

## Disqualifyer

**S**Air's policy of investing in smaller airlines has come to a grinding halt with the departure of CEO Philippe Brugisser. It had been apparent for some time that the logic behind the SAir strategy was pretty dubious - see, for example "How many turn-arounds can SAir cope with?", (*Aviation Strategy*, Oct. 2000) or even "Sabena: Europe's first flag-carrier failure?" (Dec. 1998). What is surprising is that it took so long for SAir's board to take action.

The signals from the stockmarket have been stark. As at the end of January, SAir's stockmarket capitalisation was just over \$1.9bn, compared to \$3bn in 1998. Yet over the past few years SAir has spent an estimated \$1.7bn on shares in airlines and service companies. And until recently a further \$0.4m of investments were planned.

There are two extreme ways to reconcile these numbers. If the prices SAir paid for these companies correctly reflect their value to the purchaser, one would have to conclude that Swissair itself, Crossair, Gate Gourmet etc. are themselves worth very little indeed. The alternative, and more plausible, explanation is that the monetary investments have added very little to SAir in terms of airline feed, ground handling contracts, catering outlets, etc.. In other words SAir should have been able to win this business without having to pay its customers.

There will be widespread repercussions from SAir's reversal.

First, there will now be more pressure for a break-up of the SAir conglomerate into service companies and the airlines. This is the only way that the stockmarket is going to be able to re-assess the value of SAir.

Second, Swissair itself will have to re-focus on being a premium airline brand, something that has diminished in recent years. A sale of the airline is becoming more likely.

Third, TAP and Sabena have just lost their major source of funding. Either national governments will attempt to re-finance, which would be illegal under the terms of previous state aid decisions, or they will have to finally undertake a radical restructuring or they will go bankrupt. The new French airline, built from AOM, Air Liberté and Air Littoral, might just benefit from a re-focussing of management effort. And there are new opportunities for SAA - see over.

### SAIR'S INVESTMENTS (\$m)

Sabena	150	Dobbs Catering	780
SAA	230	BA Catering (LHR)	105
AOM	80	Panalpina*	40
LTU*	120	<b>Total services</b>	<b>925</b>
Air Europe*	85		
Volare*	45	<b>Overall total</b>	<b>1,705</b>
Air Littoral	70		
<b>Total airlines</b>	<b>780</b>	Sabena	150
		TAP	140
* estimate		MAS	150
		<b>Total planned</b>	<b>440</b>

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## South African Airways - the new options

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**S**AA decided on SAir as its strategic investor on the very logical grounds that it was the highest bidder in 1999, offering R1.4bn (\$230m) to buy 20% of the airline from the government holding company, Transnet, substantially more than the price proposed by Lufthansa, Singapore Airlines and others.

Now SAir will definitely not take up its option to increase its stake to 30%, and there is a strong possibility that it will try to sell off the existing shareholding. SAA's full privatisation has already been postponed from this year to 2002 because of unfavourable stockmarket and exchange rate conditions. Without a strong trade investor, SAA's valuation will undoubtedly suffer.

However, SAA is potentially a very interesting target for those airlines that still are willing to take equity stakes in strategic partners. Firstly, SAA has succeeded in producing profits - R557m (\$71m) on revenues of R12.5bn (\$1.6bn) - for 1999/2000, though break-even is probably the best that can be expected for 2000/01.

Secondly, SAA is the pre-eminent carrier for the whole continent. Its plans include establishing two hubs on both the east and west coasts of Africa. On the east it has a 40% stake in Alliance Air based in Uganda. On the west coast, SAA has just won permission from the US DoT to code-share with Nigeria Airways to Lagos-New York (in effect using Lagos as an intermediate point on Johannesburg-New York). This is potentially a very lucrative route, but the political and administrative problems that accompany any Nigeria Airways venture are formidable.

From SAA's perspective one of the advantages of having SAir as an investor was the Swiss company's neutrality, which allowed it to continue building links with the truly global alliances. If SAA now has to sell itself to a new airline investor, it may risk damaging its other relationships. Its options are as follows.

SAA is potentially a member of the Star alliance (Star's CEO was recruited from SAA). It codeshares on all services between Frankfurt, Johannesburg and Cape Town, and operates a joint cargo service with Lufthansa. The alliance

extends to FFPs, shared lounges and ground handling. SAA itself does not fly to Germany but its London service has codeshare and FFP links with British Midland, which is partly owned by Lufthansa.

Lufthansa has in the recent past made minority investments - in Air Canada and British Midland - to shore up the Star alliance. The pricing of SAir's stake in SAA is likely to be significantly below what SAir paid in November and probably below what Lufthansa was willing to pay then.

There are no formal links with British Airways, but there may be incentive to form some, as SAA will soon be facing home-based competition on the London route. Africa Star is scheduled to start up services from Johannesburg to London Stansted this spring using ex-SIA 747-300s.

Oneworld partner Qantas has recently begun codesharing with SAA as apart of its rationalisation of its services between Australia/New Zealand and South Africa. There is also an agreement in place between Cathay Pacific and SAA, which would allow codesharing between those two airlines. American was a bidder for the 20% stake in SAA back in 1999.

Divesting rather than investing in other carriers is BA's priority at present. Nevertheless, a good case could be made for an investment to consolidate the high-yielding business traffic on UK-S.Africa. And if the investment were supported by Qantas and American, it would send a clear signal that the oneworld alliance was working again.

Air France too has a codeshare with SAA on flights beyond Johannesburg. Equally significant is SAA's agreement with Delta which allows codesharing between Cape Town and Atlanta and New York.

Air France and Delta are probably the most acquisitive of the major airlines at present as they seek to develop and add credibility to their SkyTeam alliance. CDG offers the best hub connections for medium-yielding continental Europe to S. Africa traffic, a role that is becoming more important with the recent withdrawal of Sabena and Alitalia from S. Africa (the really low yielding traffic will continue to be carried over Athens and Istanbul by Olympic and THY).

### The Big Two vision

United and American have come up with an innovative plan designed to push through their respective take-overs. But will the plan fly?

To summarise:

- United's \$4.3 acquisition plan for US Airways will continue;
- But United will sell American up to 86 of the US Airways fleet, plus slots at La Guardia and gates at LaGuardia, Washington, and Boston for about \$1.2bn;
- American will also enter into a 20-year joint venture with United on the east coast Shuttle with each carrier flying half the daily schedule:
- American Airlines will acquire a 49% stake in DC Air, the proposed Washington-based spin-off from US Airways, for \$82m;
- American will purchase all the assets of a liquidated TWA for about \$500m.

The America/United proposal was sprung upon a largely unsuspecting world at the same time as George W. Bush was finally confirmed as President. Inevitably this led to speculation that with Bush coming from Texas he would be sympathetic to American and to a laissez-faire approach to big company mergers in general. For the record, American donated about \$0.4m to the Bush campaign while United/US Airways donated over \$0.5m.

However, these sums have to be seen in context of a total of \$430m of funding raised by the Republicans during this election cycle. And early noises from the new Administration indicate that it intends to be tough on antitrust issues. More importantly, there appears to be widespread suspicion of big airlines in Congress, fueled by the experience of last summer when limited action of the part of United's pilots caused widespread disruption in the US domestic market. There is a very effective consumer lobby representing business passengers' interests which is spreading the message that the proposed deal is a monopolistic conspiracy

If American had merely proposed taking over TWA there could have been no serious objections. Indeed, the US authorities seem set to give full approval for this action. But persuading politicians and regulators that the whole AA/UA/TW/US web should be regarded as a rescue mission is a different matter altogether. US

Airways has well-known financial problems but it is not on the edge of bankruptcy and could probably still be turned around. Its third quarter results were so far below expectations that some stock-market analysts consider them to have been artificially depressed.

### Network control

American and United appear to have a vision of a Big Two possessing such extensive and comprehensive networks that they would be able to command the loyalty of the premium traveller market in the US and internationally, through the use of FFPs, CRM and direct internet sales. Competition from the other Majors and the low-cost carriers would be still there, but there would be little incentive for the Big Two to compete between themselves. The size advantage that American and United would gain through this arrangement could not easily be challenged by the other Majors because Delta and Continental, for example, could not use the failing carrier argument to justify a merger.

In terms of hubs the AA/UA/TW/US arrangement offers the Big Two a very attractive balance of power. American by taking over TWA would have an important mid-West hub at St Louis to complement Chicago (but with the threat of Southwest inexorably expanding its operation at St Louis). It would also strengthen its position at New York, and split operations with United at Boston and Washington. United would gain a near-monopoly at Philadelphia, US Airways' main hub.

US aviation academic Michael Levine con-

#### AA AND UA POST-TRANSACTIONS

	UA/US	Change from UA today	AA (+TW)	Change from AA today
<b>Mainline jet fleet</b>	939	328	991	274
<b>Hubs</b>	6/7	2/3	5	2
<b>Employees</b>	134,000	32,300	121,000	29,000
<b>Mainline rev. (\$ bn)</b>	25.9	6.9	22.6	5.0
<b>Mainline ASMs (bn)</b>	228	52	215	53

*Source: AMR*

# Aviation Strategy

## Analysis

tends that the proposed split operation of the US Airways Shuttle by American and United encapsulates the Big Two strategy. The Shuttle between Boston, New York and Washington is used primarily by high-yield business passengers who are also frequent business flyers to other cities in the US and abroad. The airline that controls the Shuttle potentially captures a very substantial chunk of the US premium market.

US Airways on its own was unable to realise this potential because of its limited national network (and the fact that the Shuttle did not connect to its Philadelphia hub), but American or United should be able to reap maximum benefit. When American had its marketing alliance with US Airways it gained a relative advantage over United. When United moved to buy out US Airways it threatened to gain a larger advantage over American.

The sharing proposal is therefore a neat compromise. In addition, United and American would be entering into a mutual protection pact against one of the other Majors gaining control of the Shuttle. If, for instance, Delta were to take over the Shuttle and link it in to its network it would easily become the equal of the Big Two.

Delta and Continental will continue to try to sabotage the Big Two strategy, and the most effective way of doing this is by putting in attractive counter-bids for specific assets like the Shuttle and DC Air. Although Continental and Delta are in talks, a counter-merger does not look likely at this point because of regulatory obstacles and the intractable labour problems that Gordon Bethune, Continental's CEO, foresees.

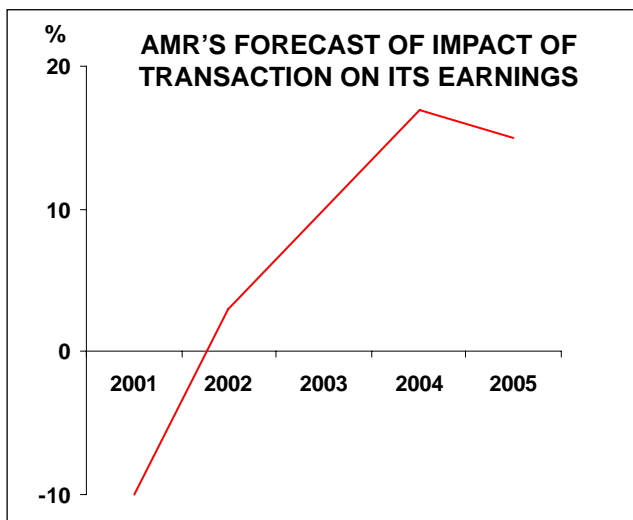
Labour costs are the other major driver behind American and United's joint strategy. Like almost all the US Majors, American and United have had stressful relations with their unions, particularly their pilots' union, but the two carriers have adopted a similar approach to tackling their relatively high labour costs. In return for getting the unions to agree to reducing average labour costs (through A/B scales in the case of American and through wage freezes under the ESOP in United's case) the two carriers initially committed themselves to fairly rapid growth. But this growth has not materialised partly because the other carriers, notably Southwest, themselves expanded and won market share.

