Pergamon

Transpn Res.-E (Logistics and Transpn Rev.), Vol. 33, No. 3, pp. 197-209, 1997

1366-5545/97 $17.00+0.00

PII: S1366-5545(97)00017-3

LIBERALISING COMPETITION IN DOMESTIC AIRLINE MARKETS IN ASIA—THE PROBLEMATIC INTERFACE BETWEEN DOMESTIC AND INTERNATIONAL REGULATORY POLICIES

PAUL HOOPER
Institute of Transport Studies, University of Sydney, Sydney, NSW 2006, Australia

(Received for publication 21 May 1997)

Abstract—This paper examines how governments in Asia are changing the way they regulate their domestic airline industries in response to rapid growth in demand. Typically, the national carrier has been responsible for fostering air travel, often in situations where surface transport systems are poorly developed. Air transport has been an integral part of national development policies and the national carrier has been given a degree of protection to allow it to subsidise services the government deems to be necessary. As governments allow new private sector airlines to introduce much needed capacity into the system, the regulatory system is placed under severe strain. Many of the Asian countries that have implemented a more liberal approach to airline competition have been forced to allow the new private sector airlines to operate international services, at least on a regional basis. In many cases the belief has been that higher yields in international markets will help to cross-subsidise domestic services. However, increasing integration of domestic and international airline markets has posed difficulties for regulators in more developed markets and it is unlikely that this approach is sustainable. At the same time, the pressure for multiple designation and the growth of regional, cross-border airline services is complementing pressure at the multilateral level to liberalise international aviation regulations within the Asia–Pacific region. © 1997 Elsevier Science Ltd

Keywords: airlines, Asia, regulation, privatisation, new entrants, multiple designation, regional blocs.

1. INTRODUCTION

The argument that governments should play a central role in the development of national transport systems has been widely accepted throughout the world since at least the 1930s (Button, 1991). The main justification has been that transport tends to be a natural monopoly, that wasteful and destructive competition needs to be avoided and that services and infrastructure should be developed in an efficient and orderly way. These arguments have been particularly persuasive in aviation and the almost universal reaction has been for governments to own and operate airlines or to place the industry under tight regulation allowing for some elements of subsidy.

The case for state control in Asia was even more compelling. In the post-colonial era, many of the governments in this region adopted protectionist policies in the belief that this was the best way to achieve rapid industrialisation of their economies. State ownership in key sectors was the norm and the scope for private enterprise to be involved in 'infant' industries such as aviation was limited. In addition, aviation plays a strategic role in many Asian countries because of the lack of a reliable, all-season alternative to air transport.

Arguments supporting deregulation of the airline industry have been well documented (Button, 1989). In the 1970s and 1980s, regulation came to be viewed as a dead-weight loss providing benefits to the airlines or to organised labour at the expense of consumers. Furthermore, the lack of effective competition under the regulatory regimes promoted inefficiency and restricted growth in the travel market. The U.S.A. led the way with the introduction of the *Airline Deregulation Act (1978)* and many other countries have abandoned controls over entry and exit to the industry, allowing airlines to develop networks as they choose, to add capacity and to set their fares. Also, the trend has been to remove direct and indirect subsidies and to privatise national airlines.

In Asia there has been a cautious approach to deregulation. In most cases, airline networks are still developing and many of the routes lack sufficient traffic density to support competition. Nevertheless, the reform movement has commenced and is gathering pace as a result of a combination of forces. Key among these is the economic boom sweeping Asia. The most successful economies have been those that have had an 'outward-orientation' and have relied on international markets to achieve rapid industrialisation (Krueger, 1995). Promotion of international tourism as a key 'export' sector became an important element of the economic strategy.

However, the national carriers were poorly placed to cater for the resulting growth in traffic and increased expectations about performance levels. They lacked the capital required to upgrade their fleets, let alone to add capacity. The private sector, encouraged to participate in a wider set of activities under new growth strategies, was quick to respond to the opportunities. New airlines were permitted to operate alongside the national carriers and privatisation has been high on the policy agenda. Nevertheless, the new liberal approach to domestic aviation fell well short of deregulation as it was known in the more developed economies. Important issues in Asia were the continued protection of the national carrier and the maintenance of services judged to be important from a national point of view. Although a liberal approach to entry had been adopted, governments continued to regulate fares and required the provision of many unprofitable services.

In order to accommodate the growth ambitions of the new airlines and to give them access to traffic with higher yields, many of the new entrants have been permitted to enter international airline markets and even to compete with the national carriers. All of this has occurred at a time when there is considerable attention being focused on the future of the international regulatory system. Increasing global competition has resulted in strategies that circumvent or reduce the effectiveness of regulations (Lyle, 1995), but there are additional pressures to bring aviation under a multilateral system that promotes free and open trade (Nuutinen, 1992; Findlay *et al.*, 1996). Multiple designation plays a part in these debates as an opportunity to increase rivalry in the industry, but the emphasis is on the role that multiple designation can play as part of a package of reforms (Findlay and Forsyth, 1988; PECC, 1995).

This paper argues that multiple designation is a problematic interface between domestic and international aviation policies and that market forces will continue to place pressure on government policies. Changes occurring in the regulation of domestic aviation in Asia are documented and the motives and approaches taken to multiple designation are analysed. Questions are raised about the sustainability of current policies, in particular whether or not it is feasible to continue treating domestic and international aviation as independent entities. The experience elsewhere is that market forces are resulting in greater integration of international and domestic markets and the degrees of freedom that governments have to regulate multiple designation are becoming more and more limited.

