

Mainline corporate jets: a new business vision

With an industry recession looming some imaginative marketing to business travellers is needed. So the world's leading business airlines appear to be developing strategies that will take market segmentation to its logical, or illogical, conclusion.

In the medium term the manufacturers are also pursuing segmentation strategies with Boeing building the Sonic Cruiser aimed totally at the business traveller market while Airbus's A380 will essentially be the ultimate mass-transit aircraft.

More immediately, airlines are implementing plans to provide their corporate clients with dedicated flights and aircraft. BA has signed an agreement with Air Partner, the world's largest corporate jet broker, which will provide BA with jets at a pre-agreed rates for flexible periods of time. BA will market its corporate jet services under its own brand, offering itineraries tailored to the clients' requirements. The corporate jets will either meet incoming scheduled BA services at main airports or operate from secondary airports close to main airports.

In the US both United and Delta have announced that they will be setting up corporate business jet subsidiaries. These subsidiaries will operate in the same way as existing executive jet operations with the corporate clients owning fractions of the jets.

The other development is the emergence of new specialist business-only airlines, such as Blue Fox. This start-up is currently seeking financial backing for an all-business class 767 operation from London Stansted to New York and elsewhere. The concept is to provide superior business-class service but at less than half the standard business class fare. The product is aimed at the subset of the business travel market that is price-conscious, does not have the clout to negotiate corporate discounts and which does not overly rely on frequency.

It is difficult to tell at the moment whether these trends will turn out to be a passing fad or a marginal service or whether, like the RJ phenomenon, there is a whole new unexploited market out there. The as yet distant prospect forming in the minds of some airline strategists is for an evolution of the airline industry into a buses and taxis sort of market.

In reality there are some huge obstacles. Mainline airlines need both business cabins to push unit revenues up and economy cabins to keep unit costs down. Then there is sub-segmentation - it is interesting to note that BA's new super economy class may generate more revenue on a square metre basis than its business class. Finally, there is question of slot availability if these corporate jets are to operate in sync with mainline flights.

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Alitalia - junior partner to Air France?

Alitalia's financial results are deteriorating badly and it remains outside any global alliance. Air France would appear to offer a promising partnership, but will Alitalia be willing to accept the implications of being a junior partner?

Alitalia Group reports an operating loss of €26m and a net loss of €250m for the year 2000. It blames ongoing problems with the new Milan Malpensa airport, the break-up with joint venture partner KLM plus fuel and US dollar pricing problems. At present no improvement is envisaged for 2001.

Air France, by contrast, is on target to repeat last year's operating profit of €340m in 2000/01 and net profit should be significantly higher than last year's €200m. Exploiting the strength of the CDG hub, Air France has managed to contain unit cost inflation, despite the fuel price increases, push up average load factor from 76.1% in 1999/2000 to 79% in the first nine months of 2000/01 while, at the same time, increasing unit revenues by 5.7%.

For Alitalia the need for an alliance becomes more and more urgent. The airline states: "The delay in setting up a competitive alliance also makes it difficult for the company to deal on even terms with the competition which is increasingly better organised and aggressive."

The new CEO Francesco Mengozzi, who took over from Domenico Cempella in February, is hoping for a decision on a new partner before the end of May. Talks have been held with KLM, which has decided not to repeat its previous frustrating experience in Italy, with Swissair, which has more than enough problems of its own at present and with Air France, which almost by default has become the most likely partner.

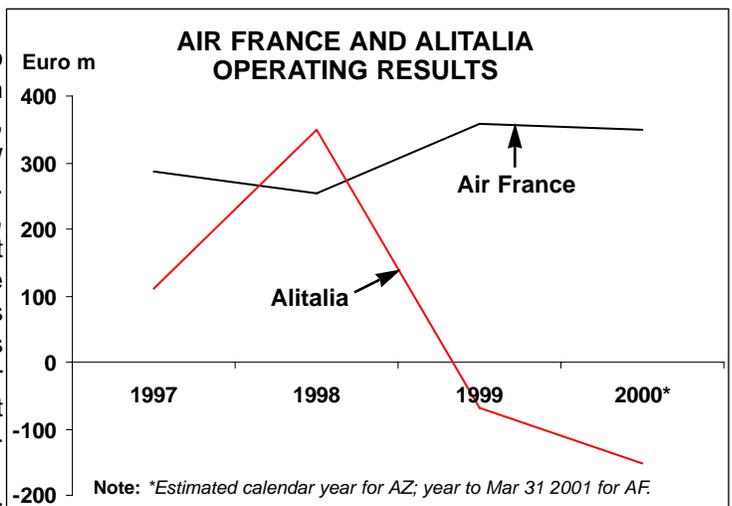
Indeed, there are many attrac-

tion for Alitalia in the Air France/SkyTeam grouping. For a start there should be a business culture empathy, with Air France having successfully completed the transition from inefficient flag-carrier to a commercially-orientated company. Language barriers would be quite low facilitating the transfer of management skills.