Now labour has become the critical issue again. With ESOP-related snap-backs, United is facing a 30% increase in pilot costs, and it can ill-afford any more disruption after the pain inflicted by the limited action last year. American has managed to negotiate a one-year extension of its pilot agreement to August 2002, but seniority and payscale conflicts over the TWA take-over rumble under the surface.

This is the dilemma for the Big Two: they know that any merger causes intense and often disastrous labour disruption (even a minor transaction like American's purchase of Reno), but they can see no other way of reducing average labour costs except through growth. All the indications are that the US economy is finally turning down after its extended expansion, so there may be little intrinsic traffic growth generated, leaving growth through M&A as the only option.

Overall, American and United seemed to have come with a very clever arrangement to promote their mutual interests, but the outlook is becoming murkier, with regulatory, competitive and union complications compounding daily.

Investment bankers generally love the idea of M&A in the airline industry as they see consolidation leading to an improvement in RoI. Other financial institutions are reading the situation differently. The rating agency, Standard & Poor's, has stated that it will probably lower American and United's credit rating if their respective take-overs go through. Julius Maldutis, the most experienced equity analyst of all, has put a sell notice on American, on the basis that all US take-overs have damaged the equity of the purchasing carrier.



### The duelling duopolists

Both Airbus and Boeing were able to claim victory when announcing their 2000 order totals. Airbus achieved 520 orders compared to 476 in 1999 while Boeing won 589 (net) compared to 391 in the previous year

However, the leasing companies took an

even larger share of the orderbook than in 1999 (51% at Airbus, 33% at Boeing), usually an indication of a peaking market.

In any case the role of the lessors may well be curtailed in the future. In late January the European Credit Agencies (ECAs) suspended their export guaranties for 85% of

<b>AIRBUS FIRM ORDERS 2000</b>									
	A318	A319	A320	A321	A300-600R	A310-300	A330	A340	Total
Aer Lingus		4					1		5
Air Bosna		2							2
Air France		1	1	1			8		11
Alitalia		2							2
British Airways			1	2					3
British Midland			2				2		4
Finnair		2	4						6
French Air Force		2							2
GB Airways			2						2
Iberia								4	4
LTU			6						6
Monarch Airlines				5					5
Nouvelair			1						1
Sabena								4	4
SAS				12			6	4	22
<b>European total</b>	<b>0</b>	<b>13</b>	<b>17</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>12</b>	<b>79</b>
Aero Services Executive		1							1
Air Canada		2		12					14
America West		4							4
Frontier Airlines	5	7							12
jetBlue Airways			7						7
Midwest Airlines			2						2
Northwest		6					24		30
TWA		20							20
United		22	22						44
United Parcel Service					2				2
US Airways		1							1
<b>N. American total</b>	<b>5</b>	<b>63</b>	<b>31</b>	<b>12</b>	<b>2</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>137</b>
Cathay Pacific							5		5
Dragonair			5				2		7
Korean Air							3		3
Silk Air			1						1
<b>Asian total</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>16</b>
Lan Chile			3						3
TACA			5						5
<b>Lat. Am. total</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>
Air Mauritius		2							2
Egyptair	2								2
Qatar Airways		1							1
<b>Afr./M. East total</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
CIT Group	4	6	18	7			15		50
GATX/Flightlease			1	1					2
GECAS	30	4	16	2			16		68
ILFC		24	55	25			28	3	135
SALE		3	6	2					11
<b>Lessor total</b>	<b>34</b>	<b>37</b>	<b>96</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>59</b>	<b>3</b>	<b>266</b>
<b>Undisclosed</b>		<b>4</b>						<b>5</b>	<b>9</b>
<b>TOTAL</b>	<b>41</b>	<b>120</b>	<b>158</b>	<b>69</b>	<b>2</b>	<b>0</b>	<b>110</b>	<b>20</b>	<b>520</b>

# Aviation Strategy

## Analysis

the price of Airbus products. They realised, rather belatedly, that they were in effect using European taxpayers' money to subsidise the finance costs of US giants like General Electric and AIG (parent of ILFC). The new system of export guarantees will be much more closely targetted on airline customers.

The evolution of the industry into a duop-

oly has not resulted in cosy collusion. Rather the opposite as both companies continue to fight vigorously for orders as well as preparing their legal counsels for inevitable antitrust suits. (Airbus almost seems to be going out of its way to provoke the US - the European Commission has just unveiled a report "European Aeronautics: a vision for 2020", which calls for €100bn of joint pub-

### BOEING FIRM ORDERS 2000

	717	737	747	757	767	777	Total
Aeal	3						3
Air France						14	14
Alitalia						6	6
EasyJet		17					17
Hapag-Lloyd		3					3
JMC				2			2
Maersk		2					2
Ryanair		3					3
SAS		3					3
Turkmenistan	3						3
Virgin Atlantic			7				7
Transavia		2					2
<b>European total</b>	<b>6</b>	<b>30</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>20</b>	<b>65</b>
American		10		22		10	42
ATA		20		12			32
Atlas Air			4				4
Boeing Business Jet		10					10
Continental		22				2	24
Delta		4					4
Hawaiian	13						13
Southwest		94					94
WestJet		26					26
US Navy		1					1
<b>North American total 13</b>	<b>13</b>	<b>187</b>	<b>4</b>	<b>34</b>	<b>0</b>	<b>12</b>	<b>250</b>
ANA						6	6
Cathay Pacific			1			1	2
China Xinjiang				3			3
EVA						7	7
JAL					3	16	19
Korean			2				2
Qantas			6				6
Singapore						3	3
<b>Asian total</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>33</b>	<b>48</b>
LAPA		6					6
Lan Chile					2		2
<b>Latin American total</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>8</b>
Kenya		2			3		5
SAA		5					5
<b>African total</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>10</b>
GATX Flightlease		18					18
GECAS		65		4		15	84
ILFC		57				33	90
<b>Lessor total</b>	<b>0</b>	<b>140</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>48</b>	<b>192</b>
<b>Unidentified</b>	<b>2</b>	<b>21</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>38</b>
<b>TOTAL</b>	<b>21</b>	<b>391</b>	<b>27</b>	<b>43</b>	<b>12</b>	<b>117</b>	<b>611</b>

Note: Taking into account cancellations, the net order figure for Boeing is 589 aircraft.

lic/private R&D funding for the next two decades.)

Boeing must be relieved that it has finally halted Airbus' remarkable growth in market. Back in 1995 the split in order between Airbus and Boeing was 18%/72%, then Airbus's share jumped to 30% in 1996, to 46% in 1997 and 1998, before topping Boeing with 55% in 1999. Last year Airbus's share was 47%, but the company excluded the 50 commitments to the A380, which will be included in next year's total

### Boeing's contribution to Airbus's success

Boeing may have unwittingly made a major contribution to Airbus's success as a consequence of the mega-flexi-orders it signed with American, Delta and Continental. Under these agreements the airlines were guaranteed the lowest prices to be offered by the manufacturer in return for exclusivity over a period of 20 years. Such deals were the main objection by the European Commission to the merger of Boeing and McDonnell Douglas in 1997, and indeed Boeing had to swear never to do them again to win approval.

However, since there were so many aircraft and so many people involved the price leaked out to, among others, Airbus. This meant that the Europeans in effect knew Boeing's final offer price in any sales campaign involving narrowbodies. Were Boeing to undercut the deals it had offered the three US airlines, say by \$2m per aircraft, then it would have had to pay that sum multiplied by the number of aircraft to the original buyers, a sum running into hundreds of millions of dollars. A very effective sales tactic for Toulouse.

Accordingly, Airbus was in a position to win nearly every significant campaign in the aftermath of the exclusive deals. But last year Airbus began to run up against production constraints - it has only about half the capacity of Boeing - and hence was unable to commit to required delivery schedules. For example, this may have been a factor behind the loss of a narrowbody order for SAA.

Boeing is now hoping for a strategic error from Airbus, specifically that the A380 will turn out to be a folie de grandeur, or at least an aircraft with too many low-yield seats on board. Airbus's strategy will increasingly be tested by financial analysis as EADS comes under stockmarket rather than political scrutiny. EADS's pre-tax loss for 2000 is forecast by Morgan Stanley at \$139m compared to a pre-tax profit of \$3.6bn for Boeing.

Airbus's main claim for the A380 is that 700-plus models will be sold over a 20 year period will justify its \$12bn development costs and become a major profit earner for the company in its own right. But its secondary justification for the project is looking dubious. The argument is that with the A380 on the market Boeing will no longer be able to price 747s at a monopoly price high enough to subsidise sales of its other aircraft, so prices across the board should rise for the duopoly, helping to improve Airbus's returns irrespective of whether it sells the requisite number of A380s. The cross-subsidisation effect was once important but lately the 747 has been contributing only about 26% of Boeing's gross profit (*Aviation Strategy*, December 2000).

For its part, Boeing is limiting its investment spending to \$4bn on enlarging and updating the 747. Its recent failure of to land an order for its stretched 747X from Fedex (which has instead ordered 10 cargo versions of the A380) was a very serious blow, as it had been relying on the order to kick-start its development programme.

Boeing has put one of its top product development engineers back down a level specifically to mastermind the 747X project, giving it the advantage of the best expertise in the company. It is particularly desperate to stop JAL, the biggest operator of 747s with a fleet of 108 aircraft, from opting for the new Airbus. To sweeten the Japanese Boeing has offered Mitsubishi Heavy Industries the role of designing and building the new wing for the 747X, a much more meaningful work-share than anything offered the Japanese in the past, even on the 777 where they make a third of the aircraft as sub-contractors.

### Turning to Chapter 4

CAO's Committee on Aviation Environmental Protection (CAEP) has come up with a Chapter 4 noise standard which is 10 decibels lower, on a cumulative basis, than the current Chapter 3 standards.

Although this standard will apply to all new aircraft from 2006, its practical impact on manufacturers will be negligible as current production models meet this standard (the A380 will meet -14dB). Unsurprisingly they have welcomed the decision, while airports wanted a greater noise reduction.

What airlines have to worry about is the implementation of operational phase-out

rules, an issue that the EC and the US DoT are now addressing. A substantial proportion of the world fleet is affected by the -10dB standard, according to an analysis by Campbell Hill who have been consulting to CAEP - over half the existing jet fleet, with an estimated current market value of \$106bn.

Residual values for aircraft like the DC-9 and MD-80 are already dropping fast. Perhaps more surprisingly, two thirds of the 737 Classics and 40% of the A320s will be impacted. Over half the 747 fleet will fail at the new standard.

