

Air transport

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CONTENTS

Introduction 2

Current regulatory system 2

Routes to reform 4

Bilateral "Open Skies" agreements 4

United States model 4

Regional agreements 5

Multilateral 6

Aircraft repair and maintenance services 7

Selling and marketing of air transport services 8

Computerised Reservation Services (CRS) 9

Reform of the Annex 10

Regional extensions of the GATS 11

Multilateral disciplines on regional blocs 11

GATS and developing countries 12

Impacts of reform 13

Developing country competitiveness 13

Modelling results 15

Competition policy issues 17

Airport access 17

Airline marketing 18

Alliances 19

Policy responses 20

Conclusion 21

Introduction

Air transport, at least, the direct provision of the service, is currently excluded from the provisions of the General Agreement on Trade in Services (GATS) by a special Annex. However the GATS also contains a provision that the

..Council for Trade in Services shall review periodically, and at least every five years, developments in the air transport sector and the operation of this Annex with a view to considering the possible further application of the Agreement in this sector.

Time is up. This clause bites in the year 2000 and a review of the current treatment of air transport is then bound to begin.

This paper outlines the features of the current arrangements for the regulation of trade and investment in this sector. It reviews some routes to reform of the sector, including the multilateral track and options for dealing with air transport in the GATS. It reports work done on the impacts of reform and considers some competition policy issues that also require attention.

The paper contains a special focus on the issues facing the members of ASEAN.¹ We illustrate many of the issues by reference to the experience in ASEAN and in the conclusion we generalise from the ASEAN experience to comment on policy issues with respect to this sector, in the context of a WTO review, from a developing country perspective.

Current regulatory system

The regulation of international trade in air transport services involves an elaborate structure of bilateral agreements (there are over 3500 such agreements) which fix a set of rules to

- identify the airlines of the contracting parties with the rights to fly on each route
- determine the capacity that can be provided by each of those designated airlines
- limit the capacity that can be offered by airlines from third countries.

The system therefore imposes a set of country-specific quotas in each market, where markets are defined in terms of routes between pairs of countries and in terms of the two-way traffic flow. Competition on each route is limited to those suppliers designated by the relevant bilateral

¹ The ASEAN economy material is taken from a companion paper, Nikomborirak, D., 'A Survey of the ASEAN Airline Industry: what lies ahead after the Crisis', TDRI Research Paper, 1999.

air services agreements. When privately owned, effective ownership and control of the designated carriers must rest in the countries negotiating the agreement².

Features of this current system can be highlighted by considering the options for providing services, which are summarised below.

CONSIDER A FIRM WHICH HAS/IS....	Operating from a foreign base	Operating from a local base adjacent to the consumer.
Foreign Ownership (ie ownership of a different nationality to that of the consumers)	A1. <u>Cross-border supply:</u> eg Singapore airlines operating out of Singapore picks up Australians on Singapore-Australia routes A2. <u>Consumption abroad:</u> Eg Singapore airlines carries Australians between two foreign points	B. <u>Commercial presence:</u> eg Singapore airlines establishes an Australian operation to serve routes to and from Australia
Domestic Ownership (ie the same nationality as the consumers)	C. <u>Commercial presence:</u> eg Qantas establishes a business in Singapore to serve routes to and from Australia	D. <u>Home delivery:</u> eg Australian airline Qantas operates on routes to and from Australia

A typical bilateral agreement will

- a) put limits on access in option A1: the capacity available to carriers based in one of the end points of a route is often restricted.
- b) put limits on access in option A2: only those carriers allocated rights under the bilateral are allowed to pick up passengers on a route and rights of access to third parties are usually tightly constrained.
- c) ban options B and C (option C might be sought by a carrier based in a high cost economy which seeks to maintain its competitiveness)
- d) not permit foreign carriers access to domestic routes (not illustrated in the table as an option)
- e) note the possibility that a signatory will want to nominate more than one domestic operator for mode D

In terms of WTO principles, MFN is not satisfied since there is discrimination between foreign suppliers. Nor is national treatment satisfied since foreigners operate on different terms than

² A recent description of the system is provided by the Australian Productivity Commission in its report on international air transport (see Productivity Commission, *International Air Services*, Inquiry Report, 11 September 1998, Melbourne).

domestic carriers, for example, in terms of access to domestic markets. Clearly, market access is restricted.

Trade liberalisation refers only to option A1 and A2: this scope is appropriate for goods where it is generally assumed that there is free entry in the domestic market. In that case, the main issue is related to the terms of access of goods coming over the border from whatever source (including those produced by capacity owned offshore by local firms). Investment liberalisation covers B and C. Neither trade nor investment liberalisation covers conditions of entry for domestic firms (D).

Of the modes of supply as they are described in the GATS, namely,

- 1) cross border supply
- 2) consumption abroad
- 3) commercial presence
- 4) presence of natural persons

the first three are noted in the table. Mode 4 is also important, eg for the movement of airline staff and those who work in suppliers of complementary services, and of interest to countries at number of stages of development.

In the following section, we discuss ways in which this system might be reformed to shift it closer to meeting the principles of the world trading system.

Routes to reform

Bilateral "Open Skies" agreements

One route to reform is from within the bilateral system. It is estimated there about 50 or more bilateral agreements which have removed restrictions on access between and beyond the negotiating countries for their airlines. A lot of the North Atlantic is now covered by such agreements. It is also estimated that nearly 70% of the 400 agreements that have been initiated or amended since the GATS came into effect are either open skies agreements or contain one or more liberalising measures.³

United States model

The United States was an initiator of this trend. Its 'Open Skies Agreements' retain the key feature of the bilateral system, which is discrimination against third parties. Countries that do not enter into such agreements with the United States risk a loss of traffic because of the diversion of travellers to routes which are more competitive, where frequencies are higher and where service is better. The process of reforming international air transport by this bilateral route

³ These data are reported John Gunther, 'The review of the GATS air transport annex - an ICAO perspective', paper presented to the UNCTAD expert meeting on air transport services, Geneva, June 21-23, 1999.

therefore creates some real advantages for those who move first or furthest in relation to neighbours, and in particular for the United States carriers. In this way, the development of Open Skies agreements is expected to bring pressure on those who have not signed to join up.

The problem is that this strategy is a 'hub and spokes' approach to reform. It does not necessarily achieve an adequate standard of openness. For example, Open Skies agreements do not cover domestic routes. Therefore the United States carriers have the advantage of being able to draw on their extensive domestic networks to which Asian carriers, for example, do not have direct access. Moreover, the United States continues to insist that those on United States government business use United States airlines (and even where those officials are not moving through a United States city, ie this is a restriction on 'consumption abroad').