The two airlines combined would have a dominant position in the southern continental European market, counterbalancing Lufthansa/SAS/Austrian in the north. The Milan and Rome hubs would tend to complement CDG rather than compete with it. Fleet plans based on the A320 family and 777/A330s are compatible. Air France would bring in an established, powerful US partner, Delta, and a potentially powerful Asian partner, Korean.

The problem is: how would an Air France alliance solve Alitalia's fundamental financial problem? The main issue concerns where Alitalia is making its losses.

About 40% of Air France €9bn airline revenues are earned domestically and intra-Europe while Alitalia generates about 60% of its revenues in these regions. Depending of course on how one accounts for connecting traffic, both these core activities are prof-



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itable at the operating level, though not spectacularly so. They should be profitable given the comparatively restrained competition the two carriers face in their home markets - the failing AOM/Air Liberte/ Air Littoral amalgam in Air France's case and the unaggressive Air One in Alitalia's case.

However, there is a sharp contrast on the long-haul routes, in particular the transatlantic operations. Both Air France and Alitalia generate about 15% of their revenues on the North Atlantic but whereas Air France probably earns an operating margin of 10%-plus in this sector thanks to the CDG hub and the Delta connection, Alitalia is believed to be losing about 25% of its sales in this sector. This is the result is limited frequencies, low yields and high flight crew costs.

On Asian routes Air France is probably again profitable, perhaps a 5% operating margin, but Alitalia is very heavily loss-making.

Orbitz cleared for take-off

Orbitz, the US travel portal owned by the five largest US majors, has cleared the first hurdle set by the regulators. The US DoT has stated there was no justification for preventing operation of the Web site, but it has required the Orbitz backers to submit a report six months after operations begin, and it warns that it will take action if the site operates in violation of antitrust laws.

Other regulatory hurdles remain for Orbitz, notably inquiries being conducted by the Department of Justice (DOJ) and the Federal Trade Commission (FTC).

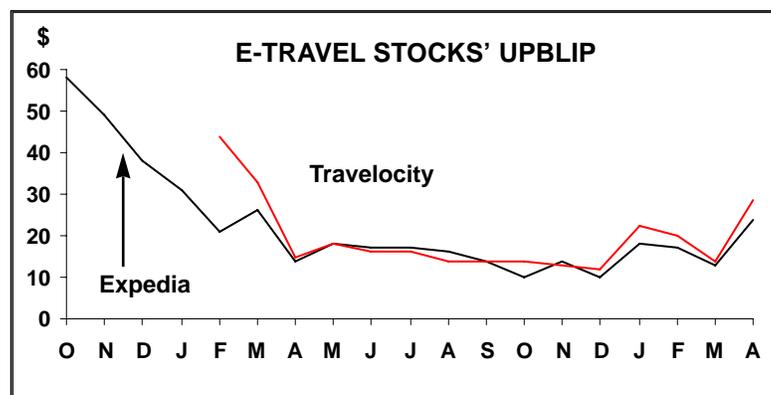
With the proposed consolidation of the airline industry, Orbitz owners would control 85% of domestic air travel. As is normal in the US, an academic, in this case Prof. Jerry Houseman of MIT, has been hired by the venture's opponents to prepare by an objective report.

Houseman argued that by collectively exercising their substantial market power

So the logical conclusion of an Air France/Alitalia alliance might be for Alitalia to downscale substantially its intercontinental operations and concentrate on feeding the CDG hub. In other words, follow current demand patterns - the major Italian corporations (Olivetti, Fiat, etc) are in any case negotiating their corporate travel accounts with the airline alliances that can give them genuine global reach rather than relying on the national carrier.. Long-hauls would then be rationalised to a relatively few direct routes where Alitalia would have a competitive advantage.