2. THE CHANGING REGULATORY ENVIRONMENT IN ASIA

2.1. Market conditions

Hong Kong, South Korea, Taiwan and Singapore have had outstanding success in sustaining high long-term growth rates and their economic strategies have been emulated widely throughout Asia. Although there have been some important differences in approach, the promotion of exports has been the key foundation for growth and this has been supported by favourable exchange rates, inflows of foreign capital, and public investment in the infrastructure required to support an export-orientation (Krueger, 1995). Low wages, a plentiful supply of labour and the application of proven technology have given Asian countries a comparative advantage in their chosen industries. As a result, the region has achieved an average growth rate of GDP of 8% per annum throughout the 1980s. Continued economic success will require low inflation, closer integration with other growth economies in the region, continued microeconomic reform, application of higher levels of technology and a more skilled workforce (Asian Development Bank, 1995). It is generally considered that the higher than average rates of economic growth will be maintained in Asia.

Against this background it is not surprising that forecasting agencies are predicting that air traffic in Asia will grow more quickly than in any other part of the world at least until the early decades of the next century. IATA's projection for the year 2014 is that over half of all passenger movements by air will be associated with travel to, from and within the Asia Pacific region. In 1970, airlines in the Asian region accounted for only 4.4% of the total revenue passenger kilometres (RPKs) flown by the world's airlines. By 1980, this share had grown to 7.3% and the traffic levels had doubled (Boeing Airplane Company, 1995).

Table 1 shows that Japan's airlines flew 5.8% of the world's RPKs in 1994 and it is predicted that Japan's share will grow to 6.8% within two decades (McDonnell-Douglas, 1995). It is worth noting, however, that the Japanese domestic market is relatively mature and growth will be more rapid elsewhere, especially in China. Boeing (1995) has forecast that China's market will expand at an average annual rate of more than 11% and that its carriers will perform more than 100,000 million RPKs by 2014. This growth will provide carriers from Japan and China with substantial domestic markets exceeded only in the U.S.A.

2.2. Changing approaches to regulation

The initial step towards a more liberal domestic aviation regime often occurs when the government invites the private sector to inject additional capacity into the system (Bailey, 1993b). The approach is reactive and gradual as the government maintains its controls over entry, capacity and fares (Hooper *et al.*, 1996). Despite the lack of prior involvement of the private sector in such a complex area as aviation there has been no shortage of new carriers willing to take up the challenge (Bailey, 1993b). Table 2 summarises the regulatory changes occurring in the region and demonstrates that the liberalisation process is occurring in small and large nations alike.

Japan has one of the strongest airline markets outside the United States and policy changes need to be understood in that context. Japan Airlines (JAL), operating under government control up until 1957, faced weak competition in its domestic market from several small rivals. After a period of consolidation in the industry, All Nippon Airways (ANA) emerged alongside JAL to dominate the market. In 1972 the government decided that JAL should concentrate on international routes while ANA was defined mainly as a domestic carrier. During the next two decades the number of passengers carried on domestic routes increased more than four-fold. Most of this occurred on trunk routes and unprofitable local routes were supported through cross-subsidies (Yamauchi and Ito, 1996).

The rapid growth of the economy supporting this increase in traffic also provided the foundations for a boom in international travel and opened the door for ANA to press its ambitions to become an international carrier. At the same time, JAL wanted access to what it saw as a lucrative domestic market. The solution adopted by the government in 1986 was to designate two international airlines and to permit limited competition between ANA, JAL and other smaller carriers on the densest domestic routes. The Ministry of Transport argued that ANA's dominance of the domestic market was entrenched by capacity restrictions at major airports and that it needed to take this into account as it progressively opened the domestic market to competition (Odell, 1996). Yet the Ministry has been reluctant to allocate additional slots at Haneda Airport (Tokyo) to new entrants (Ballantyne, 1997).

South Korea has a much smaller market and change came from a different source. When the government faced criticism over Korean Air Lines' performance its response was to allow the formation of Asiana Airlines in 1988 as a domestic carrier. This added capacity into the system and provided travellers with a choice, but the government continued to hold fares down and required the airlines to operate unprofitable routes. The combination of increasing affluence, low

Table 1. Growth prospects—domestic airline markets

Region	1994		2014	
	Millions RPKs	Share (%)	Millions RPKs	Share (%)
U.S.A.	597,313	65.3	1,356,797	58.7
Far East	63,407	6.9	289,234	12.5
Japan	53,086	5.8	157,679	6.8
Austalasia	24,170	2.6	77,824	3.4
France	19,876	2.2	46,680	2.0
U.K.	6,201	0.7	15,918	0.7
Other Europe	30,840	3.4	73,016	3.2
Former USSR	56,126	6.1	142,608	6.2
Other	63,209	6.9	157,077	6.6
Total	914,228		2,312,833	

Source: McDonnell Douglas (1995) *World Economic and Traffic Outlook* 1994–1995.

Table 2. An overview of regulatory change—domestic aviation in Asia in the 1980s and 1990s

