for inbound and outbound cargo clearance. Customs procedures in many cases make moving freight on longer trade routes easier than movements within the Gulf region. According to one expert the Middle East is kinder on the issue of international border clearance than it is regarding intraregion clearance. In an ideal world, it should be the other way around, with the idea of promoting a regional trading bloc.⁶⁷

C. AIR CARGO OUTLOOK

Developments in logistics techniques in response to global supply chain needs, trade trends and international markets have led to an increasing reliance on the air transport industry, particularly the air cargo sector for specialized transportation services. According to IATA, 36 per cent of world trade by value is transported as air cargo—\$3.25 trillion; however, this only represents 5 per cent of world trade by volume.⁶⁸

Air cargo plays an increasingly important role in world trade; this is a role that has essentially developed over the past 20 years and is closely tied to trends in international trade. Figure V illustrates the link between economic and air cargo growth between 1971 and 1995.

Figure V. Air freight growth is tied to economic activity



⁶⁵ Air waybills (AWBs) were traditionally created and passed throughout the air supply chain in paper format. In the mid to late 1980s a United Nations Electronic Data Interchange for Administration, Commerce and Transport (UNEDIFACT), now United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) initiative made it possible to create electronic messages that replaced conventional AWBs and which can be exchanged throughout the airline freight supply chain in electronic data interchange (EDI) formats, providing improvements in speed and efficiency. See the case study that is illustrated by the table in box 1 below.

⁶⁶ According to Majdi Sabri, IATA regional vice-president, in “Cargo’s hot market”, *Air Cargo World*, (November 2006).

⁶⁷ According to Issa Baluch, CEO of Dubai-based Swift Freight International and past president of FIATA. Ibid.

⁶⁸ IATA. Available at: <http://www1.iata.org/whatwedo/cargo>.

World GDP is the best single measure of global economic activity. A comparison between the development of the air cargo industry and the evolution of the world's GDP over the past two decades clearly demonstrates a strong correlation. The major factors related to interdependence of GDP and air freight increases include the following:

- (a) Global interdependence driven by world trade agreements as developed by WTO and a proliferation of regional entities, including for example, the European Union, the North American Free Trade Agreement and the free trade area of the Association of Southeast Asian Nations (ASEAN);
- (b) Internationally dispersed production and sales of goods and services;
- (c) The use of such new inventory management concepts as just-in-time,⁶⁹ quick response, efficient consumer response and a range of e-commerce-based initiatives;
- (d) New 'air-eligible' commodities and advances in container capacity and product packaging design;
- (e) The development of high-value and limited time-consumable commodities.

New logistics and inventory management techniques allow manufacturers to reduce their inventory costs and at the same time serve larger and more dispersed markets at higher service levels. The widespread availability of suitable air cargo services provides the means to move high value merchandise goods throughout the world on time. This speed-to-market through air transport is a crucial competitive tool for global supply chains.

All merchandise trading countries depend on the air cargo industry to fuel their economic growth. According to the Airports Council International (ACI), in 2005, over 4 billion passengers and 75 million tons of freight, worldwide, were carried by air.⁷⁰ Since 1970, the air cargo market has doubled in volume every 10 years and is expected to continue to grow at a similar rate over the next two decades. Both Airbus and Boeing forecast that air cargo will continue to grow at a rate of 6 per cent per year through 2025.⁷¹ The air express/courier is the most rapidly expanding segment of the industry and grew by an average annual rate of 19.3 per cent from 1992 to 1999.⁷²

In 2004, total global air transport revenues were \$880 billion, with related bodies employing a total of 13.5 million people, including indirect and induced jobs.⁷³ Air cargo is key part of that contribution to world economic activity, as a facilitator and creator of trade. Air cargo growth forecasts are highlighted in figure VI.

⁶⁹ Just-in-time was introduced as a technique to ensure that stock is held throughout the complete supply chain in such a way as to ensure that the final manufacturer/assembler in the supply chain would receive stock at exactly the time or just before it was needed. It was originally developed for the automotive manufacturing industry and has since been adopted by the electronics, textile and apparel industries (quick response) and many others including the supermarket industry (efficient consumer response). Each has their differences but all rely on EDI/e-commerce techniques and industry-wide electronic data networks.

