

**Building the Hong Kong Aviation hub:
the Mainland dimension**

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Introduction

A considerable number of Hong Kong's key aviation partners – including the United States, Taiwan and Australia – have recently sought discussions with Hong Kong to extend existing air services relationships. This is not surprising, given Hong Kong's pre-eminence as a regional and international aviation hub, and the fact that it is one of only a few aviation centres worldwide that currently offer growth opportunities in a deeply depressed industry. While the understandable priority of foreign governments is to seek expansion of capacity and enhanced rights for their home carriers to Hong Kong and beyond, it is important to remain clear that Hong Kong's own over-riding priority going forward is different. Hong Kong's urgent need is to build a strong network of Mainland services, and to ensure these are effectively inter-linked with Hong Kong's extensive international network.

Under the SAR Government's strategy of "progressive liberalization" in aviation, development of Mainland services has in reality been an urgent priority for several years, but has eluded attention in part because of political sensitivities linked with the many "One Country, Two Systems" issues that have emerged since the 1997 return of sovereignty to China. As these political sensitivities subside, so it is possible that the barriers to material progress can be removed. It is thus perhaps not a coincidence that as this paper was being completed, news emerged that Cathay Pacific was in the process of seeking approval for a formal application to resume services to some key Mainland cities.

This paper examines why the rapid development of Mainland air services through Hong Kong is of such importance to the hub. It examines the expected growth in the flow of Mainland visitors to and through Hong Kong; the parallel development of Mainland passenger traffic through key competitor hubs – Beijing, Shanghai and Guangzhou; and the development of these hubs not simply as domestic aviation hubs, but as international hubs. It examines the implications for Hong Kong of direct air services between Taiwan and the Mainland and how this challenge can be addressed. It examines air cargo developments between Hong Kong and the Mainland. It examines the strategies being pursued by Mainland and Hong Kong carriers using the Hong Kong hub, and how these strategies will affect Hong Kong's future as a leading regional and global hub. It explores the importance of access to the Mainland for Cathay Pacific, Hong Kong's leading international airline, as a catalyst for future hub development. Finally, it explores what issues need to be examined if rapid development is to be achieved.

Why the rapid development of Mainland air services is critical to the Hong Kong hub

Mainland China's steady economic liberalization over the past decade – which has been accompanied by rapid growth in China's involvement in the world economy in general, and in trade in particular – has provided a strong impetus for increased aviation links. As Mainland carriers have sought to build more air links, and greater frequencies, with key cities around the world, so too have the world's leading airlines sought improved access to China's leading cities – in particular Beijing, Shanghai and Guangzhou.

Table 1**International Travel Forecasts for Mainland China**

Type	Year 1999	Year 2004 (Forecast)
Passengers (in millions)	17.17	26.07
Cargo (in 000 tonnes)	843	1341

Source: IATA

China's entry into the World Trade Organisation at the end of 2001 provided fresh momentum to this trend. The reasonable assumption is that as China's trade and investment links with the rest of the world are steadily normalized, and as liberalization commitments made under the WTO agreement begin to take effect, so air services agreements will be liberalized. Hubs like Shanghai and Beijing, which currently have rather limited international connectivity, can expect rapid growth in air links. China's three main aviation groups, led by Air China in Beijing, China Eastern in Shanghai, and China Southern in Guangzhou, will be potent drivers of this growth. So too will the global aviation behemoths based in the United States and Europe.

At one level, Hong Kong's home carriers, Cathay Pacific, Air Hong Kong and Dragonair, stand to benefit strongly from China's economic liberalization. Hong Kong remains by a large margin China's leading international aviation hub, with links to 131 cities worldwide. The hub's efficiency is world-renowned. The community of international companies concentrated and headquartered in Hong Kong continues to grow strongly, driving strong business and tourism growth through the airport. Hong Kong's hinterland region is China's main exporter, home to the lion's share of internationally-invested companies on the Mainland. The region is also the wealthiest on a per capita basis in China. Clearly, China's increasing involvement in international trade and investment will raise air traffic in all hubs, but Hong Kong will clearly be a disproportionately strong beneficiary of this trend.

At another level, however, there are challenges facing Hong Kong that the SAR administration would be rash to underestimate. As the Mainland economy steadily liberalises, so Hong Kong's privileged role as the preferred business entry point to the country will inevitably be eroded. Mainland and international travellers will over time be offered choices between international flights hubbed through Beijing, Shanghai or Hong Kong. The superior domestic connectivity of Beijing, Shanghai and Guangzhou in particular will, if not addressed by Hong Kong, mean that travellers to and from second tier interior cities will prefer to transit Beijing or Shanghai rather than Hong Kong *en route* to other countries around the world.

Table 2**Domestic Connectivity from Beijing, Guangzhou, Hong Kong, Shanghai and Shenzhen**

City	Connectivity with Mainland Cities
Beijing	67
Guangzhou	70
Hong Kong	42
Shanghai	64
Shenzhen	51

Source: HKSARG and CAAC Journal 2001

Table 3**International Connectivity from Beijing, Guangzhou, Hong Kong, Shanghai and Shenzhen**

	Countries Served	Cities Served
Beijing	41	44
Guangzhou	18	19
Hong Kong	48	131
Shanghai	23	27
Shenzhen	Nil	Nil

Source: HKSARG and CAAC Journal 2001

In short, Hong Kong may be well ahead of mainland competitor hubs in terms of international connectivity, but if this is not matched by seamless and comprehensive Mainland connectivity, the international connectivity will be a diminishing competitive advantage. As leading Mainland carriers begin to offer through-tickets from domestic Chinese cities to destinations in third countries, with fast turn-around times in Shanghai or Beijing, so Hong Kong's fragmented "offering" - of a Dragonair flight from a modest number of Mainland cities, transferring in Hong Kong onto a Cathay Pacific flight to a foreign destination - will become progressively less attractive.

