

OVERVIEW OF TRENDS AND DEVELOPMENTS IN INTERNATIONAL AIR TRANSPORT

(ICAO Secretariat)

1. INTRODUCTION

1.1 This paper provides a global overview of regulatory and industry trends and developments of international air transport that have taken place over the past decade, focussing on significant developments since the last Assembly. It is prepared by the Secretariat for information purpose, which supplements Assembly working paper A36-WP/16, a Council report on Development and Economic Regulation of International Air Transport.

1.2 The overview has two parts. The first part looks at major regulatory movements towards the liberalization of international air transport, including bilateral and regional liberalization, air service negotiations involving a group of States, multilateral initiatives, national liberalization policies, competition and consumer protection policies. The second part reports on the airline industry's responses to an ever changing and more competitive marketplace, including airline alliances, mergers and acquisitions, privatization, airline business models and product distribution.

2. REGULATORY DEVELOPMENTS

2.1 Liberalization of international air transport regulation is the cornerstone upon which to build the future growth of the air transport industry. The process has been evolving at various levels since the mid-1990s. In terms of the impact or extent, it is estimated that, in 2006, about 31 per cent of the country-pairs with non-stop passenger air services and about 49 per cent of the seat capacity offered occurred between States which have embraced liberalization either by bilateral "open skies" air services agreements or by regional/plurilateral liberalized agreements and arrangements (compared with less than 4 per cent and about 20 per cent respectively in 1995, and about 16 per cent and about 42 per cent respectively in 2000).

2.2 **Bilateral liberalization.** Bilateral air services agreements remain the primary vehicles for liberalization of international air transport services for most States. During the past decade, about one thousand bilateral air services agreements (including amendments and/or memoranda of understanding) were reportedly concluded. Over 70 per cent of these agreements and amendments contained some form of liberalized arrangements, such as expanded traffic rights (covering Third, Fourth and in some cases Fifth Freedom traffic rights), multiple designation with or without route limitations, free determination of capacity, a double disapproval or free pricing regime, and broadened criteria of airline ownership and control. As the airline business evolves, some of the recent bilateral air services agreements have included provisions dealing with computer reservation systems (CRSs), airline codesharing, leasing of aircraft and intermodal transport.

2.3 One notable development is the considerable increase in the number of bilateral “open skies” air services agreements, which provide for full market access without restrictions on Third, Fourth and Fifth Freedom traffic rights, designation, capacity, frequencies, codesharing and tariffs. The first such agreement was concluded in 1992 between the Netherlands and the United States. As of July 2007, 131 bilateral “open skies” agreements have been reportedly concluded, involving 91 States (and territories), with the United States being one of the partners in 77 cases. Over 60 per cent of the agreements also grant “Seventh Freedom” traffic rights for all-cargo services (eight agreements granting this right for passenger services, and eight agreements granting “Eighth Freedom” traffic rights or consecutive cabotage rights for all services, too). About 35 per cent of the “open skies” agreements concluded by the United States have a transition annex that places limits on or provides for the phase in of, *inter alia*, frequencies, Fifth Freedom traffic rights, Seventh Freedom traffic rights for all-cargo services, codesharing, non-scheduled services, and ground handling, some of which were applied only to airlines of the United States.

2.4 **Regional and plurilateral liberalization.** The adoption of group approaches to liberalization has been an alternative means to regulatory change and adjustment for many States, as attested by the conclusion of a substantial number of agreements and arrangements on a regional basis or in a plurilateral form (i.e. an agreement amongst a few like-minded States but open for others to join). All are at different stages of development and implementation, but have the common objective of liberalizing the market amongst the member States concerned. Some agreements also begin to build legal and institutional regulatory frameworks to govern the group market as a whole.

2.5 At the regional level, the following agreements or arrangements for the liberalization of intra-regional air transport services are currently in operation:

- a) the Single Aviation Market within the European Union (EU, then European Community) (1987)¹;
- b) the Decision on Integration of Air Transport amongst four member States of the Andean Community (CAN, then Andean Pact) (1991);
- c) the Multilateral Air Services Agreement (MASA) amongst nine member States of the Caribbean Community (CARICOM) (1996, entry into force in 1998);
- d) the Agreement on Sub-regional Air Services (Fortaleza Agreement) amongst four member States and two associate member States of the Southern Common Market (MERCOSUR) (1996, entry into force in 1999);
- e) the Banjul Accord for an Accelerated Implementation of the Yamoussoukro Declaration amongst six States in Western Africa (1997, the Multilateral Air Services Agreement for the Banjul Accord Group was signed amongst seven States in 2004);
- f) the Agreement on the Establishment of Sub-regional Air Transport Cooperation among Cambodia, Lao People’s Democratic Republic, Myanmar and Viet Nam (CLMV) (1998, the Multilateral Agreement on Air Services was signed in 2003);