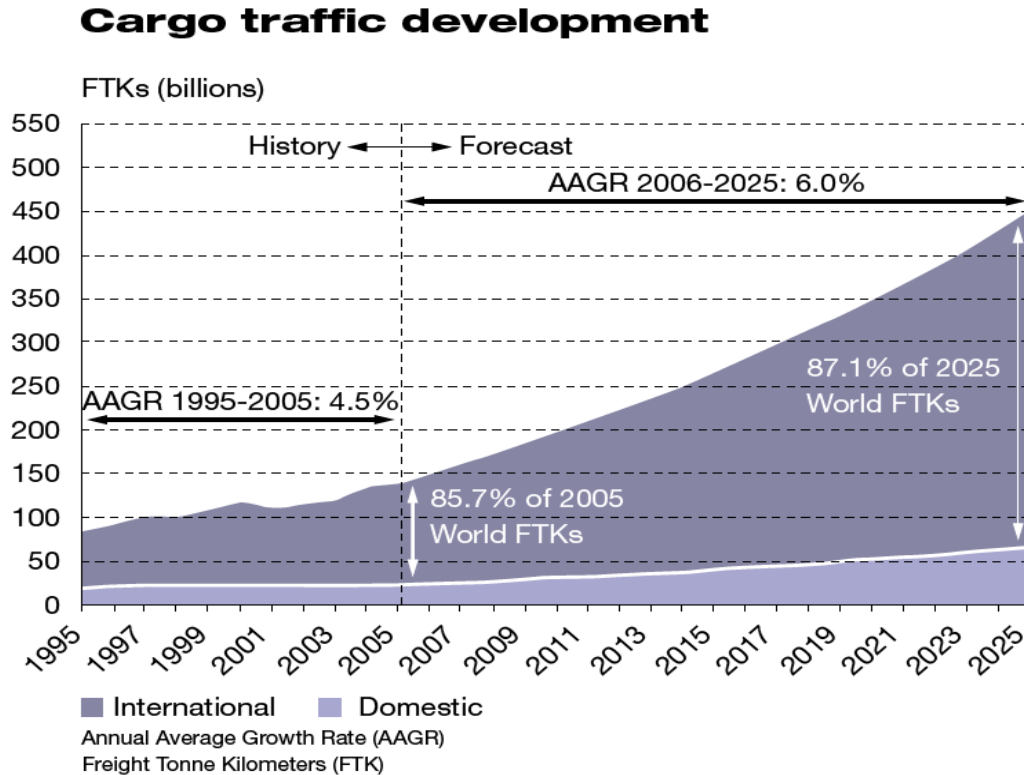
⁷⁰ Airports Council International. Available at: <http://www.airports.org>.

⁷¹ Airbus, *Global Market Forecast 2006-2025*. Available at: http://www.airbus.com/store/mm_repository/pdf/att00008552/media_object_file_AirbusGMF2006-2025.pdf; and Boeing, "Current market outlook 2006".

⁷² Organisation for Economic Co-operation and Development (OECD), OECD Workshop on Regulatory Reform in International Air Cargo Transportation, Paris, 5-6 July 1999.

⁷³ Erik Britton, "The impact of air cargo on the global economy", (United States, Oxford Economics, 13 September 2006). Available at: <http://www.tiaca.org/2006/presentations/5.%20Erik%20Britton.ppt#4>.

Figure VI. Air cargo growth forecasts



Source: Airbus, *Global Market Forecast 2006-2025*. Available at: http://www.airbus.com/store/mm_repository/pdf/att00008552/media_object_file_AirbusGMF2006-2025.pdf.

There are of course regional disparities. For example: while transatlantic traffic is expected to increase moderately at a 20-year average annual growth rate of 3.5 per cent, Asian and Far Eastern traffic is expected to experience increases ranging between 7 per cent and 8 per cent. The fastest growing air-cargo market is the North American-China one, which is forecast to grow at an annual average rate of 9.8 per cent through 2025 and will then have 14.6 per cent of the world air cargo market in terms of freight-ton-kilometres.⁷⁴

From an air logistics perspective, air cargo generates some \$50 billion in revenues,⁷⁵ 12 per cent of the total revenue of scheduled carriers' airline revenues, which were \$413 billion in 2005,⁷⁶ and represents 20 per cent of the \$200 billion air logistics market. This market covers warehousing, customs, surface transport (road, rail and water), forwarding and trade professionals' revenues. The aviation industry is currently estimated to employ 4 million people directly,⁷⁷ and its growth rate is expected to continue outpacing that of the world's economy.

Table 9 highlights IATA global air freight forecasts for the period 2005-2009. Statistics for the Middle East are shaded for emphasis.

⁷⁴ Airbus, *Global Market Forecast 2006-2025*. Available at: http://www.airbus.com/store/mm_repository/pdf/att00008552/media_object_file_AirbusGMF2006-2025.pdf.

⁷⁵ IATA, "IATA cargo". Available at: <http://www1.iata.org/whatwedo/cargo>.

⁷⁶ ICAO, *Airline Traffic Forecasts and Financial Trends – 2006 to 2008*, (Cir312) (AT/133), January 2007.

⁷⁷ "Erik Britton, "The impact of air cargo on the global economy", (United States, Oxford Economics, 13 September 2006). Available at: <http://www.tiaca.org/2006/presentations/5.%20Erik%20Britton.ppt#4>.