#### IMPACT OF CHAPTER 4

	End-99 fleet	Ch. 3	-5dB	-8dB	-11dB	-14dB	% of flt.at -11dB
<b>A300</b>	169	0	68	147	153	169	91%
<b>A600</b>	199	0	0	82	195	195	98%
<b>A310</b>	212	0	0	0	122	211	58%
<b>A319</b>	204	0	0	0	0	19	0%
<b>A320</b>	779	0	0	17	319	658	41%
<b>A321</b>	144	0	0	27	42	101	29%
<b>A330</b>	129	0	0	0	0	67	0%
<b>A340</b>	161	0	0	0	0	0	0%
<b>BAe 146</b>	197	0	0	0	0	0	0%
<b>Avro RJ</b>	133	0	0	0	0	0	0%
<b>BAC-11</b>	57	57	57	57	57	57	100%
<b>707</b>	79	79	79	79	79	79	100%
<b>717</b>	10	0	0	0	0	0	0%
<b>727</b>	1,121	298	1,070	1,070	1,070	1,121	95%
<b>737-200</b>	788	441	788	788	788	788	100%
<b>737-3/4/500</b>	1,923	0	0	853	1,305	1,833	68%
<b>737NG</b>	410	0	0	0	0	368	0%
<b>757</b>	878	0	0	0	0	354	0%
<b>767</b>	744	0	29	87	254	331	34%
<b>777</b>	258	0	0	0	0	0	0%
<b>747</b>	981	53	436	478	546	886	56%
<b>CRJ</b>	343	0	0	0	0	0	0%
<b>Do328 JET</b>	11	0	0	0	0	0	0%
<b>Emb 145</b>	190	0	0	0	0	0	0%
<b>DC-8</b>	235	45	134	134	134	134	57%
<b>DC-9</b>	626	175	626	626	626	626	100%
<b>MD-80</b>	1,153	0	0	552	1,153	1,153	100%
<b>MD-90</b>	107	0	0	0	0	0	0%
<b>DC-10</b>	220	0	81	214	214	220	97%
<b>MD-11</b>	185	0	0	0	0	172	0%
<b>F28</b>	142	142	142	142	142	142	100%
<b>F70</b>	43	0	0	0	0	0	0%
<b>F100</b>	266	0	0	0	0	0	0%
<b>L1011</b>	88	0	0	18	88	88	100%
<b>TOTAL</b>	<b>13,185</b>	<b>1,290</b>	<b>3,510</b>	<b>5,371</b>	<b>7,287</b>	<b>9,772</b>	<b>55%</b>

Source: Campbell Hill



### Frontier: survived and prospered against all the odds

Against all odds, Frontier, the largest of the early 1990s generation of low-cost airlines in the US, has survived and built a highly profitable hub operation at Denver (DIA) in head-to-head competition with United. To consolidate its success, in May the carrier will begin an ambitious programme of replacing its entire fleet of used 737s with brand new A320s. What will be the impact of the fleet transition, and will Frontier continue to go from strength to strength?

Only a few years ago, Frontier was losing heavily and faced an uncertain future. Like many of its contemporaries, it had a shaky start (in July 1994) because it was very thinly capitalised and initially chose the wrong markets. It tried to stay out of harm's way by operating on thin routes and feeding to United, but United did not need another feeder at Denver.

A new strategy of focusing on larger markets with low-frequency operation, introduced in late 1995, enabled the carrier to earn marginal profits in the first half of 1996. It also succeeded in raising \$7.3m in a common stock offering and another \$2.7m through a private placement, just before the industry sector was hit by the ValuJet crash and grounding.

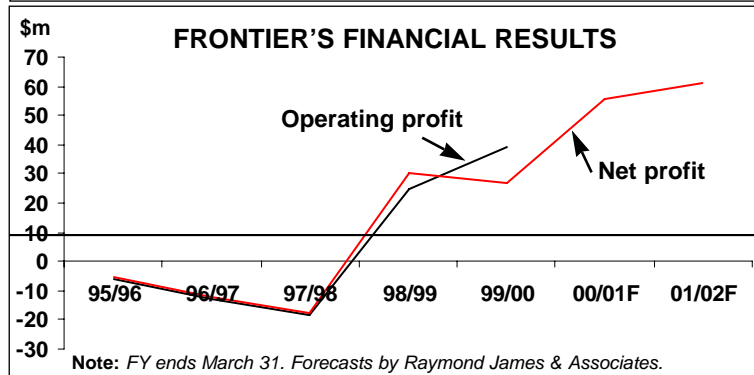
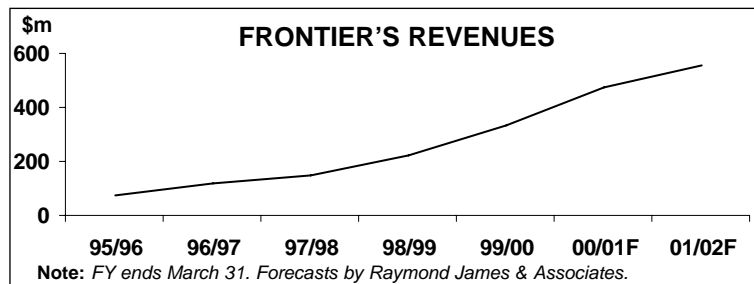
But Frontier then plunged back to losses as United began its alleged "strong arm" tactics at Denver. In 1997 United also brought the Shuttle to some of the Denver markets, while Western Pacific, another low-cost carrier in search of larger markets, decided to move its operations from Colorado Springs to DIA. A subsequent codeshare and merger deal between Frontier and WestPac fell through, and WestPac filed for Chapter 11 bankruptcy protection. All of that meant that the Denver market became saturated with excess capacity at deep-discount prices.

The situation improved dramatically in 1998, following WestPac's shutdown and Washington's determination to crack down on predatory behaviour by the major carri-

ers. As the DoT had predicted, the mere threat of new rules and serious investigations made carriers like United clean up their act.

Those favourable developments enabled Frontier to secure a \$14.2m equity infusion in April 1998, which gave it adequate cash reserves for growth. It grabbed the opportunity to re-establish itself with a sound business plan and gradual growth strategy. In the first place, that meant becoming transcontinental, with services to Boston, Baltimore and New York LaGuardia, and focusing more on the higher-yield business travel market.

As a result, Frontier staged an impressive financial turnaround, reporting a \$24.7m operating profit and a \$30.6m net profit for its fiscal year ended March 31, 1999. The net profit represented 14% of revenues. For the previous year the carrier had posted operating and net losses of \$18.6m and \$17.7m respectively. This was followed by a 59% increase in operating profit to \$39.3m and another healthy \$27m net profit in 1999/2000. In the two-year period, revenues



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more than doubled to \$329.8m.

Despite last year's extremely challenging operating environment, which led to a decline in industry earnings, Frontier more than doubled its operating and net profits in the six months ended September 30, 2000. Its operating margin in that period was a stunning 22.9% - the highest in the industry.

The past two years have seen exceptionally strong unit revenue growth, as Frontier has expanded to higher-yield markets, improved its product and scheduling, achieved excellent operational performance and captured more corporate accounts. In the September quarter, when revenue per ASM surged by 29% from 9.49 to 12.21 cents, the carrier also benefited from traffic diverted from United because of the major's operational troubles.

Frontier has also benefited from higher aircraft utilisation and other efficiency improvements as the fleet and DIA hub operations have grown, as well as, of course, lower distribution costs. Bringing ground handling and most maintenance functions back in-house also led to substantial cost savings.

Unit costs have, inevitably, risen considerably due to higher fuel prices, wage increases, increased employee bonuses, higher lease rates on larger and newer 737-300s and upgrades to internal systems in preparation for the fleet transition. Costs per ASM surged by 16.5%, or by 11.8% excluding fuel, in the September quarter. But there was nothing there that would prompt concern, in light of the general difficult industry conditions and Frontier's exceptionally robust revenue trend.

The company's balance sheet is now in

good shape. Since prepaying some \$3m of notes in late 1998, Frontier is now virtually debt-free. Between March 1998 and September 2000, cash and short term investments rose from \$3.6m to \$120.9m, total assets from \$50.6m to \$254.2m and stockholders' equity from a deficit of \$5.7m to \$120.1m positive.

The \$121m cash reserves, which Frontier described as "adequate", are more than enough to withstand any economic slowdown. The reserves are comparable with slightly-smaller AirTran's \$104m at year-end, which AirTran's leadership indicated that they felt extremely comfortable with.

## Co-existence with a Major

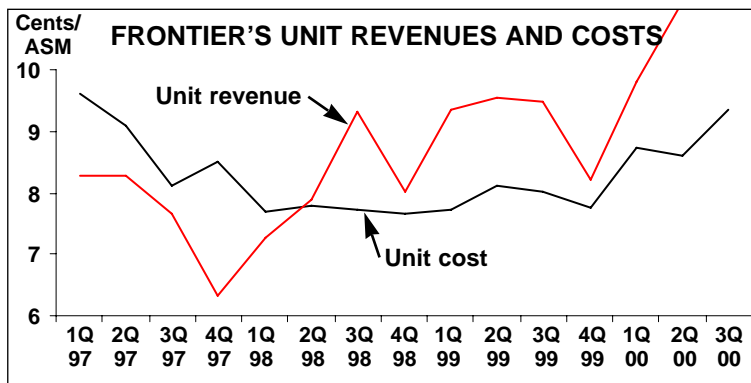
Frontier is rather unusual among the US low-cost carriers in that it has a hub-and-spoke, rather than point-to-point, type of operation, and all the more so because it shares the hub with a major carrier. This obviously has important implications for strategy.

The carrier does not price in the Southwest model, because "we live under the United umbrella". Entering high-fare markets with highly-publicised 60-70% lower fares would be far too provocative. Instead, it uses a stealthier "as you get closer to the departure date, the fare difference will get bigger" approach, as described by its leadership. Also, Frontier's fares are nowhere near as low as Southwest's (it calls itself an "affordable-fare" airline), which enables United to maintain a premium fare structure at DIA.

Even though Frontier is now present in 17 of the top 25 markets out of Denver, its 9% market share at DIA or continued rapid growth there do not threaten United's 70% market share. This is particularly the case since the bulk of Frontier's share has come from growth in the Denver market.

DIA seems like an ideal place for this kind of major-new entrant confrontation, because it is a major growth market and has no facility or runway constraints on expansion. Frontier also says that the airport was "built to handle bad weather".

Jim Barker, analyst with Raymond James & Associates, suggests that United's inter-



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ests may be served by having a relatively small and rational competitor like Frontier at DIA, because it "weakens the travelling public's perception of United as a monopolist in the Denver market". Also, Frontier's presence is likely to deter other more aggressive low-cost competitors.

### Fleet transition

In a notable departure from its previous strategy of utilising leased 737-200s and 737-300s, in late 1999 Frontier decided to phase out its then 20-strong Boeing fleet in favour of a new all-Airbus fleet by 2004.

In the first place, the carrier wanted brand new aircraft, which would offer significant cost savings in flight operations and maintenance, as well as financial benefits due to accelerated depreciation and the associated reduction in income taxes.

New aircraft will also better reflect its fresh upmarket image. The carrier recently unveiled a new aircraft livery for the Airbus fleet on a giant IMAX screen at the Denver Museum of Nature and Science "to provide the world with a visual representation of this new era".

