Aviation Strategy

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The value of values

Back in the yuppie late 1980s, Air Europe*, a small but high-profile UK airline, hit upon an innovative way of raising finance. It placed very ambitious orders for aircraft, including some MD-11s that it could not have used on its network, then raised loans to support its operations by refinancing several times on the back of reported increases in the value of the aircraft on order. When traffic collapsed in the wake of the Gulf war, Air Europe's cashflow dried up, and its banks suddenly realised that its debt was very precariously supported by aircraft production slots. They called in Air Europe's loans and the company went bankrupt.

The repercussions were widespread. Bankers suddenly became very anxious about inflated aircraft values and somewhat suspicious about the theory, touted by GPA, that aircraft were an almost risk-free investment although their operators - the airlines - could easily go out of business. Following the failure of the GPA flotation, second-hand aircraft values and lease rates declined steeply.

In the more prudent late-1990s this history will not repeat itself, we hope. But what seems to be happening is that 100%-plus aircraft financing has again become very widespread. In other words, airlines, when arranging finance for their aircraft purchases, are using this opportunity to raise additional working capital over and above the cost of financing the asset.

It's quite easy to justify a premium. Manufacturers' list prices are now so far above actual prices paid that almost all airlines - not just mega-purchasers - can achieve substantial discounts. Moreover, the banks rely on the appraisal companies to put a fair value on the transaction, which raises further questions.

In reality, how much do the appraisers know about the details of actual transactions? In a recent issue of the ISTAT magazine, the appraisers' in-house publication, a leading US appraiser bemoaned the secrecy surrounding transactions, which raises some doubts. And, although appraisers may have good industry contacts, they can very rarely give specific detailed examples to support their valuations. The transactions they do tend to know about are those that they have acted on as appraisers, so creating a closed circuit.

In turn, experienced bankers know how to play the appraisal game. They know which appraisers tend to be high or low valuers and which have shallow or steep depreciation curves for future values. And they will be tempted to choose the appraiser most appropriate to the type of deal they are working on.

Does this matter? In a stable market, probably not; but in a market that is becoming edgy because of the Asian crisis, probably yes. In these circumstances, it is surely important to have more transparency on the real value trends in the industry's fixed assets. Otherwise, the industry is too exposed to changes in the psychology of the financial markets if it perceives the physical market balance to be deteriorating. In addition, accurate information is required to focus on the divergent trends evident in the second-hand market at present. Modern narrowbody demand remains very strong; 747s are in unprecedented over-supply; and downsized widebodies, 777s and A330/340s, are in vogue although the claims made for their profit-enhancing qualities are not yet proven. How this value transparency is to be achieved is another question.

* Not to be confused with Air Europe of Italy or Air Europa of Spain, which both have their origins in the Air Europe/ILG company, but which are now successful independent airlines.

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Southwest - still a paragon of virtue

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Southwest's continuing success is due to its adherence to one clear and successful strategy - low fare, no-frills, reliable, friendly, point-to-point services, which utilise a homogeneous 737 fleet. The airline is regarded as a paragon of virtue; indeed, one recent report* claims that if only American operated in the Southwest manner, it would reduce its domestic costs by 35%.

But paragons of virtue can be very irritating, so analysts and rival airlines have spent a long time looking for chinks in Southwest's armour. Now they suspect they may have found a few.

First, Southwest is facing new competition at its home base, Dallas Love Field, where historically it has enjoyed a near-monopoly. Legend Airlines - a start-up - plans to launch interstate services using regional jets, a move that poses a minor threat to Southwest but which has also induced American to apply for services out of Love Field (rather than its mega-hub at Dallas Fort Worth). This could be a major threat to Southwest, especially as American is proposing to enter the Austin route, one of Southwest's prime profit generators.

The concern is not so much that new entrants at Love Field and other Southwest airports will undercut Southwest, but that the use of high-frequency, regional-jet service will capture some of its business travel component. Likewise, American and the other Majors cannot compete on cost and fares with Southwest, but they could use their FFPs to capture some of its business traffic.

Second, Southwest's expansion in the east is bringing it into competition with the lower-cost subsidiaries of the majors rather than the majors themselves - Delta Express and MetroJet (US Airways' new operation). This is at least likely to slow Southwest's progress in these markets.

Third, Southwest could be facing the Richard Branson-syndrome. The company is so closely associated with Herb Kelleher, chairman, president and CEO (and not personally a paragon of virtue), that it is hard to conceive of the airline without him. Yet at some point in the not too distant future he will leave, and unlike at American where Bob Crandall had groomed Donald Carty, there does not seem to be a clear line of succession at Love Field.

Meanwhile, Southwest reported the highest quarterly net profit in its history - $133m or 12.3% of turnover - for the period April-June 1998. Nevertheless, questioning by analysts of Southwest's strategy can only be a good thing. Market and industry structures do change, and it is unwise to assume that just because its strategy has worked so well for 26 years it will work forever.

* What is really wrong with America's air carriers - or the secret of Southwest, MBA, August 1998.

Revenue/cost trends: what's happening?

A review of the latest revenue and cost trends reveals some encouraging and some worrying trends on both sides of the Atlantic.

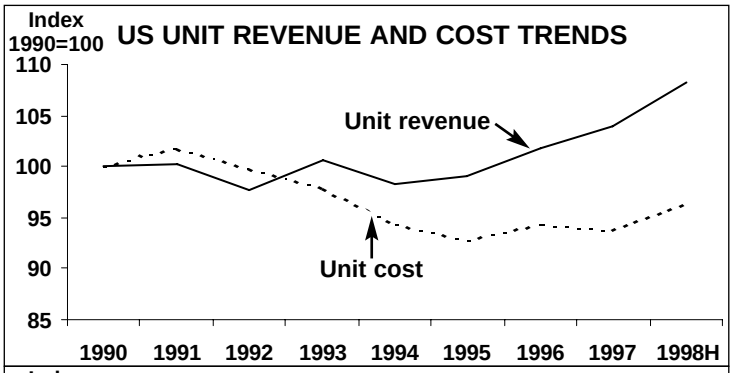
The data come from the quarterly reports of four major US carriers (American, Delta, Southwest and United) and three leading European airlines (BA, Lufthansa and KLM) - see Macro-trends, page 21, for details. The weighted unit revenue and costs are indexed to a 1990 base year. First-half 1998 numbers are provisional, and comparisons to the full year figures may be slightly misleading because of seasonal factors.

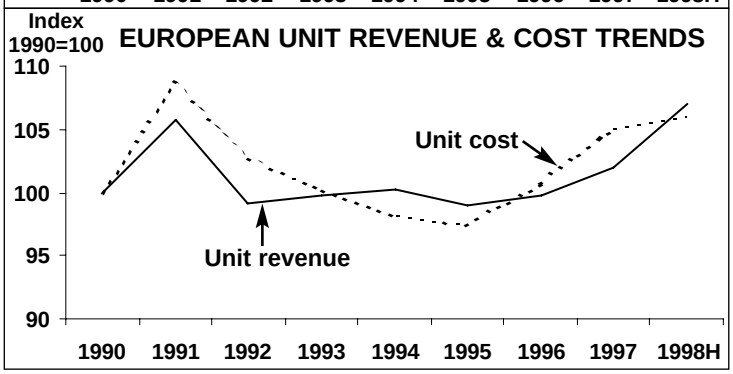
On the revenue side (see charts, above right) the most noticeable feature is the US carriers' continuing success in keeping their yield and load factors up, reaping the bene-

fits of controlling capacity growth and using revenue maximisation systems to their utmost.

European unit revenues too are still increasing, albeit at a slower rate and driven by load factors rather than yields, which are stabilising or declining. Indeed, a 4% fall in British Airways' yield in the second quarter of this year was seized upon by stockmarket analysts, who turned bearish on the stock despite an overall improvement in profitability.

On the cost side, the European unit cost trend line is tracking very closely to the unit revenue line. As mentioned, above, because *Aviation Strategy* is reviewing just the first half of the year, the unit revenue and cost charts are exaggerating this trend. Nevertheless, this is a matter for concern. In the US, the unit revenue/unit cost gap has stopped diverging.





Fuel, labour and the rest

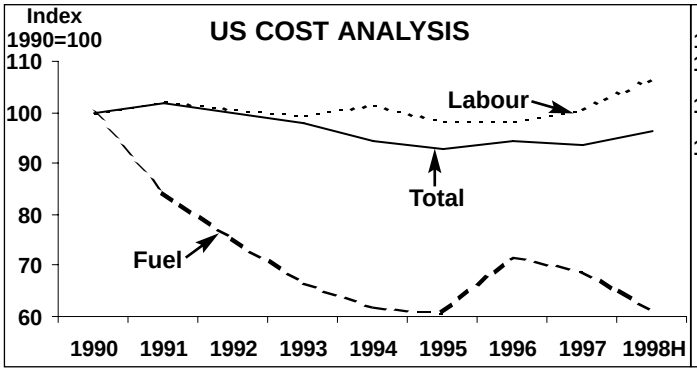
Looking in more detail at the components of operating costs (see charts, below), it is clear that airlines have enjoyed a big boost from cheap oil. Unit fuel costs (in actual terms) are currently 30-40% lower than they were in 1990.

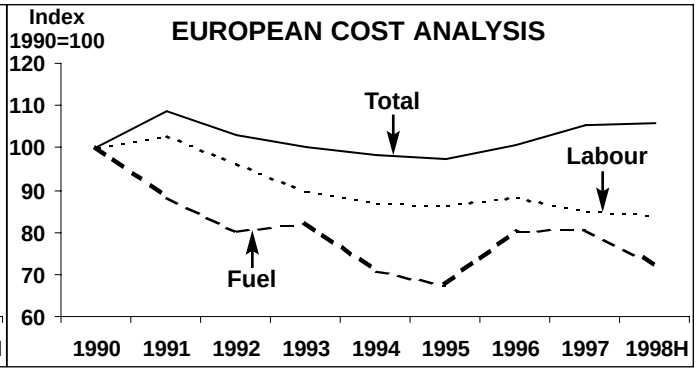
This benefit will continue to filter through as jet kerosene prices have remained very depressed throughout the summer. In July 1998 spot prices - around 35 cents/US gallon in Europe and 37 cents in the US - were at levels that haven't been seen since the mid-1970s.

Unfortunately, the oil market is due for a correction. At current crude prices, marginal production becomes uneconomic and oil companies run down their inventories. A fourth quarter rebound in fuel prices is on the cards.

On the labour front, US cost trends clearly show how the unions are now recovering some of the ground conceded in the early 1990s, either through snap-backs or new contracts. If the major US alliances are allowed to go through, expect the unions to absorb a significant proportion of the forecast synergy benefits.

By contrast, the European airlines are still stamping on labour costs. This success makes it all the more disappointing that European total unit costs are still drifting upwards. It looks as if it's those infrastructure costs again.





Time to legitimise the grey market for slots

The European Commission and the UK's Office of Fair Trading (OFT) are at loggerheads over whether British Airways should be able to sell the 267 slots it must dispose off in order to go ahead with its alliance with American.

After a period of consultation, the UK's Department of Trade and Industry will announce on September 4 whether it agrees with the OFT's recommendation that BA should be able to sell the slots. If (as seems likely) the Department does agree and the Commission does not back down on the view it gave in its Official Journal that slots should be given up "without compensation, whether financial or not", BA is likely to go ahead and sell the slots. If the Commission still wants to stop the sale, its only option will be to take the UK government to the EU Court of Justice.

The eventual outcome will impact on more than just BA, because in effect it will legitimise or not the current grey market for slots that exists at Europe's slot-constrained airports.

The grey process

At present, if airlines want slots at congested airports the grey market is the only alternative to the official allocation process. What happens is that one airline will approach another with a wish-list of slots it wants to acquire. If the other airline is willing to give up relevant slots, the two sides will simply sit down and negotiate a deal. But valuing a slot is an inexact science because any specific slot will be worth more to one airline than another. For example, airlines with extensive networks are likely to value a slot more highly than a smaller carrier would because of the connecting traffic a slot may also bring in.

The starting point is an assessment of how much revenue that slot (or more precisely, a pair of take-off and landing slots) will generate. In theory, as with any other investment decision, airlines should work out discounted cash flows for the slots they wish to acquire, but in practice airlines use everything from payback periods and internal rates of return (which are both inadequate investment methodologies) to, as one senior executive puts it, "simply sticking your finger in the air and pulling out a value".

Once slot values have been agreed, differences in the value of two packages of slots are made up via anything from slots at other airports to, most commonly, cash. Once a deal is agreed, the two airlines then approach the relevant airport slot allocator/scheduler (the Airport Co-ordination Limited at London Heathrow) and fill in a form with details of the proposed slot swaps. The cash adjustments/ foreign slots part of the bilateral airline deal is, of course, not notified to the official allocator. And while it may be pretty obvious to an allocator that a proposed slot swap is unbalanced (without a cash adjustment on the side), in practice the swaps are almost always approved. The airlines get the slots they want and cash payments disappear into operating revenue and cost figures.