TABLE 9. INTERNATIONAL AIR TRANSPORT ASSOCIATION GLOBAL
FREIGHT FORECASTS, 2005-2009
(Percentage)

	2005	2006	2007	2008	2009	AAGR ^{b/}
Total international	6.8	6.3	5.7	5.8	5.7	6.3
North Atlantic	5.1	4.6	4.5	4.6	4.4	4.6
Trans-Pacific	6.6	7.1	5.6	5.4	5.2	6.0
Europe-Asia-Pacific	6.9	6.1	5.3	5.1	5.3	5.7
Middle East-Europe	7.0	5.1	4.9	4.5	4.0	5.1
Europe-Africa	5.0	4.5	4.6	4.3	4.2	4.5
Within Asia-Pacific	8.5	8.7	8.1	8.7	8.4	8.5
North America-LAC ^{a/}	4.4	3.6	3.6	3.5	3.5	3.7
Within Europe	5.1	3.8	3.7	3.8	3.9	4.1
Within LAC	3.0	2.8	6.4	7.0	5.7	5.0
Middle East-Asia-Pacific	13.7	8.6	7.3	7.5	7.0	8.8

Source: International Air Transport Association (IATA), "IATA Passenger and Freight Forecast 2005-2009", October 2005. Available at: <http://www.iata.org/NR/ronlyres/CC8F53FF-D587-4C7A-8CDA-1E9F5835531E/0/PressPackPassengerandFreightForecasts20052009.pdf>.

a/ Latin America and the Caribbean.

b/ Average aggregate growth rate.

Unsurprisingly, IATA concludes that growth is tightly related to GDP growth and that China, India, intra-Asia, Pacific and Eastern Europe are all set for solid increases. The top 20 countries with over 10,000 tons of air freight ranked by average aggregate growth rate (AAGR) for the forecast period are shown in table 10 below. Arab/Middle East countries are again shaded for emphasis.

TABLE 10. TOP 20 FASTEST GROWING AIRFREIGHT COUNTRIES, 2005-2009
(Percentage)

Country	AAGR* 2005-2009
China	14.4
Qatar	12.5
Sri Lanka	12.2
Macao	11.6
Republic of Korea	10.7
Malaysia	10.0
Mexico	9.9
India	9.7
Czech Republic	9.7
Oman	8.9
Turkey	8.6
Russian Federation	8.5
Argentina	8.1
Indonesia	8.0
Azerbaijan	7.8
Pakistan	7.3
United Arab Emirates	7.3
Japan	6.9
Thailand	6.9
Kuwait	6.6

Source: International Air Transport Association (IATA), "IATA Passenger and Freight Forecast 2005-2009", October 2005. Available at: <http://www.iata.org/NR/ronlyres/CC8F53FF-D587-4C7A-8CDA-1E9F5835531E/0/PressPackPassengerandFreightForecasts20052009.pdf>.

* Average aggregate growth rate.

D. AIR CARGO FACILITATION AND SECURITY ISSUES IN GENERAL

Shippers usually have a choice of transport carriers. While in most cases the choice is determined by client requirements other issues can affect choice, such as facilitation and security issues. These include the following:

(a) *Capacity constraints*

One hundred per cent of Fortune 500 companies are now sourcing or building products in China, thereby skewing transport patterns. Retailers' competition for on shelf-seasonal demand skews demand patterns, causing spikes in transport demand that cause damage to year-round shippers. Peak seasons were previously August to October. These have now extended to November, even through to the end of December in some cases. Other peaks are caused by Chinese New Year holidays, and plant closures or artificial peaks when aircraft are parked.⁷⁸

Other factors include the distance of carriers from shippers and lack of genuine partnerships capable of creating a win/win situation.

(b) *Increasing freight rates and fuel surcharges*

Increasing fuel rates are partially caused by fuel surcharges, which provide opportunities for hidden cost increases by airlines. Many shippers fear that fuel surcharges are becoming permanent, unwarranted rate increases. There is a lack of correlation between fuel surcharges as fuel prices fluctuate. It has been noted that entities are forced to pay when fuel prices rise, but seldom benefit when prices decrease.

(c) *Impact of trade imbalances*

Uncertainties and unused capacity can be the result of one-way trade with no backhaul opportunities. Backhaul routes are often chaotic with no systematic planning for return journeys, and often one route subsidizes the other.

A further constraint that is shared with other modes of transport relates to facilitation—in other words the complexity of procedures and regulations—and security.