This is essentially how the Lufthansa/SAS relationship evolved, with SAS feeding Lufthansa at Frankfurt though it later restored some of its own point-to-point long-hauls. However, Italy is not Scandinavia, and such a rationalisation strategy would meet huge opposition from unions, management and politicians.

through Orbitz, the airlines hoped to eliminate or severely weaken independent Internet travel distributors. Anti-competitive weapons included: a no-advertising policy, an exclusivity provision, and a most-favoured nation (MFN) clause This MFN clause, he claimed, would ensure that discount fares of new entrant airlines will become less visible; Orbitz airline-owners



will become aware instantly of any secret price-cutting off published fares; and only Orbitz and its airline-owners' Web sites will have access to Internet "e-fares."

Based on airline travel data during 1990-1999, Houseman estimated an aggregate demand curve, and using DOT's own fare premium data contained in its most recent studies, inputted assumptions as to both the percentage of those paying higher fares in a post-Orbitz environment and the discount rate, and hence calculated the consumer welfare loss from decreased entry to be \$3.2bn on a discounted present value basis. (Although the professor did not make the comparison, this figure to about 80% of US passenger internet sales last year.)

In any case his arguments did not prevail, which is potentially good news for the prospective European and Asian multi-airline portals. And Orbitz will be launching into a still favourable market.

Just about the only sector of the e-business market which is recovering from the collapse in confidence in internet stocks is online travel. As the graph on page 3 shows both Travelocity and Expedia stock have moved sharply back up, although they are nowhere near their inflated launch prices. Expedia, which is 70% owned by Microsoft, has surprised analysts by reporting its first quarterly operating profit more than 12 months before it was expected to.

Orbitz will be tested in the consumer marketplace in competition with Expedia and Travelocity, Priceline, E-bookers, FyCheap and the airlines' own sites. It claims that the technology it is using will shift online travel from the DOS to the Windows era; it claims the fastest search times and the most comprehensive results; it claims that it will provide fares from all airlines, including the low-cost operators. It launches in June - go to www.orbitz.com.

How will the manufacturers manage the downturn?

A downturn in the manufacturing industry is now inevitable. But, according to an analysis by Deutsche Bank, the main players may be better positioned to weather a downturn this time round.

There are three basic reasons for this optimism.

Rising proportion of outsourcing

Over the past few years, both Airbus and Boeing have been actively increasing the proportion of their production that is outsourced. In part this growth in outsourcing is a natural consequence of the rise in risk and revenue sharing across the aerospace industry, in which subcontractors are more deeply involved in aircraft programmes and funding. However, this has also been a deliberate move by the prime contractors to introduce greater flexibility into their manufacturing cost base.

This outsourcing trend is well advanced at Airbus, and growing. In the case of the EADS

Airbus operations for example, around 37% of its manufacturing is currently outsourced, and the figure is set to rise further, to around 50% over the next two years as the EADS "make versus buy" policy is further revisited.

For Boeing, increased outsourcing has also been a feature of the company through the 1990s. Excluding the engines, which account for around 25% of aircraft costs, Boeing moved from a 43-45% outsourced mix in the early 1990s to around 50% by 1998.

The traditional company philosophy was to maintain significant in-house capability in many areas in order to ensure stable procurement and avoid losing technical capabilities, which were considered to be core strengths.

This approach changing fundamentally to the view that the company should increasingly focus only on final assembly and a few highly technical value-added jobs. All else seems to be up for grabs.

However, Boeing has also learned that there can be a substantial cost to outsourcing - the production jams it suffered a few years ago were

"Civil aerospace - About to enter a dive?"

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attributed to excessive outsourcing and consequent loss of control over the supply chain. Also, the pace of outsourcing will be moderated by existing contracts with unions.

Reports that Boeing has wooed Japanese partners for wing work on the now-shelved 747X provides some indication that the company will seriously consider going offshore for major elements of new aircraft, especially if this helps the local sales effort. Already, Alenia in Italy is a large supplier of structural components; indeed, according to Airbus, the 717 has less domestic US content than the A318.

Although outsourcing benefits the prime contractors by reducing the fixed cost of their manufacturing base, it cannot reduce the aggregate risk for the aerospace industry as a whole. Since it has to be a zero sum game, risk cannot simply disappear from the system, but will merely be moved around the manufacturing system. More of the pressure during the will shift further down the supply chain.