At the same time, a sequence of Open Skies agreements, by themselves, give United States carriers much more liberal access to Asia Pacific routes. To see why, suppose the United States signs up with both Singapore and another ASEAN economy. Then the United States airlines and those of the signatory country have free access - in terms of capacity and also points served - on all the routes between the two countries. Even more significant is that these Open Skies agreements also generally provide each party with automatic beyond rights. That is, the United States airlines have the right to pick up traffic in a signatory country and carry them to other destinations, subject to the agreement of those destinations. This means that the United States carriers will have unrestricted access to routes between Singapore and its ASEAN partner. However, airlines of the two ASEAN economies only have free access on their direct routes to the United States, but not necessarily between themselves.

Several conditions would need to be met for ASEAN carriers, for example, to gain the right to the same access as United States carriers already have from the 'hub-and-spokes' agreements. Firstly, the ASEAN governments would need to sign Open Skies agreements among themselves. Secondly, they would need to ensure that their own agreements with the United States do not contain undue restrictions on their ability to exercise their beyond rights to carry passengers or cargo to the United States.

On this issue, the ASEAN economies have diverse interests. Singapore and Malaysia have signed Open Skies Agreements with the United States, while the Philippines is weighing the potential cost and benefit of such an agreement. Thailand is most unlikely to strike such an agreement as Thai Airways' route network is very much regional. That is, it stands to gain little from unrestricted access to the US market and to other markets that might be associated with the beyond rights.

Regional agreements

A series of bilateral, 'hub-and-spokes' Open Skies agreements with the United States (or any other hub) does not lead smoothly towards a progressively more open, competitive and non-discriminatory international system for trade in international air transport. The 'spokes' need to

co-operate among themselves in similar terms as with the hub. In fact, many have already begun to do so.

In addition to developments already discussed, a number of incipient regional air transport arrangements are emerging. Before 1995, the important regional agreements were the EU arrangement to establish a single market by 1997 and the Andean pact open skies agreement. Since then there have been 7 other regional initiatives, 2 in the Americas, one in Asia (among 4 states in Indo China), four in Africa and and the Middle East. Many of these agreements are associated with other regional trade arrangements.

In ASEAN, many countries are still cautious about exposing the domestic carrier to competition from other foreign airlines. This is despite the contradiction between this position of protecting the national carrier and the objectives of efficiency improvements and of tourism promotion. It also contradicts their vision of making the domestic airport a regional hub. Consequently, the idea of establishing a "regional open-skies policy" within the ASEAN region, as proposed by Singapore, will require more work and evaluation before it will be endorsed.

The proliferation of regional arrangements raises the question whether these, in turn, are likely to fragment or integrate the global air transport market. The formation of blocs could result in greater competition within them, but barriers could rise for airlines from outside the region, in the absence of WTO-type limits on discrimination.⁴ For instance, in one case, members of a regional agreement have declared their internal routes to be domestic and therefore not accessible by carriers not based in bloc members. The bloc has therefore restricted access to non-members. In this way, protectionist blocs with large internal markets could use their power to the disadvantage of smaller third parties.

The question is how can the regional blocs be encouraged to adopt an open approach to membership at the same time as promoting liberal competition within the group? One option could be the GATS itself.

Multilateral

The General Agreement on Trade in Services annex on international air transport says (in part):

1. This Annex applies to measures affecting trade in air transport services, whether scheduled or non-scheduled, and ancillary services. It is confirmed that any specific commitment or obligation assumed under this Agreement shall not reduce or affect a Member's obligations under bilateral or multilateral agreements that are in effect on the date of entry into force of the WTO Agreement.
2. The Agreement, including its dispute settlement procedures, shall not apply to measures affecting:
 - (a) traffic rights, however granted;
 - (b) or services directly related to the exercise of traffic rights,except as provided in paragraph 3 of this Annex
3. The Agreement shall apply to measures affecting:
 - (a) aircraft repair and maintenance services;
 - (b) the selling and marketing of air transport services;

⁴ Ballantyne, T., 1996. New group on the bloc. *Airline Business* 12 (9), 100.

(c) computer reservation system (CRS) services.

4. The dispute settlement procedures of the Agreement may be invoked only where obligations or specific commitments have been assumed by the concerned Members and where dispute settlement procedures in bilateral and other multilateral agreements or arrangements have been exhausted.

5. The Council for Trade in Services shall review periodically, and at least every five years, developments in the air transport sector and the operation of this Annex with a view to considering the possible further application of the Agreement in this sector.

The Annex spells out that the GATS shall not apply to traffic rights and ‘services directly related to the exercise of traffic rights’. Its coverage is therefore limited to the provision of complementary services.

In total, 40 countries made commitments in at least one of three air transport services covered in the Annex (33 in maintenance, 26 in sales and marketing, and 23 in CRS). Twenty eight countries took MFN exemptions with respect to at least one of the three activities.⁵

There is a number of issues related to the Annex, to methods of changing it and to the usefulness of the GATS as an instrument for monitoring regional arrangements. Before reviewing those issues we review the commitments made in the GATS by ASEAN members.

Aircraft repair and maintenance services

Repair and maintenance services account for approximately 10 percent of an airline's operating costs. It is estimated that maintenance costs over 15 years represent approximately two thirds of the sale price of the aircraft. Thus, aircraft and maintenance services are of significance to the aviation industry.

Maintenance is traditionally undertaken by companies for their own account, often without the creation of subsidiaries and internal billing. With recent trends toward deregulation, however, such activities are increasingly being undertaken externally. Yet, delivery of such services is still restricted to the national carrier or a government-owned business. Foreign operations are often not permitted.

To promote effective competition in the repair and maintenance services, 103 GATS members have complied with the MFN obligations for aircraft repair and maintenance services. (This figure excludes the EC which has preferential treatment for members). Among ASEAN countries, Thailand is the only country that applied for an exemption from the obligation, meaning that preferential treatment can be given to certain suppliers of repair and maintenance services outside its territory.

As far as market access is concerned, out of 45 members (counting 12 EU member states as one country) who made commitments to liberalise particular modes of supply of this service,

⁵ See UNCTAD Secretariat, “Air transport services: the positive agenda for developing countries”, TD/B/COM.1/EM.9/2.

only two are from the ASEAN-5, namely, Thailand and the Philippines. Table 1 illustrates ASEAN-5 countries' obligations and commitments in repair and maintenance services in GATS. Note that since cross-border supply for this type of service is likely to be technically infeasible, commitments to mode 1 are not shown in the table.