¹ The first liberalization package was started in 1987 within 12 member States, followed by the second package in 1990 and the third package in 1993 with a single market completed in 1997. The number of member States increased to 15 in 1995, to 25 in 2004, and to 27 in 2007. The liberalization package has been applied also to three member States of the European Free Trade Association (EFTA) belonging to the European Economic Area (EEA) since 1994 as well as Switzerland through a bilateral agreement on air transport since 2002. The Single Aviation Market was further developed to the European Common Aviation Area (ECAA) involving 35 States in 2006 (see paragraph 2.10).

- g) the Intra-Arab Freedoms of the Air Programme amongst 16 member States of the Arab Civil Aviation Commission (ACAC) (1999, the Agreement on the Liberalization of Air Transport between the Arab States was signed in 2004);
- h) the Agreement on Air Transport amongst six member States of the Economic and Monetary Community of Central Africa (CEMAC) (1999);
- i) the Air Transport Liberalisation Programme (the Regulations for the implementation of Liberalization of Air Transport Services) amongst 19 member States of the Common Market for Eastern and Southern Africa (COMESA) (1999); and
- j) the Decision relating to the implementation of the Yamoussoukro Declaration concerning the liberalization of access to air transport markets in Africa (Yamoussoukro II Ministerial Decision) amongst 52 member States of the African Union (AU) (1999, entry into force in 2000).

2.6 Of these ten regional agreements, seven provide for instant or phased-in liberalization leading to full market access. In addition, there are two area specific arrangements covering the IMT Growth Triangle region by Indonesia, Malaysia and Thailand (1995), and the BIMP East ASEAN Growth Area region by Brunei, Indonesia, Malaysia and Philippines (1995).

2.7 Several regional arrangements are also in the process of formal signature and/or ratification: the Common Air Transport Programme amongst eight member States of the Economic and Monetary Union of West Africa (WAEMU, 2002); the Pacific Islands Air Services Agreement (PIASA), which is open to 16 member States of the Pacific Islands Forum (2003); the Roadmap for Integration of Air Travel Sector in the aviation market of the Association of South East Asian Nations (ASEAN, 2004); and the Air Transport Agreement for a Common Aviation Area, which is open to 25 member States and three associate members of the Association of Caribbean States (ACS, 2004).

2.8 With respect to plurilateral arrangements, the Multilateral Agreement on the Liberalization of International Air Transportation (MALIAT), also known as the Kona “open skies” agreement, was signed in 2001 by five like-minded members of the Asia Pacific Economic Cooperation (APEC) (i.e. Brunei, Chile, New Zealand, Singapore and the United States). Peru, Samoa, Tonga and Cook Islands subsequently joined MALIAT (Peru withdrew in 2005). In 2004, Brunei, Singapore and Thailand signed two Multilateral Agreements, one on the Full Liberalization of All Cargo Services and the other on the Liberalization of Passenger Air Services. These agreements are open to accession by other member States of ASEAN, and Cambodia subsequently joined in the all-cargo services agreement.

2.9 **Air service negotiations involving a group of States.** A new negotiation dynamic in air services agreements was emerging with the involvement of regional groups including regional economic integration organizations. In this respect, EU has been the most active as a result of the judgement by the Court of Justice of the European Communities (ECJ). In 2002, ECJ ruled on a case brought in 1998 by the European Commission against eight member States which have concluded or amended bilateral air services agreements (seven of them “open skies” agreements) with the United States. The judgement affirmed the ability of the member States to enter into bilateral air services agreements with third countries to the extent that these do not affect Community rules on air transport, but found that some of the provisions in these agreements infringed the Community’s exclusive external competence, as regards air fares and CRSs. ECJ also found that the clause regarding ownership and control of airlines infringed Community law on freedom of establishment.

2.10 Following the ECJ’s judgement, in 2003, the Council of EU conferred on the European Commission a mandate to negotiate a comprehensive air services agreement on behalf of all member

States with the United States for creation of an “open aviation area” (OAA) between the two territories, as well as a so-called “horizontal” mandate to negotiate with third countries to bring certain specific provisions in the existing bilateral air services agreements in line with Community law. The Council subsequently granted additional negotiating mandates to the Commission for creation of a “common aviation area” (the integration of EU’s neighbouring States into the single aviation market) with Morocco and the countries of the Western Balkans in 2004 as well as Ukraine in 2006. In addition, the Commission has been asking the Council to grant negotiating mandates for a “common aviation area” with Russian Federation and for OAAs with important global partners, i.e. Australia, Canada, Chile, China, India and New Zealand. The agreements, which have so far been concluded by the Commission under these mandates, are as follows:

- a) the Multilateral Agreement on the Establishment of a European Common Aviation Area (ECAA) involving 35 States, i.e. all the EU member States, Iceland, Norway and the countries of Western Balkans (initialled in 2005, signed in 2006 and applied provisionally for some States);
- b) the Euro-Mediterranean Aviation Agreement with Morocco (initialled in 2005, signed and applied provisionally in 2006);
- c) the Air Transport Agreement with the United States (a draft text of a first-stage comprehensive agreement was agreed to in 2005; an amended text was initialled in 2007 following the United States Department of Transportation (DOT)’s withdrawal of a proposal that would have changed rules governing international investment in U.S. airlines; to be provisionally applied in 2008); and
- d) “horizontal” agreements (initialled with 25 States since 2004; formally signed with Chile, Georgia, Kyrgyzstan, Lebanon, Maldives, Moldova, Morocco, New Zealand, Paraguay, Singapore, Ukraine, Uruguay, and several Balkan countries).

2.11 Other regional groupings, namely ACAC, AU and the Latin American Civil Aviation Commission (LACAC), have started to respond to these European developments. For example, in 2006, the African Ministers adopted a resolution on a common external air transport policy with interim guidelines for the negotiation of air services agreements between member States of AU and third parties.

2.12 **Multilateral initiatives.** Although most international air services operate under bilateral or regional regimes, the International Air Services Transit Agreement (IASTA), which entered into force in 1945, provides for the multilateral exchange of rights of overflight and non-traffic stops for scheduled air services among its Contracting States. The Agreement is a cornerstone of multilateralism in air transport. The number of States which are parties to IASTA increased from 99 in 1994 to 125 as of July 2007, but about one third of ICAO Contracting States, including several with large land masses, remain outside the Agreement.

2.13 There has been an attempt to liberalize air transport services through the multilateral trading mechanism under the World Trade Organization (WTO). WTO was established in 1995 with a broad mandate to liberalize and expand all service sectors through the General Agreement on Trade in Services (GATS). Trade rules and principles contained in GATS are obligations on most-favoured-nation (MFN) treatment (i.e. the principle of not discriminating between one’s trading partners) and transparency, as well as commitments to national treatment (i.e. the principle of giving others the same treatment as one’s own nationals) and market access. The Annex on Air Transport Services to GATS applies such rules and principles to three specific air transport activities: aircraft repair and maintenance

services; selling and marketing of air transport services; and CRS services. It specifies that GATS shall not apply to measures affecting traffic rights or services directly related to the exercise of traffic rights.

2.14 Pursuant to a ministerial decision, in 2000, WTO launched the first mandatory review of the operation of the Annex covering developments in air transport sector for the period 1995–2000. During the review, there was some support to extend the Annex to include additional “soft rights” (for example, ground handling) as well as some “hard rights” (for example, air cargo, non-scheduled and intermodal transport), but there was no consensus on whether or how this would be pursued. In 2003, WTO decided to end the first review process with the conclusion that the Annex remains unchanged.

2.15 In 2005, the second mandatory review of the Annex commenced with the assessment of the developments in the air transport sector and the operation of the Annex for the period 2000–2005. Discussions on the second review are ongoing with a view to identify services that could benefit from a clarification and even extension of the scope of the Annex so that the Annex can accommodate the dynamics of the air transport system.

2.16 **National liberalization policies.** In addition to the progress of liberalization at the bilateral, regional and multilateral levels, there has been a shift of regulatory approach taken at the national level, from detailed regulation of airline operations to relying more on market forces. Liberalization policies and measures vary widely in terms of their coverage and application. Recent examples include:

- a) air service negotiations – for example, the Government of Canada announced a new international air policy called “Blue Sky” in 2006, envisaging a change from the previous gradual reduction of restrictions of bilateral air services agreements to negotiations of “open skies” agreements;
- b) market access for foreign airlines – “Open skies” policies were adopted on a unilateral basis by Bahrain, Cambodia, Chile, China, Ecuador, Guatemala, Honduras, India, Lebanon, Morocco, Pakistan, Philippines, Sri Lanka, Tunisia and the United Arab Emirates, some of them were applied only to specific airports and/or for limited durations;
- c) airline pricing – for example, the United Kingdom Civil Aviation Authority discontinued in 2006 its remaining airfare regulation from all routes other than the routes to the United States on a unilateral basis;
- d) designation of airlines – Bangladesh, India and Nigeria each allowed privately-owned airlines to operate in certain international markets; and
- e) domestic air transport – further progress of liberalization of the domestic markets was reported in Brazil, China, India, Japan, Indonesia, Mozambique, Saudi Arabia and Thailand.