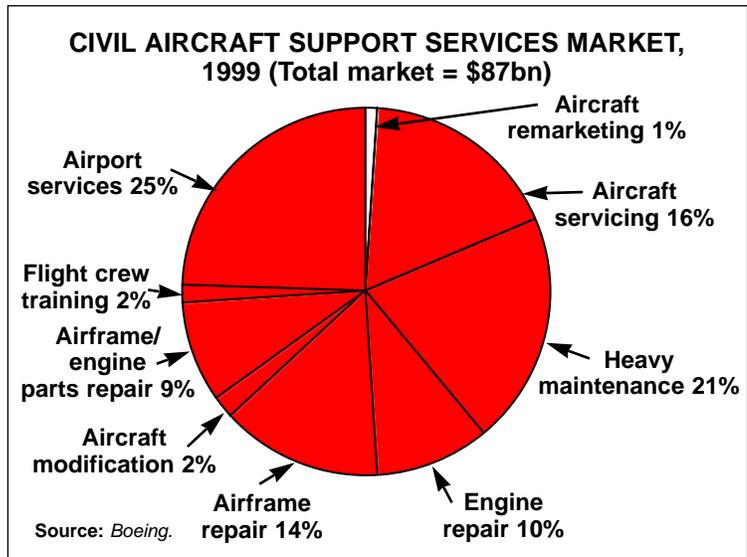
Reduction in manufacturing lead times

Both Airbus and Boeing have reduced the manufacturing lead times for aircraft. As the table below shows, Airbus's lead times have already fallen markedly from 1994 for both narrow and wide body aircraft, and are forecast to fall significantly further by 2002.

This should help both the prime contractors and subcontractors in the civil aerospace industry by allowing greater production flexibility to cope with changing market conditions. However, it can never alleviate the underlying problem of overhead under-recovery in what remains a heavily fixed cost manufacturing industry.

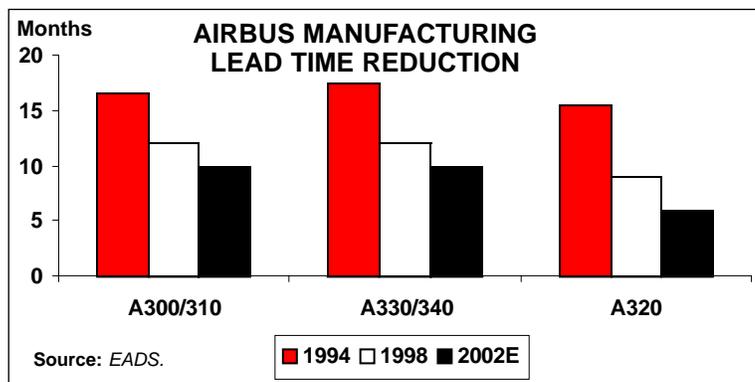
Increases in non-OE revenues

Aerospace manufacturers are positioning themselves better to weather a downturn by lowering their dependence on original equipment (OE) revenues through growth in less cyclical aftermarket areas. The aftermarket has traditionally been an area of greater focus for the aerospace subcontractor base, averaging around 30-40% of civil sales, and a higher proportion of profits because of the higher margins achievable in this sector.



Boeing's increasing focus on service/support and aircraft conversion (from passenger to freighter) in the past few years is leading to a rise in the group's non-OE revenues. Deutsche Bank forecasts that by 2004, Boeing's civil aftermarket service revenues could increase from around \$3.2bn in 2000 (10-11% of sales) to as much as \$4-5bn (12-15% of sales). Why Boeing is focusing on the aftermarket becomes clear when one considers the magnitude of the opportunity involved, as highlighted by the graph above.

Airbus has placed considerably less focus on aftermarket/service revenues. To some extent, this lesser concentration on aftermarket is inevitable because of the less mature nature of Airbus relative to Boeing. Airbus can still generate significant growth from OE (due to market share gains), whereas Boeing has needed to find other sources of growth outside OE, given its long-term decline in OE market share.