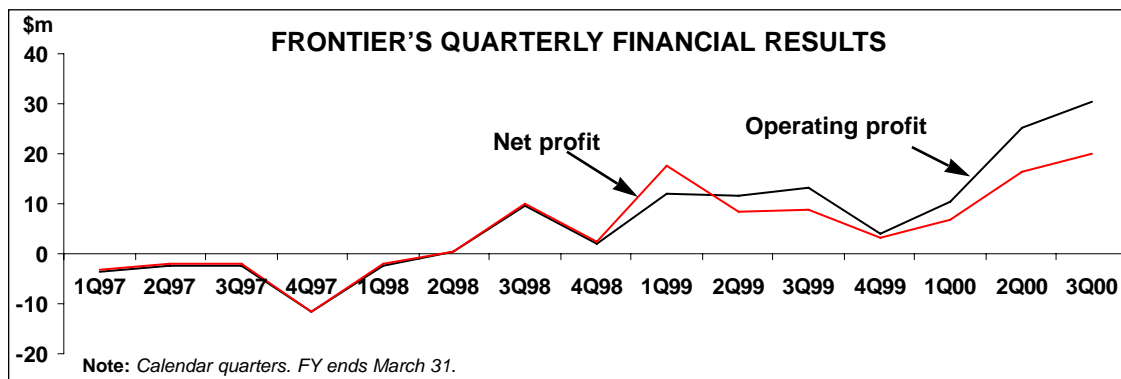
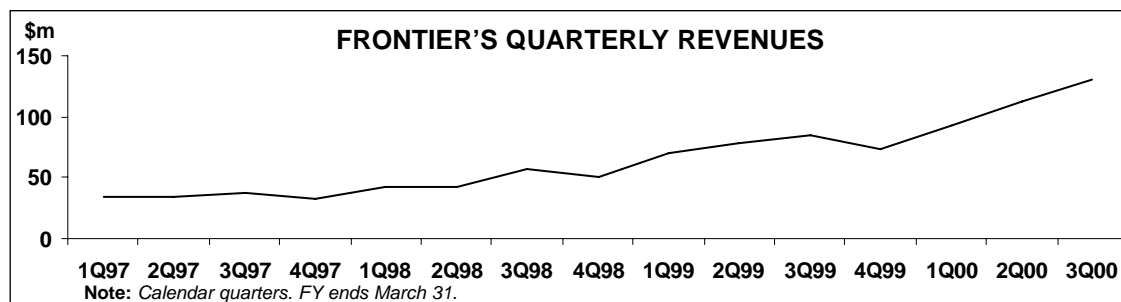
The Airbus product was chosen for its "superior economic return, fleet flexibility

and commonality features", as well as increased passenger comfort (wider aisles and seats). Availability was also a rather interesting factor. Although Boeing could offer earlier deliveries, the schedule offered by Airbus fitted much better with the general flow of 737 lease expirations.

During the first half of 2000, Frontier finalised its agreement with Airbus, ordering 12 A318s and A319s for delivery between May 2001 and September 2004. It also entered into separate agreements with GECAS to lease 15 new A319s and one A318, with deliveries between June 2001 and October 2004.

On top of the 28 firm commitments, there are 17 options, nine of which have delivery dates assigned (in 2003-2005). Frontier is expected to order another five aircraft, to bring the total deliveries by the end of March 2005 to 50 aircraft. When the replacement programme is complete, the fleet will consist of roughly two-thirds A319s and one-third A318s.

Half of the new aircraft will replace Frontier's current 737 fleet, which still grew by five aircraft last year to facilitate around 20% capacity growth, and the other half will be for growth. All of next fiscal year's addi-



### FINANCIAL IMPACT OF FRONTIER'S FLEET TRANSITION (\$000)

Quarter	New fleet savings	Transition costs	Net impact
March 01	0	530	(530)
June 01	20	1,690	(1,670)
Sep 01	450	1,210	(760)
Dec 01	1,150	460	690
March 02	1,200	960	240
June 02	1,460	1,010	450
Sep 02	1,840	1,280	560
Dec 02	2,320	1,100	1,220
March 03	2,950	790	2,160

tions (three purchased and three leased A319s) will be for growth, which is expected to be "in excess of 22%".

Operating leases on the existing 18 737-300s and seven 737-200s currently expire between April 2002 and May 2006. Frontier says that it may need to extend some leases and negotiate shorter terms or subleases on others, to fine-tune their exits to the Airbus delivery schedule.

There is obviously flexibility in the fleet plan, in terms of aircraft numbers and acquisition methods. Now that the balance sheet has recovered and profit margins are high, Frontier will certainly be looking at purchasing options, including EETCs, traditional bank financing and leveraged leases. As regards to operating leases, the aim is to secure longer leases and more favourable terms generally. Frontier said that it hopes to lease the new and larger aircraft at the same cost that it currently leases its 737s.

The company expects to incur fleet transition costs of around \$4.5m annually over the next two fiscal years. Those costs begin in the current quarter and will peak in this year's June quarter at \$1.7m.

Cost savings are expected to build steadily to \$2.95m in the March 2003 quarter. Fuel cost savings, assuming a price of \$1 per gallon, are estimated to be \$27,000 per month per aircraft. Maintenance cost savings are estimated to amount to \$50,000 per month per aircraft during an aircraft's first year of service and \$35,000 in the second year. Lower maintenance reserve costs are expected to result in a monthly saving of \$35,000 per aircraft.

The savings will be offset by higher landing fees and ownership costs. Monthly

rentals and anticipated ownership costs are expected to be \$30,000 higher per aircraft.

Frontier calculates that it will incur net additional costs of \$3m in aggregate in the first three calendar quarters of this year and net savings thereafter. The net savings will accelerate from \$690,000 in this year's December quarter to \$2.2m in the March quarter of 2003.

### Prospects

As favourable revenue trends have continued, Frontier is expected to report another spectacular rise in earnings for the current fiscal year ending March 31. Jim Parker, one of the few analysts covering the company at present, estimates that earnings per share will surge by 109% to \$2.94.

The next fiscal year will bear the brunt of the initial fleet transition costs (mainly pilot training), so Parker expects earnings per share growth to slow to 10%. For FY 2003 he predicts an acceleration in earnings growth to 20-25%, as the cost savings associated with the new Airbus aircraft come into play.

The fleet plan means that Frontier will continue to be one of the fastest growing sizeable US airlines over the next several years.

Frontier should continue to benefit from the rising fares of the major airlines - a trend that is causing business traffic to migrate to lower-fare carriers. The majors look likely to have to raise their fares substantially again in 2001 to counterbalance higher labour costs and fuel expenses (due to lack of hedging). And, as economic growth slows, companies will tighten employees' travel budgets.

A United-US Airways merger and acquisition proposals could lessen the risk of United competing more aggressively with Frontier at DIA for several reasons. First, United will have to watch its act very carefully as it needs DoJ approval for the US Airways deal. Second, the proposed transactions with American reduce the threat of United ending up with excess aircraft that it would move to DIA. Third, since the merger will put pressure on United's earnings, it can less afford to offer lower fares in the Denver markets.

### Airtours: restoring its fortunes after the German adventure

Airtours, the world's leading provider of Air-inclusive holidays and the UK's largest tour operator (TO) suffered a serious setback last year when its German expansion went awry. This year it is resolving its German problems, but the distribution power of its larger rivals there is a potential threat. The UK holiday market looks as if it will again produce a steady profit stream. Its purchase of US-based travel distributor is key to developing its e-commerce strategy.

Although two profit warnings last year undermined investor confidence in Airtours, from a long term perspective the company has been a major stockmarket success story. Floated in 1987 for £28m, its stockmarket valuation rose nearly a hundred fold to £2.7bn in 1999 before dropping to the current level of around £1.3bn. (This is a 50-fold increase; for comparison, British Airways' stock, which was floated at roughly the same time, has increased by just over three times). Founder and chairman David Crossland has remained in control throughout this period, and rumours last year of his possible retirement have so far proved unfounded.

Its reported pre-tax profit for 2000 (year to end September) was £211m on revenues of £3.9bn, a rise of 40% from the previous period, but £137m of the profit was exceptional, coming from the sale of Costa Cruises. The UK and Scandinavian TO business was profitable at the operating level to the tune of £104m but £47m was lost in Germany and a further £7m in North America.

Airtours bought about 36% of the German tour operator Frosch (FTi) in 1998 and 1999, having been frustrated in its attempts to merge with UK TO First Choice. Its investment forms part of a broader trend of cross-border consolidation which has seen Preussag buy Thomson Travel/Britannia and C&N take over Thomas Cook (see *Briefing*, December 2000).

Unfortunately, the M&A activity and intense market share struggles resulted in serious overcapacity in the German market and poor trading conditions for all the main competitors. However, Airtours' problem were exacerbated by serious strategic errors at FTi.

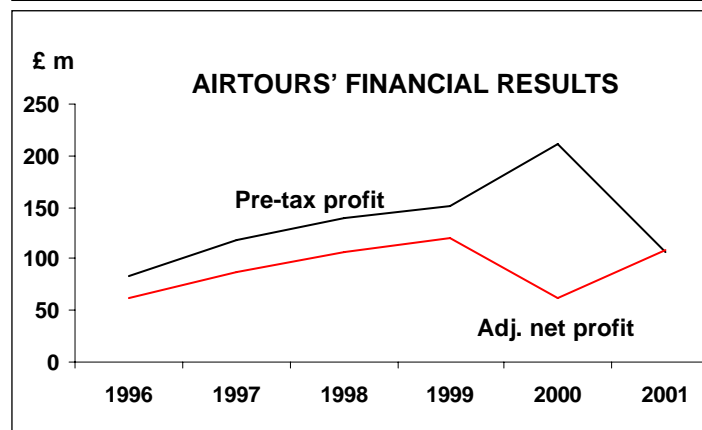
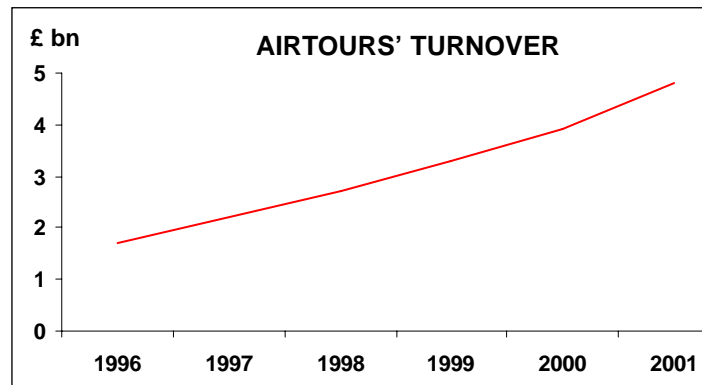
#### The problems with FTi

Airtours' purchase of FTi represents a stark example of what can go wrong when buying into a business in a new country market without taking full operational control, detailed in a comprehensive report on Airtours by Deutsche Bank\*.

FTi's basis strategy was to go for extremely fast growth - doubling the customer base from 1m to 2m. In this it succeed but at huge cost - a loss for the whole com-

*Airtours - Taxing for take-off, Jan 2001, by Simon Champion*

simon.champion@db.com



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pany of about £100m.