1. *Facilitation issues*

Paper documents, customs requirements and the plethora of controls surrounding transport of freight by air are the cause of much inefficiency. IATA claims that the air cargo industry could fill 39 Boeing 747 freighters each year with paper used in air freight documentation (see box 1 below). In 33 years, the average for air cargo shipment has only been reduced from 6.5 days to 6 days of elapsed time. Paperless cargo processing could save the industry \$1.2 billion each year and reduce shipping time by 25 per cent. Industry and Government must work together to effect a solution to this dramatic inefficiency.⁷⁹

In other words, ineffective and impractical legislation is adversely affecting global supply chains and the air freight infrastructure. This is particularly aggravated in countries where legislation or practice requires that there is 100 per cent screening of air cargo for clearance.

Paper free transactions are clearly beneficial as the international supply chain and numerous single window and port community systems illustrate.⁸⁰ However, in order to implement EDI and associated

⁷⁸ Adtran presentation, Twenty-third International Air Cargo Forum and Exhibition. Available at: <http://www.tiaca.org/2006/presentations/9.%20Greg%20Andrews.ppt#5>.

⁷⁹ IATA, "IATA e-freight: from words to action", IATA e-freight Conference, Geneva, 1 November 2005.

⁸⁰ For more information on single windows see United Nations Economic Commission for Europe, "Single window repository". Available at: http://www.unece.org/cefact/single_window/welcome.htm.

e-commerce techniques, not to mention bar codes, RFID, GPS and electronic seals,⁸¹ a serious and wide ranging process must be put in place that is aimed at reengineering Government processes, including customs and all technical controls, and reducing the number of signed originals and signatures, as well as simplifying payment methods.

Many western countries and advanced economies are well down that path and have been working on single window and airport community systems for as much as 20 years in some cases. Arab countries have islands of excellence, such as Dubai, but most are still held back by paper-based systems that derive from colonial times. Furthermore, while GCC rules are supposed to encourage cooperation and cross-border trade facilitation there has been little progress on that front.

IATA and other more freight focused groups believe that the following endeavours are key factors in maintaining growth, promoting increased competitiveness and developing regional trade:

- (a) Developing strong, local private airline carriers;
- (b) Improving service quality;
- (c) Lowering customer prices;
- (d) Expanding service offerings;
- (e) Improving safety and security;
- (f) Reducing subsidies and public investments.

The benefits of an open and unfettered aviation market that follows these guidelines will result in more economic activity for an already booming marketplace. Success in the Middle East region requires a clear vision and a commitment to deregulation and fair competition.

2. Security issues

Security issues include security regulations resulting from the current security environment and dangerous goods.

The following questions should be considered in this context: What if an explosive device, found to have been contained in a freight package, takes down a passenger plane loaded with belly freight? Will this result in a future ban on freight/passenger mix? Should we be moving in this direction anyway? Should we not plan for a two-tier system in which passengers and freight are completely separated? If so, what will this do to the air freight industry, and what will it do to current airport infrastructures and shipper infrastructures?

The information below is largely an edited abstract of a position paper by the Global Aviation Security Action Group (GASAG), an industry group that includes IATA and is responsible for security.⁸² As the premier organization representing airlines, it is in an authoritative position to comment on the issue of security, bearing in mind that airlines comprise a mix of both public and private sector owners. General industry comments are also included below. GASAG's opinion can be summarized as follows:

(a) *Government's responsibilities for the cost of security*

Governments must have direct responsibility for aviation security and its funding. Given that the security threat against airlines is a manifestation of the threat against the State, the provision and cost of aviation security should be borne by the State from general revenues and not from taxes and user fees. This responsibility includes the protection of its citizens, both in the air and on the ground.

It must also be noted that this is clearly a contentious issue and reflects the extra charges levied by Governments and airport operators, unfairly in the view of the industry.

⁸¹ Electronic seal: A container seal comprising radio frequency identification (RFID) in a sealed box to replace the normal lead-based container seal. This allows the container seal to be read remotely for identification, location and tracking.

⁸² Global Aviation Security Action Group (GASAG), *Industry Positions on Security Issues*, issue 10, (1 May 2005). Available at: http://www.iata.org/NR/ContentConnector/CS2000/Siteinterface/sites/ps/file/GASAG_Flyer_Issue_10.pdf.

(b) *Harmonization of aviation security standards*

States must work together in a cooperative manner, with input from the industry, to ensure the harmonized implementation of globally recognized standards based on ICAO annex 17 to the Convention on International Civil Aviation relating to security.⁸³

(c) *Alternative methods of compliance with security mandates*

Regulated parties must receive due credit for any security measures voluntarily implemented, which exceed minimum required standards and in all cases, a regulated party should be able to receive approval to use alternate methods of compliance with a given security mandate, provided that an equivalent level of security is maintained.

It is worth noting that there is now some discussion in marine transport circles with regard to introducing a self-regulated 'secure source' certificate. Subject to further detail this seems to be an interesting avenue to explore.