2.17 **Competition policies.** As liberalization spreads, the question of how to maintain and promote fair competition in air transport is increasingly becoming an issue. One indication is a marked rise in the adoption of competition laws by States. About 90 States now have competition laws of some sort with a number of bilateral antitrust enforcement cooperation agreements particularly between developed countries. The use of competition laws for the air transport sector has occurred not only with more frequency but also has encompassed a variety of issues, ranging from abuse of dominant position such as capacity dumping and predatory pricing, collusive behaviours including price-fixing, inter-airline coordination and alliances (see paragraph 3.6), consolidation through mergers and acquisitions (see

paragraph 3.8), vertical business relationships in product distribution (see paragraph 3.21), to State aid² (see paragraph 3.18 for start-up aid). One of the fundamental problems here is how to distinguish between unfair and normal competitive behaviours, and reliance has been placed on analyses and development of standards through a case by case approach.

2.18 There are two notable developments in competition laws at the regional level. First, the European Commission was granted additional authority by two regulations adopted in 2004: one is a regulation to extend the Commission's competition law authority to agreements between Community airlines and third country airlines, and the other is a regulation on the protection of Community airlines against subsidization and predatory pricing practices of third country airlines. Second, unlike most competition laws which are for general application with no or limited air transport provisions, States belonging to COMESA, the East African Community (EAC) and the Southern African Development Community (SADC) adopted in 2004 a competition regulation specifically for the air transport sector for common application to the three regions. ACAC also adopted aviation-specific competition rules in 2006.

2.19 **Consumer protection policies.** Protection of consumer interests covers many elements, including air passenger rights and the contractual relationship between airlines and their users. There may exist some instances where competition does not necessarily guarantee a minimum level of service levels that customers can expect, mainly because of the lack of information available to them and their weak negotiating position. Certain elements might not even be a matter of competition between airlines. Concerns about the limits of competitive response have induced a number of States to ask the industry to develop voluntary commitments (non-legally binding self-regulation) and/or to take some direct regulatory measures that address consumer interest issues such as denied boarding compensation, flight cancellations and access for incapacitated passengers.

2.20 The voluntary commitments developed by the industry groups include: the Airline Customer Service Commitment by the Air Transport Association (ATA) and its member airlines in 1999 (which were incorporated into the contract for carriage in 2001); the Airline Passenger Service Commitment and the Airport Voluntary Commitment on Air Passenger Service by airlines and airports in the member States of the European Civil Aviation Conference (ECAC) in 2002; and a Global Customer Services Framework by the International Air Transport Association (IATA) in 2000. In the United States, some airlines made their voluntary commitments reinforced in 2007 to better respond to weather emergencies resulting in lengthy ground delays aboard aircraft.

2.21 With respect to regulatory measures, although most States apply general consumer protection laws/rules, if any, to airlines' commercial practices, aviation-specific rules/regulations were introduced in some States and regional groups. For example, the United States DOT has adopted rules, inter alia, on misleading price advertising, airline oversales (currently under revision), baggage liability limit, a report on consumer-related statistics, and passengers with disabilities. China, Colombia and Thailand also have specific rules on certain aspects of air passenger rights. At the regional level, EU strengthened air passenger rights by adopting a regulation establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, which became effective in 2005. EU also adopted, in 2006, a regulation concerning the rights of disabled persons and persons with reduced mobility when travelling by air. LACAC adopted a recommendation, in 2000, on a consumer protection code for airlines. COMESA has also been developing a policy guidelines on consumer protection.

² Many States continue to provide varying forms of State aid to their national airlines facing financial difficulties. Air Jamaica, Air Namibia, Alitalia, BWIA West Indies Airways and Cyprus Airways were a few examples of airlines that have received direct financial assistance from the States since 2004. Some bankruptcy codes also contain generous provisions (for example, exemption from interest and pension fund payment), which act as an indirect form of State assistance for financially troubled airlines.

3. INDUSTRY DEVELOPMENTS

3.1 Along with the trend towards liberalization, the airline industry has undergone major structural transformation and continued to adjust to a dynamic marketplace. Airline strategy and planning has been focussing more on alliances, consolidation and cross-border equity investments to exploit network-based economies of scale and scope. The traditional business model of the full-service airline has come under scrutiny in an increasingly competitive environment. In addition, e-commerce has become a common facility, which has been used extensively by the industry in marketing and selling its products. For airports and air navigation services providers, the anticipated demand growth and the new types of traffic generated in large part by liberalization increase their business opportunities but require significant investments in an efficient and timely manner. These developments have presented some new challenges to regulatory authorities.