It is now clear that FTi management did not take advantage of the purchasing power of the Airtours Group. FTi felt that it was in a weak negotiating position with the major resort hotel groups and so had to guarantee the vast majority of its accommodation requirements at an early stage (this cost element accounts for about 35% of a TO's total costs). But then the expected level of demand did not materialise and the "spot" price of beds plummeted. Overall, Deutsche Bank estimates that the cost of a hotel bed to FTi in summer 2000 was around 25% higher than the negotiated rates of the rest of the Airtours group.

In addition to the high level of guarantees given for accommodation, FTi also paid substantial deposits to resort hotel groups in order to achieve these guarantees at all. This had a cash flow impact for the business, and resulted in interest income being lower than should have been achieved.

Finally, FTi suffered from operational problems with its aircraft. FTi's attempts to maximise utilisation meant that the flying schedule was too ambitious, resulting on knock-on delays following any disruption. The situation was not helped by the fact that FTi flew out of 16 German airports in summer 2000.

### AIRTOURS GROUP FLEET

#### Airtours International

757-200	6
767-300EREM	3
A320	11
A321	4
A330-200/300	3
DC10-10/30	4

#### FTi Flug

A320	5
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#### Premiair

A300B4	3
A320	6
A330-200/300	5
DC10-10	1

#### Air Belgium

737-400	1
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**TOTAL** 52

Source: ACAS

some of the accommodation contracts run through 2001 so there is still some pain to bear in this regard. After that it is estimated that £35-40m a year of saving will be made.

Rearranging schedules and reducing the number of airports operated from will produce a more streamlined charter airline operation. Overall, the capacity in FTi's charter business has been reduced by 20-30% for summer 2001.

FTi will probably still lose around £30-40m this year, though Airtours has stated that it believes that the company can be brought back to a break even level in 2002. However, Deutsche Bank remains concerned that FTi still has a fundamental weakness - its size.

While negotiating at the Airtours Group level should allow the company to realise economies of scale, it may still be difficult for to become the cost leader in Germany. There is also a question over distribution strength - if the German retail chains prioritise sales of their parent TOs, as has happened in the UK market, then there would be negative implications for FTi. FTi has just a 6% share of the German market compared to 27% for Preussag/TUI, 23% for C&N and 20% for Rewe (20%).

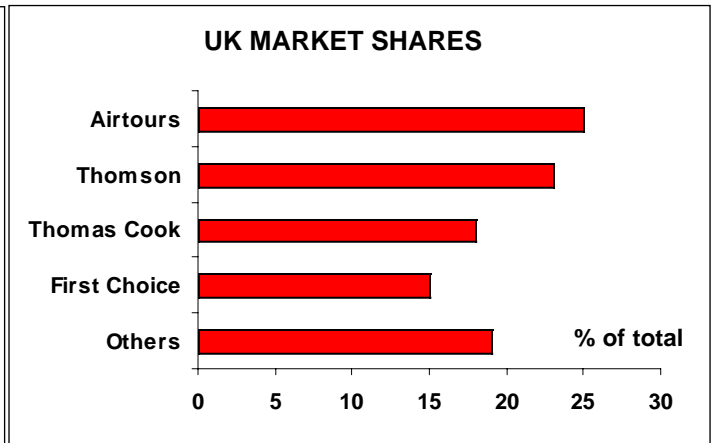
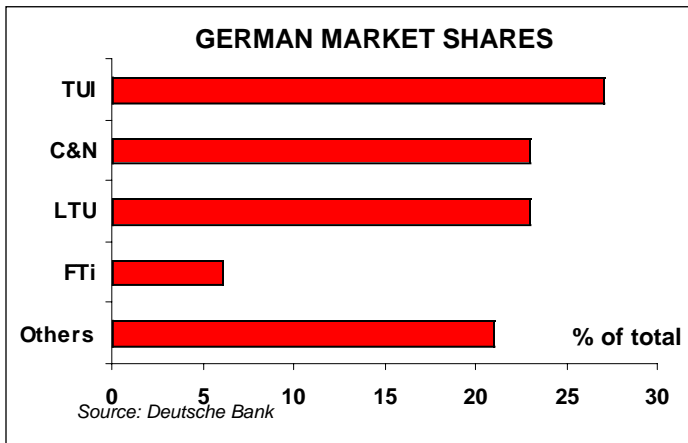
There is some possibility of new consolidation in the German market involving Rewe, the part owner of LTU. Now that SAir, LTU's other owner, is reversing its Qualifyer alliance strategy, there might be an opportunity for Airtours to leapfrog the German competition by linking up with Rewe/LTU. The big risk is the unknown depth of the financial problems afflicting LTU.

In the meantime, FTi's strategy is to change the split between modular and charter business from 47/53 to 55/45. Modular business essentially means scheduled rather than charter airline capacity as part of the holiday package.

Encouragingly for Airtours, the overall supply/demand balance in Germany is improving. On the demand side, the German TO market appears to be as robust as ever. In 1999, Germans spent DM 87.5bn (£28bn) on travel abroad, and the outbound market is three times larger than that of the next closest European country, the UK (which

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explains why Airtours has seen Germany as such an important market to penetrate). Healthy economic growth, around 2.4%, is forecast for 2001, with much of this growth consumer-driven as personal taxes will be cut this year.

The capacity outlook also would seem to be positive for 2001. Deutsche Bank sees an overall reduction in airline seat capacity of around 9%. FTi itself will reduce its aircraft fleet from six to four this year.

The actions of LTU in reducing its over-capacity will be key to an improved trading environment for the whole of the German tour operating industry. SAirGroup has already been announced that LTU will reduce its airline capacity by seven aircraft from 34 to 27. The restructuring aims to generate some DM 64m of savings in 2000, rising to DM 360m (£116m) by 2004.

C&N, having completed the purchase of UK travel agency Thomas Cook and French agency Havas Voyages, looks as if it is being prepared for a flotation by its joint owners, Lufthansa and Karsdadt Quellle. In such circumstances the group should be concentrating on increasing profitability rather than expanding market share.

Preussag, the German conglomerate, which is in the process of shifting from heavy industry to leisure services, has remarked that its capacity trend will be "stable". TUI, its tour operator (the airline division is Hapag-Lloyd) now has the leading market position in Germany following last year's acquisition of Thomson Travel, and is unlikely to risk its margins through an attempt to gain marginal market share. Britannia itself

is winding down its German subsidiary, Britannia GmbH, and will be returning all three aircraft to its UK fleet.

From a wider perspective, as Preussag divests its non-core businesses in order to concentrate principally on its tourism businesses, it will probably be keen to avoid the perception that the earnings stream is volatile year to year.

### UK TO trends

The UK market is now concentrated among relatively few TOs and two of the major players are now German-owned. Airtours has about 25% of the market, compared to 23% for Thomson, 18% for Thomas Cook and 15% for First Choice. Deutsche Bank is forecasting an improvement in Airtours UK operating profits from £101m in 2000 to £141m this year based on tighter supply/demand condition.

Although GDP growth is set to slow in 2001, consumer confidence remains high and the relative strength of sterling against the Euro continues to encourage travel abroad.

As in Germany, capacity increases this year should be modest for the same reasons. Preussag and C&N should be concentrating on maximising the return on their investments in Thomson and Thomas Cook rather than winning market share. First Choice's strategy is constrained by the trend towards "directional selling"; it has been forced to invest in retail distribution, and hence is unlikely to increase its mainstream



charter capacity over the next few years.

### Travel Services International

Airtours's other major investment was the US travel distributor Travel Services International (TSI), bought in March 2000 for £241m. TSI is an amalgamation of 23 travel distribution businesses, which had been built up after the group's flotation on NASDAQ in July 1997.

The operational gearing of TSI is very different from that of a TO - it takes virtually no capacity taken at risk in any of its businesses and a significant element of costs is business being commission payments which varies directly with business transacted.

Nevertheless, TSI has been susceptible to strategic errors such as its decision to rebrand all its cruise products as "Travelco", which proved to be an expensive way of confusing customers. Despite this TSI commands a 10% market share of all cruise distribution today. With cruise capacity due to increase by about 11% a year this sector looks buoyant for TSI.

TSI's involvement in e-distribution comes through its brand flycheap.com. While this is a recognised brand in the US, ability to compete against those e-ventures backed

by the US majors (Travelocity, Hotwire, Orbitz) is uncertain.

### E-leisure strategy

Airtours has an ambitious strategy in the e-commerce sector, including not just the internet but also interactive TV, mobile technology. The strategy encompasses:

- The creation of mytravelco.com, an integrated travel service available to customers through multiple channels from the internet to the traditional travel agents;.
- The world's largest leisure travel auction service via the Late Escapes web site;
- A partnership with Landmark Travel Channel Limited to broadcast mytravelco services across Europe; and
- A virtual low cost airline under the FlyCheap brand to sell travel from 52 airports in Europe mainly using Airtours capacity.

This sounds very exciting, and Airtours is determined to be at the forefront of what it sees as the electronic revolution in the leisure industry. But the key to a restoration of Airtours financial success would seem to lie in getting its very successful British TO economics established in a wider slice of the German market.

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## CRM: the search for airline customer retention

It is roughly five times more expensive to acquire a new customer than to retain one. Customer Relationship Management (CRM) is emerging as a key technique for optimising customer retention, in the process enhancing margins and reducing costs. In the airline sector CRM utilises Frequent Flyer Programme and customer complaint databases as a data sources. Electronic ticketing and Web-based booking channels will make it even more effective.

Airlines have used FFPs since the mid-80s, accumulating in some cases 15 years or more of data on as many as 15-18 million different passenger records, allowing insightful understandings of customer trends and behaviour. But the power of the FFP to ensure the loyalty of a passenger to one specific carrier has eroded as frequent fliers have often members of multiple schemes (up to 4.3 FFP affiliations/ customer) or have found themselves able to earn transferable points on different airlines within a global alliance.

In their original form FFPs were at least partly designed as a way of providing a strong incentive for business passengers in the US to accept lower service quality and the inconvenience of connections over hubs rather than point-to-point flights. Today it is becoming more and more difficult to use FFPs as an alternative to predictable and high quality service experiences. Indeed, with the competitive differentiation advantage provided by FFPs declining and programme management costs rising, it is becoming cheaper to optimise the service experience than to reward customers for accepting something that underdelivers.

The actual travel experience is becoming a more and more important consideration for a growing number of air travelers. Looking at the substantial growth of time-share bizjet market during this upturn in North America and Europe, one can clearly detect a shift off airlines and into a more predictable, easier to control premium business travel experience. Delivering multiple brands in the same airline tube seems to be more difficult than it once was. Despite the shift full-service airlines really cannot afford to let this trend

accelerate. They have to enable their premium customers to play a role in shaping their own travel experience, giving them a real or perceived control over the service provided. This is where CRM comes in - the core intent is to proactively build and manage and retain customer relationships in order to create sustainable competitive advantage.

### The FFP leverage point

The longer and more detailed the FFP data trail, the easier it is to implement effective CRM. Many carriers have such data but relatively few regularly leverage it into effective information that allows them to minimise preventable customer defection.

Some carriers use the data the same way American Express does - identifying substantive defections or reduction in purchasing behavior, then following up directly with the customer in an attempt to prevent permanent defection. This reactive approach is something that some 15-20% of airlines have the capability to do but many among those execute the defection recovery process in a sporadic and ineffectual manner. The lack of consistent execution means that the leverage is reduced and of course the returns in terms of retention are diluted.