Table 1: ASEAN-5 obligations and commitments in repair and maintenance services in GATS

Country	MFN obligations	Market Access		
		Mode 2	Mode 3	Mode 4
Indonesia	Yes	Did not commit		
Malaysia	Yes	Did not commit		
The Philippines	Yes	Full	Partial	Partial
Singapore	Yes	Did not commit		
Thailand	No	Full	Non-commitments	Partial

Source: WTO document, Council for Trade in Services: S/C/W/59, November 1998

As can be seen from the table above, only Thailand and the Philippines made commitments to allow consumption abroad of repair and maintenance services without any limitations (mode 2), but only the Philippines made a commitment to allow foreign providers to establish commercial presence, with certain limitations.

Selling and marketing of air transport services

Selling and marketing of transport services is defined in the Annex of Air Transport Services as "opportunities for the air carrier concerned to sell and market freely its air transport services including all aspects of marketing such as market research, advertising and distribution. These activities do not include the pricing of air transport services nor the applicable conditions." This definition is clearly restricted to selling and marketing activities undertaken by the airline company itself, and does not cover activities when carried out by CRS and ERSP (Electronic Reservation Service Providers).

The selling and marketing of air transport services are important components of an airline's operating cost. The size of this market is roughly twice the size of market for maintenance and ten times the size of the CRS market. It is estimated that ticket sales and promotion account for between 15.5 and 16.5 percent of operating expenses. This figure may be somewhat over estimated as it includes commissions paid to travel agents, which are not covered in the GATS definition of selling and marketing of air transport services.

As can be seen from Table 2, Thailand is the only ASEAN-5 country that applied for an exemption from MFN obligations concerning services of selling and marketing of air transport services. An exemption is often used to obtain equivalent treatment on the basis of reciprocity or bilateral agreements that may involve reciprocal restrictions, or preferential treatment, for

selling and marketing activities. In case of Thailand, the exemption is required as local regulations stipulate that only airlines registered with the Amadeus system can install their own system at any travel agency in Thailand.

Table 2 ASEAN-5 obligations and commitments in selling and marketing of air transport services in GATS

Country	MFN obligations	Market Access			
		Mode 1	Mode 2	Mode 3	Mode 4
Indonesia	Yes	Did not commit			
Malaysia	Yes	Did not commit			
The Philippines	Yes	Did not commit			
Singapore	Yes	Did not commit			
Thailand	No	Non-commitments	Non-commitments	Partial commitments	Partial commitments

Source: WTO document, Council for Trade in Services: S/C/W/59, November 1998

While most ASEAN members comply with the MFN obligations, only Thailand, who is exempted from the obligation, made commitments to market access. It is committed to allow foreign commercial presence in the marketing and sales service market and to allow foreign experts to offer services in the domestic market, albeit with some restrictions on foreign equity share and movement of natural persons according to horizontal commitments.

Computerised Reservation Services (CRS)

Computerised reservation services are defined in the Annex as "services provided by a computerised system that contains information about carriers' schedule, availability, fares and fare rules, for which reservations can be made or tickets may be issued". The size of the market is estimated roughly at US\$4 billion. The figure includes non-aviation businesses such as train and hotel reservations. The market is split half and half between the United States and the rest of the World.

As can be seen in Table 3, Singapore and Thailand are two countries in the ASEAN-5 that have obtained exemptions for CRS. As mentioned earlier, the local regulations in Thailand give preference to the Amadeus system, in which the national carrier holds an equity stake. As for Singapore, preferences are given to the Abacus, which is based in Singapore.

In terms of market access, no ASEAN-5 members made any commitments. Nevertheless, the number of vendors in Indonesia, the Philippines and Thailand increased during the period 1995-1998, signifying greater competition in the market. The lack of correlation between commitments made and the actual development of competition in the CRS market is observed not only among ASEAN states members, but also other WTO member states.

Table 3: ASEAN-5 obligations and commitments in computer reservation services in GATS

Country	MFN obligations	No. of Vendors		Market Access			
		95	98	Mode 1	Mode 2	Mode 3	Mode 4
Indonesia	Yes	2	3	Did not commit			
Malaysia	Yes	5	3	Did not commit			
The Philippines	Yes	3	4	Did not commit			
Singapore	No	5	4	Did not commit			
Thailand	No	2	4	Did not commit			

Source: WTO document, Council for Trade in Services: S/C/W/59, November

To conclude, ASEAN countries have committed very little in air transport in the WTO. The ASEAN economies' experience illustrates the sorts of resistances that exist, there is scope to extend the number of commitments made.

Reform of the Annex

The Annex is to be reviewed and a number of directions of reform are possible. Its removal is the most radical form of surgery. This would mean all the processes of the GATS would apply to air transport. The risk is that a host of MFN exemptions would then be sought and few commitments would be made. It is worth considering some intermediate steps.

Extend paragraph 3

Before reform occurs some further discussion will be required on the coverage of the Annex. The existing coverage could be clarified by considering a more detailed definition of the air transport sector, including the related activities. Such definitions are in common use in the industry. Options for extending the coverage, for example, specifying more services in paragraph 3, at the same time as reducing the list covered by paragraph 2, could then be specified. For example, it has been proposed on a number of occasions that air freight be included in the GATS coverage. The same proposal has been made for charter services. Many developing countries are interested in markets for other sorts of air transport services, such as fire fighting or surveying.

Carve out modes of delivery

Another route to reform within the GATS could be to modify the Annex to carve out modes of delivery. A report UNCTAD Expert Meeting on Air Transport Services observed that a large number of countries might wish to exclude the coverage of Mode 1. Mode 3 (commercial presence), however, is increasingly common, even within the bilateral system. If this mode were covered then the benefits of the GATS in terms of MFN, market access and national treatment would apply to foreign investors in this sector. Commitments under modes 2 and 4 are also relevant. If there was a consensus on this approach of carving out mode 1, then paragraph 2 could be amended to specify that the exemption applies only to that mode.

Regional extensions of the GATS

ASEAN nations have established a framework for negotiations in trade in services known as AFAS or ASEAN Framework Agreement on Services. The basis for negotiation is based on commitments member made in the GATS. That is, each member is to "offer" additional commitments to liberalise relevant service markets beyond what has already been committed in the GATS, known as the "GATS plus" offers. At the same time, members also submitted specific "requests" for other members to liberalise. For example, Singapore submitted a request for Thailand to abolish regulations that require transmission of data via public networks only.