3.2 **Airline alliances.** One of the evolving global phenomena is the formation by airlines of alliances, i.e. voluntary unions of airlines held together by various commercial cooperative arrangements. The expansion of alliances is a consequence of airlines' response to, *inter alia*, perceived regulatory constraints (such as bilateral restrictions on market access, ownership and control), a need to reduce their costs, and economic incentives to restructure into larger networks as markets become more competitive. There are now over 600 alliance agreements in the world, which contain a variety of elements, such as codesharing; blocked space; cooperation in marketing, pricing, inventory control and frequent flyer programmes (FFPs); coordination in scheduling; sharing of offices and airport facilities; joint ventures and revenue sharing; and franchising.

3.3 While numerous agreements concern cooperation on a limited scale (for example, codesharing on certain routes), the number of wide ranging strategic alliances has been on the rise. Most notable was the emergence of three "global alliance" groupings, which carry together over 50 per cent of the worldwide scheduled passenger traffic:

- a) "Star Alliance" founded in 1997 (Air Canada, Air New Zealand, All Nippon Airways, Asiana Airlines, Austrian Airlines, bmi British Midland, LOT Polish Airlines, Lufthansa, SAS Scandinavian Airlines, Singapore Airlines, South African Airways, Spanair, Swiss International Air Lines, TAP Portugal, Thai Airways International, United Airlines, and US Airways; to be joined by Air China, Shanghai Airlines and Turkish Airlines);
- b) "oneworld" founded in 1998 (American Airlines, British Airways, Cathay Pacific, Finnair, Iberia, Japan Airlines, Lan Airlines, Malev Hungarian Airlines, Qantas Airways, and Royal Jordanian); and
- c) "SkyTeam" founded in 2000 (Aeroflot Russian Airlines, AeroMexico, Air France, Alitalia, Continental Airlines, CSA Czech Airlines, Delta Air Lines, KLM Royal Dutch Airlines, Korean Air, and Northwest Airlines; to be joined by China Southern Airlines)³.

3.4 Each global alliance group remains unstable with partnership relations becoming more intertwined and complex. For instance, in 2004, Mexicana withdrew from Star Alliance and switched its codeshare partner from United Airlines (Star Alliance) to American Airlines (oneworld). In 2004, Cathay Pacific (oneworld) acquired a 10 per cent stake in Air China (future member of Star Alliance) and, in

³ The fourth global alliance group dubbed "Wings" was absorbed into the SkyTeam group in 2004 when Continental Airlines, KLM Royal Dutch Airlines, and Northwest Airlines joined in the latter group. The Swissair led-European alliance group, Qualiflyer (founded in 1998), was dissolved in 2002 because of Swissair's divestiture of stakes in partner airlines and its own bankruptcy.

2006, the two airlines strengthened their equity and marketing relationship through cross-shareholding. In 2007, Varig and Aer Lingus left from Star Alliance and oneworld, respectively.

3.5 The shifting development and marketing power of global alliances, together with their competitive consequences, including their dominance at some hubs, have caused concerns to small- and medium-sized airlines regarding their survival and have prompted efforts by these airlines to either develop a particular segment of a market or to compete as low-cost, point-to-point airlines. Some airlines also moved to form regional alliances with neighbouring airlines (for example, Grupo TACA led by TACA International Airlines since the mid-1990s; LAN alliance led by LAN Airlines since the late-1990s; and a pan-Arab alliance Arabesk launched by six Arab airlines in 2006), become affiliate or regional members of global alliances (for example, Adria Airways, Blue 1 and Croatia Airlines joined in Star Alliance as regional members in 2004, while Air Europa, Copa, Kenya Airways and some other airlines are the candidates for SkyTeam associate airlines), and to enter into franchise agreements with major airlines (for example, Comair of South Africa has been operating as British Airways' franchise airline since 1996).

3.6 Major alliances and inter-airline activities⁴ have been closely monitored and reviewed by relevant regulatory and competition bodies and, in some cases, certain regulatory measures were introduced to ameliorate the potential anti-competitive effects. For example, in 2002, American Airlines and British Airways gave up pursuing antitrust immunity for their comprehensive alliance agreement because of the conditions imposed by DOT including the divestiture of a significant number of slots at London's Heathrow Airport. In 2003, a proposed trans-Tasman alliance agreement between Qantas Airways and Air New Zealand was rejected by both the Australian Competition and Consumer Commission (ACCC) and the New Zealand Commerce Commission (Australian Competition Tribunal overruled a decision of ACCC but the New Zealand High Court rejected it on appeal in 2004; ACCC again tentatively denied a modified agreement in 2006). In 2006, DOT dismissed the application for antitrust immunity for an alliance agreement amongst six airlines of SkyTeam, while the European Commission expressed its concerns that the cooperation of SkyTeam members may have a negative impact on competition on several routes.