The second value stream for FFP data is to follow the example of some of the leading retailers, Wal-Mart, Amazon.com, who both apply predictive behavior-based models to their data. These models permit the data to be manipulated into an information stream that allows the prediction of individual and customer group activity. The airline can then tailor its value-added services in order to differentiate its brand and mass customise the service experience for the customer.

Today, most traffic forecasts are generated by using the demand modeling capabilities of the Yield Management System (YMS). These systems do, however, still have a critical weakness when it comes to predicting market behavior at the turns of the economic cycle (such as the peak that is being reached in North America).

The CRM-based model would deal with individuals as opposed to routes or O&D sectors. Thus, CRM-based approach allows more precise tracking and therefore better predictive capability while also providing the platform on which customised service offerings can be reliably delivered to high value customers.

A practical marketing strategy would involve moving frequent customers to a CRM-premised model while sticking to YMS-based models for the rest. The FFP data stream can provide a strong competitive advantage presuming one can leverage it both reactively and proactively. The key guiding metrics involve driving preventable customer defection to zero while increasing share of wallet for retained customers to 100%.

Aside the FFP-based CRM applications, one must also consider additional methods of leveraging customers to help shape the service process. For instance, Mercedes-Benz and Marriott Hotels and others have used CRM-derived ongoing customer research dialogues and customer panels in order to achieve a type of brand-bonding with their customers. This process includes the following elements.

- Customer-aided service process : the idea is to instill a sense of brand affiliation and even ownership by, for example, implementing directly individual passengers' requests and informing them of the airline's actions.
- Product evangelising: this means encouraging satisfied passengers to share their positive experiences.

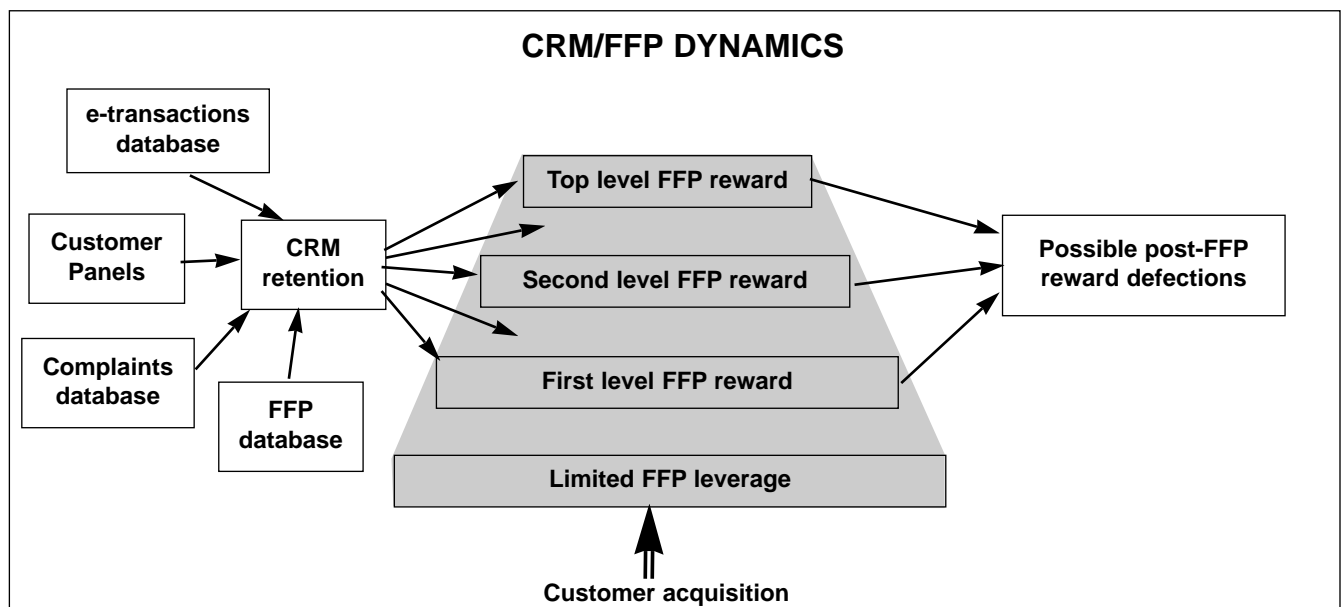
For this to work the airline has to recruit at least twice as many satisfied passengers as dissatisfied ones, as one positive brand experience typically generates five word-of-mouth contacts while one negative experience generates ten contacts.

- Mass marketing service perception: the aim is to persuade as many customers as possible that the airline's process has been delivered to or built around them specifically. Direct marketing and advertising campaigns along the lines of "You asked for more legroom/bigger overhead bins/fully reclinable beds etc. so we have provided them" attempt to deliver this message.

### The e-CRM future

There are numerous benefits and some incremental costs in moving to an e-CRM model, but the potential of this approach has yet to be realized. Nevertheless, the powers of properly executed e-CRM are substantive to the point where the key functions of customer behavior tracking and defection prevention can be accumulated outside the FFP and YMS infrastructures.

Start by creating an e-sales (passenger or cargo) database that records all transactions between the airline and the customer. Customers can be B2C (individual customers), B2B (sales to corporations) and C2B sales (from third party players like Priceline.com). The trick is then to try and force as many reservations, service and



information requests and booking transactions through this system.

The e-CRM database depends for its development on an expansion of the proportion of passengers booking online. This implies that airline has to start regarding internet sales as the core of its distribution strategies rather than as an exotic add-on. Costs savings from cutting agency commissions should ideally be used to fund the development of the airline's web-enabled booking channel.

FFP-based CRM systems track member activity over time. This tracking only occurs when the actual flight is taken and points (or flight mile) accumulation takes place. An e-CRM-based system would track all interactions (not just completed transactions) with FFP members and non-FFP members. Also, booked but not-traveled transactions would also be recorded.

The addition of these types of transactions to the database will give marketers a much clearer picture of a customer and the total state of their relationship to the firm. For example, how many times customer A booked and traveled versus the number of times he/she booked and no-showed. How many times has a customer used duplicate bookings as a way to protect seats? What is the average value of a specific customer, and what travel patterns does he/she perform over the course of a year. What kind of incentives work best with this customer?

If detectable and repetitive patterns emerge then marketers can consider which personally-customised value-added offerings can be provided to ensure retention. Instead of route-based or mass discounting, targeted and precise incentives can be offered to the best customers on a specific route, thus saving the airline money by reducing unnecessary discounting.

Promoting to the key customer group becomes much more focused, therefore reducing the need to indulge in expensive and imprecise mass media-based market communications activities. The age-old debate between airlines and travel retailers as to who owns the customers would be resolved in the airlines' favour.

The power of e-CRM is even more evident in the corporate sales segment. The use of aggregating and powerful query-based software allows airlines to track exactly the performance of corporate customers. Individual passenger activity from

the same corporate customer can also be monitored to determine the total value of that firm to the airline. By tagging individual customers the airline can also aggregate the total corporate travel pattern.

### Owning loyalty

The key objective of e-CRM is to drive customer (individual and corporate, passenger and cargo) preventable defection rate to zero. This will have the net effect of cutting customer acquisition costs to the bare minimum while reducing communications and channel costs. In terms of the size of the e-CRM database, the ultimate aim should be to get as close as possible to 100% of the browser and user data trails.

Downstream benefits of an e-CRM program could, after a transition period, result in the gradual abandonment of the FFP altogether as, by comparison, it becomes a blunt tool for ensuring customer loyalty. Under e-CRM the airline can establish individual targets for rewarding key passengers as opposed to setting general population thresholds.

Yield management staff would be able to link individual traveler profiles with flight segments and determine where unduly high concentrations of no-shows (by name) seem to agglomerate. This data could then be used to try to change customer behaviour through incentives or penalties that would over time reduce no-shows and thus the need for overbooking. The value of specific data provided to the yield management staff can eventually allow more effective forecasting, and lead to better allocation of capacity.

Further commercial uses of the e-CRM database would include the researching of new product or service ideas with the appropriate consumers. Also, any high quality database with accurate and real-time information on customers represents significant value for alliances, suppliers and other users of customer data.

In the final analysis, the internet booking part of the CRM approach to customer relationship management allows airlines and other network-based service firms to move from mass-based commercial practices to individual precision targeted methods. This in turn allows the airline to know most of its customers and for the successful practitioners of e-CRM, own their loyalty.

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# Aviation Strategy

## Macro-trends

### 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 %
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
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72.0
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
2000	208.2	132.8	63.8	229.9	179.4	78.1	137.8	108.0	78.3	508.9	396.5	77.9	755.0	555.2	73.5
Nov 00	16.7	9.7	57.9	18.1	13.0	71.7	11.4	8.6	75.9	40.9	30.3	74.1	60.6	41.8	69.0
Ann. chng	4.3%	6.2%	1.0	5.2%	4.4%	-0.5	1.3%	0.2%	-0.8	3.0%	2.7%	-0.2	3.3%	3.1%	-0.2
Jan-Nov 00	191.9	123.6	64.4	212.0	167.0	78.8	126.5	99.6	78.7	467.6	366.6	78.4	694.4	514.3	74.1
Ann. chng	5.3%	7.7%	1.4	5.2%	7.8%	1.9	2.5%	4.4%	1.4	3.5%	6.8%	2.5	4.3%	7.2%	2.0

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 %
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
1998	960.8	678.8	70.7	150.5	117.8	78.3	112.7	82.5	73.2	83.5	52.4	62.8	346.7	252.7	72.9
1999	1,007.3	707.5	70.2	164.2	128.2	78.1	113.2	84.7	74.8	81.3	54.3	66.8	358.7	267.2	74.5
Oct 00	88.9	61.3	69.0										32.9	24.6	74.7
Ann. chng	1.7%	1.3%	-0.2										6.1%	4.3%	-1.1
Jan-Oct 00	865.4	622.7	72.0										318.4	245.8	77.2
Ann. chng	3.1%	5.0%	1.3										5.9%	8.4%	1.8

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 %
1993	1,349	855	63.3	1,785	1,205	67.5	3,135	2,060	65.7	3.4	2.0	4.4	4.8	3.9	3.6
1994	1,410	922	65.3	1,909	1,320	69.1	3,318	2,240	67.5	4.6	7.9	6.9	9.4	5.9	8.8
1995	1,468	970	66.1	2,070	1,444	69.8	3,537	2,414	68.3	4.1	5.4	8.5	9.4	6.6	7.8
1996	1,540	1,043	67.7	2,211	1,559	70.5	3,751	2,602	70.9	4.9	7.4	6.8	8.0	6.0	7.8
1997	1,584	1,089	68.8	2,346	1,672	71.3	3,930	2,763	70.3	2.9	4.5	6.1	7.2	4.8	6.1
1998	1,638	1,147	70.0	2,428	1,709	70.4	4,067	2,856	70.3	3.4	5.2	3.5	2.2	3.4	3.4
1999	1,911	1,297	67.9	2,600	1,858	71.5	4,512	3,157	70.0	5.4	5.0	5.7	7.4	5.6	6.4
*2000	2,004	1,392	69.4	2,745	1,969	71.8	4,750	3,361	70.8	4.9	7.2	5.6	6.0	5.3	6.5
*2001	2,100	1,440	68.5	2,907	2,063	70.9	5,009	3,503	69.9	4.7	3.5	5.9	4.7	5.4	4.2
*2002	2,161	1,463	67.7	3,022	2,119	70.1	5,182	3,582	69.1	2.8	1.6	3.9	2.7	3.5	2.2
*2003	2,233	1,533	68.7	3,170	2,253	71.1	5,403	3,788	70.1	3.4	4.9	4.9	6.3	4.3	5.8
*2004	2,317	1,607	69.4	3,332	2,393	71.8	5,651	4,000	70.8	3.7	4.8	5.2	6.2	4.6	5.6

Note: \* = Forecast; ICAO traffic includes charters. Source: Airline Monitor, July 2000.