Country	Year	Measures taken
Bangladesh	1992	Government allows scope for small private sector airlines to operate domestic services.
China	1984	Proposal for CAAC's role to become that of a civil aviation body and five airlines to emerge.
	1987	The Government designates five carriers to operate domestic and international services and an additional official carrier to operate on domestic routes only, but 'unofficial' airlines had entered the market. Fares remain under control of CAAC.
	1993	Rapid growth led to safety problems and CAAC imposed a moratorium on new approvals early in 1990s.
	1995	CAAC relaxes moratorium but indicates it will put pressure on smaller carriers to merge with large carriers.
	1997	Government increasing fuel charges to force airline mergers.
India	1986	Under pressure from tourism sector, Government allows 'air taxis' greater freedom to operate non-scheduled services.
	1990	Government agrees to license a limited number of private sector airlines to operate schedules services on domestic routes. Fares remain controlled by Director General of Civil Aviation and new carriers required to commit capacity to unprofitable routes.
	1994	Continuing problems with national carriers leads Government to allow Indian Airlines to operate international services on more regional routes while it prepared the two government airlines for merger and privatisation.
	1996	Government puts aside plans to merge national carriers.
Indonesia	1990	Under pressure from tourism sector, the Government allows former charter operators to import jets and to compete on domestic routes. Controls maintained on fares and new entrants require licences.
	1991	Private sector airlines permitted to operate internationally.
	1996	Government considering liberal policies to designated carriers from other countries including the possibly of domestic sectors.
	1996	Government's plans to privatise Garuda Indonesia stalled.
Japan	1986	Government allows multiple designation to allow for growth ambitions of its carriers rather than to deregulate the domestic market JAL given greater access to domestic market and more domestic airlines. MOT maintains control of entry to routes (based on traffic), fares, licensing of travel agents.
	1990	Relaxation of capacity limits on double and triple tracking.
	1994	Some liberalisation of domestic fares and further reduction in quantity restrictions on competition on routes.
	1996	Further relaxation of restrictions on fares and foreshadowing of more liberal approach in 1997 when airport congestion problems to be eased.
	1997	Government issues 34 of the 40 new slots at Haneda airport to incumbents.
Korea	1988	Government permits a second domestic carrier, Asiana, to operate, but fares remain under control.
	1990	Asiana complains it cannot make a profit at the regulated fares and is given access to international routes under a formula approach.
	1995	Government relaxes control on domestic fares and requires only that carriers file their fares.
Malaysia	1994–1995	Government responding to MAS complaints about cost of operating domestic services and allows limited new airline entry, including Pelangi Air as an offshoot of MAS. Government maintains control of entry and fares.
Nepal	1992	Under pressure from tourism sector, Government allows private sector airlines to operate on domestic routes. Fares remain controlled and new carriers required to commit capacity to unprofitable routes.
Pakistan	1992	Civil Aviation Authority awarded 17 licences to private sector airlines to compete on domestic routes.
Philippines	1992	Privatisation of PAL allows PR Holdings to gain control.
	1994	Government agrees to allow new entrants to operate in open skies policy, but keeps controls over fares.
	1995	Grand Air commences and designated as the Philippines second international carrier. Entry of other new private sector airlines.
Sri Lanka		No details available—however, the Government deregulated the domestic airline industry some time early in the 1990s but has had to suspend some airline operating licences for security reasons.
Taiwan	1987	Government deregulates entry to domestic routes but fares to be approved by the Civil Aeronautics Administration.
	1988	Policy to allow competition for Air China on international routes for approved airlines.
	1995	Fare war breaks out in crowded domestic market without approval from CAA.
	1997	Government about to abandon residual controls on domestic fares after consolidation in industry.
Thailand	1995	Government relaxing controls on domestic aviation and commenced a process to designate a second international carrier.

air fares and congested roads gave rise to an average annual growth of more 14% and, by 1995, the two airlines were carrying a combined total of 21 million domestic passengers.

The motive for change in the Philippines was similar. Relative to other Asian markets, airline traffic has grown very slowly and the performance of Philippine Airlines (PAL) was criticised widely. This is despite the Philippines being a natural market for an airline with its more than 7000 islands. The government set about privatising PAL in 1992 while deregulating entry to the domestic market. Several airlines emerged, but Grand International Airways quickly became the most successful new entrant. The government maintained controls over air fares and required all carriers to bear some of the burden of operating unprofitable routes.

Indonesia is another country with the potential to develop a sizeable domestic market. It has 13,500 islands and an economy with a long-term growth rate exceeding 7% per annum. The government's two carriers, Garuda Indonesia and Merpati Nusantara Airlines, served international and domestic markets. The surge in international visitors to Indonesia in the mid-1980s and the recognition that its two government-owned carriers lacked the capacity to cater for the demand prompted a change in aviation policy (Nuutinen, 1991). In 1990, second-level, charter operators were permitted to import jet aircraft and to compete on trunk routes. Sempati Airways, Bouraq Airways and Mandala Airlines were issued licences as a result. As was the case in most other Asian countries, the government continued to control fares, arguing that it wanted to avoid price wars.

Taiwan has gone further than its Asian neighbours with its 'open skies' policy announced in 1987. In the domestic market, airlines were free to enter and, although the carriers are required to file their fares with the Civil Aeronautics Board, they have had considerable scope to vary their prices. Severely congested roads, strong economic growth and intense rivalry among nine carriers has resulted in a dynamic and growing domestic market.

China and India have the potential to develop very large domestic markets. In the initial period during the break-up of the Civil Aviation Administration of China (CAAC), more than 40 domestic airlines emerged (Bailey, 1993a). Since then, the government has used a variety of mechanisms to force mergers and to strengthen its airlines. India remains at an earlier stage of development. Although new private sector airlines have been allowed to start scheduled operations, the government has controlled entry, fares and the provision of services on selected uneconomic routes. All of the airlines, including government-owned Indian Airlines, have faced financial difficulties and the market has grown slowly.

The question arises as to why so many countries in the region should begin to liberalise their domestic regulations at around the same time given differences in the sizes of their markets, their socio-economic and geographic profiles and political systems. These developments owe more to a shift in thinking than they do to detailed evaluations of the merits of reforming the regulatory system. Most of the changes have occurred quickly and with little evidence of thorough analysis. The demonstration effect has no doubt played a part, but the political climate has been favourably disposed towards a more adventurous private sector. An additional factor is that powerful interest groups emerged outside the ministries and state-controlled airlines that traditionally provided policy advice to governments. Finance ministries were pursuing an agenda of growth while the tourism sector has argued that important economic benefits cannot be realised with an unreliable and under-resourced airline system (Louden, 1993).

This begs the question 'are we on the brink of open skies in Asia?' Bowen and Leinbach (1995) have argued that the defining feature of government policies in Asia with respect to aviation is 'pragmatism'. Liberalisation has been accepted only in as much as it contributes to economic development while political factors have determined the scope and pace of change. The state has retained effective control and most of the governments have set out with the limited objective of attracting more resources into the airline sector. Although liberalisation is reversible, the forces of competition keep the regulatory system under constant pressure to become even more liberal.