At the same time, the comparatively high cost of charges and fees for airlines using Hong Kong will mean that airlines will examine the economics and viability of operating to cheaper but less convenient or efficient transit points to and from the Mainland. This is an important issue for all carriers serving Chek Lap Kok, but is a particularly severe challenge for small aircraft and short haul intra-regional or domestic China flights, for which such fees account for a large proportion of overall operating costs. The primary beneficiaries of this substitution effect could be Shenzhen and Guangzhou, which could over time become preferred hubs for travel by Mainland Chinese into and out of the Pearl River Delta. Already, many Hong Kong and Taiwan travellers onto the Mainland travel by road from Hong Kong to Shenzhen in order to capture the significant price benefits obtained by using domestic Mainland carriers.

Mainland visitors to Hong Kong: implications for air services

In 2001, a total of 4.45 million Mainland Chinese visited Hong Kong, most of them as tourists. A large number arrived in Hong Kong by coach, having flown on cheap package flights with domestic carriers to Shenzhen, but still a total of 1,077,000 flew directly into Chek Lap Kok. This visitor activity has risen from negligible levels a decade ago, and since 1997 has been growing at an annual rate of around 18 per cent. Visitor activity is forecast to grow meteorically.

Table 4

Mainland Passenger Growth to Hong Kong 1990 – 2005

Source: HKSARG and Hong Kong Tourism Commission, Jan 2001

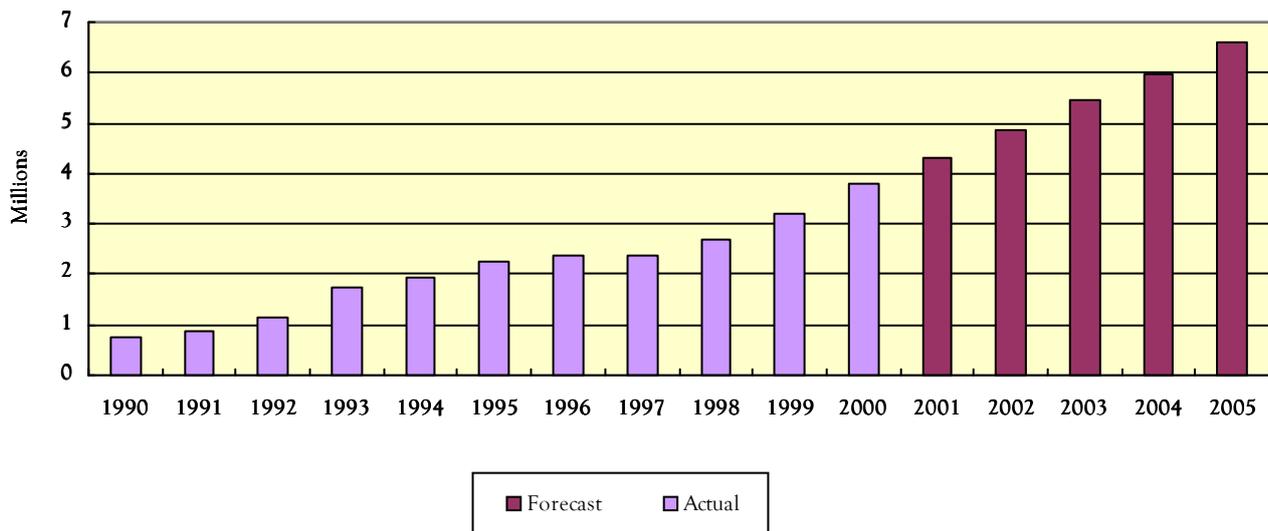


Table 5**Forecast on Visitor Arrivals to Hong Kong
(2000 – 2005)**

	2000	2001	2002	2003	2004	2005
Mainland China	3,785,845	4,316,000	4,877,000	5,462,000	5,953,500	6,620,000
Total	13,059,477	14,075,100	15,120,500	16,197,300	17,160,000	18,340,500

Source: Hong Kong Tourism Board, Jan 2001

While a large proportion of the Mainland package tourists to Hong Kong are likely to continue hubbing through Shenzhen, it is likely that a large proportion of the more wealthy Chinese will hub directly through Hong Kong when they begin travelling on business or on vacation to third countries. At present, this “elite” class of Mainland traveller is relatively rare.

But within a decade, if the trend of the past decade is even a modest guide, the numbers of such travellers are likely to be substantial, potentially providing even more significant impetus to Hong Kong as a hub for international tourism. As **Table 6** illustrates, Mainland flights have risen from approximately one fifth of flights into and out of Hong Kong in 1990 to virtually one third today.