Comments on airport/baseline security include the following:

(a) *Ground security*

Effective, efficient and operationally manageable ground security measures that meet or exceed the provisions of ICAO annex 17 must be developed using a globally agreed risk management matrix, which is based on the level of risk as assessed by the appropriate national authority.⁸⁴

(b) *Enhanced access control to airport restricted areas*

GASAG supports the establishment and effective maintenance of a restricted zone at airports including the development of effective, economical, enhanced perimeter security and access control systems that combine identification media with personal information.

(c) *Background checks for persons with unescorted access to airport restricted areas*

Background checks and recurring checks on existing employees, in accordance with national legislation should be undertaken on persons seeking unescorted access to airport restricted areas. GASAG believes that Governments should be responsible for undertaking and funding such checks.

It is worth noting that consistency, global standards and transparency are the minimum requirements for such measures to be effective.

(d) *New technologies*

Governments and industry players should jointly consider the role of technology, including biometrics, based on globally harmonized standards, to address the new security threats to civil aviation. People identification requirements of various Government agencies must be coordinated and based on a globally accepted standard using biometrics.

It is worth noting that the use of biometrics may be deemed to be proscriptive in technological terms. The technology has immediate attractions but may be overtaken by other technologies in the future.

⁸³ ICAO, "Annex 17 to the Convention on International Civil Aviation". Available at: http://www.icao.int/eshop/pub/anx_info/an17_info_en.pdf.

⁸⁴ A risk management matrix involves keeping points or ranking tables on the accuracy of information and performance of key players in the global trading supply chain. In this way, trusted relationships between Government agencies and better-performing shippers and trade professionals are developed with mutual benefits.

Comments concerning cargo, courier, express parcels and mail security controls include the following:

(a) *Cooperation*

Governments should combine resources in a cooperative manner to share information and to research and develop harmonized measures to ensure the safe and secure carriage of cargo, courier, express parcels and mail worldwide without impeding the flow of traffic.

(b) *Risk assessment*

Governments should apply the concept of ‘trusted traders’ to shippers and carriers who have demonstrated that they are consistently following appropriate security procedures, in order to facilitate the movement of cargo which does not pose a threat to the safety and security of civil aviation.

Comments on flight security, in some cases combined with passenger aircraft requirements, include the following:

(a) *In-flight security personnel (sky marshals)*

IATA believes that acts of unlawful interference should be prevented on the ground. However, where the State mandates the use of armed in-flight security personnel, they should be provided by the State, which must have responsibility for funding—including payment for travel, selection, training and tasking of such personnel. The selection, qualifications, training and control of in-flight security personnel must be of the highest standard.

(b) *Flight deck security and access*

GASAG supports the implementation of section 13.2.3, part I, annex 6 of ICAO with regard to the following:

- (i) The implementation of enhanced security flight deck door technology capable of securing the flight crew against attack;
- (ii) The closing and locking of the flight deck door at all times as far as practicable. Whenever the door is locked, appropriate communication procedures between the flight deck and authorized personnel in the cabin, for example, cabin crew or in-flight security personnel, must be established;
- (iii) The installation of surveillance systems to allow flight crews to monitor the entrance to the cockpit.

(c) *Flight deck crew procedures/training*

There is an urgent need for a comprehensive review, by Governments and industry, of policies, procedures and training including non-lethal self defence training, to address any on board disturbance especially with regard to the new threat of using an aircraft as a weapon.

New means of improved air/ground communications should be further studied. IATA supports measures, which serve to enhance the identification and tracking of aircraft in the event of an act of unlawful interference.

(d) *Weaponry and training of crew*

IATA opposes arming the flight deck or cabin crews with lethal weapons or requiring them to undergo training in the use of lethal force. The use of non-lethal protective devices such as pepper spray, stun guns, in the cabin area for emergencies should be further assessed in close consultation with crew representatives.

GASAG has also presented a series of recommendations concerning specific threats and responses, which are general to all flights and not specific to cargo.

Even after several years of living with the threats outlined above there is no general agreement, nor full cooperation on legislation and measures to be adopted. It is likely that the development of special freight airports and the reduction and possible elimination of mixed passenger/freight flights will eventually neutralize much of the concern on these issues. If these new freight conditions evolve as anticipated, it will result in the development of local freight aircraft and greater freight capacity than currently forecast.

Everything outlined in this section has serious implications for the industry and Governments in the Arab region and the Middle East, and indeed for all trading regions of the world.

E. AIR CARGO FACILITATION IN THE ARAB WORLD

All of the comments in the previous section on air cargo and security issues in general apply equally to the Arab air cargo world. In practice, like all regions of the world, the Arab region has good and bad examples when it comes to facilitation and security. However, perception is the new reality. Imports to and exports from Arab region countries must be efficient and secure—and must be seen to be efficient and secure. The concept of trusted trading partners is less widespread in trade transactions and transport in the Middle East than in the major importing/exporting centres of the world.