The scope of the negotiations under AFAS has been focused on seven so called "priority sectors", including air transport. A review of the outcome of these negotiations shows that minimal additional commitment have been made at the regional level, *which reflects members' unwillingness to open up their aviation industry even among neighbours (see Nikomborirak (1999)).*

Multilateral disciplines on regional blocs

Some of the concerns about following the regional route to reform were noted above. The GATS has provisions in Article V which apply to regional arrangements. However these do not currently apply to air transport because of the exemption under the Annex. Even if the GATS did apply, then the regional approach to air transport reform as currently practised would not be sanctioned by the GATS which requires "substantial coverage". The GATS may apply to air transport when the regional arrangements developed are part of a larger set of regional trade arrangements. There is some flexibility in Article V for developing countries but that flexibility may not be sufficient to support arrangements which apply to just one sector.

In the absence of a multilateral discipline are there alternatives? How can the regional blocs be encouraged to adopt an open approach to membership at the same time as promoting liberal competition within the group? One set of principles designed with the aim of achieving this goal are those of the so-called Open Club.⁶ Appendix 1 spells out the Open Club principles as they might apply to air transport. Reform of the air transport system requires the removal of restrictions on capacity on sets of routes between economies. The rules of the club explain to whom this unrestricted access is available and to whom it is not available. Club members would

⁶ The specification of the Open Club model is taken from A. Elek, C. Findlay, P. Hooper and T. Warren, "Open skies or Open Clubs: new issues for Asia Pacific economic cooperation", *Journal Air Transport Management*, 5 (1999), 143-151. As Snape (1996) points out, there is a precedent in the GATS for a club approach to liberalisation. This precedent applies to professional services. Article VII of the GATS provides that members can recognise the qualifications of suppliers from other countries and that this might be the result of negotiation or of autonomous action. But once recognised in this way, members are obliged to provide opportunity for other interested members to negotiate accession or to demonstrate that they meet the criteria. Members are also to report their negotiations or decision to the WTO Council for Trade in Services. Members are urged to use already agreed international standards or to work towards such standards. A set of generally applicable criteria for Open Clubs to facilitate trade or investment among groups of economies was first proposed by Drysdale, Elek and Soesastro (1997).

exchange unrestricted market access rights with each other. As a consequence, members and non-members would be treated differently: the rules of the club would divert activity away from, deny opportunities to and therefore discriminate against outsiders. The only way for outsiders to prevent this consequence is to join arrangements pioneered by others. A key feature of an Open Club regime is that its rules should also specify how new members can join.

These principles could be established and then monitored by another regional trading arrangements to which some or all the participants belong. In East Asia, the obvious place to document these commitments and monitor their implementation is within the APEC process.

It should also be noted that even if the Open Club approach is adopted, there are still other competition policy issues to be tackled. These are discussed in more detail below.

GATS and developing countries

A number of suggestions have been made by ICAO, IATA, and specialised regional organisations to increase the participation of developing economies in these markets. GATS has an article on this issue (IV). This article avoids a special and differential approach to developing country participation and stresses the capacity to compete in international markets.

The Secretariat of IACO has also made some suggestions relating to greater degrees of flexibility for developing countries in bilateral agreements.⁷

Developing countries stand to gain from wider coverage of air transport in a number of ways, including the scope to use in this sector as part of the bargaining processes in the WTO. In addition, they gain from the coverage of the terms of access to markets.⁸ Data reported in the next section suggests many are likely to be highly competitive in those markets. These sorts of gains help reduce the resistances already evident, in the ASEAN experience, to listing commitments in the air transport sector.

⁷ For more information, see recommendations of ICAO's Air Transport Regulation Panel and adopted by the ICAO Council on 27 June 1997. Details are available from the ICAO web site at www.icao.org.

⁸ Our commentator, Thomas Chan, made the following points about the relevance of alliances for newcomer suppliers: "For the smaller airlines of latecomers/small nations to survive, the strategic alliances now they are taking part in might be the best organizational means for them to escape the brutal fate of market failure or elimination. As members of the alliances, when the competition pressure has made it necessary for the alliances to evolve from loose strategic cooperation to tighter forms of cooperation, including equity exchange and eventual merger, they would be in a good position to be incorporated through fairer negotiations and with better, more equal treatment. Eventually, they might not survive as independent national airlines. But through incorporation into the global airlines, they would maintain their share and say in the international and domestic air transport markets. This should be the best fate or outcome in the increasing unequal competition of globalization for these smaller airlines and for the latecomers/small nations."

Impacts of reform

Developing country competitiveness

The regulatory system has the effect of denying some of the gains from trade in this service. One indicator of the extent of those gains is the variation in costs between airlines based in different countries. The evidence is that there is substantial variation in carrier costs depending on their home base.

Figure 1 reports the result of the analysis by Oum and Yu of differences in carriers' unit costs.⁹ These differences include the variation due to differences in output characteristics but include those due to differences in input prices and to "efficiency". The latter includes the sources of variation in cost differences which cannot be attributed to input prices or operating characteristics (such as stage length or frequency): it is a measure of the extent to which some airlines fail to reach the frontier given their output mix and input prices. This measure could therefore be interpreted as a summary of the variables which affect performance but which are not able to be included in the analysis: these variables might include

- the extent of competition in markets in which the firm operates,
- characteristics of the overall management and control of the firm, including the impact of government ownership and the extent of monitoring and control by a commercially oriented board of directors,
- access to modern processes of airline management, including IT systems, aircraft utilisation planning, etc,
- levels of skill in the airline workforce.

The differences among airlines in the Oum and Yu sample (at 1993) are reported in the figure relative to American Airlines (a positive number means the particular effect contributes to a higher cost compared to American). The first column shows the difference between that carrier's costs and those of American due to variation in labour cost. The second shows the difference due to efficiency effects. The third ('cost competitiveness') is the sum of the differences in costs due to input prices (labour costs plus other inputs, where the latter is not shown) and that due to efficiency.

Airlines in the figure are ranked in terms of diminishing competitiveness compared to American. The data illustrate the possibility for developing economies to host internationally competitive carriers. This is reflected in the fact that the right hand side of the figure is dominated by airlines based in developed economies. Those developing economy airlines in the sample are located at the left hand side.