Table 6

**Passenger Flights to Mainland Cities from Hong Kong
(1990 - 2002)**

Year	Passenger flights to Mainland (per week)	No of new flights	Mainland flights as % of total through HK	No of Mainland Destinations	No of Mainland Carriers into HKG
1990	216	-	22.9%	24	5
1991	217	1	22.4%	28	5
1992	260	43	24.0%	29	5
1993	341	81	27.9%	37	6
1994	331	-10	26.0%	35	6
1995	341	10	25.6%	37	7
1996	350	9	24.5%	39	6
1997	353	3	23.9%	41	6
1998	383	30	26.1%	39	6
1999	414	31	28.5%	39	6
2000	443	29	28.6%	40	6
2001	493	50	28.4%	41	8
2002	559	66	30.7%	42	9

* Data based on slots of a typical week in August including scheduled service/regular charters,etc, August 14, 2002

While the growth in flights between Hong Kong and the Mainland has been strong, it has been remarkably concentrated on just two cities. Of the 5.59 million passengers travelling into or out of Hong Kong from the Top 20 Mainland cities over the 12 months to April 2002, over 40 per cent travelled to/from Shanghai or Beijing. As **Table 7** shows, this dominance is currently growing rather than narrowing, with 19 per cent growth between Shanghai and Hong Kong over this period, and 6 per cent between Beijing and Shanghai (most Mainland routes saw a decline in traffic in these 12 months).

Table 7

**Passengers between Hong Kong and China's Top 20 Mainland Airports
(April 2001 to March 2002)**

City	TOTAL (Arrival and Departure)	% of TOTAL
Shanghai/Hongqiao	1,789,593	32%
Beijing	1,091,328	19.5%
Guangzhou	310,535	5.6%
Fuzhou	286,918	5.1%
Xiamen	281,120	5%
Hangzhou	258,406	4.6%
Nanjing	200,792	3.6%
Chengdu	156,514	
		24.6%
Guilin	155,749	
Kunming	131,512	
Qingdao	121,122	
Haikou	116,061	
Xian/Xianyang	107,615	
Ningbo	94,385	
Sanya	91,546	
Chongqing	90,543	

Shantou	87,339	
Wuhan	80,248	
Dalian	79,276	
Changsha	59,160	
TOTAL	5,589,762	100%

Source: Hong Kong Civil Aviation Department

Forecasts of passenger growth between the Mainland and international destinations are inevitably tentative, but the IATA has forecast that the average yearly growth rate for passenger traffic between the Mainland and South East Asia will be 5.1% until the year 2020. China domestic air travel is forecast to grow at an average 9.3% per annum over the same period.

At present, the only Hong Kong airline that can compete for or capture any share of this important and fast growing domestic or international business is Dragonair, which has rights to fly to 40 Mainland cities, but currently operates services to only 18 Mainland cities. By contrast, a total of 9 Mainland carriers currently fly into Hong Kong, providing services to a total of 42 cities. Even more domestic Chinese carriers fly into Shenzhen, which is linked to 51 Mainland cities. The current existence in Hong Kong of the general rule of “one route, one airline” means that Cathay Pacific is unable to compete for any of this business.

In short, preservation of this policy is untenable. It is extremely rare for a home carrier to be barred from providing services across its natural hinterland market. London, Frankfurt or Amsterdam would never have emerged as leading European gateways if their principal airlines had been unable to carry passengers to and from other European cities. Dismantling the “one route, one airline” policy would enable all Hong Kong carriers to operate to the Mainland, boosting competition and choice on key domestic Chinese routes, and at the same time enable Dragonair to expand its regional passenger connectivity. It would also potentially open the way to small no-frills carriers hubbing from Hong Kong, not dissimilar from dynamic new airlines in Europe like Ryanair and Easyjet, or in the US, like JetBlue and Southwest Airlines. But dismantling the policy on a piecemeal basis, as appears to be the present approach if the most recent Taipei negotiation were to provide a template, would neither be equitable nor effective in promoting enhanced same-carrier connectivity through the Hong Kong hub.

In summary, there is likely over the coming decade to be steep growth in tourist air travel between the Mainland and Hong Kong. Many of the tourists going no further than Hong Kong will use Mainland carriers, and will travel to the cheap neighbouring hub of Shenzhen. Wealthier travellers with the budget to visit international destinations are more likely to hub through Hong Kong (because of its international connections). For the foreseeable future, Shanghai and Beijing are going to dominate this growth, with Guangzhou and Xiamen distant followers.

For the Hong Kong hub, data suggests that its predominance is strongest with Shanghai, Beijing and Xiamen, with Guangzhou being so near to Hong Kong that its future growth is likely to concentrate on other, more distant destinations. Neither Dragonair nor Cathay Pacific are likely to capture a significant share of this fast-growing business unless Cathay Pacific is given the opportunity to compete on Mainland routes, and Dragonair is able to expand its international route network. Neither will be able to provide optimal service to their customers, or serve the best interests of the Hong Kong hub, if they cannot build links in both directions. In the long term, there will be many Mainland cities that will need to be served, but in the short term the priority for international travellers is to facilitate links to three cities in particular - Beijing, Shanghai and Xiamen.

Competitor developments: Guangzhou, Shanghai, Beijing

Growth at China's three key aviation hubs is being driven hard by China's regulator, the Civil Aviation Authority of China (CAAC), and by its three leading airlines, around which China's fragmented airline industry is currently being restructured to create three large airline consortia.