At present all this goes on in secret as the market is grey and, according to another senior airline executive, "it doesn't feel right" to admit slot/cash trades publicly.

How much is a slot worth?

As has just been pointed out, a slot's worth varies according to each airline's specific circumstances. This makes generic statements about slot values almost impossible - although that doesn't stop people trying. In the US the General Accounting Office has stated that in 1996 peak-time slots cost an average of $2m at a high density airport (e.g. New York JFK) while off-peak slots cost $0.5m. As an example, this year Continental sold (and then leased-back) 102 slots at Chicago O'Hare, Washington Reagan National and New York LaGuardia for $151m.

In Europe, as the market is grey, accurate details about slot transactions are almost impossible to acquire. In the absence of real data, some figures have to be treated with caution.

For example, the rumour that one pair of peak-time slots at Heathrow sold for £600m (*The Guardian*, London, June 12) can clearly be discounted. At the lower end of the price scale, after BA told the UK's House of Commons Transport Committee that it had "acquired" 100 slots at Heathrow and 300 at Gatwick from other airlines, analysts "calculated" (i.e. guessed) that BA paid at least £160m ($260m) for them, at an average of £400,000 ($651,000) per slot.

It has been widely reported that the 267 slots that BA has to give up are worth between £1m-£1.9m ($1.6m-$3.1m) each, but even if this range is accurate the value of BA's slots could vary anywhere between $427m and $828m. In reality BA will only know how much it can get for the slots when potential buyers value the revenue the slots will generate for themselves and make a formal offer. *Aviation Strategy* calculations (see table, right) show that in 1997 BA's North Atlantic slots on average earned $7.5m in revenue and $962,000 in operating profits.

BA REVENUE & OPERATING PROFIT PER SLOT

	Revenue $m	Operating profit $m	Weekly slots*	Revenue per slot $000	Op. profit per slot $000
UK	1,090	10	1,717	634	2
Continental Europe	4,073		3,038	1,341	
North Atlantic	4,197	535	556	7,549	962
Long-haul ex. N. Atlc.	4,264	553	614	6,945	901
Total	**13,625**	**1,097**	**5,925**	**2,300**	**185**

Source: **AEA.* **Note:** *Figures may not add up to totals due to rounding. North Atlantic revenue and operating profit figures are Aviation Strategy estimates.*

Going legitimate

If the Commission does not manage to prevent BA from selling the 267 slots, then the grey market will become a de facto open market.

This can only be to the benefit of the aviation industry in general. Those who argue that an open market will be unfair as only the strongest airlines will be able to afford the highest slot prices are missing the point. In a free market prices should be decided solely by supply and demand. If any airline - new entrant or not - cannot pay the going rate for a slot on the open market then it simply should should not operate on the route. On the other hand, any new entrant that wants specific slots and is properly financed will be able to buy them on an open market, without the lengthy process of having to sculk around on the grey market. If anything, an open market may actually help new entrant airlines as slot prices will be transparent, with less chance that prices are artificially high or that any other abusive behaviour goes on (which if they did occur would be covered by existing anti-predation regulations).

The UK's CAA is among those calling for the legitimisation of the grey market. In its report "The Single European Aviation Market", released in June 1998, the CAA says that: "The formal recognition of secondary trading ... would at the very least help maintain and improve the flexibility of the system."

The CAA adds that while, in its view, an open market is unlikely to lead to more scarce slots being used to promote newly competing services on routes within the EU, this trend has been in evidence for some years at congested hubs anyway, even under the existing slot allocation system. According to the CAA it is important therefore that any changes to the existing system are "judged against existing realities and not against some, possibly unrealisable, ideal".

That is an important point. It may well be unfair that in an open market a windfall accrues to BA because it was handed a large swathe of slots for free when it was privatised, but that is history (although this could be solved by the UK government being given a percentage of windfall slot gains at BA). What matters now is the need to liquify the supply and demand for scarce slots.

The bottom line is that there is a demand for a proper, open market for slots. This does not preclude the award of new slots through the existing allocation system - in fact there may be a case for the existing allocation systems giving slots to new entrants only, with incumbents only being allowed to gain slots via buying them on the open market.

On the other hand, even in the unlikely event that the UK government is forced to back down and BA has to give its slots away, the question of whether to legitimise the grey market will not go away. That's simply a function of demand - most airlines want some mechanism whereby slots can be traded quickly and efficiently, and in the face of this need the objections of Karel Van Miert, EU competition commissioner, are futile long-term.

The manufacturers' market share game

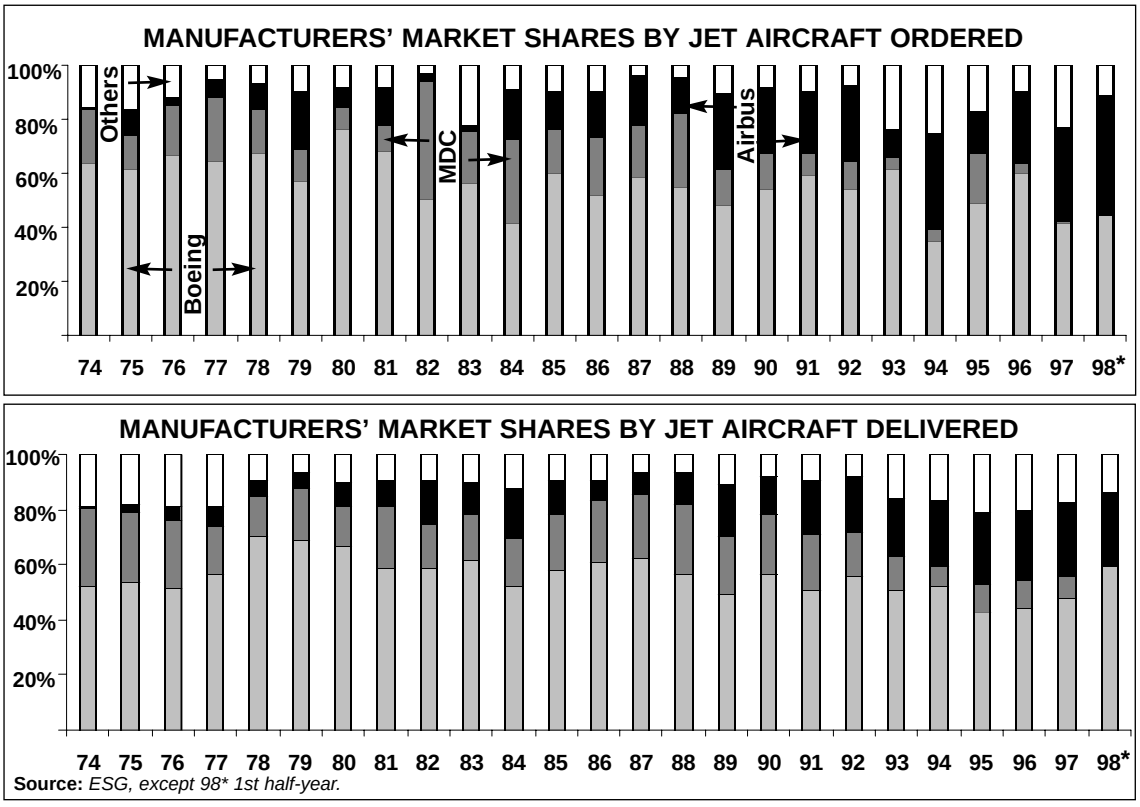
British Airways' firm order at the end of August for 16 777-200/200ERs and 59 A320 family aircraft has ignited yet another round of market share claims from Airbus and Boeing.

The only certainty about the two companies' respective claims is that they will differ. This is largely due to different definitions of what the market actually is. It is almost as though the last thing the manufacturers want to agree on is one simple definition through which real market share movement can be monitored.

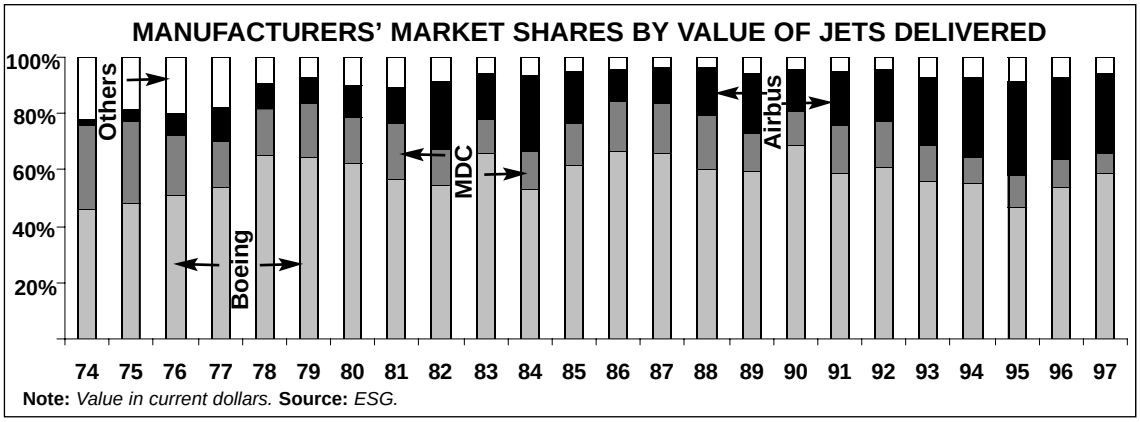
But that is hardly surprising. Now that McDonnell Douglas has been swallowed up, the jet market largely consists of a straight fight between Boeing and Airbus. It's essentially a zero-sum game now - every major A320 family order that Airbus wins is presented as a loss of 737 orders, and vice-versa. And when market share is everything, the manufacturers are keen to present the current situation in the best possible light.

The best definition?

So if the manufacturers cannot agree themselves, just what is the best definition of market share? The most obvious one is orders. Virtually every order is accompanied by a raft of press releases by the manufacturer and airline concerned. However not all orders are announced, and analysts are faced with an "unannounced" total at the end of every year or half-year. Manufacturers are also keen to stretch the definition of a firm order - sometimes a "firm" order announced in an earlier accounting period is "reconfirmed" in the current period, for example. Also, the US Majors' mega flexi-orders may



Source: *ESG, except 98* 1st half-year.*



Note: *Value in current dollars.* **Source:** *ESG.*

distort the picture if they are all counted as firm in the year of announcement. Most significantly, neither manufacturers nor airlines tend to publicise order cancellations. Orders simply disappear from the overall manufacturer figures, making it almost impossible to keep an accurate track of the real situation.

In addition to these problems, orders are simply too spiky. In terms of orders, Airbus had a great year in 1994 (36% of all jet orders), a poor 1995 (15%) and a good 1996 (27%). It is all too easy, for example, for Airbus to claim it has almost caught up with Boeing, only to see its order market share plunge the following year. In the first six months of 1998 Airbus won a greater share of jet orders than Boeing did, but with the above provisos that tells us relatively little about the manufacturers' relative positions.

A much better measure, therefore, is deliveries. This not only eliminates cancelled orders, but also takes into account production rates (which are set by management depending on resources and order rates). As Boeing has found out to its cost, it's no use having a large orderbook if you do not have the capability to churn out the products fast enough.

The delivery chart (left) reveals much smoother market share trends, and Airbus's advance can be much more easily picked out. In 1997 Airbus accounted for 27% of jet aircraft delivered, and exactly the same proportion of provisional first-half 1998 deliveries. But Airbus still has some way to catch up with Boeing, which was responsible for 48% of jet deliveries in 1997 and 60% of the provisional first-half 1998 numbers.

Yet deliveries by unit is still an imprecise way of measuring market share, because it does not take into account the size of aircraft. This is where Boeing has a clear advantage, with the average size of its product range being larger than Airbus's. Deliveries by number of seats would therefore be a better measure than aircraft units.

Another way of looking at this is to consider the monetary value of deliveries (order monetary value can be discounted because only deposits are paid up front). This is probably the fairest way of defining the market for jet aircraft, because larger aircraft obviously cost more. The main problem here though is discounting. The list prices published by Airbus and Boeing bear little resemblance to the prices actually paid by major customers placing large orders. In a situation where Boeing is directly "bidding" against Airbus for a large order, actual prices paid can be as much as 40% below list prices. BA's A320 order, for example, was at a price reportedly around one-third below the list price.

That is why actual prices paid for deliveries (as estimated by ESG in the chart above) is the most accurate definition of market share. And this shows that over the last three years Airbus has actually been losing market share to Boeing (Airbus has 28.7% of the market by value of deliveries in 1997, compared with Boeing's 58.6%).