2.3. Continuing regulatory challenges

By permitting new private sector airlines to enter the industry, the government addresses the immediate problem of capacity and generates some limited competition in service levels. However, this initial policy is not sustainable and it sets in motion forces that require further regulatory reform (Hooper *et al.*, 1996). In the U.S.A., after deregulation, new entrants were able to gain access to technical support and other services required by airlines. In many of the developing

Asian economies, the main source of assistance to the new airlines often has been the incumbent national carrier. A major strategic advantage enjoyed by the new airlines in the U.S.A. was their ability to operate with lower costs than the incumbents. Regulation had resulted in higher costs and the new entrants were able to capture market share at the same time as they helped the market to expand. The effect of regulation in Asia often has been to hold fares down, constraining the national airlines' ability to offer a high level of service. The marketing strategy of many of the new airlines in Asia has been predicated upon a commitment to improve service, but at the same time there is little scope to reduce costs.

The national carrier has better access to capital while new entrants often rely on leases to finance their fleets. Uncertainty about the regulatory framework exacerbates the situation as airlines are reluctant to invest in their own aircraft. In addition, a premium has to be paid to attract experienced staff while the new airlines set a high standard in almost every dimension of service. Asiana has embarked on an ambitious fleet development programme and it prides itself on its young fleet. Sempati's entry strategy was to offer high frequencies and to develop a reputation for quality and on-time performance. When it commenced operations, EVA Airways announced its intention of becoming 'one of Asia's foremost international airline.' EVA claims its economy class has 44% more space per passenger than similarly-priced seats on its competitors and it has earned a reputation for high levels of in-flight service and schedule reliability. Boeing has given EVA an 'award of excellence' for its outstanding fleet maintenance and management of flight operations.

This service-oriented strategy involves the use of new aircraft, but another factor is that the modern fleet often is considered necessary to inspire confidence that the airline is run efficiently and safely. For example, Jet Airways promotes its use of 'state-of-the-art' aircraft that are equipped to land on shorter and wet runways, a reference to the perceived risks of flying operations in India during monsoon conditions. Access to infrastructure can become a critical constraint to growth, a problem seen in its most severe form in Japan in relation to airport slots. Generally, the new Asian carriers are faced with inadequate terminal space and operate on unfavourable terms at large, busy airports.

Although governments have welcomed the new entrants, they have remained committed to their own national carriers. In particular, India has been cautious about its reforms. At various stages it has restricted the import of additional aircraft to reduce the rate of growth of the private sector airlines. Furthermore, the government has prevented the new airlines from recruiting pilots and engineers from Indian Airlines. Some governments have accepted the need to privatise their airlines, either partially or fully, in order to provide the capital required to re-equip ageing fleets and to forge alliances with major carriers. Singapore provides the most successful example of airline privatisation in the region, but other Asian countries have moved down this path to some extent (Bowen and Leinbach, 1995). Garuda Indonesia is an example of one of the financially ailing airlines that has been forced to slash its international services. The government of Indonesia has recognised that Garuda needs to be prepared for privatisation, but at the same time has restricted the airline's fleet renewal and expansion programme. Attempts in 1995 to attract an equity injection from KLM resulted only in a broad commercial agreement.

One major concern many governments have is that surface transport links are not constructed to a standard compatible with traffic demands and, in some cases, air transport provides the only viable transport service. In Nepal, flight times on many sectors are shorter than one hour, but travel times into the hilly regions of the country using surface transport can take several days. Indonesia and the Philippines have the problem of connecting their island communities. Even the more developed economies of Japan, Korea and Taiwan have difficulties because of congested roads.

Evidence from North America indicates that, for scheduled jet airline services, economies of density continue to be achieved up to 40 million route ton kilometres (Gillen *et al.*, 1990). Although some countries in Asia have routes with traffic as dense as this, most of the new airlines are operating on 'thin' networks. It is difficult to sustain competition across the network and airlines face difficult choices in the selection of aircraft for their fleets. In India, Nepal and the Philippines, the government has placed specific requirements on the new private sector airlines in terms of serving a mix of thin and dense routes. An additional problem for some airlines is that the strongest growth prospects are in price-sensitive tourism markets. Despite high load factors, profits remain low. For example, Asiana was reported to have lost about US$150 million in 1990 even though it had an average load factor of 74%.

Unprofitable but socially desirable services have been maintained in the past through a combination of direct and indirect subsidies. Some government airlines have received state aid, but there has been extensive reliance on cross-subsidisation. International traffic subsidises domestic operations, and higher fares to tourists and business travellers on some domestic routes subsidise routes designated as being socially or economically important. One option in a deregulated industry is for the government to make provision for direct payments for the performance of community service obligations, but this approach has not been adopted in Asia. Under these conditions, the challenge for the regulator is to underwrite the government policy by ensuring that all airlines are provided with a mix of profitable and unprofitable routes.

2.4. The emergence of multiple designation

From the outset, many of the new domestic airlines have stated their ambitions to become international carriers. An effective argument working in their favour has been the belief that unprofitable domestic services can be subsidised from international operations. Governments have been prepared to allow them to enter international markets in order to support their domestic policies. This step requires re-negotiation of air services agreements and a reconsideration of international aviation policy. Multiple designation is a problematic step, however, because it requires the agreement of other countries.

Japan is an exception. There is circumstantial evidence that regulation of its robust domestic market has provided a profitable base for the international carriers. The recession in the Japanese economy in the early 1990s had its impact on the carriers, but it is notable that ANA, the airline with the largest domestic base, was the only Japanese carrier to maintain its profits during this period. Japan Air Systems also had been given access to international markets, but the recession forced it to retreat to its domestic base. Eight scheduled airlines share in a market of more than 70 million domestic passengers a year, 60% of whom are travelling on business (Feldman, 1995). The Ministry of Transport permitted a second carrier on a route only when traffic reached 700,000 passengers a year, and the 'trigger' for a third carrier was one million passengers. Even then, capacity and fares were regulated and effective competition did not eventuate (Yamauchi and Ito, 1996).