Already, these three airline groupings are substantially larger than any one of Hong Kong's home carriers, though most of their operations are currently confined to domestic routes inside China. This is an imbalance that both CAAC and the "big three" Mainland carriers are currently working hard to redress, with plans to build hub capacity around their "home" hubs - Beijing for Air China, Shanghai for China Eastern and Guangzhou for China Southern - and to build international connectivity, and dedicated air cargo services.

Table 8

The "Big Three" Airline Groups in China and Hong Kong Carriers

Group	Aircraft	Routes	Assets yuan/ US\$ in billions	Staff
CHINA SOUTHERN China Northern Xinjiang Airlines	180	606	50.1 (US\$6.1)	34,000
CHINA EASTERN Northwest Yunnan Airlines Great Wall	118	437	47.3 (US\$5.7)	25,000
AIR CHINA CNAC's Zhejiang Southwest	118	339	56.1 (US\$6.8)	20,300
CATHAY PACIFIC Air Hong Kong	77	1,300	HK21.5 (US\$2.8)	10,179*
DRAGONAIR	22	35	N/A	1,887*

Source: based on CAAC's merger announcement in April 2001 and Individual Airlines

* Staff based in Hong Kong

These developments are well illustrated by the diversity of cooperative arrangements that have been reached with international carriers (see Table 10) – in particular by Air China from Beijing. While none of China's carriers are yet members of any of the global aviation alliances, these cooperation arrangements suggest close links between Air China and Star Alliance airlines, and less clear alignments with the other two groupings. Even if code sharing arrangements between Hong Kong and Mainland carriers were to be allowed at some point in the in future, the existence of such cooperative arrangements would clearly compromise such potential.

Table 9

Mainland Chinese Airlines' Co-operation with International Carriers

Air China	China Eastern	China Southern
Alaska Airlines	Air France	Asiana Airlines
America West Airlines	American Airlines	Delta Air Lines
Asiana Airlines	All Nippon Airways	Japan Air System
Finnair	Asiana Airlines	Vietnam Airlines
Korean Air	Korean Air	
Lufthansa		
Northwest Airlines		
SAS		
Swiss		
Tarom		

Source: ING Barings, 2002

While China Southern is significantly the largest of the three new consortia, its growth is being relatively hindered by CAAC's priority to drive growth in international air services through Beijing and Shanghai. Taking a view that southern China is already well served on international aviation routes by virtue of the large critical mass of interlinkages through Hong Kong, CAAC has chosen to give priority on new international air traffic rights to Beijing and Shanghai with the aim of building international air links into central and northern China. This is well illustrated by the range of foreign airlines each of the "Big Three" Mainland carriers have been allowed to ally with (see Table 10), with China Southern comparatively poorly linked in spite of its fleet size and the number of routes it serves.

At the same time, industry consolidation around the three main carriers is intended to reduce unproductive duplication of services, to create three internationally competitive airline giants,

and to improve regulatory efficiency. Already these three carriers account for about 80 per cent of flights inside China, and the consolidation is likely to build international clout to match their domestic strength. At the same time however, consolidation means that each new grouping faces the task of merging fleets of disparate sizes and makes of aircraft, and of rationalising networks.

Figure 1

Mainland Cities and their Major Airline Groups



Beijing and Shanghai have recently opened new airport facilities that remove for the near future any constraints on their ability to accommodate growth in passenger and cargo demand. Guangzhou will open its new Baiyun airport facility in 2003. All three airports are seeing rapid growth in cargo and passenger traffic, with both CAAC and IATA predicting strong growth over the coming two decades.

Table 10**Old versus New Baiyun (Guangzhou) Airport Capacity (to be Opened in 2003)**

Capacities	Old Baiyun (Current Capacity)	New Baiyun (Opening Capacity)	% Change
Passenger Throughput	13.8 million	27 million	+95%
Cargo Throughput (in tonnes)	456,000	1,000,000	+119%
Aircraft Movements	137,355	180,650	+31%

Source: CAAC & Centre for Asia Pacific Aviation

It is reasonable to assume that over a large part of this time frame the priority of China's airlines will be to build strong, coherent and efficient domestic route infrastructures. It is also likely that their primary priority will be to meet passenger demand. There is at present virtually no domestic carriage of cargo by air, and this is unlikely to change soon in view of the fact that their largely short-haul narrow-bodied fleets are ill-suited to cargo carriage.

This is both good and bad news for Hong Kong's carriers. It means that Hong Kong's leading position as an international hub is unlikely to be under direct threat for a considerable period of time. But it also means that Hong Kong's carriers need to move now, and at speed, in the development of a domestic China air services infrastructure if the dominance of the three leading consortia is not to become impregnable.

Table 11**Current and Future Airport Passenger Capacities of Hong Kong, Shanghai, Beijing, and Guangzhou (in millions)**

City	Current Passenger Capacity	Future/Max Passenger Capacity	% Change
Hong Kong	45	87	+48%
Shanghai	40	100	+150%
Beijing	35	70	+100%
Guangzhou	14	80	+471%

Source: Centre for Asia Pacific Aviation

As passenger and (international) air cargo business grows through China's three main hubs, so international carriers from the US and Europe have fought hard to win rights to fly to these hubs. This has not yet led to a dilution of pressure to serve routes into Hong Kong, largely

because so many of China's foreign-invested, and export-oriented companies are based in Hong Kong's Pearl River Delta hinterland.