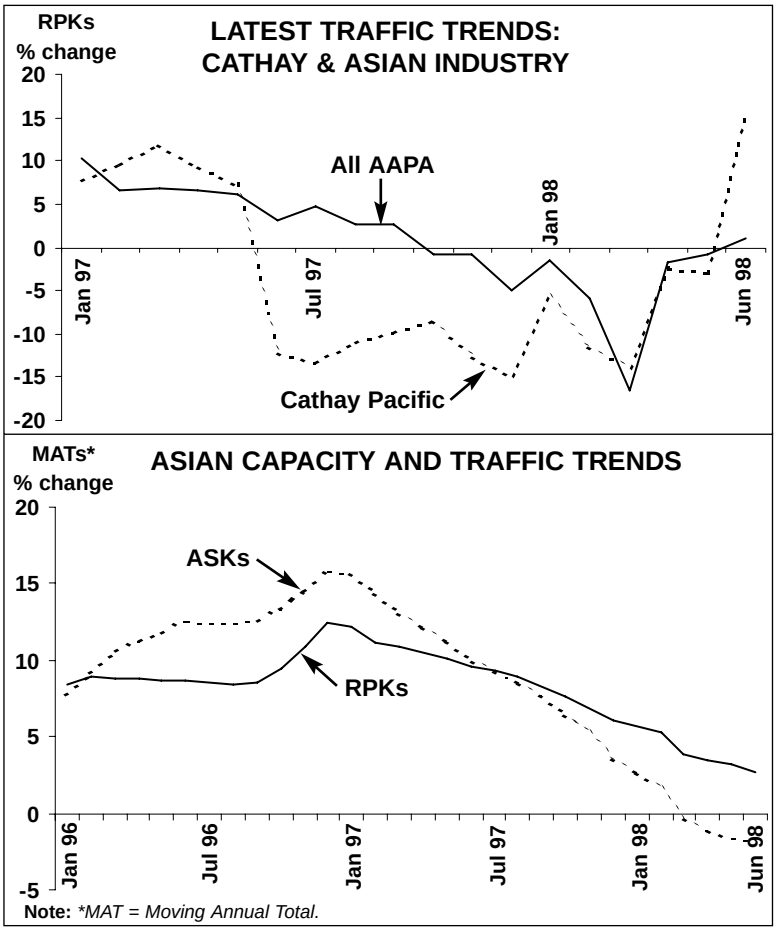
Of course the most useful measure of all would be by profit on aircraft delivered. But we will have to wait until Airbus changes from a consortium to a company before *Aviation Strategy* can construct this market share chart.

Asia hitting rock-bottom?

It may still be too early to claim that the Asian aviation industry has hit rock-bottom, but the market is making some significant adjustments.

Cathay Pacific (see *Briefing,* pages 9-12) is a type of lead indicator for the Asian industry. Its traffic collapsed before the rest of the Asian airlines were hit, but this June Cathay became the first Asian carrier to revert to traditional Asian growth rates - a 15.6% annual increase in RPKs. Before one gets too excited about this, it has to be said that the June 1997 traffic result was a decline of 12% on a year earlier, so Cathay is now scarcely back to June 1996 traffic levels.

The main reason behind the June traffic increase was the grounding of most of PAL's aircraft during the strike there. Besides capturing nearly all of PAL's traffic on Manila-Hong Kong, Cathay also picked up sixth freedom traffic from Europe to Australia and from North America to Southeast Asia. Although PAL is now operational, it is committed to permanent downsizing, and its Australian, European, Canadian and Middle Eastern routes remain suspended.



Note: **MAT = Moving Annual Total.*

The bottom chart on the left shows the traffic and capacity trends (smoothed by using Moving Annual Totals) as reported by the AAPA. This shows capacity to be declining at a significantly slower rate than demand, but it is likely that the figures are distorted because the really distressed airlines are not reporting to AAPA. No numbers have come out of PAL, Garuda and MAS for many months now, and it is these carriers that have been forced into the most drastic disposals of equipment. SIA and Cathay will be the long-term beneficiaries.

A rather strange result has emerged from Seoul. Korean reports that it made a Won 58.4bn (US$44m) net profit in the first half of this year, this in a period when its passenger traffic fell by about 23% compared to 1997. The main explanation is that as most foreign airlines have abandoned the Korean market, Korean has been able to push up passenger yields, which are denominated in US dollars, at the same time as benefiting from lower fuel prices. Also cargo export volumes have been very strong, and Korean has been able to operate at a freight load factor of 78%, while its passenger load factor is stuck around 61%.

The intra-Asia market will not get moving again until it get a boost from Japanese travellers (remember that Japan's GNP is bigger than all the other Asian countries, including China and India, together). As the Japanese economy and financial sectors is mired in recession, the medium-term outlook does not look too bright. But there is a strong possibility that the Japanese travel market will be revitalised by the new wave of lower-cost new entrants in that market. The initial impact of Skymark, Pan Asia, Hokkaido International and JEX (JAL's low-cost subsidiary) will be domestic, but eventually it will spread to Japan's international markets.

Cathay Pacific: surviving the Asian maelstrom

Cathay Pacific finds itself at the centre of the Asian maelstrom, reporting a loss in the first half of 1998 for the first time since its public flotation in 1986. Nevertheless, Cathay's strategy of repositioning for the upturn is the only logical, coherent response to the crisis.

Red numbers are a serious shock to Cathay Pacific managers (until recently they were concentrating on trying to get profit margins back up to the 15-20% mark) and to Asian stockmarket analysts. But compared with the losses produced by US majors and European flag-carriers in their 1992-94 slump, the results do not look too disastrous. Net profit for the first six months of 1998 was HK$175m (US$22.5m), and the company maintained dividend payments of HK$102m so the retained loss for the period was HK$277m ($35.7m), representing a margin on turnover of -2.1%.

Operating cashflow halved compared with the same six-month period in 1997, but at HK$1.6bn ($206m) was still equivalent to 12.6% of revenue. But Cathay's balance sheet is still strong: at the end of June shareholders' funds totalled HK$25.3bn against net debt of HK$12.7bn, a debt/equity ratio of 33:67.

However, over the past year Cathay has spent about HK$456m on buying and retiring its own shares in a vain attempt to support its stockmarket value. (The Hong Kong government itself is now intervening in the stockmarket, buying blue chip shares - including Cathay's - in order to fight off currency speculators.)

At the beginning of 1997 the stockmarket capitalisation of Cathay was about HK$42bn ($5.5bn); by August 1998 it had more than halved to HK$20bn ($2.6bn). As price/earnings multiples are of no use in the present market, Asian stockmarket analysts have been concentrating on adjusted break-up values for airlines in the region.

In Cathay's case the theoretical value of the owned fleet, using latest appraisers' estimates and even allowing for a decline in widebody prices, would be around US$5.4bn; the company's net debt at mid-year was the equivalent of US$1.6bn, implying an unadjusted net asset value of US$3.8bn.

The share price is, therefore, trading at a discount of about 30% to this asset value. As Cathay is not going to go out of business, dumping its fleet at distress prices, the stockmarket is implying that the second-hand value of widebodies is much lower than is explicitly recognised by airline and aircraft traders.

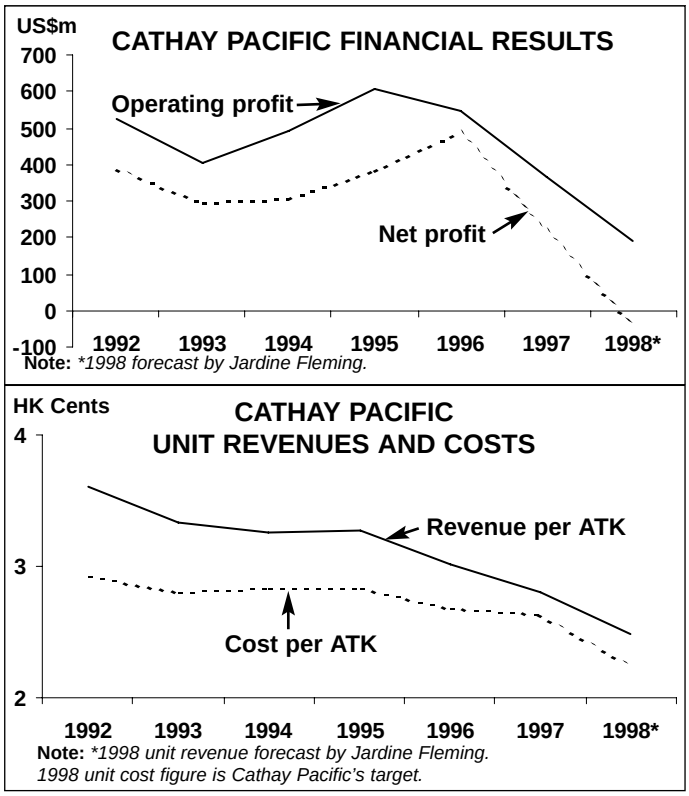
Cathay has first-hand experience of this phenomenon. It attempted to sell its 747-200s, but negotiations with Qantas fell through when the Australian carrier found cheaper equipment from other Asian airlines. Two were leased out to Virgin Atlantic, another three have been parked, and the other two plus the -300s are believed to be on the market.

Worst of all possible worlds?

Because Cathay normally does much better in the second half of the year, the full year loss is forecast to be around the same level as in the first half - Peter Tang of Jardine Fleming is opting for HK$274m, for example. The big question is whether this represents the bottom for Cathay or whether there is worse to come?

CHANGES IN CATHAY'S CAPACITY, TRAFFIC & YIELD
First half 1998 versus first half 1997

	Capacity (ASK)	Traffic (RPK)	Load factor (% pts)	Yield (per RPK)	Unit revenue (per ASK)
Europe	-1.9%	-5.5%	-2.8	-13.5%	-16.6%
Pacific/South Africa	6.9%	0.4%	-4.5	-18.5%	-23.4%
North Asia	-5.1%	-12.4%	-5.0	-18.5%	-24.8%
SE Asia/Middle East	7.8%	-3.2%	-6.6	-14.1%	-22.8%
Total passengers	2.7%	-4.1%	-4.7	-16.9%	-21.6%
	(ATK)	**(RTK)**		**(per RTK)**	**(per ATK)**
Total cargo	2.9%	-2.9%	-4.0	-5.9%	-11.2%



Cathay is operating in the worst of all possible worlds. The other Asian carriers have seen their traffic slump but they have also benefited from increases in yield as their currencies have devalued. With the Hong Kong dollar pegged to the US dollar, Cathay has suffered both traffic decline and severe yield erosion, resulting in passenger unit revenues collapsing by 22%.

The major problem area has been North Asia, which encompasses the two countries where Cathay has traditionally made most of its profits - Japan and Taiwan. Over the past year the yen has depreciated by 20% against the Hong Kong dollar, the Japanese economy has lurched into recession and Japanese tourists have also been put off by the threat of chicken flu. In the first quarter of 1998 Japanese arrivals in Hong Kong were down 60% on a year ago, which is the most important factor behind an anticipated fall in overall tourist arrivals of at least 10% this year, following on from a decline of 17% in 1997.

In the Taiwan market yields have also been impacted by the decline of the Taiwan dollar, but Cathay has also come up against increased competition from EVA and China Airlines, which has been discounting deeply to recapture business in the wake of its A300 crash in March.

The Hong Kong outbound market is suffering as well because of the parlous state of the economy - GNP is forecast to fall by up to 4% this year compared with 1997. Those businessmen who are still travelling are downgrading, further undermining Cathay's yield (in 1996 40% of the airline's Hong Kong-originating revenues were in First and Business Class).

Cathay's response

Cathay's yield erosion is not just due to foreign exchange effects: it has been chasing low-yield traffic, especially sixth freedom traffic, to fill its aircraft. This makes it all the more critical for Cathay to adjust rapidly to the new Asian operating environment, which means moving from being a relatively high-cost airline to being competitive with, at minimum, SIA. Its own target is to reduce unit operating costs by 12% in 1998 to HK$2.24 per ATK from HK$2.57 in 1997.

The indications are that this target may be met - Cathay's operating unit cost was HK$2.33 in the first half of this year. Unfortunately, the main reason behind the unit cost decline was the fall in fuel prices, down by 27% on an ATK basis whereas Cathay's unit labour costs were reduced by just 5%.

Cathay appears very reluctant to take the type of labour cost measures that commercial Western airlines have adopted in severe recessions. It hopes that staff reductions of 5-7% can be achieved through natural attrition, but this will only take about HK$500m or 2% a year out of its operating costs. More drastic action seems inevitable.

While the rapid depreciation of the Asian currencies against the Hong Kong dollar has been a disaster for Cathay's yields, at least it has not had to cope with the exchange rate effect on US dollar-related debt, which has wrecked the balance sheets of the other Asian airlines over the past year.

Consequently, Cathay has not been under the same pressure to defer or cancel

orders, and has taken all its deliveries on schedule. This year Cathay has taken delivery of three A340-300s and two 777-300s (as launch customer). Another five 777s and three A330/340s will be taken, as planned, over the next 12 months - unless the speculators finally force a serious devaluation of the Hong Kong dollar and Chinese yuan.

Peter Sutch, Cathay's chairman, describes the airline's strategy as "positioning to benefit from the next market upswing" - the only rational reaction to the current crisis.

Cathay is building up capacity on routes to destinations outside Asia, specifically to North America. In December 1998 it will start a daily A340 San Francisco service to add to the twice-daily 747 Los Angeles, daily 747 JFK, daily 747 Vancouver and daily A340 Toronto services. At present Cathay is again being forced to buy passengers on these routes - its US$399 round trip fare on offer in the US is a huge bargain - but it is clearly developing a route structure to North America that will allow it to sell itself as the major hub carrier connecting the Pacific with Southeast Asia.