EADS: showing initial promise

While Boeing grabs the headlines around the world with the sonic cruiser, Airbus is consigned to a period of calm after last year's excitement over the launch of the A380. It is as if Boeing had taken a leaf out of the aggressive marketing and publicity campaign behind the Airbus super-jumbo (all that stuff about gyms, jacuzzis and casinos), and decided to flam up its potential new offering to drum up interest among airlines. As for EADS, Rainer Hertrich, co chief executive, remarks that Airbus itself has such designs in its concept list, and awaits with interest market reaction to the Boeing proposal before EADS decides what should be its response.

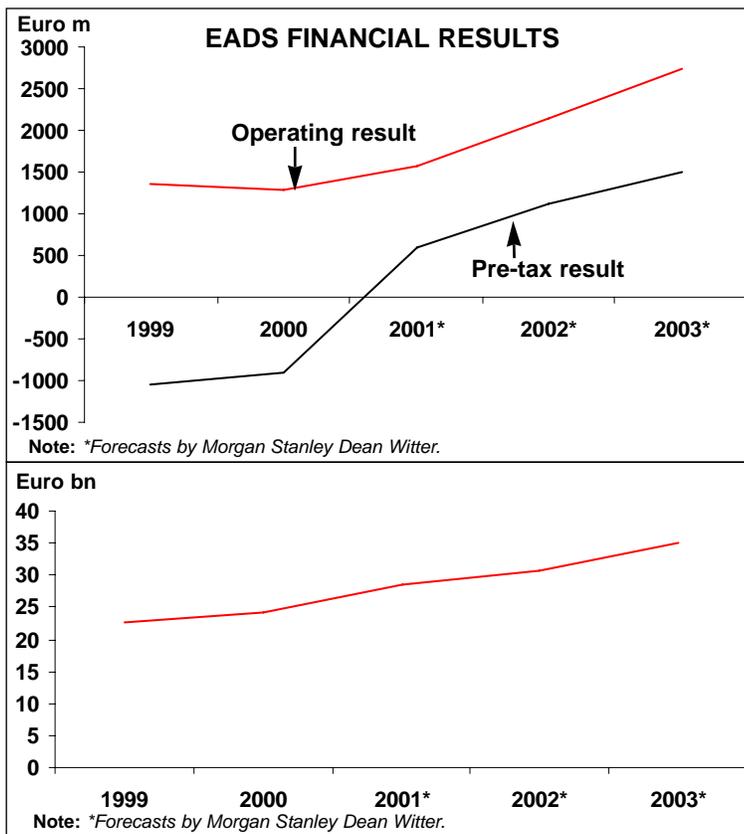
So now is a good time to look at the financial performance of the two companies engaged in such titanic struggles. Boeing

has managed a thoroughly creditable improvement in profits - its net profit in 2000 was \$2.2bn, an increase of 14%, on revenues of \$58bn, demonstrating a healthy recovery from the dire straits that a misguided price war against Airbus on narrowbodies placed it in (see *Aviation Strategy*, March 2001). While Boeing's profitability dwarfs that of EADS, there is some positive news emerging from Airbus's parent (EADS owns 80% against BAE System's 20%).

At headline view, EADS is a company with sales of more than €24bn, of which 75% is in civil activities. EADS is the third largest aerospace company in the world behind Boeing and Lockheed Martin. It employs 87,00 people at more than 70 sites in France, Germany, UK and Spain. Legally the company is registered in Amsterdam, but in reality its head office is split between Paris and Munich. The HQ staff of some 1,100 is about to be halved as part of the ongoing rationalisation of what was always bound to be a complicated company formed from the merger of France's Mart Lardardere Aerospatiale with Dasa, the aeronautics arm of DaimlerChrysler.

Unsurprisingly, EADS is a rather cumbersome-looking company with an extremely complex portfolio of businesses. For a start, the company has two chief executives. Then, some two-thirds of its business is actually in one or other form of joint ventures, usually with BAE, but also involving others such as Alenia, the aerospace subsidiary of Finmeccanica, an Italian state-owned company in the midst of privatisation.

It had looked like a recipe for confusion, obfuscation and bad financial news. Indeed when the two chief executives Philippe Camus and Rainer Hertrich were doing their roadshows around the flotation of about one third of the shares last summer they were both very defensive about the double-headed control of the company. Now both are much more relaxed: they have found a way



of making a system which both acknowledge as less than perfect work.

There are also clear indications that they are implementing an effective plan to change the sourcing strategy of the company from a bureaucratic to a commercial basis. More than half the €60m synergies EADS intends to achieve in 2001 will come from a harmonised purchasing policy. This will apparently not just involve more competitive bidding but also risk and revenue-sharing partnerships.