Table 12
Carriers with Flights to Beijing and Shanghai as of July 2002

	Number of Carriers to Beijing	Number of Carriers to Shanghai
International Carriers	33 (Including 1 cargo airline)	8
Mainland Airlines	5	4

Source: Published schedules

But it can be argued that Hong Kong is living on borrowed time if it is not able to match China's own domestic hubs in terms of services to Mainland destinations. As more international companies build stronger investment and trading links with companies, first along China's coastal provinces, and then into interior provinces, so demand from international passengers to fly directly to those regions, rather than transit through Hong Kong, will grow. In particular for passengers from North America, it makes no obvious sense to fly across the Pacific, overflying Shanghai on route to Hong Kong, only to fly back three hours to cities in Shanghai's hinterland region – unless, of course there are compelling reasons in terms of reliability and safety of Hong Kong carriers, and excellence of onward linkages to domestic destinations. At present, the opposite is the case: while Dragonair and Cathay Pacific collaborate to link international and domestic flights, they cannot offer the seamlessness that is possible from travelling on a single carrier, and they cannot offer the range or frequency of flights to domestic destinations (see [Table 2](#), page 5).

Taiwan-Mainland direct air services: implications for Hong Kong

The prospect of direct air services between Taiwan and the Mainland has tantalized business and leisure travellers on both sides of the Taiwan Strait for many years. It is possible that resumption of direct flights will prove elusive for some more years to come. However, steady progress appears to have been made at the diplomatic level in spite of an escalation of tensions in recent weeks, and perhaps most important, the number of Taiwanese now with residences on the Mainland – in particular in the Shanghai area – has risen to such levels that a significant proportion of the Taiwan population now have direct ties, and a strong interest in easy travel across the Straits.

It is clear that a very substantial proportion of the travellers currently plying between Taiwan and Hong Kong (on what is Asia's busiest regional route) are transiting to and from Mainland destinations. Airport data shows that 36% of Taiwan passengers arriving in Hong Kong are transiting to Mainland destinations. It should be emphasized that this is a conservative number that significantly understates the total of transfer passengers from Hong Kong, since this total captures only air-to-air transfers, so does not capture Taiwanese passengers that transfer to the

Mainland by surface transport. Nor does it capture Taiwanese passengers transferring to destinations outside the Mainland.

Table 13

The Hong Kong-Taipei Route

Flights per Week (July 2002)	268
Total Passengers (2001)	5.43 million
Air-to-air Transfer to Mainland Destinations	36%

Source: Hong Kong Airport Authority, Hong Kong Civil Aviation Department & schedules

The impact on Hong Kong of resumption is nevertheless unlikely to be as severe as some doomsayers have predicted. First of all, many of these transiting passengers are in fact transiting to factories in the Pearl River Delta, in particular in Dongguan, so are unlikely to wish to transit through other hubs. Second, many transit via Hong Kong because their companies are (for tax and other reasons) registered and headquartered in Hong Kong. The logic of headquartering in Hong Kong will continue to be strong as long as the SAR retains its competitive advantages as a legally secure, low tax location. Third, resumption of direct services is likely to be gradual. The number of Mainland cities to be served, the number of carriers, and the frequency of flights, will initially be limited, and extended only over a number of years, constrained by political and security factors above all else. Direct services could be expected first of all to Shanghai and Xiamen, then perhaps to Beijing, Guangzhou and Shenzhen (priority destinations that would not be dissimilar from the priorities of Hong Kong carriers).

While the impact of resumption is likely to be less severe than some have predicted, there will undoubtedly be a loss of business and revenue on what for Cathay Pacific is currently one of Asia's most lucrative air routes, accounting for over 18% of total revenue passengers. A strategy to mitigate the impact would make sense, to ensure that Hong Kong is as well placed as possible to provide an attractive transit even after resumption of direct services. But this would rely on two factors above all others: first, to ensure that landing fees and charges at Chek Lap Kok are competitive with competing hubs, and second, to develop as rapidly as possible Mainland connectivity. It would appear sensible for the Hong Kong administration to make preparations to tackle these issue as speedily as possible.

Dragonair is well positioned to exploit this, now that it has won rights to serve the Hong Kong-Taipei route as well as its current Kaohsiung route. But Cathay Pacific will remain hamstrung until it wins agreement to be able to resume flights to Mainland destinations. It is an ironic coincidence that the decision to give Dragonair the right to compete on the Taiwan-Hong Kong route is seen by many as the decisive break from the 16-year policy of "one route, one airline" – the very policy that bars Cathay Pacific from applying to serve Mainland routes currently served by Dragonair as well as Mainland carriers.

Mainland Air Cargo developments

Most cargo in China is carried around the country either on railways or by water. Most provinces remain largely self-sufficient for most consumer goods, so cross-provincial trade is modest except for state controlled goods like steel, cotton, soya or grain. As a result, the domestic air cargo business is still in deep infancy. As already noted, The domestic passenger fleet is largely narrow-bodied, and so ill placed to handle cargo in large volumes.