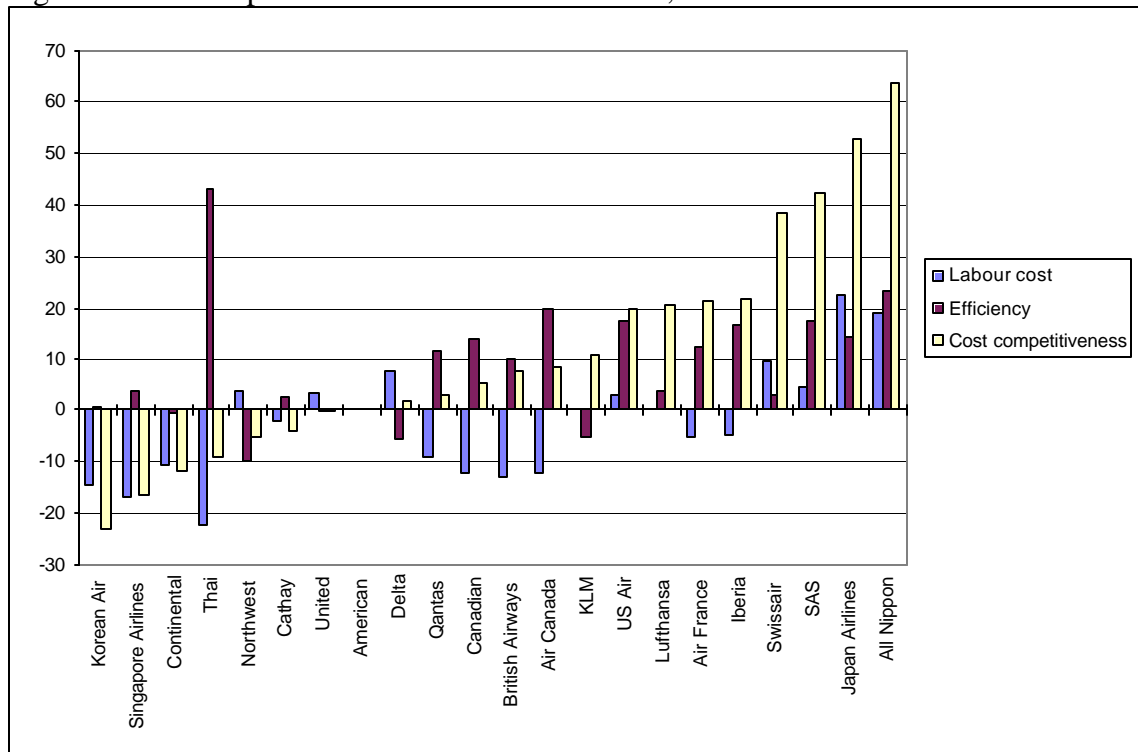
⁹ Tae Hoon Oum and Chunyan Yu, *Winning Airlines: Productivity and Cost Competitiveness of the World's Major Airlines*, Kluwer Academic Publishers, Boston, 1998.

Thai International is an outlier in the sample. Its advantages due to lower input prices are offset by low levels of efficiency,¹⁰

Oum and Yu observe that input prices have traditionally been the more important determinant of competitiveness. Their view is that as the importance of global sourcing increases, the importance of input prices is likely to diminish. Efficiency they say will become more important as a determinant of competitiveness. The stress on efficiency will also increase in those economies where as a consequence of development input prices rise rapidly.

The list of variables that was suggested as sources of measured “inefficiency” also indicates that reform policies can lead to improvements in competitiveness. Openness to foreign investment can lead to tighter commercial control and the transfer of technologies. Liberalisation will lead to more competitive markets. The experience of Thai suggests that airlines based in developing economies have much to gain from policy changes of this type.

Figure 1: Cost competitiveness of international airlines, 1993



Source Oum and Yu (1998)

Oum and Yu also stress that the cost side is only part of the profitability equation. They point to examples of carriers who have low costs compared to competitors but who also fail to make profits. This is a result of the failure to use “clever pricing and yield management” (p. 204).

¹⁰ For details of some of the issues related to Thai airlines, see the companion paper by Nikomborirak.

Again, management capacity for these purposes might be delivered through cooperation with other airlines.

Modelling results

The Productivity Commission in Australia has undertaken work to model the effects of reform by various methods. Commission staff developed a spatial equilibrium model in which airlines can choose route structures to meet demand in an environment of imperfect competition.¹¹ The model was used to examine two policy changes, one the designation of multiple domestic carriers, and the other the introduction of an Open Club model.

The model also concentrates on passenger travel so the spillovers to the freight markets are not incorporated. It is also a partial equilibrium approach, so the results do not capture the effects on the rest of the economy. The Commission pointed to a couple of ways in which the inter-sectoral effects would be important. Increased air travel will lead to greater demand for services like those listed in paragraph 3 of the Annex. Second, there will also be an effect on the tourism sector. The Commission suggested that examining the changes in net passenger movements would provide some information on the likely impact of reform on the local tourism industry.

The Commission examined the effects of entry of another carrier into routes to and from Australia. The estimated impact on prices ranged from falls of 2.4% to 7.7%. Both Australian and foreign welfare increased. Airline profits fell and consumer surplus increased and the net gain was about \$A30m. Total net passenger movements increased by nearly 4% (in the second of the 2 years in which the simulation was run, and by 2% in the first year).

The Commission also examined the effects of the introduction of an Open Club approach to reform. In their example, the club included Australia, China, Hong Kong and Japan. The total benefits of openness within the group to members was \$A253m (in 1997). Consumer surplus increased and profits decreased. There was also an effect on non-members whose welfare decreased as a consequence of a fall in profits that was higher than an increase in consumer welfare in their economies.

These results are the consequence of a number of effects¹² including

- competition effects

¹¹ The results are summarised in Append F of Productivity Commission, *International Air Services*, Inquiry Report, 11 September 1998 and presented in more in a technical paper available from the Commission web site at <http://www.pc.gov.au/inquiry/airserv/finalrep/index.html>.

¹² This discussion of effects of the introduction of an Open Club model is taken from Andrew Elek, Christopher Findlay, Paul Hooper and Tony Warren, "'Open skies' or open clubs? New issues for Asia Pacific Economic Cooperation", *Journal of Air Transport Management*, 5 (1999), 143-151.

- cost reducing effects
- cost difference effects

The competition effects refer to the reduction in market power that occurs because of the removal to barriers to entry and the increase in the number of suppliers. Mark-ups over costs would be expected to be reduced because of this effect.

The cost reducing effects come from two sources. First, the greater intensity of competition in the markets affected leads suppliers to operate closer to their frontier levels of costs. In the absence of that competition, they may have been operating at higher costs than the minima attainable given their input prices. The extent of the efficiency gains possible was illustrated in Figure 1.

Second, the relaxation of constraints otherwise imposed by the bilateral system facilitates creation of networks, including new hubs. With greater freedom than previously, and therefore more choice, airlines could be expected to achieve further cost reductions. This second set of effects therefore involves airlines moving closer to the minimum attainable levels of costs, given the input prices they pay.