EADS's 2000 results were, as mentioned above, better than expected (although the financial figures are unusually complicated by one-off items and an adjustment to a more realistic and benign euro/dollar exchange rate than the rate outlined at the company's flotation last year).

Earnings before interest and tax adjusted for disposals show an 11% rise to €1.4bn. Even more revealing of a relatively healthy business is the rise in free cash flow from barely €200m in 1999 to €1.5bn in 2000. Both order intake and backlog have shown healthy rises of 50% and 29% respectively. Management is forecasting rises of earnings before interest and tax of 15% over the next few years, and has raised its target for operating margin by the year 2004 from 8% to 10%.

EADS ownership structure

EADS's ownership structure is inevitably complicated. Private investors hold 30.81%. Then DaimlerChrysler and an entity known as SOGEADE (amounting to the French state and the French Lagardere group) each own a further 30.29% each. The Spanish state-holding company Sepi owns 5.53%. DaimlerChrysler and the French state owns some residual "excess shares" of around 3% destined to be floated as part of a general tidying up.

By far the biggest part of EADS is Airbus, accounting for almost 68% of turnover and all of its profits because of various write-offs on the other businesses, namely, military transport, aeronautics, space, and defence systems. The Airbus contribution will be flattered in this year's financial figures when the

company will be entitled to consolidate 100% of the sales and profits of its 80% subsidiary. Conversion of Airbus from a French consortium known as a Groupement d'Interet Economique (GIE) into a fully-fledged company, known as Airbus Integrated Company (AIC), was decided upon last June, but the technicalities have dragged on. Five months overdue, they are supposed to be completed in May, according to Rainer Hertrich.

Central to any view of EADS is the outlook for Airbus, and more specifically the prospects for the A380. Some 47% of the development cost of \$10.7bn falls to EADS and is being expensed through operating cash-flow. The rest is covered by risk-sharing industrial partners and by participating European governments offering soft-ish loans re-payable from revenues. This cost had been expected to depress operating margins from 10% to 8%, but because some conservative estimates on other counts have been adjusted, this is no longer the case.

Hertrich confidently expects today's 62 firm A380 orders and 40-odd options to convert into the 100 firm orders which John Leahy, Airbus vice president for customer relations, expects. Thereafter, with the end of the launch period and the special discounts that go with it, he expects a complete lull in orders until the new aircraft is coming close to entering service in late 2006. This would be in line with the ordering pattern for other radically new aircraft. Only when Cathay Pacific and SIA are operating the A380 will carriers like JAL (a long-time Boeing devotee, with the largest fleet of 747s) be willing to commit to this aircraft.

Moreover, the question of European government support for the A380 is not going to go away. The EC has sent details of the financing plan to the US government, which has been demanding proof the loans conform with a 1992 agreement, which allows government loans on a commercial basis for a maximum of 33% of the development costs of new aircraft. Germany has pledged about €900m, France about €1bn and the UK €750m to in development loans to the project. Spain, Belgium, the Netherlands and Finland also have promised smaller

EADS GROUP RESULTS (Euro m)

	2000	1999	
	pro-forma	pro-forma	Change
Revenues	24,208	22,553	7%
EBIT*	1,399	1,445	-3%
EBIT* adjusted for Sextant disposal	1,399	1,263	11%
Free cash flow	1,531	198	673%
Net income	-909	-1,046	13%
Order intake	49,079	32,700	50%
Order backlog	131,874	102,400	29%
Employees (Year-end)	88,879	88,631	0%

Note: *pre goodwill and exceptionals, but inc Euro 262m of non-recurrent expenses.

amounts because they have domestic companies involved in the project. Italy and Sweden may also contribute.

Even if the US authorities agree that the investment loans meet the criteria of the 1992 agreement they could also challenge the Europeans under WTO rules.

Analysts, such as Tim Bennett at Morgan Stanley Dean Witter, estimate that total Airbus deliveries (which produce sales cash some two to three years after orders are booked) will be 350 in 2001, rising to around 450 by 2004. This compares with deliveries of 311 in 2000. The one big worry on the Airbus side is that the cyclical decline in profits at US airlines will lead to cancellations of orders by airlines such as United and US Airways, with 150 order for single-aisle aircraft between them. Airbus also has a heavy exposure to the leasing companies, which account for about 30% of the company's order book.