What little demand there is for goods to be carried by air tends to come from foreign-invested companies who account for virtually half of China's export trade. This demand currently remains modest because most of these manufacturers are located in China's coastal provinces, the great majority in Hong Kong's hinterland, and are able to move their goods speedily to Hong Kong by surface transport, mainly road or river. Even as foreign-invested companies have begun to disperse manufacturing operations further into the country, so this has yet to result in pressure for air cargo services – largely because these companies are at this point transferring only low-value-adding production to China's interior, making it hard to justify the cost of air transport.

While China can currently be described as close to “Year Zero” in terms of domestic air cargo, this clearly will not persist indefinitely. Domestic air cargo services will surely grow strongly over time. International air cargo services from key air hubs will expand even more speedily. This has already resulted in the establishment of dedicated air cargo ventures by China Southern and China Eastern, and it has led to America's dedicated air cargo carriers fighting hard for – and winning – rights to fly cargo-only services to Beijing, Shanghai and Shenzhen.

The quality, efficiency and connectivity of air cargo services through Hong Kong mean that the SAR is likely to remain a magnet for such services for a long time into the future. Its competitive advantages are unlikely to be eroded speedily. But it also suffers competitive disadvantages at present. The current air services arrangements with Beijing provide for only limited air cargo services between Hong Kong and Mainland cities. And in any case, Dragonair has only an infant air cargo capability with a fleet of just three aircraft. The great majority of air cargo through Hong Kong is carried by Cathay Pacific or by big international airlines like Lufthansa, FedEx or UPS.

It is clear that Hong Kong's competitive disadvantage here would be best remedied by both building Dragonair's domestic and international air cargo capabilities, and by pressing for Cathay Pacific to link its cargo services directly to Mainland locations.

Hong Kong and Mainland carrier strategies: implications for the hub

For the past 16 years, effective collaboration between Dragonair and Cathay Pacific has allowed both to build their businesses in the region. Cathay Pacific's stake in Dragonair has provided a platform for the two to work closely to link ticketing systems, to synchronise flights and build a strong complimentary cover of services to regional and global city destinations. However, as Dragonair has grown, and begun quite naturally to nurture ambitions to build an international

connectivity and to develop cargo services that complement its existing Mainland services, so its strategy for the future has become more difficult to reconcile with that of Cathay Pacific.

At the same time, the main driver that has emerged in modern aviation for securing pre-eminent hub status is *same-carrier network connectivity*. Most passenger reservations are made through computer reservations (CRS) systems that allocate top priority in their displays to same-carrier connections. This powerfully influences passenger choice when considering non-direct routings. Codesharing can be a surrogate for same-carrier connections, and by placing one airline's code on another airline's aircraft, reservations systems can be made to prioritise what might accurately be termed *an interline connection* that is analogous to a same-carrier connection. No matter how closely Dragonair and Cathay Pacific work to facilitate connections between their networks based on Hong Kong, they cannot replicate the CRS-driven power of same-carrier connectivity. Nor – oddly – can they do the next best thing and codeshare: whilst many foreign airlines enjoy the right to codeshare with Chinese counterparts, codesharing is not currently allowed between Hong Kong and Mainland airlines.

There is thus a compelling case for allowing Cathay Pacific and Dragonair to develop their own 'stand alone', intra-airline connectivity through Hong Kong. This implies more flights to foreign destinations by Dragonair and a return to the Mainland for Cathay Pacific. Dragonair's capabilities in terms of expanding its international network quickly enough to provide the connectivity required are inevitably constrained by its lack of a global distribution network, by its aircraft fleet – short-haul-only equipment – by its current lack of an internationally recognised brand, by constraints like the time taken to train new pilots (at least 10 years from qualification to captain) and the absence of any of its own engineering and maintenance capabilities. In contrast, Cathay Pacific flies to 59 cities in 29 countries, has a good mix of long and short haul aircraft in its fleet, has a globally renowned brand, is a member of the **oneworld alliance**, and faces immediate client pressure to link its current international air cargo services to destinations on the Mainland.

In short, Cathay Pacific's strengths as a global operator can deliver today in terms of reach and profile what Dragonair aspires to be able to deliver tomorrow. The fact that Cathay Pacific remains locked out of the Mainland market will, over time, serve as a significant drag on Hong Kong's ambitions to remain the primary Mainland gateway and as the preeminent Asia/Pacific aviation hub.

Hong Kong may be handicapped in the race to serve as Mainland China's preeminent aviation gateway unless air services arrangements are modified to secure the level of access and flexibility required by local airlines to drive this development. The current air services capacity arrangement gives Mainland carriers significantly more passenger capacities to and from Hong Kong than Dragonair has been offered. This was partly remedied in a new agreement in 2000, but Mainland carriers are still entitled to fly from Hong Kong to a wider range of cities, and have entitlements (not based on the number of flights but on the total of passengers that can be carried) that are more substantial. Renegotiating this balance of rights will be no easy task, given the anomalies of Hong Kong's status. Nor will it be easy to negotiate on behalf of Cathay

Pacific for new rights. This is nevertheless a priority issue that the Hong Kong Government needs to address with some urgency.