The situation in other Asian countries is substantially different. Access to the international market tends to be viewed as a way to support domestic operations. A good example is Asiana Airlines. Having commenced in 1988 with aircraft suited to its domestic network, Asiana soon placed orders for larger, long-range jets and announced a plan to operate regional and long-distance services in 1990. Asiana complained to the government that it could not compete on domestic routes unless it was granted access to international routes. Asiana reported a loss of US$150 million in 1990 even though it carried 1.6 million passengers at an average load factor of 74% (Nuutinen, 1991). Later in that same year, the government approved Asiana's entry to international markets and its financial condition has been an important consideration in subsequent allocations of international operating rights.

As its name suggests, Philippine's Grand International Airways was conceived from the start as an international airline and, by mid-1996, it was flying to Hong Kong and Seoul. Other new entrants in the Philippines also have international ambitions and the government is linking access to international routes to the provision of services on some unprofitable domestic services. In Indonesia, Sempati Airways claimed the regulated fare was half the amount it needed in order to break even (Nuutinen, 1991). Enjoying strong political backing, Sempati was successful in arguing it needed access to higher-yield international traffic. Shortly after its entry to domestic scheduled service, Sempati was able to fly to Singapore, Kuala Lumpur, Penang and Malacca and since has been given approval to fly to Australia and India.

Taiwan's approach reflects its political status and its ambitions to develop as a regional hub. Taiwan's acceptance of multiple designation can be traced to the difficulties it was facing in negotiating operating rights for China Airlines. This was imposing a significant constraint on growth arising from economic development and an easing of travel restrictions on Taiwanese citizens. China Airlines' share of international traffic had fallen to only 25%. EVA Airways and Mandarin Airways were granted international rights in 1988 and TransAsia Airways, Great China Airlines and Makung Airlines were entitled to operate international charter flights.

China already has a market of 70 million passengers a year and its five major carriers are developing as integrated international and domestic carriers. With the resumption of China's sovereignty over Hong Kong in 1997, the future of aviation policy and the development of airlines in this strategic market will have implications for all of Asia. For India, multiple designation exists to the extent that Indian Airlines, the government's domestic operator, has taken a greater responsibility for regional operations while Air India concentrates on long-haul services.

Changes in domestic aviation policies in Asia have resulted in the emergence of new airlines that have seized the opportunity to integrate domestic and international operations. Japan's carriers, with their well-developed domestic market, can draw strength from this. It is possible that China could move into a similar position, but many of the other nations in Asia have domestic markets that are more of a financial burden on their carriers. The sustainability of domestic regulatory policies will depend to a large extent on the ability of carriers to earn surpluses in international markets. This is not without its challenges and there are fewer regulatory options left. The problems in treating domestic and international policies as though they are distinct entities becomes more and more obvious as the implications of multiple designation are considered. Geographical, economic and political factors influence the position of individual countries in the region and give rise to similarities and differences in approach, but the experiences with multiple designation elsewhere need to be considered.

3. MULTIPLE DESIGNATION — A PROBLEMATIC INTERFACE BETWEEN DOMESTIC AND INTERNATIONAL POLICIES

3.1. Asian approaches to multiple designation

The decision to allow the new private sector airlines access to international markets poses several problems. First, governments cannot take unilateral action, they must renegotiate air services agreements with other governments. The U.S.A. has been a willing partner in widening the scope for new entrants, but other countries in the region have provided opportunities as well. For example, Taiwan's pressure to allow EVA to enter the Taipei–Jakarta route as its second carrier allowed Indonesia to designate Sempati in addition to Garuda. Australia agreed to Sempati's entry but at the same time it wanted access to Indonesia for its second international carrier, Ansett Airlines. Many of the opportunities for the new international carriers have been on routes connecting 'secondary' airports. As a result, Sempati has increased its regional flights from Bandung and Surabaya to Singapore and Singapore's regional operator, SilkAir, flies to ten Indonesian cities.

Another development that will help some of the new carriers is the Memorandum of Understanding on airline services that was signed by Indonesia, Malaysia and Thailand in 1995 as part of the 'Northern Growth Triangle' scheme. This pact opens the way for cross-border flights connecting secondary airports. Each of the three countries designated two carriers to operate scheduled and charter flights without restrictions on national ownership or control, capacity and frequency unless provisions in separate bilateral arrangements specified otherwise. Subsequently, the Philippines and Brunei have been admitted to this group and ASEAN transport ministers were reported to have reached agreement in February 1997 on the introduction of an open skies regime.

Pioneering these new regional routes is a challenge, but this is no less difficult than entering well-established routes. It has been pointed out that many of Asia's second-force carriers do not enjoy any obvious cost advantages over the established operators, they tend to be entering highly competitive low-yield markets and they have a small share of capacity. Furthermore, some routes already are dominated by national carriers from within the region. These airlines all have access to low-cost labour and many are still seen as instruments of national policy. The prospects for earning above-normal profits in this environment are slight. One view is that opportunities have opened up on these routes precisely because the Asian start-ups pose few threats to the incumbents (Nuutinen, 1991).

Japan, Korea and Taiwan all permitted multiple designation at the same time that restrictions on overseas travel were being lifted. The subsequent growth in these markets provided greater scope for the new entrants. In Korea's case, explicit guidelines were used to decide which routes were open to Asiana (Hong, 1992; Kim, 1996). The policy was revised in 1994 and geographical restrictions on Asiana's operations were lifted while thresholds were set for approving 'double tracking' and rules were set for allocating flight frequencies. However, Korean and Asiana were permitted to reach their own agreements about how capacity entitlements should be shared. A stated intention of the government is to ensure that the airlines are able to exploit economies of density.