Leaving such worries aside, there is the fact that Airbus has confidently achieved the market share target framed by its former management Jean Pierson and acquired a 50% share of order intake in the market for civil jets of more than 100 seats. That is more than a matter for satisfaction in the Airbus camp, but an interesting indicator of its ability to carry on at this level or better. It should be remembered that the Airbus increase was obtained at a time when two thirds of the airborne fleet was Boeing, with a built-in bias towards continuing that split because of maintenance and training issues. It seems, however, that keen Airbus pricing and the inter-operability across the compa-

ny's family of aircraft, ate away at this inbuilt Boeing advantage. The other big factor was that the A320 family has turned out to be a more attractive product than the 737NG, which was stuck with a narrower fuselage.

The rest of EADS

To get a quick impression of how important the rest of the company is: EADS is number one in the market for commercial space launchers; number two in helicopters; number two in missiles; number three in satellites; number three in military transports and number four in military aircraft through its 43% stake in Eurofighter and its 46.5% stake in Dassault, the partially-private French maker of fighters.

It has three strategic objectives: to be number two in aerospace and defence and number one or two in other business areas, while expanding business activities in all regional markets. Its ambitions in the aerospace field are helped by the fact that it now wins about 50% of orders in competition with Boeing for jets over and above 100 seats. In defence aerospace, its recent addition of Italy's Alenia to its Matra Marconi joint ventures means that it is well-placed to challenge Raytheon and other American leaders in the defence missiles field.

The company is now organised into five divisions. One is Airbus, run by Noel Forgeard, an old Lazard figure, like Philippe Camus. The others consists of: military transport aircraft (essentially the project to build the A400m military transport); aeronautics (which means helicopters, regional aircraft, Eurofighter and other bits); space (which is launch vehicles, Astrium and other bits and pieces); defence and civil systems, which includes EADS missiles (just about to be put into MBDA) and defence electronics.

As if this divisional structure were not confusing enough, much of the business involved is actually part of joint ventures, notably with BAE. As part of the great bargaining round which accompanied the conversion of Airbus into a proper company, BAE had sought to establish equity stakes in several of the defence and space businesses, but gave up when it was clear that it

would not get its way. The formation of Airbus as a proper company was the principal aim. At the last count, according to Hertrich, some 70% of EADS is bound into joint ventures.

Key prospects

Assuming that the A380 gets close to its sales targets and does not run into an aggressive trade war from George W. Bush determined to preserve Boeing's hegemony, Airbus is well placed in the long term.

In the short term the cumbersome structure of EADS may not prove to such an obstacle as it first appeared. Dual-nationality at chairman and chief executive level has some important advantages - it needs a Frenchman to sell projects to the French government, and vice versa. Moreover, both Camus and Hertrich are essentially highly-numerate finance people rather than romantic engineers.

EADS does have to find a way to develop more sales in America, beyond the inroads it has already made with the A320 family. It has already reached an important agreement with Northrup Grumman in defence electronics and won some other contracts for the US Navy with that company.

Perhaps the ultimate test for EADS will come when BAE, its partner in so many European defence activities (as well as in Airbus), eventually decides, as most analysts believe it will, to align itself more close-

EADS RESULTS BY DIVISION (Euro m)				
	Revenues		EBIT**	
	2000 pro forma	1999 pro forma	2000 pro forma	1999 pro forma
Airbus**	14,856	12,639	1,412	925
Military Transport Aircraft	316	241	-63	-20
Aeronautics	4,704	4,280	296	202
Space	2,535	2,518	67	97
Defence & Civil Systems	2,909	3,830	-110	86
Eliminations/headquarters*	-1,112	-955	-203	155
Total EADS Group	24,208	22,553	1,399	1,445

Note: *inc pro forma adjustments/intercompany transactions. **pre goodwill and exceptional, but including Euro 262m of non-recurrent expenses.