As for the strategies to be adopted by Mainland carriers, it is clear that the unfinished state of the national restructuring of the aviation industry makes it difficult to make predictions with confidence. Their first priorities are likely to be to build services through their own “home” hubs. But it should be an objective of the Hong Kong administration to encourage them to consider intensive use of Hong Kong as a hub for a range of their international services, and in so doing to link Hong Kong powerfully into their domestic air services networks. Indeed, keen Mainland carrier interest in building services through the Hong Kong hub could be seen as a potent incentive or lever for them to agree in exchange to allowing Cathay Pacific to resume Mainland services, and for Dragonair to expand them. Given the current “horse-trading” nature of international air services agreements, such inducements could be tactically important for the Hong Kong administration in future negotiations.

It would be unreasonable to expect Dragonair or Cathay Pacific to sit idly on the sidelines as such services were encouraged, so, again, the urgent need is for our own home carriers to be able to share equally in competition on such services across the Mainland.

Fees, Charges and Fares

Carrier to carrier connectivity, and its impact on traffic flows, is one important element in hub development; pricing is arguably an even more significant factor. The limited competition permitted on Hong Kong/Mainland air services, coupled with a continued preference on the part of overseas air travellers in particular for non-Mainland carriers, has contributed to relatively high tariffs between Hong Kong and most Mainland cities. Fare comparisons are always difficult to make given that much air travel is on discounted tickets with rates that change on an almost daily basis. But the market tariffs used to construct the table below are indicative of pricing levels that on a per kilometre basis are well above those on international routes to and from Hong Kong.

Table 14

Price Comparisons Per Kilometre to Various Destinations from Hong Kong

Route	Sector Distance	Estimated Yield* (USD)	US Cents
HKG/Shanghai	1,233	179	14.5
HKG/Beijing	1,991	235	11.8
HKG/Xiamen	496	115	23.2
HKG/Taipei	806	130	16.1
HKG/Manila	1145	107	9.3
HKG/Singapore	2562	195	7.6
HKG/Heathrow	9628	478	5.0
HKG/San Francisco	11,127	475	4.3

Source: Estimated yields calculated by reference to market fares

Table 15

Price Comparisons Per Kilometre to Various Destinations from Shenzhen

Route	Sector Distance	Estimated Yield* (USD)	US Cents	% Price versus HKG
SZX/Shanghai	1,207	132	10.9	-24.8%
SZX/Beijing	1,961	166	8.4	-28.8%
SZX/Xiamen	479	69	14.4	-37.9%

Source: Estimated yields calculated by reference to market fares

Aside from obvious concerns over artificially high fares deterring air travel between Hong Kong and the Mainland to the detriment of our status as a business and tourism centre for China, there are two further points to make:

- High airfares will continue to drive travellers cross-boundary, chiefly to Shenzhen, to fly on to Mainland cities. The Hong Kong Airport Authority is considering developing a strategy of complimentary competence where the strengths of Pearl River Delta airports like Shenzhen in serving Mainland destinations are exploited to support Hong Kong's position as an international hub. This could involve building rapid transfers for passengers and cargo via high-speed road and/or rail links to Zhuhai or Shenzhen. However, the risk might be great in that this seepage of passengers across the boundary in response to high tariffs will carry a high long-term cost in terms of lost airport throughput and revenues. It is also reasonable to ask whether taxpayer funds should build infrastructure that would be used actively to divert passengers, cargo and aviation services away from Hong Kong when a solution may be closer to home, in the form of lower airport charges, allowing lower fares.
- As long as Hong Kong/Mainland airfares remain high, travellers to and from overseas destinations will have an economic incentive to bypass the SAR and use alternative gateways. Those airlines barred from serving the Hong Kong/Mainland market, and therefore dependent on rates offered by Dragonair and the Mainland carriers for onward travel beyond Hong Kong into China will also have an incentive to consider alternative gateways. This also applies in slightly different terms to Cathay Pacific: Cathay Pacific has no real incentive or capability to consider an alternative route into China for its Mainland-bound passengers. However if it is charged high rates for the onward carriage of its passengers, it is likely to be forced to prioritise the sale of other types of traffic flow, eg. end to end passengers, or passengers routing between S.E. Asia and North America, above Mainland Chinese originating or final destination traffic. Under these conditions the advantages of Cathay's worldwide distribution, representation and brand profile will not be properly harnessed to driving the role of Hong Kong as China's preeminent aviation gateway.

The Home Carrier issue

It is clear that the Hong Kong government must keep scrupulously separate the interests of the Hong Kong economy, and those of commercial airlines. The two will frequently not be the same. The claims made by airlines will always be clouded by their commercial interests, so must be treated with great care.

At the same time, however, it is important to differentiate the contribution a “home” carrier is likely to make to an economy from that of a foreign carrier. In short, a “home” carrier contributes much more strongly to the home economy. It is unique in having a long-term commitment to the home economy, with its own long-term success being heavily dependent on the success of the home hub.

This is so for a number of reasons:

- A “home” carrier concentrates a wide range of headquarter hub operations in its home economy, as well as many support operations like catering, aircraft engineering and so on. As a result, a “home” carrier is likely to generate more jobs in its home economy than a non-national carrier. It is also likely to generate a larger proportion of skill-intensive jobs linked with headquarter hub operation, and to source materials from within the home economy. Paradoxically, this applies much more powerfully at the moment to Cathay Pacific, since Dragonair relies on Cathay Pacific for many back-office and headquarter services.