### 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
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	122	115	113	112	109	173	150	152	150	135	196	144	147	133	121
1999	127	117	114	115	111	179	150	155	153	135	220	151	152	136	122
*2000	131	120	117	118	112	191	156	164	162	142	239	158	159	143	126

Note: \* = Forecast; Real = inflation adjusted. Source: OECD Economic Outlook, December 1999.

# Aviation Strategy

## Macro-trends

### FINANCIAL TRENDS (1990=100)

	Inflation (1990=100)					Exchange rates (against US\$)						LIBOR 6 month Euro-\$	
	US	UK	Germany	France	Japan	UK	Germ.	France	Switz.	Euro**	Japan		
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	120	124	115	109	1998	0.603	1.759	5.898	1.450	0.896	130.8	5.51%***
1999	125	122	126	116	108	1999	0.621	1.938	6.498	1.587	1.010	103.3	5.92%***
*2000	127	126	127	117	108	Jan 2001	0.603	2.119	7.108	1.658	0.923	118.1	5.36%***

Note: \* = Forecast. Source: OECD Economic Outlook, December 1999. \*\*Euro rate quoted from January 1999 onwards. 1990-1998 historical rates quote ECU. \*\*\* = \$ LIBOR BBA London interbank fixing six month rate.

### JET MARKET FORECASTS

	Period	Boeing	Airbus	Rolls Royce	GE	Snecma	ESG
ASMs	1999	2,740	2,720	2,778	2,708		2,804
	2019	6,950	6,751	6,896	6,514		7,498
World fleet	1999	13,670	11,859	13,253	14,105	11,199	14,647
	2019	31,755	22,979	26,045	28,297	20,202	30,487
Deliveries	2000						
	2019	22,315	17,835	18,736	22,608	17,138	20,700
Average per year		1,116	892	937	1,130	857	1,035
Scope	Airline	All	415	All	All	485	All
	Jets	All	70+ seats	100+ seats	All	70+ seats	All

### JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
ATR	-	-	-	-	-	-
Airbus	Jan 17	Northwest	24 A330-300s, 6 A319s		2002+	PW4168A engines for A330s
	Jan 16	FedEx	10 A380-800Fs		2008+	Launch customer
	Jan 9	UPS	60 A300-600 freighters		2003-09	
BAE Systems	-	-	-	-	-	-
Bombardier	Jan 15	SkyWest	35 CRJ200s	\$780m	1Q2002+	Plus 29 conditional orders & 64 options
	Dec 19	Air Senegal	1 Q300	\$14.3m	1Q2001	
Boeing	Jan 17	Northwest	18 757-300s, 2 747-400s	\$1.75bn	2002+	757-300s will replace DC-10-40s
	Jan 4	Continental	15 757-300s	\$1.2bn	4Q2001+	
	Dec 21	SAS	3 737-600s		2002	Options to substitute to other 737NGs
	Dec 20	Hapag Lloyd	3 737-800s		2002	Conversion of options
Embraer	Dec 14	SA Airlink	30 ERJ 135s		2Q2001+	Plus 40 options
Fairchild	Jan 8	Atlantic Coast	32 328JETS			Plus 53 options

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

# Aviation Strategy

## Micro-trends

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per total ASK	Group costs per total ASK	Total pax.	Total ATK	Total RTK	Load factor	Group employees
	US\$m	US\$m	US\$m	US\$m	m	m	%	Cents	Cents	000s	m	m	%	
<b>American*</b>														
Apr-Jun 99	4,528	4,120	408	268	67,313.8	47,945.9	71.2	6.73	6.12					
Jul-Sep 99	4,629	4,603	547	279	67,972.2	48,792.9	71.8	6.88	6.26					
Oct-Dec 99	4,477	4,206	271	280	65,751.2	44,328.2	67.4	6.81	6.41					98,700
Jan-Mar 00	4,577	4,365	212	132	64,392.8	43,478.4	67.5	7.11	6.78					104,500
Apr-Jun 00	5,011	4,494	517	321	67,000.4	50,538.7	75.4	7.48	6.71					105,900
Jul-Sep 00	5,256	4,684	572	313	66,654.0	50,828.1	76.3	7.89	7.03					107,500
Oct-Dec 00	4,859	4,779	80	47	63,562.5	44,318.5	69.7	7.64	7.52					107,500
<b>America West</b>														
Apr-Jun 99	570	494	76	42	10,446.0	7,204.8	69.0	5.46	4.73	4,724				
Jul-Sep 99	553	511	41	22	10,522.9	7,502.8	71.3	5.26	4.86	4,896				
Oct-Dec 99	569	532	37	29	10,594.0	7,307.8	69.0	5.37	5.02	4,822				11,575
Jan-Mar 00	563	552	11	15	10,440.8	6,960.5	66.7	5.39	5.29	4,612				12,024
Apr-Jun 00	618	570	48	33	10,979.8	8,091.7	73.7	5.63	5.19	5,206				12,158
Jul-Sep 00	591	591	0	1	11,079.9	8,088.3	73.0	5.33	5.33	5,178				
Oct-Dec 00	573	654	-81	-47	11,133.1	7,616.8	68.4	5.15	5.87	4,958				
<b>Continental</b>														
Apr-Jun 99	2,198	1,942	256	137	32,448.3	24,009.1	74.0	6.77	5.98	11,493				
Jul-Sep 99	2,283	2,071	21	110	34,711.0	26,380.3	76.0	6.58	5.97	11,922				
Oct-Dec 99	2,158	2,073	85	33	33,771.2	24,094.4	71.3	6.39	6.14	11,347				
Jan-Mar 00	2,277	2,223	54	14	33,710.2	24,143.0	71.6	6.75	6.59	11,201				
Apr-Jun 00	2,571	2,292	279	149	34,406.9	26,534.0	77.1	7.47	6.66	12,084				
Jul-Sep 00	2,622	2,368	254	135	35,978.0	27,881.1	77.5	7.29	6.58	12,155				
Oct-Dec 00	2,429	2,332	97	44	34,454.0	24,685.1	71.6	7.05	6.77	11,456				
<b>Delta</b>														
Apr-Jun 99	3,957	3,315	642	364	57,957.3	43,422.1	74.9	6.83	5.72	27,438				
Jul-Sep 99	3,877	3,527	350	352	60,710.8	45,528.3	75.0	6.39	5.81	27,183	5,258.2			72,300
Oct-Dec 99	3,713	3,705	8	352	58,265.1	40,495.3	69.5	6.37	6.36	25,739				
Jan-Mar 00	3,960	3,605	355	223	57,093.8	39,404.4	69.0	6.94	6.31	25,093				72,300
Apr-Jun 00	4,439	3,863	606	460	59,753.4	46,509.8	77.8	7.48	6.46	28,333				73,800
Jul-Sep 00	4,325	3,827	498	127	61,319.9	47,076.5	76.8	7.05	6.24	27,378				
Oct-Dec 00	4,017	3,839	178	18	58,655.8	40,527.0	69.1	6.85	6.54	24,919				
<b>Northwest</b>														
Apr-Jun 99	2,597	2,333	264	120	40,541.5	30,900.2	76.2	6.41	5.75					
Jul-Sep 99	2,843	2,472	370	180	43,194.5	33,562.1	77.7	6.58	5.73					
Oct-Dec 99	2,555	2,461	94	29	39,228.3	28,618.2	73.0	6.51	6.27					
Jan-Mar 00	2,570	2,573	-3	3	39,486.0	28,627.4	72.5	6.51	6.52					
Apr-Jun 00	2,927	2,675	252	115	42,049.6	33,523.5	79.7	6.96	6.36					
Jul-Sep 00	3,178	2,824	354	207	44,379.9	35,353.1	79.7	7.16	6.36					
Oct-Dec 00	2,740	2,774	-34	-69	40,417.6	29,850.1	73.9	6.78	6.86					
<b>Southwest</b>														
Apr-Jun 99	1,220	966	254	158	20,836.9	15,241.7	73.1	5.85	4.64	14,817				
Jul-Sep 99	1,235	1,029	206	127	21,903.8	15,464.0	70.6	5.64	4.70	14,932				
Oct-Dec 99	1,204	1,050	154	94	22,360.7	15,047.8	67.3	5.38	4.70	14,818				27,653
Jan-Mar 00	1,243	1,057	155	74	22,773.8	15,210.2	66.8	5.46	4.77	14,389				27,911
Apr-Jun 00	1,461	1,146	315	191	23,724.3	17,624.9	74.3	6.16	4.83	16,501				
Jul-Sep 00	1,479	1,179	300	184	24,638.0	17,650.8	71.6	6.00	4.79	16,501				
Oct-Dec 00	1,467	1,216	251	155	25,267.5	17,443.2	69.0	5.81	4.81	16,287				
<b>TWA</b>														
Apr-Jun 99	866	848	18	-6	14,274.4	11,130.9	78.0	6.07	5.94					
Jul-Sep 99	876	935	-59	-54	15,188.0	11,524.3	75.9	5.76	6.16	6,928	1,957.0	1,248.6	63.8	20,982
Oct-Dec 99	809	913	-104	-76	14,501.6	9,687.1	66.8	5.58	6.30	6,038				
Jan-Mar 00	954	939	15	-4	15,465.4	11,607.0	75.1	6.17	6.07	7,020				
Apr-Jun 00	973	984	-11	-35	15,928.0	12,316.3	77.3	6.00	4.79	7,211				
Jul-Sep 00														
Oct-Dec 00														
<b>United</b>														
Apr-Jun 99	4,541	4,108	433	669	71,573.6	50,198.9	70.1	6.34	5.74					
Jul-Sep 99	4,845	4,226	619	359	74,043.0	55,628.0	75.1	6.54	5.71	23,765				96,700
Oct-Dec 99	4,480	4,286	194	129	70,715.9	49,172.2	69.5	6.34	6.06	21,536				96,600
Jan-Mar 00	4,546	4,294	252	-99	68,421.1	46,683.5	68.2	6.64	6.28	20,141				96,100
Apr-Jun 00	5,109	4,504	605	408	70,913.5	53,624.8	75.6	7.20	6.35	22,412				98,300
Jul-Sep 00	4,905	4,946	-41	-116	72,495.7	54,049.9	74.6	6.77	6.82	21,458				99,700
Oct-Dec 00	4,792	4,955	-163	-71	70,550.1	49,897.9	70.7	6.79	7.02	20,509				99,100
<b>US Airways</b>														
Apr-Jun 99	2,286	2,007	279	317	23,891.7	17,557.5	73.5	9.57	8.40					
Jul-Sep 99	2,102	2,213	-111	-85	23,006.6	17,205.6	71.7	8.76	9.22	13,984				40,613
Oct-Dec 99	2,135	2,256	-121	-81	24,705.9	16,714.2	67.6	8.64	9.13	14,075				41,636
Jan-Mar 00	2,098	2,237	-139	-218	24,250.3	15,568.7	64.2	8.65	9.22	12,804				42,727
Apr-Jun 00	2,433	2,265	168	80	26,171.9	19,557.4	74.7	9.30	8.65	15,554				42,653
Jul-Sep 00	2,381	2,376	5	-30	28,452.4	20,726.2	72.8	8.37	8.35	15,809				44,026
Oct-Dec 00	2,347	2,428	-81	-98	28,275.4	19,590.0	69.3	8.30	8.59	15,605				43,467
<b>ANA</b>														
Apr-Jun 99	SIX MONTH FIGURES													
Jul-Sep 99	4,541	4,329	212	146	44,156.0	29,032.0	65.7	10.28	9.80	21,970				
Oct-Dec 99	SIX MONTH FIGURES													
Jan-Mar 00	5,591	5,842	-251	6	49,646.9	31,844.9	64.1	11.26	11.77	27,430				
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	SIX MONTH FIGURES													
Oct-Dec 00	SIX MONTH FIGURES													
<b>Cathay Pacific</b>														
Apr-Jun 99	1,695	1,664	31	17	28,801.0	19,325.5	67.1	5.89	5.78		5,267.0	3,581.6	68.0	
Jul-Sep 99	SIX MONTH FIGURES													
Oct-Dec 99	1,989	1,658	331	133	29,313.0	22,167.9	75.6	6.79	5.66		5,600.0			
Jan-Mar 00	SIX MONTH FIGURES													
Apr-Jun 00	2,070	1,765	305	285	29,839.0	22,588.1	75.7	6.94	5.92		5,483.0			
Jul-Sep 00	SIX MONTH FIGURES													
Oct-Dec 00	SIX MONTH FIGURES													
<b>JAL</b>														
Apr-Jun 99	TWELVE MONTH FIGURES													
Jul-Sep 99	14,665	14,254	411	181	126,282.4	88,478.5	70.1	11.61	11.29	37,247	18,856.7	12,738.0	67.6	
Oct-Dec 99	TWELVE MONTH FIGURES													
Jan-Mar 00	TWELVE MONTH FIGURES													
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	TWELVE MONTH FIGURES													
Oct-Dec 00	TWELVE MONTH FIGURES													