Because Cathay was a higher cost airline than all other scheduled Asian carriers, except China Airlines, JAL and ANA, it was until recently very reluctant to compete fully on the Pacific (it only started flying to San Francisco, which has a huge Chinese population, last December).

Now Cathay is emphasising its competitive edge over SIA. Whereas SIA is waiting until 2001 for its ultra-long-haul A340-500s, Cathay can now operate non-stop to most North American destinations (even some of its New York JFK flights, routed over the Pole, are non-stop). The North American network now balances its Europe operation to London, Manchester, Frankfurt, Paris, Amsterdam, Zurich, Rome and Istanbul.

In competing with the US majors, particularly United, Cathay is re-emphasising its strong selling point - service quality. The current campaign is dubbed "Service straight from the heart", which means, among other perks, a personal TV in every seat.

Premier Chinese airline

In the chaos that is the Asian market at present, it should be remembered that Cathay is the premier Chinese airline, positioned to be the leading carrier of international air traffic to/from China, however quickly or slowly that potentially huge market develops. Cathay's main shareholders are:

- Swire Pacific (with about 44%), the publicly quoted arm of the Swires Group, which has extensive mainland Chinese interests in engineering, brewing, property development, etc.
- CITIC Pacific (with about 25%), the Hong Kong subsidiary of the mainland Chinese investment vehicle, CITIC.
- CNAC (with about 2%), the Hong Kong subsidiary of Beijing-based CAAC, which is the ultimate owner of the mainland Chinese airlines and the regulator of the aviation industry.

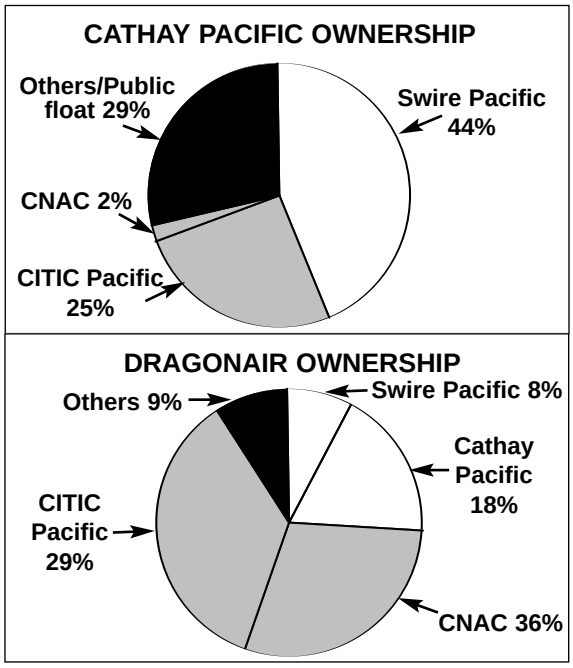
In turn, Cathay is still closely linked with Dragonair, the main Hong Kong-mainland China airline. Early last year Swires and CITIC Pacific each sold 17.7% of Dragonair to CNAC, which is now the major shareholder with 36%. Swire Pacific and Cathay together have about 26% of Dragonair and CITIC Pacific 29% (see charts, page 12). CNAC also has a 51% stake in Air Macau.

This structure establishes Cathay's position within the "one country, two systems" framework. Although CNAC wants to maximise Dragonair's growth prospects, the cross ownership of CITIC and Swires is intended to minimise unnecessary competition.

In combination with Dragonair, Cathay can claim to offer the best service to all Chinese points from Europe and most Chinese points

CATHAY PACIFIC FLEET PLANS

	Current fleet	Orders (options)	Delivery/retirement schedule/notes
747-200	7	0	All for sale, or being leased out
747-300	6	0	All for sale, or being leased out
747-400	19	0 (6)	Options for delivery in 2001-02
747-200F	7	0	Three leased out to Air Hong Kong
747-400F	2	0	
777-200	4	0	
777-300	2	5 (10)	Two in 1998, three in 1999
A330-300	11	1 (9)	Delivery in 1998. Options interchangeable with A340s
A340-300	9	2	Delivery in 1998
TOTAL	**67**	**8(25)**	



from the US - and the Chinese points include Beijing and Taipei. This is Cathay's longer-term strategic strength, which has also been reinforced by the move from Kai Tak to Chep Lak Kok airport.

The opening of the new airport at Chep Lak Kok was, almost inevitably, a farce, and the temporary embargo on cargo traffic that Hong Kong Air Cargo Terminals was obliged to impose has caused more financial pain for Cathay. But once CLK overcomes its teething troubles, as it soon will, its passenger and cargo facilities will rival Changi.

No way BA/AA?

From this perspective, Cathay's attitude towards alliances becomes more understandable. At the half-year results briefing Cathay management was explicit on the widely rumoured sale of a stake in the airline to British Airways - "categorically no plans". This rebuff must be a disappointment to BA, which would undoubtedly like to recapture the share in Cathay it short-sightedly sold in the early 1980s in order to pay for its redundancy programme.

An investment in Cathay would provide British Airways with an introduction into the Chinese market, a medium- to long-term investment; it would counter Lufthansa's recent successes in the region, notably its alliance with SIA; it would tie up another of the Europe-Australasia routings; and it could strengthen the weak Pacific link in BA/AA's global network (American is very weak compared with United, Northwest, Delta and Continental on the Pacific).

For Cathay the attraction of an alliance with British Airways is evidently less clear. Indeed, Cathay executives have carried out the network analyses necessary and concluded that the bottom-line benefits were not at all tangible. Here, one can observe the Swire mentality in action - whether the executives are British or Chinese, they refuse to be influenced by current management trends, and only make decisions which can be proved to materially improve Cathay's position. And, as Cathay executives never fail to remind outsiders, Swires has been trading successfully with the Chinese since 1866 and, by implication, really does not need outside help.

Also, CNAC would likely object to Swires selling to Europeans when the explicit aim of the Swires Group is to get closer to Beijing in the post-hand-over environment. Perhaps most importantly, the Swire Group will simply not sell at the bottom of the market.

Star is not obviously any more attractive to Cathay than BA/AA. Indeed, it would be difficult to see Cathay coming to an accommodation with United on the Pacific as it is so committed to building up its own presence on these routes. Also, Lufthansa's connection with SIA could be problematic. SIA is encroaching on Cathay's home territory and has established a good relationship with CNAC (it used to provide top executives on secondment for Air Macau). Then in August 1998 SIA announced a purchase of a 5-10% stake in China Airlines as part of a comprehensive alliance that will probably include direct management involvement in Taipei and fleet rationalisation, with China Airlines taking some of SIA's early 777 deliveries.

But while grand alliances are out, tactical tie-ups will be pursued. For example, Cathay and Swissair have just set up a codeshare on Zurich-Hong Kong, and further joint ventures are likely on the thinner European routes - perhaps with KLM on Amsterdam.

Continental: balancing rapid growth and profit margins

Since staging one of the most impressive financial turnarounds seen in the US industry three years ago, Continental has gone from strength to strength. Its profit margins have continued to improve, despite extremely rapid international growth and an ongoing process of bringing wages to industry standards. How much longer can expansion continue at such a rate? And how is the carrier offsetting the substantial hikes in labour costs?

Continental emerged from its second Chapter 11 visit in April 1993 with the help of a $450m investment from Air Canada and Air Partners LP. The reorganisation involved extensive job and route cuts, slashed long-term debt from $5.6bn to $1.7bn and improved the cash position to $650m. The airline emerged with low unit costs but also low yields.

But financial recovery was delayed because of the ill-fated Lite experiment, launched in October 1993. The high-frequency, short haul, low-cost venture was expanded rapidly to account for 60% of Continental's system-wide departures. But it never made a profit and it brought Continental to a serious liquidity crisis in early 1995.

Lite failed mainly because the strategy was poorly executed. It was expanded too fast. The venture was dogged by operational problems, low load factors, poor revenue-generation, high transition-related costs and confusion about branding.

The failure led to the resignation of CEO Robert R. Ferguson III in October 1994. He was replaced by Gordon Bethune, the current chairman and CEO, who had joined the company from Boeing nine months earlier. Bethune has been credited for Continental's subsequent financial turnaround. He introduced a new corporate strategy, aimed at improving customer service, strengthening hub operations and eliminating excess capacity. He also brought in his own team to tackle areas like pricing, scheduling, distribution, human resources and finance.

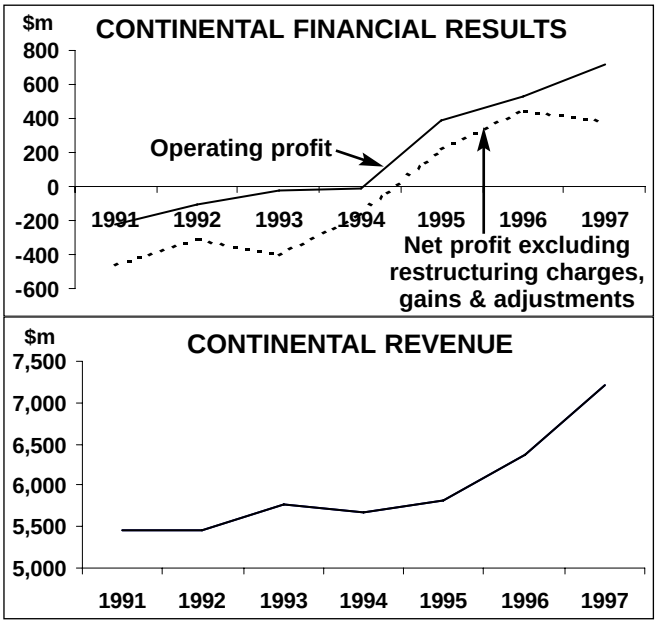
The new strategy involved scrapping Lite, transferring the capacity to the main hubs and bringing back first class. The 21-strong A300 fleet was phased out. About 4,000 jobs, or 12% of the total, were eliminated and two maintenance facilities were closed in favour of outsourcing. In his first five months as CEO Bethune also oversaw a debt restructuring that deferred $370m in payments. Overall, renegotiated debt, aircraft deliveries and leases added up to $500m-plus savings in payments by the end of 1996.

The result was an immediate return to profitability in the second quarter of 1995. For that year Continental reported net earnings of $224m - its first annual profit since 1986 and quite a contrast to the previous year's $613m loss. The recovery was attributed to sharp load factor and yield improvements - after that both were close to the industry average. This more than offset the inevitable rise in unit costs (due to Lite's elimination), although the hike was limited to just 5% in 1995. The turnaround was consolidated with a net profit of $319m in 1996, which included a one-time $128m fleet-related charge and $97m of profit sharing and on-time bonuses. This was followed by a $385m net profit in 1997 (including $126m of profit sharing and on-time bonuses) and a $244m net profit in the first six months of 1998.

The past 18 months' healthy profit growth and 10-11% operating profit margins were significant achievements in a period of major expansion.

CONTINENTAL FLEET PLANS

	Current fleet	Orders (options)	Delivery/retirement schedule/notes
727-200	30	0	To be retired by end of 2000
737-100	6	0	To be retired by end of 2000
737-200	17	0	To be retired by end of 2000
737-300	65	0	
737-500	61	6	6 in 1998
737-700	8	42	1 in 1988, 9 in 1999, 8 per year to 2003
737-800	4	24	11 in 1999, 13 in 2000
737-900	0	15	8 in 2001, 7 in 2002
747-200B	4	0	To be retired in April 1999
757-200	29	4 (25)	1 in 1999, 3 in 2000
757-200EM	3	0	
767-400	0	26	For delivery in 2000-2004
777-200	0	10	5 in 1998, 5 in 1999
777-200ER	0	4	1 in 1999, 3 in 2000
DC-9	28	0	To be replaced by 767s and 777s
DC-10	36	0	To be replaced by 767s and 777s
MD-80	69	0	
TOTAL	**360**	**131 (25)**	



After a 10% capacity decline between 1992 and 1995 and virtually no growth in 1996, Continental's ASMs surged by 10% in 1997 and by 11.7% in the first six months of 1998. It is currently the fastest-growing of the US major carriers.

The results are also impressive because they include hefty income tax provisions - the company had to resume paying income tax in 1997 after using tax credits for two years. And the profits were achieved despite a substantial rise in labour costs (due to a new pilots contract) and reduced earnings at Continental Micronesia since late 1997.

Continental attributes its success to strong revenue performance, record load factors and its ability to remain at or near the top of the industry's on-time performance and other service quality rankings. Despite the rapid expansion, the yield has remained essentially flat. Although unit costs have risen further (9.07 cents per ASM in 1997), the hikes have been minimised by higher aircraft utilisation, productivity improvements and reduced aircraft ownership costs.

By the end of 1996, Continental had more than $1bn in cash and short-term investments. It has paid debt early, reduced high-interest debt, invested heavily in hubs and, since early 1997, repurchased common stock or convertible securities. Its cash balance was $1.2bn at the end of June 1998.