China has a stated position that it will permit its carriers to operate on international routes once they are carrying one million domestic passengers a year. However, most Asian countries have not set specific rules for allocating international rights. Multiple designation, especially if it is intended to solve a domestic problem, is difficult to manage. The experience of the U.S.A. with its highly-developed market illustrates this. A major problem is that the integration of domestic and international markets initiates powerful commercial forces that will find some outlet regardless of the regulations. Australia has found that, having embarked on the process of domestic deregulation, privatisation and integration of its domestic and international airline services, its degrees of freedom for continued regulation have been reduced significantly. It is instructive to reflect on these experiences before drawing conclusions about future directions of aviation policy in Asia.

3.2. Multiple designation and the U.S.A.

The U.S.A. modified its aviation policy several times in the post-war period, but its three international carriers on routes to Europe and South America were not permitted to compete with each other except on a handful of routes judged to be dense enough to support rivalry. Despite the ideological attractions of free and open trading relations, the Government considered it had a role to protect the commercial interests of U.S. carriers. A major determinant of the policy at any particular point in time had been how well the U.S. carriers were faring, but in 1977 there was a shift in the government's position. The government announced henceforth it would be promoting competition in its bilateral negotiations. Despite strong opposition from its own carriers, the U.S.A. kept its policy in force until adverse economic conditions and a declining U.S. share of the market led to its abandonment.

One of the problems for the U.S. carriers had been that they were at a disadvantage in transatlantic markets. Their European competitors were able to draw upon their own domestic markets and offer a much larger set of city-pair markets while U.S. carriers were denied similar access at home. Pan Am suffered from its image as an international-only airline (Crandall, 1995). When Delta and United entered the market, they were able to take advantage of their strong domestic networks and they recaptured some of the market share that had been lost by Pan Am and TWA (Kaplan, 1995).

However, the tide began to turn again in favour of competition. First, the U.S. government was committed to policies that promoted free trade and reduced interference in markets. Also, it was apparent that airline traffic had been growing more quickly in those markets that were more competitive, and airline managers had come around to the view that they were better off with fewer regulations (Trent, 1995). At the same time, the domestic airline market in the U.S.A. was showing signs of maturing (Pilarski and Thomas, 1995) and the best growth prospects were in the international market. The problem for the U.S.A. became 'how to gain access for its carriers to international markets?.'

When it concluded an 'open skies' agreement with The Netherlands in 1992, it was interpreted as a pragmatic response to KLM's offer to provide an injection of capital into its alliance partner, Northwest Airlines. This experience was repeated when British Airways was permitted to invest in the ailing USAir. These alliances among the major carriers elevated the practice of code-sharing to a central place in transatlantic competitive strategies and Delta Airlines followed soon after with its partners, Lufthansa, Swissair, Sabena and Virgin Atlantic. The U.S. government took the position that the alliances would increase competition provided care was taken to 'carve out' any pockets of monopoly. For example, USAir was required to cease its operations between Philadelphia and London when it and British Airways entered into their alliance, the logic being that USAir was the only competitor to its alliance partner on this route. By 1994, the government acknowledged that the industry had 'grown beyond the ability of the regulators to keep up' and that its actions in pursuit of so-called free trade had been 'discriminatory and inconsistent' (Trent, 1995: p. 170). Since then, the U.S.A. has been able to negotiate open aviation agreements with a number of countries by taking advantage of the leverage of interest in code share arrangements.

This pro-competitive policy is not without its problems. American Airlines has argued that the code share agreements and alliances shift the advantage to the foreign carriers. The ability to enter into a code share agreement with a carrier from the U.S.A. within an open skies agreement gives the foreign carrier access to the much larger domestic U.S. market. American has claimed that actual hubs in Europe are being connected to 'pseudo' hubs in the U.S.A. (Crandall, 1995) and that it had no option but to follow the trend.

Late in 1996, American joined forces with British Airways in a new alliance. This gave rise to concerns on both sides of the Atlantic, but the U.S.A. has adhered to its clearly-stated position on alliances. American Airlines and British Airways had to relinquish a sufficient number of slots at Heathrow Airport to allow another carrier into the market. The proposed alliance, according to the proponents, has a minor share of the market between North America and Europe. At issue is whether the proposed alliance's domination of traffic flowing through Heathrow Airport is a serious threat to competition (Odell, 1997; Alamdari and Morrell, 1997). The bilateral approach to negotiation of air services agreements constrains the way regulators and airlines consider markets, but the trend towards globalisation of airline services will pose increasingly difficult issues for regulators.

3.3. Integrating domestic and international aviation — the case of Australia

Australia exemplifies how difficult it is for governments to sustain their regulatory policies in the face of economic forces from within and from outside the country. Australia entered the mid-1980s with distinct domestic and international aviation policies. Qantas, one of the government's two airlines, operated purely as an international carrier. Its other carrier, TAA (later renamed Australian Airlines) shared the domestic market with a private sector airline, Ansett Airlines. Within the next decade the domestic industry was deregulated, Qantas and Australian were merged and privatised, foreign airlines were permitted to invest in Australian carriers, and the separation of domestic and international markets was removed for Australian and New Zealand carriers.

In tracing these developments, it is clear that Asian governments are not the only ones that can be described as 'pragmatic'; Australian policy evolved under the constant pressure of the market (Hooper, 1997). While deregulation was implemented as an element of a sweeping agenda of micro-economic reform, the change in domestic aviation policy owed much more to concerns about high air fares and expectations of U.S.-style competition. Deregulation emerged in 1990 as the outcome of a lengthy process of reviewing aviation policy. Subsequently, when the government decided to privatise its airlines, it heeded the advice of the financial sector that it would receive much more from the sale by merging its two carriers. In 1992, Qantas acquired Australian Airlines and announced it planned to create a 'seamless domestic and international airline service'.