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

# Aviation Strategy

## Micro-trends

	Group revenue	Group costs	Group operating profit	Group net profit	Total ASK	Total RPK	Load factor	Group rev. per total ASK	Group costs per total ASK	Total pax.	Total ATK	Total RTK	Load factor	Group employees
	US\$m	US\$m	US\$m	US\$m	m	m	%	Cents	Cents	000s	m	m	%	
<b>Korean Air</b>														
Jan-Mar 99	TWELVE MONTH FIGURES													
Apr-Jun 99	4,340	4,177	163	232	49,516.0	36,693.0	74.0	8.76	8.44	20,564	7,827	5,995	78.2	
Jul-Sep 99														
Oct-Dec 99														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
<b>Malaysian</b>														
Jan-Mar 99	TWELVE MONTH FIGURES													
Apr-Jun 99	2,148	1,652	496	-67	48,906.0	34,930.0	71.4	4.39	3.38		7,531.5	4,853.4	64.4	
Jul-Sep 99														
Oct-Dec 99														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
<b>Singapore</b>														
Jan-Mar 99	2,421	2,130	291	341	41,725.5	30,843.7	74.9	5.80	5.10	6,537	7,958.5	5,540.3	69.6	
Apr-Jun 99	SIX MONTH FIGURES													
Jul-Sep 99	2,577	2,259	317	346	43,145.7	32,288.3	74.8	5.97	5.24	6,752	8,251.9	5,852.7	70.9	
Oct-Dec 99	SIX MONTH FIGURES													
Jan-Mar 00	2,459	2,203	256	439	44,582.6	33,430.1	75.0	5.51	4.94	7,030	8,665.8	6,185.7	71.4	
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	2,864	2,438	426	668	46,477.5	36,136.6	77.8	61.6	5.25	7,584	8,950.0	6,524.6	72.9	
<b>Thai Airways</b>														
Jan-Mar 99	TWELVE MONTH FIGURES													
Apr-Jun 99	2,858	2,695	163	136	51,788.0	37,642.0	72.7	5.52	5.20	16,331	7,309.0	5,097.0	69.7	
Jul-Sep 99														
Oct-Dec 99														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
<b>Air France</b>														
Jan-Mar 99	5,550	5,552	-2	56	51,394.0	38,242.0	74.4	10.80	10.80					
Apr-Jun 99	SIX MONTH FIGURES													
Jul-Sep 99	5,249	4,889	360	316	56,934.0	43,896.0	77.1	9.22	8.59	20,600				
Oct-Dec 99	SIX MONTH FIGURES													
Jan-Mar 00	4,831	4,430	401	41	55,508.0	41,650.0	75.0	8.70	7.98	19,200				
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	5,506	5,132	374	385	60,088.0	48,464.0	80.7	9.16	8.54		4,125.0	4,689.0	65.2	
<b>Alitalia</b>														
Jan-Mar 99	SIX MONTH FIGURES													
Apr-Jun 99	1,937	1,990	-53	1	26,227.2	16,805.2	64.1	7.39	7.59	11,318	3,749.3	2,434.3	64.9	
Jul-Sep 99														
Oct-Dec 99														
Jan-Mar 00	SIX MONTH FIGURES													
Apr-Jun 00	2,225	2,254	-29	-15	24,747.8	16,898.8	68.3	8.99	9.11	11,693	3,464.8	2,404.5	69.4	
Jul-Sep 00														
<b>BA</b>														
Jan-Mar 99	3,343	3,481	-138	-119	43,544.0	29,537.8	67.8	7.68	7.99	10,285	6,130.0	3,933.0	64.2	64,366
Apr-Jun 99	3,527	3,378	149	302	45,813.0	32,032.0	69.9	7.70	7.37	11,733	6,437.0	4,215.0	65.5	65,179
Jul-Sep 99	3,933	3,742	191	49	47,465.0	35,873.0	75.6	8.29	7.88	12,983	6,690.0	4,689.0	70.1	65,607
Oct-Dec 99	3,473	3,476	-3	-112	45,347.0	30,192.0	66.6	7.66	7.67	11,084	6,469.0	4,270.0	66.1	65,800
Jan-Mar 00	3,097	3,281	-184	-247	44,533.0	29,328.0	65.9	6.95	7.37	10,778	6,253.0	4,041.0	64.6	64,874
Apr-Jun 00	3,488	3,342	146	-85	44,826.0	32,295.0	72.0	7.78	7.46	11,633	6,475.0	4,407.0	68.1	61,411
Jul-Sep 00	3,673	3,293	380	197	45,333.0	35,093.0	77.4	8.10	7.26	12,615	6,608.0	4,741.0	71.7	62,793
<b>Iberia</b>														
Jan-Mar 99	TWELVE MONTH FIGURES													
Apr-Jun 99	3,712	3,659	53	179	50,227.6	34,606.8	68.9	7.39	7.28	21,877				
Jul-Sep 99														
Oct-Dec 99														
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
<b>KLM</b>														
Jan-Mar 99	1,550	1,670	-120	-45	17,716.0	13,294.0	75.0	8.75	9.43		3,088.0	2,284.0	74.0	33,892
Apr-Jun 99	1,626	1,547	79	37	18,778.0	14,302.0	76.2	8.66	8.24		3,253.0	2,427.0	74.6	34,980
Jul-Sep 99	1,731	1,596	135	32	19,630.0	16,083.0	81.9	8.81	8.13		3,352.0	2,640.0	78.8	35,226
Oct-Dec 99	1,450	1,479	-29	-17	19,014.0	14,434.0	75.9	7.63	7.78		3,280.0	2,550.0	77.7	35,128
Jan-Mar 00	1,361	1,436	-75	-142	18,627.0	14,084.0	75.6	7.31	7.71		3,238.0	2,453.0	75.8	35,348
Apr-Jun 00	1,600	1,509	91	39	18,730.0	15,149.0	80.9	8.54	8.06		3,276.0	2,549.0	77.8	27,267
Jul-Sep 00	1,615	1,445	170	100	19,386.0	16,378.0	84.5	8.33	7.45		3,359.0	2,703.0	80.5	26,447
<b>Lufthansa***</b>														
Jan-Mar 99	3,301	3,210	91	64	25,445.0	17,942.0	70.5	12.97	12.62	9,658	4,972.0	3,435.0	69.1	56,420
Apr-Jun 99	3,322	3,012	310	97	30,500.0	22,279.0	73.0	10.89	9.86	11,444	5,626.0	3,993	71.0	53,854
Jul-Sep 99	4,049	3,677	382	184	31,335.0	23,866.0	76.2	12.92	11.73	11,891	5,699.0	4,142.0	72.7	
Oct-Dec 99	3,398	2,964	434	378	29,120.0	20,313.0	69.8	11.67	10.18	10,807	5,503.0	3,930.0	71.4	66,207
Jan-Mar 00	2,831	2,742	89	11	28,599.0	19,781.0	69.2	9.90	9.59	10,355	5,422.0	3,751.0	69.2	
Apr-Jun 00	3,346	3,123	223	400	31,865.0	24,405.0	76.6	10.50	9.80	12,249	5,988.0	4,338.0	72.4	
Jul-Sep 00	3,375	2,993	382	182	32,654.0	25,878.0	79.2	10.33	9.17	12,849	6,156.0	4,536.0	73.7	
<b>SAS</b>														
Jan-Mar 99	1,203	1,227	-24	-3*	8,062.0	4,713.0	58.5	14.92	15.22	5,017				27,110
Apr-Jun 99	1,357	1,294	63	60*	8,466.0	5,571.0	65.8	16.03	15.28	5,580				27,706
Jul-Sep 99	1,173	1,150	23	12*	8,450.0	5,667.0	67.1	13.88	13.61	5,589				27,589
Oct-Dec 99	1,210	1,083	127	138*	8,227.0	5,210.0	63.3	14.71	13.16	5,536				
Jan-Mar 00	1,145	1,179	-34	-33*	8,253.0	4,992.0	60.5	13.87	14.24	5,314				28,060
Apr-Jun 00	1,289	1,176	113	112*	8,492.0	6,004.0	70.7	15.18	13.85	6,236				28,295
Jul-Sep 00	1,122	1,070	52	33*	8,496.0	6,155.0	72.4	13.21	12.59	5,943				28,485
<b>Swissair**</b>														
Jan-Mar 99	SIX MONTH FIGURES													
Apr-Jun 99	1,932	1,877	55	57	23,411.0	16,130.0	68.9	8.25	8.02	7,784				10,715
Jul-Sep 99	SIX MONTH FIGURES													
Oct-Dec 99	2,344	2,272	72	125	21,934.0	16,839.0	76.8	10.69	10.36	6,081				
Jan-Mar 00	SIX MONTH FIGURES													
Apr-Jun 00	1,916	2,006	-90	2	25,476.0	18,241.0	71.6	7.52	7.87	9,162	3,972.8	2,719.6	68.5	
Jul-Sep 00														

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. 4Q+ data are on IAS basis.

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