With this in mind, Arab countries must, in general, be more vigilant and efficient with regard to security measures and more efficient in trade facilitation in order to develop the concept of trusted source/trusted trading partner.

The previous comments on trade facilitation, automation of customs and controls, EDI and e-commerce, and single windows are especially relevant. With few exceptions, Middle East/Arab countries are a long way behind best practices in trade facilitation. Out of date inspection regimes add to the problem. It is crucial that customs in Arab countries and control regimes adopt comprehensive risk management and selectivity systems, ideally with some level of regional cooperation in risk management profile development and sharing. National trade regulatory regimes are still not fully aligned with regional agreements such as those developed by the GCC. To take a simple example: there is no such thing as a single GCC Certificate of Origin, recognized in all GCC countries. There is certainly no regional single window. By contrast, ASEAN countries are working on a wide range of mutual recognition agreements and a regional customs and formalities single window is under development.⁸⁵ Arab countries must adopt a similar approach if they are to enhance the efficiency of cross-border trade.

Best practices also include a high level of container scanning. New scanning technology that combines X-ray and radiation/biological sensors is beginning to provide a much higher level of confidence in the ability to identify container contents without intrusive inspections. Some Arab countries—for a variety of reasons—still insist on wide scale physical inspections, without regard to time, efficiency and trader needs. The World Bank database on comparative business regulations illustrates the comparative trade efficiencies of the majority of countries in the world.⁸⁶ In many cases, Arab countries do not compare favourably with high performing countries in the rest of the world.

The technologies and techniques for improvement are well established and widely used elsewhere. In this context, Arab countries require the political will and social acceptance regarding the need for change. That is not to say that these new approaches are without financial, political and social cost. However, if the need for change is accepted, then the costs must somehow be borne.

⁸⁵ Association of Southeast Asian Nations (ASEAN), “Agreement to establish and implement the ASEAN single window”, Kuala Lumpur, 9 December 2005. Available at: <http://www.aseansec.org/18005.htm>.

⁸⁶ World Bank, “Trading across borders”, *Doing Business*. Available at: <http://www.doingbusiness.org/>.

F. GOVERNMENT ROLES AND RECOMMENDATIONS

Air cargo has made a significant contribution to the development of global trade. However, despite the fact that economic forecasts are rosy, it faces serious challenges: The price of fuel, uneven distribution channels and backhaul problems, fuel subsidies, peak loads and seasonal capacity constraints—and artificially created capacity constraints through restrictive bilateral agreements—are exacerbated by a 1970s style paper processing system, cumbersome paper-based Government controls and a lack of commitment to change.

The following is a brief summary of recommendations that also pertain to the role of Governments:

(a) *Market access and traffic rights*

The current system of bilateral traffic rights, under which freedoms for all-cargo carriers are negotiated in the same ‘package’ as passenger operations, is illogical and discriminatory. The interests of national airlines are largely irrelevant to the aspirations of all-cargo carriers. The outdated classification of airfreight as a subsidiary of passenger operations should have no place in future negotiations on air transport freedoms. The present compulsory subjugation of cargo to passenger operational rights should not be allowed to mask the major economic and environmental advantages of separating the two activities as soon as possible.

Governments should be aware of these issues and take them into account when negotiating new arrangements.

(b) *Trade facilitation*

Governments must encourage the application of ICT and other new technologies that make the processing of information more efficient and less prone to error, from the perspective of trade facilitation, revenue collection and security. The use of standard electronic messages, process simplification and organizational reforms, and the implementation of one-stop shops for processing of formalities (single windows) are vital steps in performance improvement and enhanced security.

(c) *Security*

Given that security and safety underpin everything in the worldwide air cargo industry, new security initiatives must be effective, workable, and affordable and create a minimum of disruption to the flow of air cargo that essentially relies on speed. Changes in security procedures that fail to meet these criteria risk creating an environment where transport and, therefore, trade is disrupted. This will stifle commercial innovation, discourage investment and lead to unemployment and economic downturn. Governments must be aware of these concerns when introducing new or revised arrangements.

(d) *Security policy*

Security in international trade transactions must be based on end-to-end multimodal supply chain systems rather than on isolated single modal activities, or Government controls. One size, or process, does not fit all modes.

Authorized traders, carriers and intermediaries who have consistently demonstrated high standards of physical and data security, reflected in compliance records and regular audits, should benefit from simplified cargo processing and control regimes. The aim should be to bring market forces behind control systems.