Given the geographic dispersion of its major cities and tourist attractions, Australia has a large number of international gateways relative to the size of its population. There are some advantages in linking domestic and international operations that are not as apparent in countries where there is a dominant and central hub airport. In addition, tourism had been growing strongly and by the start of the 1990s international visitors had assumed much more importance to the domestic airlines. Indeed, the economic value of tourism became a major influence on Australian government policy (Industries Assistance Commission, 1990). As an integrated domestic and international carrier with a 25% equity stake from British Airways, Qantas had gained a considerable advantage over Ansett. This was a position that could not be permitted to continue.

Having privatised Qantas, the government announced in 1992 it would enhance competition by removing barriers between the domestic and international markets. Although this policy could not be implemented without the consent of Australia's bilateral partners, a mechanism was established to allocate commercial rights between any current and future Australian airlines. The International Air Services Commission (IASC) was formed to make decisions about capacity entitlements with the instructions to pursue greater economic efficiency in the airline industry while at the same time promoting competition among Australian carriers. In addition, the IASC has to seek benefits for consumers and support Australian trade and tourism.

Multiple designation had become a reality, but the ability of Ansett Airlines to provide effective competition for Qantas on domestic and international routes had been weakened seriously. At the same time, Ansett's two owners each were trying to divest themselves of their shares. Air New

Zealand emerged as the only serious investor and the Australian Government's policies had to be changed if it were to maintain an effective rival for Qantas. Its previous restriction on how much a foreign airline could invest in an Australian carrier had to be revised, but a more significant development was that no longer could it resist arguments to enter into a single aviation market with New Zealand. Market pressures were forcing the pace and direction of change.

The Australian government now is an advocate of liberalisation within forums such as APEC and its own regulatory mechanism seeks equitable access for all Australian carriers. However, the IASC has to judge whether, by allowing competition among the Australian carriers on a particular route, the operations are commercially sustainable. This is a problematic task for a regulator, especially when the airlines enter into alliances with other carriers (Findlay and Round, 1994). For example, in one of its early determinations, the IASC granted two-thirds of Australia's available capacity of 14 slots to Kansai Airport (Osaka) to Ansett. It was reported that the way the allocation was made did not allow Ansett or Qantas to mount a daily service (Somerville, 1993).

The contrasting mechanisms used to allocate international aviation rights in Australia and Korea are noteworthy. Australia considers each case on its merits against the background of its geography, population and tourism market. Korea's deterministic approach has the advantage that the guidelines are clear and the costs of regulation can be kept to a minimum. Australia and its Asian neighbours need to heed the argument that, by splitting their international traffic between two or more carriers the scope to have a significant say in the network strategies of global alliances will be reduced (Oum and Taylor, 1995). What is clear from the U.S. and Australian cases, though, is that the progressive integration of domestic and international operations introduces a different set of problems.

4. CONCLUDING COMMENTS

Asia's domestic airline industries are booming within the constraints imposed by a lack of infrastructure and the inability to expand airline capacity at a sufficient rate to keep pace with demand. Rising incomes have made it possible for more and more Asian residents to undertake personal travel while buoyant economic conditions have promoted business-related travel. Another major influence, though, has been the increase in international tourism and the need to distribute visitors internally within the country. The perceived economic benefits of international tourism have influenced many decision makers to place greater emphasis on national economic benefits rather than protection of the national carrier when formulating aviation policy. The changing attitude to private sector participation in sectors of the economy hitherto reserved for government enterprises has been another force paving the way for change. However, a key factor for most governments in Asia in adopting a more liberal approach to airline competition has been the inability of the national carrier to cope with the growth. The requirement to provide services to all parts of the nation while regulating fares has a price, and often this is acceptance of multiple designation on international routes. Once given an opportunity to expand, the new carriers become a powerful force and have accelerated the pace of reform.

The path of liberalisation is far from smooth. There have been many failures of start-up airlines in Asia, just as there have been in other parts of the world. Rapid rates of growth allow airlines to expand quickly, but the experience in developed markets has been that it is difficult to survive competition in the airline industry without a genuine strategic advantage or at least some element of monopoly that can be used to cross-subsidise unprofitable elements of the network. Japan's carriers are able to draw upon a strong domestic base, but the more common situation in Asia is that lower yields are earned in domestic markets. Many of the new airlines have entered highly competitive routes where it is not clear they possess any particular advantage. Alternatively, they are pioneering new regional routes that are inherently risky.

Whether the increased popularity of multiple designation will herald a period of financial turbulence and instability among the new and established Asian carriers remains to be seen, but it is clear that developments in domestic markets have triggered forces that promote greater competition. The scope for relying on cross-subsidies to support domestic developmental and social policies will become more and more limited under these conditions. Governments in Asia have not shown a preparedness to enter into contracts for the provision of unprofitable airline services and it is more likely that regulatory mechanisms will be used to their fullest. This could involve direct subsidies, but it is more likely that governments will consider ways to protect their airlines.

The formation of pacts that establish single airline markets is a development that bears close analysis. Potentially these could provide the foundation for a more open and competitive international airline industry, but they could be used to put up barriers to airlines from non-member countries. Within the bloc, liberal arrangements would allow the airlines flexibility to serve the growing inter-regional trade while at the same time preserving these markets for the members. These types of airline services could reduce the pressures on some congested airports, but much will depend upon how important it is to integrate domestic and international services. The protectionist stances of governments in Asia have worked against the formation of strong hub-and-spoke networks, but it is conceivable that alliances between major international carriers and regional airlines operating freely within single markets could alter the equation. Further analysis of the interface between domestic and international aviation policy will provide valuable insights about the dynamics of competition in this important region.

REFERENCES

Alamdari, F. and Morrell, P. (1997) Airline alliances: a catalyst for regulatory change in key markets? Journal of Air Transport Management **3**(1), 1–2.

Asian Development Bank (1995) *Asian Development Outlook 1995 and 1996*. Oxford University Press, New York.