The third set of effects arises because there will be differences in input prices faced by airlines based in different locations. Airlines from different economies can deliver services to a particular market at varying costs, as illustrated in Figure 1. Some economies are likely, in other words, to have a comparative advantage in the provision of these services. The easing of restrictions on entry will promote their market shares within the club.

Airlines and consumers will be affected by these developments. Consumers gain from all three sorts of effects. Airline profits are reduced by the competition effects, but the degree of reduction is offset by the cost reductions they also receive. The beneficiaries are likely to include those with comparative advantage in the provision of the service. In the context of a market in which airlines provide differentiated services, even airlines that are relatively high cost suppliers may see substantial gains from the scope to redesign their networks.

National interests can be thought of as a sum of consumer and producer interests. The incentives for a particular economy to consider joining the club depends upon the relative size of the effects on the two groups and the weights they place on the interests of the two groups.

The results illustrate some points about the relevance of the Open Club approach to reform. Once the club is established, are there incentives for membership to grow? One issue is that new members may be seen as a threat by airlines of economies already in the club if the new members are lower cost suppliers. For this reason, the club is formed in the first place using the rule of open membership. On the other hand, new members offer new markets and new networking possibilities for existing members, and existing members will already have gained some advantages from their membership (eg the cost reduction effects noted above). New members also have an incentive to join since they are now competing with club members, who have gained from the cost reductions associated with club membership, in their home markets.

The longer they stay out, and the larger the club becomes, the more powerful the competitive spillovers from the club in their own markets.

Competition policy issues

One interpretation of the current regulatory structure applied to international aviation is that it is an early but crude example of competition policy. Countries were concerned about the exercise by others of control over landing rights. They were concerned in the mid 1940s when the issue arose, about being denied access to airspace. In other words, they feared being subject to unilateral application of monopoly power by a trading partner. One option was to agree multilaterally not to exercise that power. Despite an effort to do so, this approach failed. They then agreed to exchange access rights bilaterally.

The bilateral agreements were an interesting solution to a competition policy issue. But they had some costs. The consequence was a denial of the gains from trade in this service. They acted as a system which protected incumbents and they made it more difficult for newcomer suppliers to get access, especially to routes between other economies. The response therefore created another set of competition policy problems since the rules they designed had the effect of inhibiting entry by those newcomer suppliers.

For reasons discussed above these regulatory arrangements are now under pressure for reform. There is a possibility that a multilateral exchange of rights will be possible, at least in a series of regional exchanges. Even if that particular concern is resolved, there may still be other competition policy issues which demand attention.

Airport access

Dominance of airport services by the main carrier at each airport is one such competition policy issue.

Airline Business (in its June 1999 issue) reviewed airport performance worldwide. It reported that over the top 100 airports (in terms of passenger movements) world wide in 1998, the main carrier had on average 48% of the daily frequencies. There was however substantial variation in this average between regions. In North America, at the top ten airports with the highest shares of the main carrier, the shares of daily frequencies held by that carrier ranged from 73% up to 89%. In Europe the range of shares at the same top ten airports was between 54% and 71%. In the Asia Pacific region, Malaysia Airlines had 68% of daily frequencies at Kuala Lumpur International Airport. The next highest was Garuda at Soekarno-Hatta airport at Jakarta (52%) and the bottom end of the range was 36%. The magazine concluded that “the dominant position of the US carriers at their hubs contrasts sharply with the relatively weak position of the Asian carriers” (p. 60).

There is both market and regulatory pressure to undermine the power of carriers which dominate hubs. The market pressure comes from the development of secondary airports. However Warren, Tamms and Findlay observe that¹³

The ability of the incumbent to foreclose access to airport services depends crucially on the inability of a potential entrant to find effective substitutes. Such substitution has proven particularly difficult in the market for various airport services. To begin with key airports around the world tend to be subject to significant peak-time congestion in terms of available landing slots, ground-handling facilities and terminal gates. Consequently, there is limited scope for entrant airlines to access priority slots and gates.

Second, most destinations do not have alternative airports at which potential airline entrants can circumvent the long-term contracts between airport and incumbent airline. In part, this is because an airport tends to be a natural monopoly in all but the largest of markets. Even where a second airport exists, passengers display a distinct preference for the most advantageously positioned airport or, particularly in the case of business passengers, the airport which has better connections to other flights, which is usually the airport where the incumbent is ensconced.

On the regulatory side, *Airline Business* reports that the legislation in the US may require major hubs to explain how they propose to open to greater competition if they wish to receive additional funding for upgrades (June 1999, p. 58). In regimes where airports were privately owned, the focus will also be on the design of access regimes.

Airline marketing

Warren, Tamms and Findlay note that potential entrants are likely to encounter significant barriers in attracting sufficient customers as a consequence of the widespread use of frequent flyer programs by incumbent airlines. They observe that there is some evidence to suggest that frequent flyer programs are devices for retaining customers that favour large incumbent carriers to the detriment of potential entrants.¹⁴ They quote one study of US domestic markets. It found an average willingness to pay an additional US\$32 per round trip to accumulate frequent flier points.¹⁵ The OECD also reported a United States General Accounting Office (GAO) study that revealed that 81 per cent of business travellers, more than half the time, choose flights to build up their frequent flyer mileage.¹⁶ The OECD concluded the available evidence “provides a *prima facie* case for considering [frequent flyer programs] as a potential barrier to market entry”.¹⁷

¹³ This and all subsequent references to Warren, Tamms and Findlay refer to the paper by those authors, “Beyond the Bilateral System: Competition Policy and Trade in International Aviation Services”, paper presented at the American Economic Association Annual Meeting and meeting of the Transportation and Public Utilities Group, 3 January 1999, New York, NY, USA and later at the PECC Trade Policy Forum, Auckland, June 3-4, 1999. The original of this text contains detailed footnotes not included here.

¹⁴ OECD, 1997, *The Future of International Air Transport Policy: Responding to Global Change*, OECD, Paris, 154 pages, at p.62–64.

¹⁵ S. Morrison and C. Winston, 1989, ‘Enhancing the Performance of the Deregulated Air Transportation System’ *Brookings Papers on Economic Activity: Microeconomics*, pp. 61–123 at p. 67.

¹⁶ OECD, 1997, loc cit; 63

¹⁷ OECD, 1997, loc cit.

Warren, Tamms and Findlay also find that the importance of other aspects of marketing arrangements, including long term arrangements with travel agents, that were a barrier to entry has been substantially lessened over the past few years. They note that improvements in computer technology have created alternative ways of selling tickets, for instance.