(e) *Customs and other official agencies*

The movement of airfreight consignments is subject to and dependent on the predictability and performance of customs and other official border agencies at least twice in every international transaction. It is therefore necessary to ensure the following:

- (i) Integrity, transparency and predictability in the application of official regulations, especially customs procedures;
- (ii) Single agency responsibility for the various types of frontier controls, for example, collection of statistics, security measures, dangerous goods, immigration, public health and phytosanitary controls;
- (iii) Rapid release of cargo for onward movement on the basis of a minimal set of standardized data, leaving full clearance procedures for later attention by the trader;
- (iv) Modern risk-assessment control systems, offering simpler procedures to compliant traders and carriers;
- (v) 'De minimis' arrangements, providing an immediate green channel release and clearance system for low-risk consignments falling below a certain level of dutiable value.

Box 1 and its table, highlights the number and variety of documents handled by a typical cargo carrier.

Box 1. "Help, we are drowning in paper"

The International Air Transport Association (IATA) claims that the air cargo industry could fill 39 Boeing 747 freighters each year with paper wasted on documentation. In 33 years, the average time for an air cargo shipment has only been reduced from 6.5 days to 6 days. Paperless cargo processing could save the industry \$1.2 billion each year and reduce shipping time by 25 per cent.

The table below lists the number and variety of documents handled by a typical air cargo carrier in the United States. The three types of air waybills (AWBs) make up 80 per cent of the paperwork related to air cargo, and appropriate electronic data interchange (EDI) messages exist for 93 per cent of the documents used in air cargo.

TABLE. DOCUMENTS HANDLED OR GENERATED BY A TYPICAL CARRIER

Document type	International documents worked annually (000)	Percentage of total	
Documents generated by the shipper/forwarder			
House air waybill	650	47.8	Three documents represent 80 per cent of total transactions
Master air waybill	215	15.8	
Consolidated manifest	215	15.8	
Single air waybill	50	3.7	
Certificate of origin/perishable commodities documents*	15	1.1	
Dangerous goods declaration	10	0.7	
Live animals, various documents	8	0.6	
Other documents	5	0.4	
Documents generated by carriers			
Airline delivery note	90	6.6	
General declaration	36	2.6	
Flight manifest	36	2.6	
Trucking manifest	14	1.0	
Interline manifest	9	0.7	
In-bond forms	7	0.5	
	1 360	100.0	

Source: ESCWA, compiled from various sources.

* A certificate of origin is required for each commodity or transaction for certain imports or exports. See World Trade Organization rules on phytosanitary imports/exports at: <http://www.wto.org>.

By way of explanation, the freight forwarder may consolidate the consignments of several independent shippers that are intended for the same airport of destination and dispatch them together under one AWB issued by the carrier, known as the master air waybill (MAWB), together with a cargo manifest detailing such consignments attached to the MAWB. The freight forwarder in turn issues to each shipper its own AWB, known as a house air waybill or freight forwarder's waybill.

VI. CONCLUSIONS AND RECOMMENDATIONS

Western Asia is a growth region for international air transportation. The three main factors driving this development are the overall economic growth of the region, which is largely driven by oil, the role of the region as a hub for travel between Europe and south-eastern and eastern Asia, and the growth of tourism.

Despite the impressive performance of the Arab air transport sector during the past few years and anticipated growth over the coming years, the sector faces many challenges, including tough competition from both large, well-established international carriers and new entrants to the market.

Arab air transport capacities, volumes and expansion projects are concentrated in oil-producing countries. In terms of intraregional traffic, the density of networks and routes varies greatly; passenger air travel and cargo shipments in the Gulf countries have developed much faster than those in the Levant region and the Maghreb. Ongoing expansion projects of airports and airlines point to an emphasis on growth of long-haul networks between the Gulf and global destinations with a much smaller increase of capacities for linking the Middle East with the Maghreb. Another focus of development is passenger traffic with Europe in countries that aim to increase tourism. Intraregional air transport between MENA countries through both low-cost and full-service carriers is still a comparatively undeveloped area.

Imbalances in Arab air transport development indicate that there is a danger of distorted competition of subsidized flag carriers in some parts of the Middle East while other routes—important for intraregional development of trade and economic interaction—may receive insufficient support for growth.

The Arab air transport sector is creating jobs in airports, airlines and auxiliary industries ranging from catering and ground transport to financial experts working in new regional aircraft leasing companies. However, only some countries are actively concerned about the potential of liberalized air transport for creating new jobs in the region's economies, particularly in tourism. Many Governments still view air transport, for the large part, in terms of prestige, national proprietorship or even political control.

Arab Governments and authorities should not only be working on expanding airports and airlines capacities, but should also seek to constantly improve regulatory frameworks; open the sector to competition and private sector participation, financing and management; sign more bilateral agreements and work towards the implementation of an Arab open sky agreement; and encourage the introduction of new technologies.

After all, as much as a growing economy causes the air transport sector to boom, a booming air transport sector benefits the economy by creating jobs and better, more frequent and less expensive connections with the outside world. Governments should not only seek to meet demand, but also to generate demand.

More specifically, the following recommendations, which are addressed to Arab Governments, suggest the need to do the following:

- (a) *Recommendation one:* Strengthen cooperation among Arab States with regard to air transport.