Bailey, M. (1993a) China's airline boom. *Interavia/Aerospace World* March, 52–55.

Bailey, M. (1993b) Asia's new airlines (1993). EIU *Travel and Tourism Analyst* **3**, 4–18.

Ballantyne, T. (1997) Haneda slot handout fails. *Airline Business* **13**(4), 18.

Boeing Airplane Company (1995) *Current Market Outlook*. Boeing Airplane Company, Seattle.

Bowen, J. T. and Leinbach, T. R. (1995) The state and liberalization: the airline industry in the East Asian NIC's. *The Association of American Geographers* **85**(3), 468–491.

Button, K. (1989) The deregulation of U.S. interstate aviation: an assessment of causes and consequences, *Transport Reviews Part 1* **9**(2), 99–118, and *Part 2* **9**(3), 189–216.

Button, K. (ed.) (1991) *Airline Deregulation. International Experiences*. New York Washington Press, New York.

Crandall, R. L. (1995) The unique U.S. airline industry. In *Handbook of Airline Economics*, eds D. Jenkins and C. P. Ray. Aviation Week Group, a Division of McGraw-Hill, New York.

Feldman, J. M. (1995) Testing reform in a mass market. *Air Transport World* **32**(7), 24–32.

Findlay, C and Forsyth, P. (1988) Trade in air transport and tourism services. In *Pacific Trade in Services*, eds C. Findlay and L. Castle, pp. 99–123. Allen and Unwin, Sydney.

Findlay, C. and Round, D. (1994) Managing the transition to competition: the International Air Services Commission. *The Australian Economic Review* 2nd quarter, 43–56.

Findlay, C., Hufbauer, G. C. and Jaggi, G. (1996) Aviation reform in the Asia Pacific. In *Flying High. Liberalizing Civil Aviation in the Asia Pacific*, eds G. C. Hufbauer and C. Findlay, pp. 11–32. Institute for International Economics and Australia–Japan Research Centre, Washington and Canberra.

Gillen, W. G., Oum, T. H. and Tretheway, M. W. (1990) Airline cost structure and policy implications. *Journal of Transport Economics and Policy* **24**(1), 9–34.

Hong, S.-K. (1992) New directions of Korean aviation policy in a changing era. In *International Aviation in the Changing Global Order—Policy, Law, Economics and Safety*, ed. S.-K. Hong, pp. 39–49. Hankuk Aviation University Press, Seoul.

Hooper, P. (1997) Developments in the aviation industry in Australia and Asia—implications for Australian tourism. Working Paper ITS-WP-97-20, Institute of Transport Studies.

Hooper, P., Hutcheson, S. and Nyathi, M. (1996) The challenge of liberalising airline competition in a less developed country. *Transportation* **23**(4), 395–408.

Industries Assistance Commission (1990) *Travel and Tourism*, Report No. 423. Australian Government Publishing Service, Canberra.

Kaplan, D. P. (1995) The pursuit of competition: a review of U.S. public policy in the airline industry. In *Handbook of Airline Economics*, eds D. Jenkins and C. P. Ray, pp. 151–164. Aviation Week Group, a Division of McGraw-Hill, New York.

Kim, J. (1996) Regulation on international airline industry in Korea: experiences and challenges. In *Flying High. Liberalizing Civil Aviation in the Asia Pacific*, eds G. C. Hafbauer and C. Findlay, pp. 63–78. Institute for International Economics and Australia Japan Research Centre, Washington and Canberra.

Krueger, A. O. (1995) The role of trade in growth and development: theory and lessons from experience. In *Sustaining Report-Oriented Developments*, eds R. Garnaut, E. Grille and J. Reidel, pp. 1–30. Cambridge University Press, Cambridge.

Louden, D. (1993) Fledglings enter India's open skies. *Business Review Weekly* June 4.

Lyle, C. (1995) The future of international air transport regulation. *Journal of Air Transport Management* **2**(1), 3–10.

McDonnell Douglas (1995) *World Economic and Traffic Outlook 1994–95. An Analysis of World Economies and Passenger and Cargo Forecasts*. Economic Research Department, Douglas Aircraft Company, Long Beach, CA.

Nuutinen, H. (1991) Rise of the second-force carriers. *Avmark Aviation Economist* **8**(9), 12–15.

Nuutinen, H. (1992) The tortuous path to plurilateralism. *Avmark Aviation Economist* **9**(4), 14–19.

Odell, M. (1996) Mirror images. *Airline Business* June, 57–61.

Odell, M. (1997) BA-AA: a hell of a furore. *Airline Business* **13**(2), 8.

Oum, T. H. and Taylor, A. J. (1995) Emerging patterns in intercontinental air linkages and implications for international route allocation policy. *Transportation Journal* Summer, 5–26.

PECC (Pacific Economic Cooperation Council) (1995) *Air Transport in the Asia–Pacific: Challenges, Opportunities and Options*, Summary Report. Singapore National Committee for Pacific Economic Cooperation Council (SINCPEC), Singapore.

Pilarski, A. M. and Thomas, P. A. (1995) Maturation in air transportation. *Handbook of Airline Economics*, eds D. Jenkins and C. P. Ray, pp. 175–184. Aviation Week Group, a Division of McGraw-Hill, New York.

Somerville, P. (1993) International intrigues and domestic disasters. *Avmark Aviation Economist* **10**(5), 2–3.

Trent, J. M. (1995) A history of halting moves toward open markets. *Handbook of Airline Economics*, eds D. Jenkins and C. P. Ray, pp. 165–174. Aviation Week Group, a Division of McGraw-Hill, New York.

Yamauchi, H. and Ito, T. (1996) Air transport policy in Japan. In *Flying High. Liberalizing Civil Aviation in the Asia–Pacific*, eds G. C. Hufbauer and C. Findlay, pp. 33–62. Institute for International Economics and Australia–Japan Research Centre, Washington and Canberra.