3.7 **Mergers and acquisitions.** Airlines in many parts of the world have continued the pursuit of the perceived advantages of enhanced market strength through mergers, acquisitions or operational integration under a single holding company. The common thread of this trend is the continuing development of growth strategies designed to hold and expand the existing market shares, gain access to new markets, achieve unit cost reduction, shield themselves against fierce competition, and increase the scale of operations in order to attain a critical market position.

3.8 Most mergers or acquisitions have been achieved within the same country, as were the cases of Air Canada's acquisition of Canadian Airlines in 2000; American Airlines' bankruptcy buyout of

⁴ Most of the inter-airline activities such as multilateral tariff setting, establishment of agency systems and service standards, and schedule/slot coordination have been traditionally carried out at the industry-wide level through the IATA machineries including tariff coordinating conferences. For about 60 years, the IATA machineries have been functioning despite the uncertainty arising from regulatory requirements, particularly implications of competition laws, and changes in the airlines' operating environment and business practices. However, the scope of the IATA machineries was diminished significantly in some jurisdictions. In 2007, the United States DOT decided to make its show-cause order final, that is, to withdraw its approval of, and antitrust immunity for, IATA's tariff conference discussions and agreements on fares and rates for the United States-EU and the United States-Australia markets. In 2006, the European Commission decided to end the block exemptions granted for IATA's passenger tariff conferences for the intra-EU routes (as well as for slots and scheduling conferences) at the end of 2006 and for the EU-Australian/United States routes in mid-2007. The Commission further decided in 2007 not to renew the block exemptions for all the remaining routes between EU and third countries. In 2006, the Australian Competition and Consumer Commission (ACCC) also issued its final determination, which provided for the phased removal of the current authorization covering most of IATA's activities including the tariff conferences by 2008.

Trans World Airlines in 2001; Alianza Summa established by Avianca and Aces in 2002 (dismantled in 2003); Japan Airlines Corporation established by Japan Airlines and Japan Air System in 2002; the creation of three Chinese airline groups headed by Air China, China Eastern Airlines and China Southern Airlines through mergers with other smaller State-owned airlines during 2002 – 2005; the integration of SN Brussels Airlines and Virgin Express under the common ownership in 2005 (became Brussels Airlines in 2006); the merger of America West Airlines and US Airways in 2005; Air Berlin's takeover of dba in 2006. Against the industry consolidation, quite a few States expressed their concerns, and scrutinized proposed mergers with great caution. For example, the United Airlines–US Airways merger plan was blocked by the United States Department of Justice in 2001.

3.9 Cross-boarder equity investments have been made often as part of a strategy to forge or strengthen alliances and in a limited scale, instead of taking a majority stake or pursuing a full scale merger. As of July 2007, among 1,030 airlines, it is estimated that 71 airlines had shareholdings in foreign airlines while 286 airlines had equities owned by foreign investors in various degrees. Until the early 2000s, only a smaller number of attempts at cross-border mergers or acquisitions had been achieved owing to the aero-political, economical and regulatory complexity. Even in the successful cases, the control and management of foreign airlines was not financially risk free (for example, Iberia and its then parent company SEPI's majority control of Aerolineas Argentinas, and Air New Zealand's acquisition of Ansett, both of which fell through in 2001). Nevertheless, the opportunity for cross-border mergers and acquisitions has been increasing as the economy becomes globalized and many States adopted new policies or rules on foreign investment and control in national airlines, and relaxed the airline ownership and control conditions in their air services agreements. The notable recent cases are as follows:

- a) Air France and KLM Royal Dutch Airlines created the Air France-KLM Group under a single holding company through a share exchange offer by Air France for KLM's shares in 2004;
- b) Synergy Group in Brazil acquired a 75 per cent stake in Avianca in 2004 and increased to 100 per cent one year later; and
- c) Lufthansa took over Swiss in 2005 through AirTrust, in which Lufthansa initially had a 49 per cent shareholding and increased to 100 per cent in 2007.

3.10 **Privatization.** Privatization of State-owned airlines has been one of the pre-eminent transformations in air transport. The motives for privatization have been highly diverse, ranging from purely economic considerations, to try to improve operating efficiency and competitiveness, to a more pragmatic desire to reduce the heavy financial burden for governments for financing capital investment in new equipment. Whatever the reasons, the privatization of State-owned airlines has accompanied a more commercially oriented outlook within a liberalized competitive environment.