Alliances

Alliance strategy in various forms has dominated the airline landscape. Strategic alliances which allow capacity sharing can be seen as a substitute for multi-national consolidation among airlines when direct merger or takeover is restricted bilateral agreements, which specify that an international airline must be under "substantial ownership and effective control" of its home country nationals. Alliances offer the opportunity to expand network and market presence without having to expand the existing fleet. Code sharing (a particular form of alliance) allows an airline to circumvent

- "the capacity constraints and foreign investment restrictions in the bilateral agreements and (indirectly) provide services to new destinations or to cities they currently serve with less frequency"
- "barriers to airport facilities by taking advantage of the partner airlines superior access"
- "incumbency advantages the partner airline has in terms of access to travel agents and corporate sales." (quotes from Warren, Tamms and Findlay).

The post-bubble era casts a rather grim prospect on the ASEAN 's economic growth in the next decade. Faced with slower demand growth and tight financial constraints under heavy debt burden, ASEAN airlines will now seek alliances harder than ever before. It appears to be the only way to retain market presence without having to expand the existing capacity, and to cut costs. At the moment, only Thai Airways is a member of an alliance. Singapore Airlines will be joining Thai Airways in Star Alliance towards the end of 1999. Other ASEAN airlines will more time.

While strategic alliance allows smaller airlines to integrate into a larger network, such an arrangement may unduly restrict competition on certain routes. Warren, Tamms and Findlay note that these types of arrangements tend to be unstable. Each partner carrier has the incentive to sell its full compliment of seats and allow the partner airline to bear the costs of low load factors. Consequently, many carriers seek to enter into supplementary agreements where they jointly determine airfares or revenue-share on flights where they code-share. Thus, through alliances, member airlines are behaving increasingly as a cartel.

Warren, Tamms and Findlay observe that the effects of international alliances upon competition in international aviation markets are far from clear. There are benefits to both carriers (in terms of economies of traffic density and (hence) cost-savings) and passengers (in terms of a more

“seamless” service) but the question is whether these outweigh the possible anti-competitive effects of such alliances.¹⁸ Alliances are more likely to increase the market power of incumbent airlines where two large incumbent carriers providing flights on the same route decide to ally. The chance of that happening is made greater by

- a) the nature of the bilateral system, which limits the pool of potential entrants, and
- b) the inability of potential entrants to agree terms for essential inputs.

The government policy towards alliances will have to be weighed in terms of the potential gains in producer's and consumer's surpluses. While strategic alliances are certain to lead to an increased producer's surplus, we must ensure that the additional gains are passed on to the consumers in terms of lower airfare or superior services. Transfer of surpluses from producers to consumers will only occur in markets where competitive pressure prevails. Thus, where alliances dominate, the market must be liberalised. This point has implications for the policy approach to alliances. As a consequence we observe that the Fair Trade Commission in the US has not approved Delta's proposed alliance with Air France on the grounds that the US-France bilateral has a 4-5 year transition period to an open skies regime.

Policy responses

While a multilateral consensus on approaches to competition policy issues is being established, other options for dealing with competition policy disputes or issues might be considered.

The GATS (assuming it applied to traffic rights) has a number of provisions that refer to competition policy issues. An important advantage of the GATS is that if its coverage were extended to air transport, then its capacities could be applied to deal with many of the important competition policy issues in the sector. These are also issues which are of critical concern to newcomer suppliers, especially those from developing countries. These articles include

- domestic regulation (VI)
- monopoly and exclusive service providers (VIII)
- business practices (IX)
- safeguard measures (X)
- subsidies (XV).

There are however some constraints on the use of the GATS for these competition policy objectives. Its provisions can only be invoked by States and can only be used to deal with situations where States are involved directly or indirectly (although that could include the failure of a State to invoke its own anti-trust provisions to constrain behaviour of a national airline). A further constraint on the use of the GATS at this time is that these provisions have not been tested.

¹⁸ See, for example, Australian Competition and Consumer Commission, 1998, *Ansett, Air New Zealand, Singapore Airlines Alliance Agreement: ACCC Final Determination*, Canberra, Australia.

The recent UNCTAD expert meeting on air transport suggested that the WTO Reference Paper on Basic Telecommunications be examined as a model for how competition policy issues could be dealt with in a particular sector. This paper includes reference to competitive safeguards, rules on infrastructure, treatment of universal service obligations, transparency, rules on allocation of scarce resources and value of having regulators who are independent of service providers. This list also provides a wide coverage of issues relevant to air transport.

As the applicability of the GATS to the whole of the air transport sector is being considered, a complementary approach, also noted by the UNCTAD expert meeting on air transport, would be to follow an ICAO suggestion to establish an industry dispute settlement and conciliation process that could work at the enterprise level.¹⁹ This process could involve the establishment of panels chaired by people selected from a pool of experts nominated by ICAO member states. Extending the original ICAO proposal, the panel might also involve representatives of the competitive policy authorities in each the States involved in the dispute.

Conclusion

There is no escaping intense scrutiny of the regulatory structures in international air transport markets as a consequence of the review of its treatment in the GATS. Indeed, the whole of the service sector is likely to be in the spotlight in the next round of WTO negotiations. The pressure to liberalise will become more onerous. It is urgent that governments prepare for these negotiations.

The pressure for reform from the international institutions is just one of the challenges which confront the ASEAN economies. The economic crisis has had a severe impact on the airline industry in ASEAN. Many smaller operators have folded. Even national carriers such as PAL of the Philippines and Garuda of Indonesia are going through a rough ride. The government is under a tight fiscal position such that it can only afford partial bailouts. The airlines' attempts to cut cost may backlash in labour disputes and strikes, as have been the case for Cathay and PAL. What is the way out?

The first step is to increase the "value" of national carriers and thus make them more efficient and attractive to potential investors. The governments could

- end cross subsidies between international and domestic operations and devise a clear and transparent subsidy schemes.
- make rules and regulations concerning the provision of "social services" as clear as possible so as to avoid the abuse of such terms.

¹⁹ For more information, see recommendations of ICAO's Air Transport Regulation Panel and adopted by the ICAO Council on 27 June 1997. Details are available from the ICAO web site at www.icao.org.

- establish arm's length relationship with the commercial enterprise.
- privatize if meaningful reform of the enterprise is found to be difficult under state ownership.