An airline like United Airlines or China Eastern might in the next few years put a large number of flights through the Hong Kong hub, and this would without doubt contribute to the Hong Kong economy in terms of enhanced passenger use of terminal facilities, use of local aviation services, and numerous local jobs. But no such non-national airline would transfer its headquarter hub operations, which are by far the strongest economic drivers, and high-skill job generators. Conversely, Cathay Pacific and Dragonair (as it builds its own self-standing, back-office services) will continue to concentrate staff in Hong Kong in spite of strong growth in services to other destinations. Cathay Pacific, for example, makes 90 flights per week to Tokyo, but employs just 200 staff in Japan.

- A “home” carrier has an indelible commitment to, and reliance on, the strength of the home hub. Many foreign carriers currently use Tokyo, Seoul, Shanghai or Hong Kong as hubs for onward flight to Southeast Asia, and their commitment to the Hong Kong hub is purely pragmatic. They may currently be keen to use Chek Lap Kok but as aircraft engines are improved to enable direct flight from the US west coast to Singapore, Bangkok or Kuala Lumpur, so these carriers will build direct routes in view of passengers’ preference for non-stop flights.

Table 16**The Home Carrier and Job Creation**

Airline	HK-based Staff	Flights per week	Jobs per flight
British Airways	181	19	9.5
Qantas	85	30	2.3
Japan Airlines	237	49	4.8
United Airlines	320	35	9.1
Dragonair	1,887*	283 (Cargo & Passenger)	6.7
Cathay Pacific	10,179	517 (Cargo & Passenger)	19.7

Source: Individual airlines

* Currently depressed by Dragonair's reliance on Cathay Pacific's back office services. If Cathay Pacific and Dragonair data were aggregated to "absorb" this reliance, their combined jobs per flight would fall to 15.1 – still significantly higher than non-home carriers.

- By contrast, Hong Kong's home carriers build their route network out from the home hub. Their commercial interests are therefore especially linked with those of the dynamism and success of the home hub. Singapore Airlines might route many aircraft through Hong Kong, but it too has a special and indelible commercial interest in the promotion of routes hubbing through Singapore, and so will shift routes back to its home hub whenever it can. So too will China Eastern to Shanghai, or China Southern to Guangzhou. This point is natural and uncontroversial, but it makes clear that the Hong Kong government shares with its "home" carriers a strategic interest that it can never share with non-national carriers.
- Strong "national" carriers have historically made a strong contribution to the development of a strong hub. For example, Heathrow built its premier hub position in Europe in part because of the commercial and competitive dynamism of British Airways. By contrast, the more natural European hub of Brussels has been bypassed, in part because of the weakness of its hub carrier, Sabena. The success of Singapore Airport as a regional hub can also be attributed in part to the dynamism of Singapore Airlines, which has worked alongside the government to build the home hub. The same can be said for Delta in Atlanta, United Airlines in Chicago, or Northwest in Minneapolis. As such, an economy and its airport hub have a strong vested interest in the competitive vitality of its local carriers.
- A "home" carrier is frequently a country's first internationally recognised brand. It thus tends to be an ambassador for the international reputation of an economy and a symbol for people's views of a country. Non-national carriers might use a hub heavily, but will

rarely deliver such brand value to an economy. For Hong Kong, the quality of the Cathay Pacific and Dragonair brands in turn enhances Hong Kong's own brand image internationally.

- A “home” carrier like Cathay Pacific or Dragonair (through CNAC) is listed in the home economy and thus will have a large number of local shareholders. As such, it contributes to the size and liquidity of the local capital markets. The carrier's profits are also remitted back into the economy, with shareholders benefiting from dividend payments. Again, the home economy will benefit more strongly from the success of its “home” airline than from the success of a non-national carrier.

The conclusion is clear: the Hong Kong government must encourage dynamic and liberal hub operations at Chek Lap Kok, but if these damage Cathay Pacific or Dragonair, or other home carriers that might be established over time – rather than simply ensuring they are exposed to vigorous and healthy competition – then Hong Kong's economy would suffer alongside the airlines themselves.

Conclusion

The single most important issue facing Hong Kong as an aviation hub is its need to build up its connectivity to Mainland cities. Chek Lap Kok's superior international connectivity is likely to provide a significant competitive advantage for many years to come, but this is an advantage that will over time be eroded as Mainland hubs – in particular Beijing, Shanghai and Guangzhou – build and intensify their international connectivity. It is also unlikely to be sustained in the long term if it is not complemented by a substantial and efficient Mainland connectivity. While the threat to Hong Kong's superior position as an aviation hub is not immediate, it would be remiss of the Hong Kong administration to neglect the issue until it has become so.

As such, a strategy needs to be developed urgently which pre-empts the issue. It will without doubt be difficult to negotiate the necessary rights with Beijing, where CAAC is anxious to balance aviation development across the entirety of China, and where the priority is to help less well connected regions of the country to catch up with comparatively well-served regions like the Pearl River Delta.

Above all else, success rests on two factors:

- the ability to restrain landing charges and fees to ensure they remain competitive with alternative hubs in the region; and
- the urgent modification of current regulatory constraints enabling Cathay Pacific and Dragonair to address their respective weaknesses – Cathay Pacific on routes into China, and Dragonair on international routes and in cargo.

Only with success in these areas will Hong Kong provide sound foundations for a strong competitive future as China's economy becomes increasingly open to world markets, and

ensure that its “home” carriers continue to champion competitive route and service development through the hub.