Much of Continental's success must be attributed to improvements in operational performance and reliability. After coming near the bottom of the DoT's customer service rankings for many years, in 1996 Continental found itself among the top three on all the criteria. Except for some recent hiccups (blamed on bad weather and inaccurate block-time estimates on new services), the carrier has consistently maintained those high rankings.

How was Continental able to accomplish that? Accelerated fleet renewal has obviously helped. Also, in early 1995 the company appointed two senior executives to oversee the task. And it began offering bonuses to workers each month when the company met targets related to the DoT's on-time statistics. Last year it paid $21m in bonuses, which was $490 per employee.

Morale has also been boosted by the introduction of profit-sharing (about 7% of annual wages over the past two years), continued pay rises, special prizes for perfect attendance, senior management's open-door policy, informal atmosphere and programmes to improve teamwork.

Continental has achieved much success with its BusinessFirst product, which copied Virgin Atlantic's strategy (first class at business class fares, sleeper seats, personal videos) and was first introduced on the transatlantic and later in US transcontinental markets. The product has helped improve customer mix: the business traveller content of total traffic has risen to the mid-40s from just 32% in 1994.

Hub and growth strategy

Since Lite was dismantled, Continental's strategy has focused on strengthening what it calls its "underdeveloped franchise hubs" of Houston and Newark and Cleveland. In contrast to many of its competitors, it is fortunate in having considerable spare capacity at its main hubs and is right in the middle of a major international growth spurt.

The original (summer 1996) expansion plan envisaged 2.8% annual growth in domestic capacity and 8.2% internationally, but those rates have been exceeded. In 1997 domestic ASMs rose by 4.5% and international ASMs by 23.6%. This year's growth looks likely to exceed last year's, as at least 13 new international destinations will have been added by year-end, plus new services to Japan from Houston and Newark in November and December.

Since the summer of 1995, the number of destinations served by the carrier from Houston, Newark and Cleveland has increased by 40-44%.

Continental quite justifiably feels confident at present that, given the potential still offered by its hubs, it can continue to grow rapidly while maintaining healthy profit margins. The carrier says that growth will return to the industry norm once the hubs are fully utilised.

However, Continental's president Greg Brenneman recently made it clear that profitability would not be sacrificed. He said that growth would continue as long as operating margins can be maintained at around 10%. Should it turn out to be necessary to slow down, the fleet retirement programme offers much flexibility. The latest cutbacks in Micronesia will actually reduce next year's overall ASM growth by about three points, to 8.4%.

International expansion and alliances

Continental has strengthened its presence on the North Atlantic. After introducing services to Dublin, Shannon and Glasgow earlier this summer, the carrier now serves 13 cities in eight European countries, accounting for about 10% of the Majors' total ASMs. Continental's capacity rose by 58% in 1997, which meant that it overtook Northwest and TWA. Despite the rapid growth, the routes are performing well in terms of unit revenue and earned a $125.5m operating profit in 1997.

Last year Continental expanded its 1994 marketing alliance with Alitalia and earlier this year began codesharing with Virgin and Air France. The deal with Air France, which was originally signed in October 1996 but had to wait for a new US-France ASA, holds much promise in that it will give Continental extensive access to beyond-points in Europe, Middle East and Africa. Codesharing with British Midland on Manchester-Scotland flights began in mid-August.

The Virgin codeshares have given Continental welcome access to Heathrow, which the carrier is keen to start serving from its three main hubs once the aeropolitical situation is sorted out. It also hopes to add Cleveland-Gatwick services in 1999.

But Continental's biggest efforts have focused on Latin America, where it has expanded aggressively over the past two years. In 1996 and 1997 the carrier entered Colombia, Peru, Ecuador, Brazil and Venezuela and expanded substantially in Central America. This year has seen further expansion to Venezuela, Aruba, Chile, Mexico and other parts of Central America.

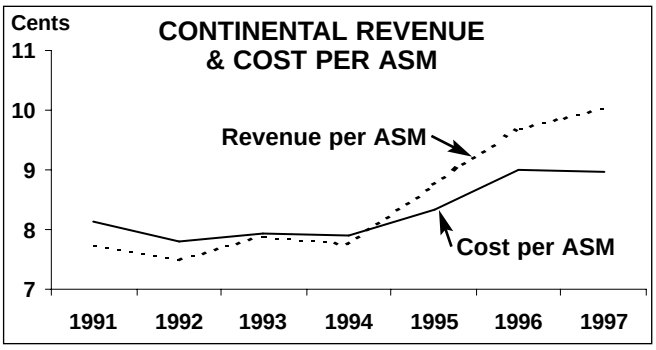
Two years ago Continental overtook United as the second largest US carrier in terms of passengers and cities served in Latin America. The latest additions in June made it equal with American in terms of flights operated in the US-Central America market. Continental's Latin American network now covers 37 cities in 21 countries.

The two-pronged strategy of promoting Houston as an alternative to congested Miami and Newark as a convenient gateway for New York area's large Hispanic population appears to be working. Continental's Latin America operating profit multiplied tenfold to $43m last year, and the carrier appears not to have experienced any of the recent weakness reported by American. Its unit revenues on existing routes have been flat (compared with American's 10% decline) and new services are apparently running ahead of profit projections.

However, the overcapacity now evident in many US-Latin America markets may shift emphasis in favour of co-operating with the region's carriers. Since losing Aerolineas Argentinas to American last year, Continental has purchased a 49% stake in Panama's COPA (completed in May), agreed to acquire a 19% stake in Colombia's ACES (May) and begun codesharing with Vasp (July 1).

The future codeshares with COPA from Miami and Houston will enable Continental to benefit from Panama City's location as a gateway between the Americas and proven success as a hub. Co-operation with ACES will boost feed on its daily Houston-Bogota and Houston-Medellin routes, and tie in Continental with a good quality and very ambitious Andean market carrier.

Continental's Asian exposure has so far been limited to its Micronesian subsidiary, which accounts for only 6% of its revenues, but the situation is now changing with the forthcoming daily non-stop services from Newark and Houston to



Tokyo, extensive future codesharing with Northwest and development of co-operation with Asian partners. Codesharing with EVA began in March on the Taipei-Los Angeles sector and a similar arrangement with Air China on US-China routes is expected this autumn.

In response to the Asian crisis, Continental has transferred aircraft from Guam to its mainland hubs. Pacific capacity was cut by 14% in the June quarter, and the company has just decided to retire early the four-strong 747 fleet used by Continental Micronesia, replacing them with DC-10s.

Fleet rejuvenation

Continental is in the process of rationalising and modernising its fleet, which still includes about 15 different models covering virtually the full range of the jets currently offered by Boeing. The aim is to have the youngest domestic jet fleet in the industry, with an average age of 7.2 years (13.8 years at present), by the end of 1999.

The earlier A300s were replaced by 757s. The Stage 2 727s, 737-100/200s and DC-9s are due to leave the fleet by the end of next year. The MD-80s will stay as most were taken on 18-year operating leases. The four remaining 747s utilised in Guam will now be retired next April and the 13-strong Pacific 727 fleet will go by December 2000. These decisions will result in a $77m after-tax charge in the current quarter. The Stage 2 narrowbodies are being replaced by the various new-generation 737 models ordered over the past three or four years. The remaining fleet of 36 DC-10s will be replaced by the 777s and 767s.

The airline is due to receive 64 new Boeing aircraft this year. The first 124-seat 737-700 entered service in April, primarily on Latin American and transcontinental routes from Houston and Newark. In July Continental became the first US carrier to operate the larger 737-800. In March it ordered 15 737-900s, for delivery in 2001-2002. Regional subsidiary Continental Express is in the process of moving towards an all-jet fleet over the next five years. It launched the 50-seat ERJ-145 last year and recently ordered 25 37-seat ERJ-135s, for delivery from July 1999.

Labour and other challenges

By Heini Nuutinen

Continental has enjoyed relatively amicable labour relations, in part because of the gradual process of restoring wages to industry standards. But the situation heated up in 1997 when the pilots, whose salaries were still 20% below industry average, entered new contract negotiations and demanded a huge settlement in the wake of the company's record 1996 earnings.

The company essentially gave in on the economic issues, granting the pilots an immediate 20%-plus pay rise (retroactive to October 1), further 7.5% rises in 1998 and 1999 and improved pension benefits. The deal was designed to restore pay levels to the average of the five largest majors over five years. The final five-year contract, which took another seven months to sort out (signed in June 1998), also included the job protections that the pilots had sought in the wake of the announcement of the alliance with Northwest. In return, the pilots gave up profit-sharing and agreed to maintain the productivity advantages that Continental currently enjoys over its competitors.

To offset most of the resulting 27% increase in pilot payroll costs this year, Continental outlined a $100m package of cost cuts for 1998. The programme is apparently on target, with the savings coming mainly from travel agent commission cuts, electronic ticketing and lower interest rates on aircraft financing.

But the problem is that the pilot contract and other labour deals will maintain pressure on labour costs for many years to come, while Continental has already accomplished its easiest cost-cutting and obviously does not want to implement cuts that would affect service. About a year ago it formally promised its workforce to bring wages and salaries (before profit-sharing and bonuses) to industry standards within three years. The dispatchers' union secured a new five-year contract on that basis in June 1998, but talks with major groups like the flight attendants are yet to come (their current contract becomes amendable at the end of next year).

The "virtual merger" between Northwest and Continental, which would involve Northwest purchasing Air Partners' existing 14% stake in Continental and extensive codesharing and co-operation between the two carriers and their global partners, is currently in limbo due to regulatory delays and Northwest's difficult labour situation. The knowledge that it will take Northwest quite a while to repair its customer service and image after the labour dispute is settled must be an added frustration for Continental.

Strategic alliances - how to choose the right partner

It is very easy to make a bad mistake when rushing into a strategic alliance. Here, Tim Coombs sets out how an airline should manage the process of choosing the right alliance partner.

With most of the large jigsaw pieces of major strategic alliances in place, focus is now turning to the smaller niche airlines that need to plug the gaps in their global coverage. In particular, the spotlight is on airlines located in the Middle East, Eastern Europe, and some of the smaller carriers in Asia and South America that have yet to decide which major strategic grouping to join.

The lessons of Fiction Air

But just how do they choose the right partner? It is perhaps useful to create a fictional airline to highlight some of the issues that arise when considering whether to join a strategic alliance. *Fiction Air* is a small/medium-sized airline operating a number of domestic and international services in Asia. So far it has a number of route specific marketing agreements with other airlines that work well, but it has not entered into a major strategic alliance agreement with another airline or multi-airline grouping.

Fiction Air's strategic planning department has for some time been warning senior management that although the airline is currently profitable, it is increasingly being marginalised by the new major alliance groupings. The way in which the industry competes is no longer on a route-by-route basis but by network competition. The strategists say that *Fiction Air* must join a strategic alliance in order to allow the airline to compete on a level playing field, or else it will face the prospect of a progressive decline in profitability that in the long-term may threaten the viability of the airline.

Senior management also face outside pressures. Most of the airlines that *Fiction Air* has enjoyed bilateral agreements with in the past are now also members of strategic alliance groupings. These groupings are themselves becoming more exclusive and pressure is mounting on *Fiction Air* either to become a fully fledged member of an alliance or abandon the bilateral relationships it has with smaller carriers that have now joined larger groupings.

Equity or not?

What steps should the senior management of *Fiction Air* take? One decision needs to be taken first, and it must be thought through carefully: is there a desire that an alliance involves equity participation or not?

The process of evaluating the benefits that membership of a strategic alliance brings and the negotiation of joining an alliance are far easier if equity is not on the agenda. But for many smaller regional airlines equity alliances can make sense. Reasons for this include:

- The airline may need to raise cash (to finance expansion and/or to pay off debt); and/or
- The airline may be government-owned and the alliance may be seen as an integral part of the privatisation process, with the government able to raise more from the sale process if it is perceived that the airline - through a strategic alliance - has a more "secure" future; and/or
- The strategic airline partner may wish to acquire equity in order to cement the relationship and exert a measure of control, perhaps through board representation.

The involvement of equity in alliances is clearly a complicating factor, and there are numerous examples of equity alliances that have failed. It is obvious, but often ignored, that entering the right alliance is the most important priority. And the right alliance is the one that offers the best blend of economic benefits, rather than the one that

offers modest benefits but perhaps carries the highest valuation of the equity.

But if the decision is made that equity is a requirement of the strategic alliance then it is likely that the airline and/or its shareholders will find it both necessary and appropriate to hire an investment bank and a firm of legal advisors to handle the process. Valuation and finding an appropriate structure for sale of equity is a process that is beyond the scope of the internal resources at most airlines.