3.11 Since the mid-1980s, it is reported that about 135 States announced privatization plans or expressed their intentions of privatization for over 200 State-owned airlines. During this period, 132 of these targeted airlines have achieved privatization aims to some extent. Airlines fully or partially privatized since 2004 include Aer Lingus, Air Arabia, Air China, Air France-KLM, Air Lithuania, Alitalia, China United Airlines, El Al, FlyLal, Kyrgyzstan Airlines, Malev Hungarian Airlines, Mexicana, Novosibirsk Air Enterprise, Sudan Airways, THY Turkish Airlines, and UTair Aviation.

3.12 However, many of the initial privatization plans had to be deferred or postponed because of the complexities encountered in the process or the economic condition of the airlines concerned, or local circumstances, although in most such cases the intention to privatize remains. The uncertainties surrounding the privatization process are also illustrated by a small counter trend of renewal, usually as a temporary measure, of government ownership as a national interest response to the potential demise of a

privatized airline. Air Jamaica, Air Tanzania, BWIA West Indies Airways, LIAT, and Pluna Lineas Aéreas Uruguayas are examples of privatized airlines, in which the governments raised their shareholdings since 2004.

3.13 Some States established new national airlines, which replaced debt-ridden State-owned incumbents, often in partnership with foreign investors. The examples of these airlines are Ghana International Airlines (2004, a replacement to Ghana Airways with the government having 70 per cent and the consortium led by the investors of the United States 30 per cent), Virgin Nigeria Airways (2004, a replacement to Nigeria Airways with Nigerian Institutional Investors having 51 per cent and Virgin Atlantic Airways 49 per cent), Air Gabon International (2006, a replacement to Air Gabon with the government having 80 per cent and Royal Air Maroc 51 per cent) and Caribbean Airlines (2006, a fully State-owned replacement to BWIA West Indies Airways).

3.14 **Airline business models.** In recent years, successful low-cost carriers (LCCs) have been challenging the full service network models of traditional airlines. The common features of the business model of LCCs are, with some variations: point-to-point network focussing on short-haul routes, high frequencies, simple low fare structures, high-density single class with no seat assignment, simple in-flight services, staffing flexibility and minimal overheads, and intensive use of electronic commerce (e-commerce) for marketing and distribution. To sustain low-cost structures, these airlines usually operate a single aircraft type with higher daily aircraft utilization. They also use less congested secondary airports to ensure short turn-rounds and high punctuality and to save airport related costs. It is the low operating costs that enable LCCs to allocate all their seats to low fares.

3.15 This low-cost formula is not new but has been adopted by many new entrants in the United States following domestic deregulation in 1978. Although only few of the earlier entrants survived, successful LCCs have established sustainable significant cost advantages, and grown rapidly not only at the national level (for example, Southwest Airlines and jetBlue Airways in the United States, Westjet in Canada, GOL in Brazil, Virgin Blue Airlines in Australia, Spring Airlines in China, Air Deccan in India, and Skymark Airlines in Japan) but increasingly regionally (for example, Ryanair and easyJet in Europe, Air Asia in South East Asia, Pacific Blue Airlines in Oceania, and Air Arabia and Jazeera Airways in Middle East). Some of them have offered sufficient incentive to become attractive to business passengers.

3.16 Facing growing cost and competitive pressures, major network airlines have been forced to change their business priorities towards redesigning their business concepts and developing alternative models for their operations. One of the models chosen by the major airlines is to set up separate organizations or subsidiaries to handle operations on short-haul routes to be able to compete with LCCs and to avoid the potential threat of new entrants. This low-cost “airline within an airline” strategy, despite limited success of earlier attempts, tries to combine key ingredients of LCCs’ approach with the reputation and quality of their own brand. Again, an “airline within an airline” is a formula that is developed mainly for domestic services (for example, Ted of United Airlines, Click Mexicana of Mexicana, Jetstar of Qantas, Nok Air of Thai Airways International, and Kulua of Comair) but is also extended to regional/international services (for example, Jetstar Asia minority owned by Qantas Airways, Tiger Airways minority owned by Singapore Airlines, bmibaby of bmi British Midland, Centralwings of LOT Polish Airlines, Atlas Blue of Royal Air Maroc, and Clickair minority owned by Iberia).

3.17 The emergence and growth of LCCs prompted mixed regulatory reactions among States. In 2005, the Government of Indonesia announced that it would limit foreign LCCs’ landing rights at four major airports. In the same year, the Government of China adopted more flexible regulatory measures in treating service provisions and pricing for newly-established domestic LCCs. The European Commission adopted in 2005 guidelines on financing of airports and start-up aid to airlines, especially LCCs, departing

from regional airports. The guidelines reflect the Commission's decision of February 2004 on the establishment of Ryanair at Charleroi (Belgium).