Arab Governments must cooperate closely on all air transport issues through ACAC and implement the 1998 Arab air transport liberalization agreement (see above);

- (b) *Recommendation two:* Work towards a fair and open air transport market in the Arab world.

Governments must work towards harmonizing their regulatory frameworks with regard to air transport in order to ensure fair competition and create new economic opportunities and investments. Arab countries must move away from traditional bilateral air service agreements and instead implement open market policies such as the 1998 Arab air transport liberalization agreement;

(c) *Recommendation three:* Work towards a common aviation space with the European Union.

Given the closeness and importance of the European Union air transport market and industry and given the creation and strength of a single European Union internal air transport market, the highest priority must be given to opening up international air traffic with the European Union by negotiating new global aviation agreements with the Union in a coordinated fashion;

(d) *Recommendation four:* Work towards a harmonized air traffic control space in the Arab world.

There is an urgent need to consolidate air traffic management among Arab countries and between these countries and the European Union in order to improve safety and optimize the use of the available airspace. A first step in this direction would be to strengthen the current air transport management initiatives such as EMAC and the Algeria, Spain, France, Morocco and Portugal (known as AEFMP) group, and subsequently enlarge these initiatives to encompass all Arab countries;

(e) *Recommendation five:* Optimize the exploitation of airports in the Arab world.

Arab countries, if they haven't already done so, must separate the regulatory body from operations to ensure that airports are run independently of political interference. Arab countries must also consider allowing private participation in the airport business, ranging from operations to airport management to ownership through the BOT model in order to eliminate Government subsidies and generate profit while maintaining quality service;

(f) *Recommendation six:* Reduce procedural and regulatory barriers to air cargo transport and introduce other transport facilitation measures.

Despite the fact that the specific advantage of air cargo over other modes of transport is speed of delivery, the lack of effective facilitation means that in 33 years the average time for an air cargo shipment has only been reduced from 6.5 days to 6 days. Effective facilitation will reduce both the cost and time of air transport transactions through less and better procedures based on modern concepts such as risk management, public/private sector partnership and certified trusted transporters/traders;

(g) *Recommendation seven:* Support National Transport and Trade Facilitation Committees in which air transport stakeholders must be active participants.

Effective facilitation is best developed and implemented as a public/private sector partnership in which the public sector, as legislator, regulator and enforcer, treats the transport operators, traders and intermediaries as clients who require the best service possible. National Transport and Trade Facilitation Committees are a natural forum for this partnership;

(h) *Recommendation eight:* Facilitate and promote, through appropriate legislation and regulations, the effective use of ICT, in particular EDI as well as e-ticketing and e-freight initiatives.

The effective use of ICT is an element of facilitation that is so important that it merits its own recommendation. For example, IATA estimates that paperless cargo processing could save the industry \$1.2 billion each year and reduce shipping time by 25 per cent;

(i) *Recommendation nine:* Address the environmental issues related to air transport.

Arab Governments must develop appropriate regulations to deal with the environmental impact of air transport, namely, noise, air pollution, transport of dangerous goods and the disposal of hazardous waste.

Box 2 outlines the position of AACO.

Box 2. The position of the Arab Air Carriers Organization

The Arab Air Carriers Organization (AACO) believes that air space liberalization and the liberalization of markets access is a must. The regulatory environment in the Arab region is conservative and the operations are governed by bilateral agreements. This restrictive environment encourages a slow pace of airline privatization, for the reason that airlines are less threatened by competition. AACO stresses the importance of developing an Arab regulatory environment towards more liberalization of market access, coupled with the need to do the following:

- (a) Reduce restrictions on the movement of people and goods, in preparation to lift them completely between conceding States;
- (b) Ensure equal economic opportunities in operations, whereby States ensure that operators in their markets operate within the framework of the economic conditions of the national airlines, safeguarding long-term economic competition;
- (c) Draft laws to protect the consumers and the airlines from uneconomic dumping of capacity and predatory prices in a manner that would drive out market competitors;
- (d) Reconsider laws on national ownership and control without jeopardizing the strategic interests of concerned States, and embark on privatization programmes in the countries that place a high priority on a bigger role for private sector in the aviation business.

The way forward is to restructure Arab airlines, reassess their processes so that airlines regain profitability and stability, and become more efficient. There is also a need to restructure national carriers, especially now that Governments themselves suffer from huge debts and want to run profitable airlines. The higher efficiency that results from the restructuring process would allow airlines to increase their unit revenue and decrease their unit cost.

Despite the potential benefits of the airport privatization processes, Governments must approach the matter prudently with the aim of protecting public interests. This can be achieved through a comprehensive regulatory airport management framework that takes into account several issues, for example, fees, safety, quality of service provided, and planning of public and future needs.