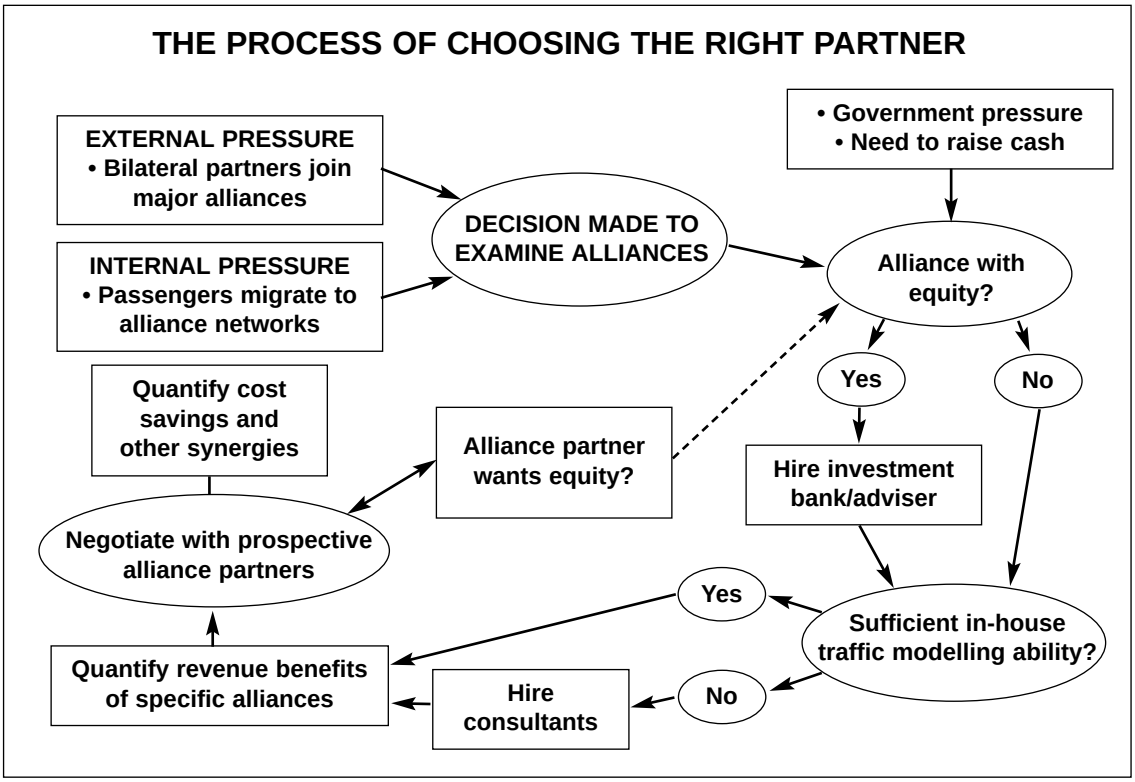
And whether equity is a consideration or not, most airlines have also found it necessary to appoint consultants in order to quantify the benefits that are on offer from joining one or other of the major alliance groupings. Outside consultants can also be very useful in identifying the strengths and weaknesses of the client airline, as perceived by different potential alliance partners.

An airline should already have a strong understanding as to how its own route system operates, how traffic flows across its own network and the benefits that its existing tactical alliances bring. However, apart from all but the largest carriers, few airlines have the complex traffic modelling capability that is necessary to conduct a thorough analysis of the changes in traffic flows that would result from joining a strategic alliance.

Traffic modelling

The strategic planning department of *Fiction Air* has already identified several different competitive scenarios that may impact on the airline in the medium-term. These include the impact of changes in the regulatory environment in which *Fiction Air* operates (the government has indicated that it will license another international carrier in the near future and wishes to sign an "open skies" agreement with the US within 12 months), and that *Fiction Air's* major competitor is strongly rumoured to be joining the Star Alliance.

The consultants must be allowed access to most of the airline's most sensitive traffic data if they are able to do their job effectively. Security of information should be a priority and confidentiality agreements must be put in place. It is vital that the consultants



produce a base model of the existing network and that this model is calibrated accurately.

When this is completed, modelling of different scenarios can begin. This process is time-consuming and complex, because the model redistributes today's actual traffic flows.

In an alliance with Star for instance, *Fiction Air* can expect to capture a much greater percentage of US west coast traffic onto its San Francisco service than with its existing US partner, US Airways. The model accounts for passenger preference for larger aircraft types, frequency, the marketing impact of codeshares, frequent flyer co-operation and a whole host of other variables.

In *Fiction Air's* case it will be necessary to examine under the existing and future regulatory scenarios the benefits or otherwise of joining each of the alliance groupings; the likely competitive reaction; and the changes that will occur in its existing tactical relationships.

For *Fiction Air* this means effectively that the whole transpacific market will have to be modelled. Each individual run may take the modellers a long time as the process will involve millions of iterations. Clear thinking at this stage as to the scenarios that have to be modelled will save much time and money.

The output from the traffic modelling will identify which of the alliance groupings will bring the most revenue enhancement to *Fiction Air* and, equally importantly, how much additional revenue will be generated for the prospective alliance partners.

Negotiating the terms

This is not only important in terms of ranking the alliance groupings but vital when it comes to the actual negotiation of the terms under which *Fiction Air* joins a strategic alliance grouping. For instance, if *Fiction Air* benefits to the tune of $5m per annum from joining Star, but Star partner United generates $20m additional revenues per annum from the relationship, then some mechanism should be considered in order to equalise the benefits. This is obviously even more important when equity is being discussed.

The complexity of market dynamics means that the traffic allocation model can only serve as a rough guide to some of the benefits that may accrue to *Fiction Air* if it joins a strategic alliance.

It is also important to conduct reality checks with the consultants to make sure that load factors remain realistic and that competitive reaction is properly accounted for.

Armed with the consultants' results, *Fiction Air's* CEO can then conduct discussions with potential suitors with some knowledge of the range of revenue benefits that can be available. Of course revenue generation is only one benefit that may accrue from joining a strategic alliance, but it is probably the most important. If *Fiction Air* and its strategic alliance partners cannot produce measurable revenue enhancement then there will be no cement on which to build the relationship in other ways, such as cost savings and productivity improvement programmes.

At this stage of the process *Fiction Air's* CEO introduces himself (or herself) to prospective airline partners. He should possess a clearly thought-out list of objectives for his airline, and his strategic planning department should have briefed him on the strengths and weaknesses of the potential partners.

Agenda items should include how *Fiction Air's* network might develop under each alliance, how deep the alliance might go, the terms of frequent flier participation and the scope for achieving significant synergy benefits.

A myriad of factors will determine the right partner choice for *Fiction Air,* and this choice will be easier if a set of management alliance objectives have been made. Correctly managing the process of choosing the right partner, as described above (and shown in the diagram, left) is essential. And, above all else, the best way to make certain that a strategic alliance will work is to ensure that there is the right chemistry between the two prospective airline partners.

EUROPEAN SCHEDULED TRAFFIC

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1991	114.8	65.2	56.8	120.9	84.3	69.7	80.0	53.1	66.4	267.6	182.0	68.0	397.8	257.9	64.7
1992	129.6	73.5	56.7	134.5	95.0	70.6	89.4	61.6	68.9	296.8	207.1	69.8	445.8	293.4	65.8
1993	137.8	79.8	57.9	145.1	102.0	70.3	96.3	68.1	70.7	319.1	223.7	70.1	479.7	318.0	66.3
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
June 98	15.7	10.7	68.2	17.1	14.5	84.9	10.8	7.9	72.9	37.5	29.3	78.3	55.7	41.7	74.8
Ann. chng	5.5%	6.2%	0.4	7.2%	7.2%	0.0	0.4%	-2.2%	-2.0	4.8%	3.6%	-0.9	5.1%	4.2%	-0.6
Jan-Jun 98	90.4	56.4	62.4	90.7	69.0	76.0	66.8	48.4	72.5	216.9	161.8	74.6	322.1	227.5	70.6
Ann. chng	7.3%	9.4%	1.2	9.2%	7.8%	-1.0	6.4%	4.3%	-1.5	8.6%	7.4%	-0.9	8.3%	7.7%	-0.4

Source: AEA.

US MAJORS' SCHEDULED TRAFFIC

	Domestic			North Atlantic			Pacific			Latin America			Total international		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1990	863.1	523.2	60.6	121.3	84.2	69.4	106.7	75.8	71.0	42.2	26.6	63.0	270.2	186.5	69.0
1991	835.1	512.7	61.4	108.0	75.2	69.6	117.0	78.5	67.1	44.3	27.4	61.8	269.2	181.0	67.2
1992	857.8	536.9	62.6	134.4	92.4	68.7	123.1	85.0	69.0	48.0	27.4	57.0	305.4	204.7	67.0
1993	867.7	538.5	62.1	140.3	97.0	69.2	112.5	79.7	70.8	55.8	32.5	58.2	308.7	209.2	67.8
1994	886.9	575.6	64.9	136.1	99.5	73.0	107.3	78.2	72.9	56.8	35.2	62.0	300.3	212.9	70.9
1995	900.4	591.4	65.7	130.4	98.5	75.6	114.3	83.7	73.2	62.1	39.1	63.0	306.7	221.3	72.1
1996	925.7	634.4	68.5	132.6	101.9	76.8	118.0	89.2	75.6	66.1	42.3	64.0	316.7	233.3	73.7
1997	953.3	663.7	69.6	138.1	108.9	78.9	122.0	91.2	74.7	71.3	46.4	65.1	331.2	246.5	74.4
June 98	80.1	61.0	76.1										29.9	23.2	77.6
Ann. chng	0.2%	3.1%	2.1										6.5%	5.5%	-0.7
Jan-Jun 98	473.2	332.4	70.2										170.5	123.5	72.4
Ann. chng	0.7%	2.2%	1.0										6.9%	4.9%	-1.4

Note: US Majors = American, Alaska, Am. West, Continental, Delta, NWA, Southwest, TWA, United, USAir. **Source:** Airlines, ESG.

ICAO WORLD TRAFFIC AND ESG FORECAST

	Domestic			International			Total			Domestic growth rate		International growth rate		Total growth rate	
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK %	RPK %	ASK %	RPK %	ASK %	RPK %
1991	1,267	800	63.2	1,487	998	67.1	2,754	1,798	65.3	-0.3	0.6	-2.6	-6.1	-1.6	-3.2
1992	1,300	840	64.6	1,711	1,149	67.2	3,011	1,989	66.1	2.7	5.0	15.0	15.2	9.4	10.7
1993	1,347	856	63.6	1,790	1,209	67.5	3,137	2,065	65.8	3.6	1.9	4.6	5.2	4.2	3.8
1994	1,403	924	65.8	1,930	1,326	68.7	3,333	2,250	67.5	4.2	7.9	7.8	9.7	6.3	9.0
1995	1,477	980	66.3	2,044	1,424	69.7	3,521	2,404	68.3	5.3	6.1	5.9	7.4	5.6	6.9
1996	1,526	1,046	68.6	2,163	1,537	71.1	3,689	2,583	70.0	3.3	6.7	5.8	7.9	4.8	7.4
1997	1,617	1,102	68.2	2,387	1,704	71.4	4,004	2,807	70.1	4.6	5.5	7.6	9.1	6.4	7.7
***1998**	1,624	1,122	69.1	2,470	1,751	70.9	4,094	2,873	70.2	0.4	1.8	3.5	2.7	2.3	2.4
***1999**	1,675	1,155	69.0	2,586	1,833	70.9	4,261	2,988	70.1	3.2	3.0	4.7	4.7	4.1	4.0
***2000**	1,738	1,194	68.7	2,729	1,930	70.7	4,467	3,124	69.9	3.7	3.3	5.5	5.3	4.8	4.5
***2001**	1,791	1,218	68.0	2,857	2,004	70.1	4,648	3,222	69.3	3.1	2.0	4.7	3.8	4.0	3.1
***2002**	1,806	1,210	67.0	2,916	2,015	69.1	4,722	3,225	68.3	0.8	-0.7	2.1	0.6	1.6	0.1
***2003**	1,857	1,273	68.5	3,066	2,165	70.6	4,923	3,437	69.8	2.9	5.2	5.1	7.4	4.3	6.6

Note: * = Forecast; ICAO traffic includes charters. **Source:** Airline Monitor, July 1998.

DEMAND TRENDS (1990=100)

	Real GDP					Real exports					Real imports				
	US	UK	Germany	France	Japan	US	UK	Germany	France	Japan	US	UK	Germany	France	Japan
1991	99	98	101	101	104	106	99	112	104	105	99	95	113	103	97
1992	102	98	102	102	105	113	103	112	109	110	107	101	115	104	96
1993	105	100	100	101	105	117	107	106	109	112	117	104	108	101	96
1994	109	103	103	104	106	126	117	115	115	117	131	110	117	107	104
1995	111	106	105	106	107	137	126	122	123	123	141	115	124	113	119
1996	114	108	107	107	111	152	135	128	128	126	155	124	127	116	132
1997	118	112	110	109	112	172	146	142	142	138	177	135	136	123	132
***1998**	121	113	113	113	112	180	154	155	154	145	200	148	146	133	130
***1999**	124	115	116	116	113	189	160	166	163	155	219	156	156	141	133

Note: * = Forecast; Real = inflation adjusted. **Source:** OECD Economic Outlook, June 1998.