3.18 **Product distribution.** The CRS industry has experienced concentration, expansion, changes in ownership structure, technological developments and challenges from online sales of air transport services to consumers and business transactions via the internet. The four major global CRS vendors (Amadeus, Galileo, Sabre and Worldspan) have seen themselves as global distribution systems (GDSs), and actively acquired stakes in regional CRS vendors, set up joint ventures and concluded partnership agreements with local interests to expand their business overseas. Airlines no longer own the majority of the shares of any global CRS. Sabre has been a publicly listed company since 2000 and was acquired by Silver Lake Partners and Texas Pacific Group in 2007. Galileo became a subsidiary of Cendant Corporation (now Travelport) in 2001. Worldspan was sold in 2003 by its three airline owners to private equity funds led by Citygroup Ventures Capital. In 2006, the merger of Galileo's parent Travelport with Worldspan was announced. Amadeus has been majority-owned by non-airline interests since 2005 with the three airlines keeping about 46 per cent.

3.19 CRS vendors have pursued e-commerce businesses aggressively with the acquisition of online travel agencies, while a large number of third party service providers have been entering into the market⁵. The majority of airline ticket sales are still being made by traditional travel agents, but online sales through airlines' websites and online travel agencies (such as Expedia, Travelocity and Orbitz) have increased significantly. For LCCs, ticket sales are primarily being made online through their own websites, bypassing CRSs and travel agents. Major airlines have also been attempting to save booking fees charged by CRSs, to reduce or eliminate travel agency commissions, and to impose service fees for bookings made by travel agents, by attracting more customers to their websites, concluding preferred channel agreements with CRS vendors and using new e-commerce technologies of third party providers.

3.20 Because of the rapid changes in airline product distribution, the necessity and effectiveness of existing CRS rules/regulations have been questioned. A number of original regulatory concerns with CRSs have diminished as ownership has moved away from airlines and alternative distribution channels have gained a competitive edge. In the United States, DOT lifted its CRS rules with two phases in 2004. The Government of Canada amended its regulations on CRS in 2004, moving to a more deregulated system with certain safeguards. The European Commission has been examining the possible revision on its CRS regulation since 2002 (a new consultation paper was published in 2007).

3.21 Another aspect of product distribution that continues to expand is electronic ticketing or e-ticketing (i.e. a paperless method for documenting and distributing airline ticket coupons), including interline e-ticketing (i.e. the ability to use electronic tickets on flights involving more than one airline). It is estimated by IATA that the full elimination of paper tickets would contribute to overall industry savings of \$3 billion per year. As of June 2007, 82.5 per cent of tickets sold by member airlines of IATA were issued electronically with about 1,500 interline e-ticketing agreements, compared to 52 per cent in May 2006 and 25 per cent at the end of 2004. IATA declared at its Annual General Meeting in 2004 that the elimination of paper tickets and 100 per cent implementation of e-ticketing worldwide would be achieved by the end of 2007. This deadline was extended to May 2008 at the Annual General Meeting in 2007 in order to allow airlines behind schedule, due to late starts, system enhancements and regulatory limitations (for example, it was in 2007 that the Government of Russian Federation removed legal restrictions requiring a paper coupon as proof of payment), more time to complete their electronic ticketing projects.

⁵ There is a development in so-called GDS New Entrants (GNEs) such as Farelogix, G2 SwitchWorks and ITA Software, which provide a cheaper alternative to CRSs and have the potential to significantly reduce distribution costs for major airlines. For example, in 2005, Star Alliance concluded "alternative content access platforms" contracts with G2 SwitchWorks and ITA Software in an effort to reduce the \$2 billion which the member airlines spend annually on CRS fees.

4. CONCLUSION

4.1 The adoption of a liberalization programme and liberalization measures by States to open up the air transport sector has been transforming the operating environment for international airlines, while the industry's strategic responses to constantly changing and often uncertain economic and commercial opportunities have been the major driving force for regulatory changes and adjustments. The spread of liberalization and the emergence of new business practices in the aviation marketplace would continue to interact and have implications on each other. Some of these issues and their implications are discussed in Assembly working paper A36-WP/16.

5. ADDITIONAL INFORMATION

5.1 Additional information on regulatory liberalization may be found at the ICAO website (www.icao.int), including case studies of States' liberalization experiences and States' policies on air carrier ownership and control (available at: www.icao.int/icao/en/atb/epm/Ecp/EcpDatabase.htm).

— END —