Governments should devise a specific timeframe to open up markets. The need to introduce competition is particularly urgent where privatization is planned. Experiences from many countries have shown that in the absence of effective competition, privatization of state-owned enterprise translates into privatization of monopoly rents. Some of the key issues that the government should consider include

- easing regulations restricting entries into the markets, such as route restrictions and license restrictions
- reviewing laws and regulations that may give preferential treatment to a particular operator, presumably the incumbent.
- strengthening the implementation of anti-trust law.

The airlines, too, can take measures to increase the value of their businesses. These include:

- find a profitable strategic partner; ASEAN airlines lack capital and management, while global airlines desire market access
- become part of a well-established alliance in order to increase market presence and cut costs.
- diversify beyond the regional market in order to minimize the impact of regional economic downturn.

Commitments in the multilateral trading system also matter. Governments can bind themselves in that process and at the same time benefit from commitments made by others. In this paper, we talked about the gains from regulatory reform in the air transport market and illustrated the origins of those gains and their orders of magnitude. We also examined some paths to reform in the system of regulation. We commented on the process of reform from within bilateralism, and that which operates at a regional level. Both of these tracks have severe problems. We talked about routes to reform within the GATS structure and examined ways in which the air transport Annex might be amended. We also noted the relevance of the GATS for dealing with competition policy issues in this sector and have noted some interim measures that might be employed.

These issues apply to air transport. There is another level at which strategy could be reviewed. This refers to the negotiating framework in GATS. The approach in the previous round was to pursue sector-specific bargaining. While this might be argued to encourage participation, the offsetting disadvantage is that it constrains the scope for progress in each sector covered.

Negotiating services as packages, and also permitting cross negotiations between trade in goods and services, will facilitate reform.

APPENDIX 1: OPEN CLUB PRINCIPLES

Non-discrimination between members

Any airline²⁰ which

- is controlled in an economy which is a member of the club,²¹ and
- operates on any route between any two points within the club²²

faces no restrictions on capacity.

As a consequence, it can be said that there is no discrimination in the treatment of airlines controlled in a club member.²³

There is a risk, however, that new forms of discrimination might be introduced in order to reinstate the previous outcome of the bilateral agreements. For trade in goods and services, the WTO has adopted the combination of ‘standstill’ and ‘roll-back’ to promote a gradual trend towards non-discriminatory free trade. Consistent with this approach, the expectation is, therefore, that club members will not create new instruments of discrimination.

Accession

Co-operative arrangements to facilitate trade or investment will tend to divert economic activities to the economies involved. Moreover, those who benefit from the diversion of trade or investment, intended or unintended, will tend to resist accession by additional economies. Therefore, if co-operative arrangements are to be genuinely open to accession, their design will need to anticipate and minimise such resistance.

²⁰ This rule also means that members expect that there will be no discrimination between domestic incumbents and potential domestic entrants in each member economy.

²¹ We suggest focussing this rule on control rather than location of operations, to avoid the issue of treatment of airlines of club members which have operations based both inside and outside the economies of the club. The expectation would also be that the definition of control would not be set so tight as to become a new source of discrimination.

²² This wording also refers to “any two points” which includes domestic routes. We expect that a club which applied only to international routes would also generate substantial gains for member economies, especially where members recognised that the removal of barriers to entry within the club reduced concerns about the anti-competitive effects of airline alliances (which could lead to code-sharing on domestic routes). See also below on rights of establishment.

²³ We noted above the application of the rules to cabotage. There are other issues of national treatment, for example, whether restrictions on rights of establishment by foreign controlled airlines are also removed in each club member economy. Unrestricted exchange of market access within the club removes the rationale for each economy to limit establishment rights to domestically controlled carriers. A rule on establishment rights could therefore be added to the rules of the club. But if the application of such a rule became a source of dispute and therefore inhibited agreement on market access by other modes of delivery, then, rather than hold up the gains associated with liberalisation of trade in this service, establishment issues might be dealt with in other ways. One way is to use other agreements on rules on foreign investment which apply in all sectors. Another approach is akin to mutual recognition, that is, leave rules on foreign establishment to individual club members and recognise all airlines (subject to the control rule) operating from each economy.

To a large extent, that can be achieved if the arrangements are highly transparent and do not create new discrimination among suppliers. In addition, the arrangements should specify, at the outset, that the only condition for accession by additional economies will be their demonstrated ability to follow policies consistent with the arrangements. These rules distinguish the Open Club model from other static arrangements which remain discriminatory.

A further condition which facilitates accession to the club is that existing members are willing to transfer their experience of, and lessons from, their own reforms in this sector to the new members.

Transparency

Perfect transparency may be an ideal, but it is possible to agree on criteria which co-operative arrangements should meet. For example, guiding principles for transparency could require that the policies and procedures adopted for these arrangements be set out explicitly, typically in their legislation or regulations. These should be freely accessible to all governments and producers who wish to do so.

A second important aspect of transparency is prior notice of new arrangements (or significant amendments to existing arrangements). That can enhance the prospects for more economies to join these new arrangements at the outset. Prior notice can also allow governments of other economies to comment on the terms of the proposed arrangements.

Review

It is not easy to ensure that co-operative arrangements among some economies are genuinely Open Clubs. While they may be designed, in good faith, to meet the guiding principles, their implementation could cause unexpected problems for other economies. Therefore, those involved in these arrangements should be willing to respond to constructive suggestions from other economies on how to improve the consistency of these co-operative arrangements with agreed guiding principles. A process of review is therefore an important element in the construction of an Open Club.

Based on these considerations, the principles proposed are summarised in Box 1. Co-operative arrangements which meet these criteria could be conveniently, and deservedly, described as Open Clubs. The application of these principles for the design of Open Clubs in the construction of regional arrangements can avoid the proliferation of arrangements which fragment, rather than integrate, regional markets.

Box 1: Open club principles for air transport

Non-discrimination: The arrangements should not contain any provisions, nor should any new or additional arrangements be established, which result in discrimination between airlines controlled in a club member economy.

Accession:

- (i) Any economy whose government accepts the responsibilities as well as the benefits of following policies compatible with any existing or proposed co-operative arrangements should be able to, and encouraged to, become parties to these arrangements.
- (ii) Existing parties to these co-operative arrangements should be willing to share the information, experience, expertise and technology needed to enable others to adopt the relevant policies.

Transparency:

- (i) The policies adopted to implement these arrangements should be documented explicitly (typically expressed in legislation or regulations of those economies) and be freely available and accessible, through convenient channels of communication.
- (ii) Members should provide reasonable prior notice of the nature and objectives of proposed co-operative arrangements as well as the policies by which these are to be implemented.

Review: Members should endeavour to respond positively to constructive suggestions from other economies for improving the consistency of existing or proposed co-operative arrangements with the guiding principles.