COST INDICES (1990=100)

	Europe						US					
	Unit revenue	Unit op. cost	Unit lab. cost	Efficiency	Av. lab. cost	Unit fuel cost	Unit revenue	Unit op. cost	Unit lab. cost	Efficiency	Av. lab. cost	Unit fuel cost
1991	106	109	103	105	108	88	100	102	102	101	103	84
1992	99	103	96	119	114	80	98	100	101	107	108	75
1993	100	100	90	133	118	82	101	98	99	116	115	67
1994	100	98	87	142	123	71	98	94	101	124	125	62
1995	99	97	86	151	128	67	99	93	98	129	127	61
1996	100	101	88	155	135	80	102	94	98	129	126	72
1997	102	105	85	148	131	81	104	94	100	129	129	69
***1998**	107	105	84	151	127	71	108	96	106	127	134	61

Note: * = First-half year. European indices = weighted average of BA, Lufthansa and KLM. US indices = American, Delta, United and Southwest. Unit revenue = airline revenue per ATK. Unit operating cost = cost per ATK. Unit labour cost = salary, social charges and pension costs per ATK. Efficiency = ATKs per employee. Average labour cost = salary, social costs and pension cost per employee. Unit fuel cost = fuel expenditure and taxes per ATK.

FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)						Exchange rates (against US$)						LIBOR
	US	UK	Germany	France	Japan		UK	Germ.	France	Switz.	ECU	Japan	6 month Euro-$
1990	100	100	100	100	100	**1990**	0.563	1.616	5.446	1.389	0.788	144.8	8.27%
1991	104	106	104	103	103	**1991**	0.567	1.659	5.641	1.434	0.809	134.5	5.91%
1992	107	107	109	106	105	**1992**	0.570	1.562	5.294	1.406	0.773	126.7	3.84%
1993	111	109	114	108	106	**1993**	0.666	1.653	5.662	1.477	0.854	111.2	3.36%
1994	113	109	117	110	107	**1994**	0.653	1.623	5.552	1.367	0.843	102.2	5.06%
1995	117	112	119	112	107	**1995**	0.634	1.433	4.991	1.182	0.765	94.1	6.12%
1996	120	114	121	113	107	**1996**	0.641	1.505	5.116	1.236	0.788	108.8	4.48%
1997	122	117	123	114	108	**1997**	0.611	1.734	5.836	1.451	0.884	121.1	5.85%
***1998**	123	119	125	116	109	**Aug 1998**	0.610	1.799	6.031	1.504	0.911	144.7	5.72%**
***1999**	126	122	127	117	109								

Note: * = Forecast. **Source:** OECD Economic Outlook, June 1998. ** = $ LIBOR BBA London interbank fixing six month rate.

AIRCRAFT OPERATING COSTS

	Total cost per block hr $	Total cost per ASK Cents		Total cost per block hr $	Total cost per ASK Cents		Total cost per block hr $	Total cost per ASK Cents
747-100/200	7,031	2.29	**757-200**	2,587	2.13	**A320**	2,177	2.30
747-400	6,859	2.10	**Canadair RJ**	992	4.55	**MD-90**	1,720	1.98
MD-11	5,007	2.51	**727-200**	2,505	2.92	**MD-80**	2,107	2.59
767-300/300ER	3,589	2.31	**737-100/200**	1,911	3.44	**DC-9-30/40**	1,962	3.98
767-200/200ER	3,348	2.60	**737-300**	1,925	2.61	**DC-9-10**	1,404	4.19
L-1011	4,094	1.96	**737-400**	2,155	2.71	**DC-9-50**	1,923	3.52
DC-10/30/40	4,900	2.40	**737-500**	1,743	2.80	**BAe 146**	2,291	6.10

Note: Data is for US airlines in 1997. Costs include: labour, fuel, other, maintenance, depreciation and aircraft rent. **Source:** ESG.

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
ATR	-					
Airbus	Aug 25	British Airways	39 A319s, 20 A320s	$9bn (inc. opts)	3Q99-04	+ 129 A320 family options. V2500
	Jul 30	United	10 A319s, 12 A320s		00+	From options
BAe	-					
Boeing	Aug 25	British Airways	16 777-200/200ERs	$5bn (inc. opts)	1Q00-02	"Some" of the order will replace earlier BA order for 5 747-400s. + 16 options
	Aug 14	American	15 777-200ERs	$2.1bn	1Q00-3Q01	Trent 800
	Jul 31	Arkia	2 757-300	$250m (inc. opts)	1Q00+	+ 2 options
	Jul 29	Boullioun AS	30 737 family	$2.6bn (inc. opts)	01-06	+ 30 options
Bombardier	-					
Embraer	-					
Fairchild Dornier	-					

Note: Prices in US$. Only firm orders from identifiable airlines/lessors are included. MoUs/LoIs are excluded. **Source:** Manufacturers.

Micro-trends

	Group revenue US$m	Group costs US$m	Group operating profit US$m	Group net profit US$m	Total ASK m	Total RPK m	Load factor %	Group rev. per total ASK Cents	Group costs per total ASK Cents	Total pax. 000s	Total ATK m	Total RTK m	Load factor %	Group employees
American*														
Oct-Dec 96	3,967	3,751	216	284	62,503.6	42,194.2	67.5	6.35	6.00	19,528	9,366.1	4,969.5	53.1	91,476
Jan-Mar 97	4,006	3,782	224	152	62,059.4	41,676.0	67.2	6.46	6.09	19,363	9,283.2	4,848.4	52.2	86,246
Apr-Jun 97	4,292	3,812	480	302	64,026.0	45,012.1	70.3	6.70	5.95	20,697	9,482.2	5,241.2	55.3	87,248
Jul-Sep 97	4,377	3,868	509	323	65,093.0	46,943.3	72.1	6.72	5.94	21,343	9,637.3	5,406.0	56.1	87,793
Oct-Dec 97	4,228	3,871	357	208	63,308.3	42,715.7	67.5	6.68	6.11	19,681	9,366.9	5,025.2	53.6	88,302
Jan-Mar 98	4,223	3,798	425	290	62,405.4	41,846.6	67.1	6.77	6.09					
Apr-Jun 98	4,491	3,885	606	409	64,471.8	46,075.9	71.5	6.97	6.03					
America West														
Oct-Dec 96	440	415	25	12	9,272.8	6,405.0	69.1	4.75	4.48	4,620	1,162.4	688.1	59.2	10,866
Jan-Mar 97	475	442	33	14	9,318.8	6,408.6	68.8	5.10	4.74	4,590	1,168.8	686.7	58.8	11,422
Apr-Jun 97	478	427	51	23	9,410.5	6,668.9	70.9	5.08	4.54	4,674	1,180.1	712.8	60.4	11,690
Jul-Sep 97	462	425	37	18	9,623.6	6,779.9	70.5	4.80	4.42	4,692	1,205.8	724.3	60.1	11,506
Oct-Dec 97	473	432	41	20	9,573.7	6,219.9	65.0	4.94	4.51	4,375	1,200.4	670.1	55.8	11,232
Jan-Mar 98	483	434	49	25	9,408.0	5,851.4	62.2	5.13	4.61	4,149				
Apr-Jun 98	534	457	77	41	9,787.8	6,899.1	70.5	5.46	4.67	4,643				
Continental														
Oct-Dec 96	1,561	1,462	99	47	25,258.0	16,628.9	65.8	6.18	5.79	9,474	2,803.4	1,732.3	61.8	33,468
Jan-Mar 97	1,698	1,552	146	74	25,478.4	17,526.9	68.8	6.66	6.09	9,739	2,820.6	1,790.5	63.5	33,766
Apr-Jun 97	1,786	1,555	231	128	26,530.9	19,186.1	72.3	6.73	5.86	10,462	3,032.6	1,996.8	65.8	34,672
Jul-Sep 97	1,890	1,683	207	110	28,462.1	20,982.1	73.7	6.64	5.91	10,822	3,331.3	2,206.5	66.2	35,630
Oct-Dec 97	1,839	1,707	132	73	28,278.6	19,400.1	68.6	6.50	6.04	10,188	3,381.1	2,140.0	63.3	37,021
Jan-Mar 98	1,854	1,704	150	81	28,199.8	19,427.5	68.9	6.57	6.04	10,072				
Apr-Jun 98	2,036	1,756	280	163	29,891.1	22,007.2	73.6	6.81	5.87	11,261				
Delta														
Oct-Dec 96	3,197	2,970	227	125	55,030.0	37,664.1	68.4	5.81	5.40	24,625	7,606.7	4,420.7	58.1	63,862
Jan-Mar 97	3,420	3,074	346	189	54,214.1	37,334.2	68.9	6.31	5.67	24,573	7,489.7	4,354.8	58.1	67,851
Apr-Jun 97	3,541	3,022	519	301	55,604.5	41,457.2	74.6	6.37	5.43	26,617	7,777.3	4,798.9	61.7	69,118
Jul-Sep 97	3,552	3,121	431	254	57,424.7	42,783.2	74.5	6.19	5.43	26,478	8,112.8	4,946.2	61.0	69,502
Oct-Dec 97	3,433	3,101	332	190	56,177.4	38,854.9	69.2	6.11	5.52	25,464	7,941.4	4,639.6	58.4	69,982
Jan-Mar 98	3,389	3,053	336	195	54,782.3	39,602.7	68.7	6.19	5.57					
Apr-Jun 98	3,760	3,165	595	362	57,175.5	43,502.6	76.1	6.58	5.54					
Northwest														
Oct-Dec 96	2,340	2,265	75	26	37,216.7	26,054.6	70.0	6.29	6.09	12,723	5,965.7	3,566.9	59.8	47,631
Jan-Mar 97	2,376	2,241	135	65	37,102.1	26,702.1	72.0	6.40	6.04	12,661	5,800.7	3,471.3	59.8	47,628
Apr-Jun 97	2,558	2,267	291	136	38,985.3	29,195.9	74.9	6.56	5.82	13,780	6,175.7	3,817.3	61.8	48,025
Jul-Sep 97	2,801	2,298	504	290	41,491.3	32,231.1	77.7	6.75	5.54	14,743	6,587.3	4,189.3	63.6	47,843
Oct-Dec 97	2,491	2,264	227	105	38,465.5	27,791.0	72.2	6.48	5.89	13,383	6,247.0	3,820.5	61.2	48,852
Jan-Mar 98	2,429	2,272	156	71	38,260.1	27,038.2	70.7	6.35	5.94					
Apr-Jun 98	2,476	2,356	120	49	38,332.7	29,533.7	77.0	6.46	6.15					
Southwest														
Oct-Dec 96	832	784	48	28	16,802.4	11,431.7	68.0	4.95	4.67	12,795	2,148.9	1,188.4	55.3	23,395
Jan-Mar 97	887	800	87	51	16,926.0	10,513.6	62.1	5.24	4.73	12,046	2,163.7	1,097.2	50.7	23,980
Apr-Jun 97	957	800	156	94	17,672.1	11,288.4	63.9	5.42	4.53	12,722	2,264.0	1,180.6	52.1	24,226
Jul-Sep 97	997	845	152	93	18,494.3	12,176.9	65.8	5.39	4.57	13,019	2,362.1	1,274.1	53.9	24,273
Oct-Dec 97	975	847	128	81	18,501.4	11,654.2	63.0	5.27	4.58	12,612	2,361.5	1,222.6	51.8	24,454
Jan-Mar 98	943	831	112	70	18,137.1	11,102.3	61.2	5.20	4.58	11,849				
Apr-Jun 98	1,079	870	209	133	18,849.6	13,236.7	70.2	5.72	4.62	13,766				
TWA														
Oct-Dec 96	803	1,036	-232	-263	16,020.4	10,050.2	62.7	5.01	6.47	5,517	2,201.5	1,195.1	54.3	26,578
Jan-Mar 97	762	862	-99	-72	13,772.4	9,129.6	66.3	5.53	6.26	5,345	1,898.2	1,054.3	55.5	25,662
Apr-Jun 97	844	839	6	-14	14,705.8	10,273.7	69.9	5.74	5.71	5,958	2,051.9	1,169.5	57.0	23,490
Jul-Sep 97	908	845	64	6	15,922.4	11,447.0	71.9	5.70	5.31	6,324	2,209.2	1,284.2	58.1	22,539
Oct-Dec 97	813	812	1	-31	14,348.8	9,570.2	66.7	5.67	5.66	5,743	1,966.4	1,098.0	55.8	22,322
Jan-Mar 98	765	834	-69	-56	13,626.4	9,276.3	68.1	5.61	6.12					
Apr-Jun 98	884	838	46	19	14,142.2	10,787.3	76.3	6.25	5.93					
United														
Oct-Dec 96	3,976	3,923	53	19	65,894.4	45,617.2	69.2	6.03	5.95	19,948	9,505.3	5,615.2	59.1	86,008
Jan-Mar 97	4,121	3,927	194	105	64,832.6	45,296.6	69.9	6.36	6.06	19,683	9,386.1	5,530.0	58.9	86,443
Apr-Jun 97	4,382	3,970	412	242	67,458.0	48,894.2	72.5	6.50	5.89	21,271	9,917.6	6,032.1	60.8	88,939
Jul-Sep 97	4,640	4,077	563	579	71,375.4	53,721.0	75.3	6.50	5.71	22,641	10,566.8	6,561.1	62.1	90,324
Oct-Dec 97	4,235	4,144	91	23	68,364.7	47,419.6	69.4	6.19	6.06	20,608	10,269.1	6,023.6	58.7	91,721
Jan-Mar 98	4,055	3,932	123	61	66,393.3	44,613.0	67.2	6.11	5.92					
Apr-Jun 98	4,442	3,972	470	282	69,101.7	50,152.2	72.6	6.43	5.75					
US Airways														
Oct-Dec 96	2,052	2,003	49	27	23,684.1	16,146.1	68.2	8.66	8.46	14,412	3,182.8	1,755.7	55.2	43,144
Jan-Mar 97	2,101	1,925	176	153	23,397.6	16,009.3	68.4	8.98	8.23	13,773	3,141.2	1,734.3	55.2	42,225
Apr-Jun 97	2,213	1,957	256	206	24,014.0	17,707.1	73.7	9.22	8.15	15,533	3,234.0	1,911.0	59.1	42,320
Jul-Sep 97	2,115	2,032	83	187	24,070.3	17,668.5	73.4	8.19	7.83	15,080	3,245.5	1,918.0	59.1	42,159
Oct-Dec 97	2,085	2,015	70	479	22,662.2	15,800.1	69.7	9.20	8.89	14,178	3,066.2	1,733.2	56.5	40,865
Jan-Mar 98	2,063	1,871	192	98	22,102.1	15,257.8	69.0	9.33	8.47					
Apr-Jun 98	2,297	1,923	374	194	22,818.3	17,567.1	77.0	10.07	8.43					
ANA														
Oct-Dec 96	SIX MONTH FIGURES													
Jan-Mar 97	3,090	3,160	-69	-40	41,442.7	26,945.8	65.0	7.46	7.62	24,721				15,996
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	3,928	3,829	99	50	39,702.7	25,742.0	64.8	9.89	9.65	20,730				
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	3,459	3,545	-86	-68	40,446.9	26,187.7	64.7	8.55	8.76	20,102				
Apr-Jun 98														
Cathay Pacific														
Oct-Dec 96	2,121	1,802	319	280	28,320.0	21,428.0	75.7	7.49	6.35	5,633	5,266.0	3,838.0	72.9	
Jan-Mar 97	SIX MONTH FIGURES													
Apr-Jun 97	2,037	1,858	179	138	28,172.0	20,044.0	71.2	7.23	6.60	5,208	5,074.0	3,613.0	71.2	
Jul-Sep 97	SIX MONTH FIGURES													
Oct-Dec 97	1,921	1,784	137	117	28,932.0	18,917.0	64.4	6.64	6.17	4,810	5,325.0	3,718.0	69.8	
Jan-Mar 98	SIX MONTH FIGURES													
Apr-Jun 98	1,677	1,682	-5	-20	28,928.0	19,237.0	66.5	5.80	5.81		5,208.0	3,481.0	66.8	
JAL														
Oct-Dec 96	SIX MONTH FIGURES													
Jan-Mar 97	4,797	4,882	-86	-138	61,639.1	43,455.6	70.5	7.78	7.92	18,890	8,868.0	6,225.0	70.2	19,046
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	5,325	5,016	309	169	56,060.9	39,748.3	70.9	9.50	8.95	16,020	8,556.0	5,705.0	66.7	
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	4,279	4,344	-65	-911	56,514.7	39,012.2	69.0	7.57	7.69	15,344	8,570.8	5,628.5	65.7	
Apr-Jun 98														

Note: Figures may not add up due to rounding. 1 ASM = 1.6093 ASK. *Airline group only.

	Group revenue US$m	Group costs US$m	Group operating profit US$m	Group net profit US$m	Total ASK m	Total RPK m	Load factor %	Group rev. per total ASK Cents	Group costs per total ASK Cents	Total pax. 000s	Total ATK m	Total RTK m	Load factor %	Group employees
Korean Air														
Oct-Dec 96	4,341	4,314	27	-249	54,071.5	38,136.6	70.5	8.03	7.98	23,741	10,953.3	8,253.2	75.3	17,439
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97	3,029	2,774	255	-234	58,246.9	40,190.3	69.0	5.20	4.76	25,580		9,737.7		17,139
Jan-Mar 98														
Apr-Jun 98														
Malaysian														
Oct-Dec 96	TWELVE MONTH FIGURES													
Jan-Mar 97	2,581	2,459	122	132	40,096.9	27,903.7	69.6	6.44	6.13	15,371	6,149.2	3,706.8	60.3	22,546
Apr-Jun 97														
Jul-Sep 97														
Oct-Dec 97	TWELVE MONTH FIGURES													
Jan-Mar 98	2,208	2,289	-81	-81	42,294.0	28,698.0	67.9	5.22	5.41	15,117	6,411.0			
Apr-Jun 98														
Singapore														
Oct-Dec 96	SIX MONTH FIGURES													
Jan-Mar 97	2,492	2,205	288	316	37,354.4	27,490.1	73.6	6.67	5.90	6,092	6,901.3	4,879.1	70.7	27,223
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	2,549	2,171	379	402	38,125.4	28,216.7	74.0	6.69	5.69	6,135	7,231.0	5,091.5	70.4	27,777
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	2,336	2,080	256	258	39,093.6	26,224.3	67.1	5.98	5.32	5,822	7,303.0	4,951.5	67.8	
Apr-Jun 98														
Thai Airways														
Oct-Dec 96	821	765	56	59	11,170.0	7,849.0	70.3	7.35	6.84	4,000	1,593.0			
Jan-Mar 97	824	777	47	25	11,369.0	8,128.0	71.5	7.25	6.83	4,000	1,621.0			
Apr-Jun 97	773	775	-2	11	11,352.0	7,583.0	66.8	6.81	6.83	3,700	1,620.0			
Jul-Sep 97	697	672	25	-1,050	11,462.0	7,668.0	66.9	6.08	5.86	3,500	1,639.0			
Oct-Dec 97	656	649	7	-661	12,144.0	7,715.0	63.5	5.40	5.34	3,800	1,712.0			
Jan-Mar 98	631	558	73	610	12,211.0	8,522.0	69.8	5.17	4.57	4,000	1,715.0			
Apr-Jun 98	586	583	3	-179	12,084.0	7,963.0	65.9	4.84	4.82		1,700.0			
Air France														
Oct-Dec 96	TWELVE MONTH FIGURES													
Jan-Mar 97	8,780	8,563	217	75	77,333.0	58,586.0	75.8	11.35	11.07	16,733		5,036.0		36,173
Apr-Jun 97	SIX MONTH FIGURES													
Jul-Sep 97	5,224	4,850	374	297			76.1							
Oct-Dec 97	SIX MONTH FIGURES													
Jan-Mar 98	5,126	5,079	47	18										
Apr-Jun 98														
Alitalia														
Oct-Dec 96	5,283	5,238	45	789	50,960.4	34,131.5	68.9	10.37	10.28	23,138	8,167.7	5,674.0	69.5	16,507
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97	5,083	4,878	205	161										18,676
Jan-Mar 98														
Apr-Jun 98														
BA														
Oct-Dec 96	3,301	3,087	215	154	35,976.0	25,417.0	70.6	9.18	8.58	9,075	5,056.0	3,494.0	69.1	58,911
Jan-Mar 97	3,179	3,130	49	113	36,211.0	25,416.0	70.2	8.78	8.64	9,070	5,057.0	3,456.0	68.3	60,188
Apr-Jun 97	3,624	3,395	229	260	39,697.0	28,756.0	72.4	9.13	8.55	10,613	5,589.0	3,875.0	69.3	60,083
Jul-Sep 97	3,646	3,319	327	244	40,909.0	30,884.0	75.5	8.91	8.11	11,194	5,711.0	4,098.0	71.8	61,321
Oct-Dec 97	3,580	3,436	144	110	40,059.0	26,929.0	67.2	8.94	8.58	9,837	5,618.0	3,791.0	67.5	61,144
Jan-Mar 98	3,335	3,210	125	119	39,256.0	26,476.0	67.4	8.50	8.18	9,311	5,485.0	3,642.0	66.4	60,770
Apr-Jun 98	3,783	3,497	286	217	44,030.0	31,135.0	70.7	8.59	7.94	11,409	6,174.0	4,157.0	67.3	62,938
Iberia														
Oct-Dec 96	4,384	4,120	264	30	36,975.9	25,931.2	70.1	11.86	11.14	14,623	5,252.3	3,216.3	61.2	26,280
Jan-Mar 97														
Apr-Jun 97														
Jul-Sep 97	TWELVE MONTH FIGURES													
Oct-Dec 97	4,168	3,900	268	126*	37,797.6	27,679.2	73.2	11.03	10.32	15,432				
Jan-Mar 98														
Apr-Jun 98														
KLM														
Oct-Dec 96	1,483	1,494	-11	-4	16,806.0	12,346.0	73.5	8.82	8.89		3,010.0	2,203.0	73.2	31,866
Jan-Mar 97	1,361	1,444	-83	-153	16,279.0	12,455.0	76.5	8.36	8.87		2,838.0	2,090.0	73.6	31,912
Apr-Jun 97	1,692	1,566	126	99	17,310.0	13,640.0	78.8	9.77	9.05		2,996.0	2,335.0	77.9	34,804
Jul-Sep 97	1,842	1,592	250	438	18,798.0	15,747.0	83.8	9.80	8.47		3,233.0	2,589.0	80.1	34,928
Oct-Dec 97	1,630	1,570	60	23	18,096.0	13,555.0	74.9	9.01	8.68		3,098.0	2,404.0	77.6	35,092
Jan-Mar 98	1,538	1,568	-30	528	17,598.0	13,240.0	75.2	8.74	8.91		2,981.0	2,250.0	75.5	34,953
Apr-Jun 98	1,702	1,572	130	105	18,600.0	14,290.0	76.8	9.15	8.45		3,177.0	2,365.0	74.4	35,666
Lufthansa* **														
Oct-Dec 96	4,369	4,195	174	165*	28,991.0	20,320.0	70.1	15.07	14.47	7,886	5,230.0	3,762.0	71.9	57,999
Jan-Mar 97	3,198	3,198	-1	12*	28,099.0	19,726.0	70.2	11.38	11.38	9,186	4,985.0	3,477.0	69.7	57,291
Apr-Jun 97	3,654	3,463	192	220*	32,109.0	23,465.0	73.1	11.38	10.79	11,618	5,505.0	3,893.0	70.7	57,901
Jul-Sep 97	3,721	3,418	303	321*	33,739.0	26,410.0	78.3	11.03	10.13	12,807	5,787.0	4,298.0	74.3	58,178
Oct-Dec 97	3,989	3,566	423	384*	30,209.0	21,691.0	71.8	13.20	11.80	10,839	5,457.0	3,919.0	71.8	59,630
Jan-Mar 98	2,902	2,860	42	223	23,763.0	16,239.0	68.3	12.21	12.04	8,808	4,621.0	3,171.0	68.6	54,849
Apr-Jun 98	3,507	3,081	426	289	26,132.0	19,489.0	74.6	13.42	11.79	10,631	5,048.0	3,575.0	70.8	54,556
SAS														
Oct-Dec 96	1,368	1,231	137	54*	7,678.0	4,688.0	61.1	17.82	16.03	4,948				25,530
Jan-Mar 97	1,133	1,108	24	-36*	7,443.0	4,335.0	58.2	15.22	14.89	4,515				23,440
Apr-Jun 97	1,379	1,151	228	178*	7,962.0	5,392.0	67.7	17.31	14.46	5,617				23,904
Jul-Sep 97	1,244	1,093	151	83*	8,084.0	5,598.0	69.2	15.39	13.52	5,227				24,168
Oct-Dec 97	1,334	1,204	130	63*	7,771.0	4,939.0	63.6	17.17	15.49	5,212				28,716
Jan-Mar 98	1,184	1,077	106	76*	7,761.0	4,628.0	59.6	15.25	13.88	4,863				24,722
Apr-Jun 98	1,323	1,149	174	107*	7,546.0	5,260.0	69.7	17.53	15.23	5,449				25.174
Swissair**														
Oct-Dec 96	1,285	1,348	-63	-355	16,372.6	11,074.0	64.4	7.85	8.23	4,857				10,202
Jan-Mar 97	SIX MONTH FIGURES													
Apr-Jun 97	1,787	1,724	63	76	17,464.4	11,880.7	68.0	10.23	9.87	7,643	3,340.6	2,291.9	68.6	10,163
Jul-Sep 97	SIX MONTH FIGURES													
Oct-Dec 97	2,084	1,946	138	147	18,934.8	13,770.8	72.7	11.01	10.28	6,352	3,536.4	2,538.1	71.8	10,132
Jan-Mar 98	SIX MONTH FIGURES													
Apr-Jun 98	1,907	1,780	127	86	18,983.8	13,138.7	70.5	10.05	9.38					9,756

Note: Figures may not add up due to rounding. 1 ASM = 1.6093 ASK. *Pre-tax. **SAirLines' figures apart from net profit, which is SAirGroup. ***Excludes Condor from 1998 onwards.

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