EADS ORDERS BY DIVISION (Euro m)				
	Order intake		Order backlog	
	2000 pro forma	1999 pro forma	2000 pro forma	1999 pro forma
Airbus**	34,158	20,700	104,387	79,500
Military Transport Aircraft	493	600	873	700
Aeronautics	8,322	4,900	13,067	8,800
Space	3,024	2,200	4,826	4,400
Defence & Civil Systems	3,857	4,300	9,722	9,000
Eliminations & headquarters*	-775	0	-1,001	0
Total EADS Group	49,079	32,700	131,874	102,400

Note: *inc pro forma adjustments/intercompany transactions. **Based on catalog prices.

ly with Boeing. As part of its attempt to launch as the 747X, Boeing approached BAE to get it to build the wings. BAE was quite happy to find a way of accommodating both its Airbus partners and the Americans, but the project never got off the ground. Nevertheless, such dalliance shows one problem EADS has in keeping the European aerospace show on the road.

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Midwest Express: successful formula under stress

Last month Midwest Express, a Milwaukee-based premium service airline, and its regional subsidiary Skyway Airlines placed \$1.15bn worth of orders for the Boeing 717-200 and the Embraer EMB-140 regional jet, taking care of their fleet renewal and longer-term growth requirements.

The Boeing deal was significant in that it provided a much-needed boost to the 717 programme. Launch customer AirTran Airways was jubilant over the news (which followed American's confirmation of the TWA 717 order), because it has been somewhat handicapped by a lack of simulators, a weak 717 financing marketplace and the earlier speculation that the programme might be scrapped.

However, over the past year or so Midwest Express has been going through a rough patch financially. It reported only a marginal profit for 2000 and has posted losses for the past two quarters. It is now doing aircraft sale-leaseback transactions to boost cash reserves, as near-term prospects are weak. There are cost issues to be resolved, while the deepening slump in domestic business travel is also a point of concern.

All of this suggests that, while Midwest Express is expected to recover eventually, there is plenty of work to be done before the 717 deliveries commence in early 2003.

The current troubles are disappointing in light of Midwest's 14-year unbroken profit record. The company remained profitable through the early 1990s recession and subsequently posted steady double-digit annual revenue and earnings growth. Operating and net margins were around 14% and 9% respectively in the late 1990s.

The airline evolved from Kimberly-Clark Corporation's internal air shuttle in the early 1980s and was spun off in an IPO in 1995, which gave it a listing on the NYSE. In conjunction with the IPO, Midwest Express received the stock of Skyway Airlines, a regional carrier previously operated by Mesa. The following year Kimberley sold its remaining 20% stake in a secondary public offering, and Midwest Express Holdings was formed as a holding company for Midwest Express and Astral Aviation (operating as Skyway).

Operations now extend throughout the US from three hubs - the original Milwaukee home base, Omaha in Nebraska (since 1994) and Kansas City (since September 2000). Midwest Express is the largest carrier at Milwaukee, with a 34.3% passenger share in 2000, and provides the only nonstop service in 60% of its core jet routes there.

The current focus is very much on the Kansas City operation, which is being developed in a codeshare alliance with Air Midwest (Mesa). The latest cities added include San Francisco (facilitating a one-stop coast-to-coast service from Washington Reagan via Kansas City), as well as Atlanta and New Orleans.

The corporate aviation roots gave Midwest Express a natural focus on the business travel segment - something that has differentiated it from two generations of new entrants. The airline offers an all-first class service, with two-across leather seats, full amenities and extras like "baked-onboard chocolate chip cookies". The product has won numerous awards, including a string of "best domestic airline" ratings by Zagat's airline survey.

MIDWEST EXPRESS HOLDINGS' FLEET

	No. operated (as at mid- April 2001)	On order (purchase rights or options)	Delivery schedule
Midwest Express Airlines			
DC-9-10	8	-	
DC-9-30	16	-	
MD-80	12*	4	2001-02
717-200	0	20 (30)	Feb 03-06
Total	36	24 (30)	
Skyway Airlines			
Beech 1900D	15	-	
328JET	7	1	May 01
EMB-140/135/145	0	20 (20)	Mar 02-05
Total	22	21 (20)	

Note: *2 currently not in service.

Aviation Strategy

Briefing

The premium product is offered at "competitive prices" (generally the same range of fares that the major carriers offer), making it a winning combination in the marketplace. Except for a small dip last year, annual load factor has been steadily in the mid-60s, while the yield has hovered at 18-19 cents over the past decade.

Unit costs have been surprisingly low, at 11-12 cents per ASM up to and including 1999, given the premium service operation (the average stage length last year was 960 miles). To start with, Midwest Express' aircraft have typically 20% fewer seats than what the major carriers have in the same aircraft type.

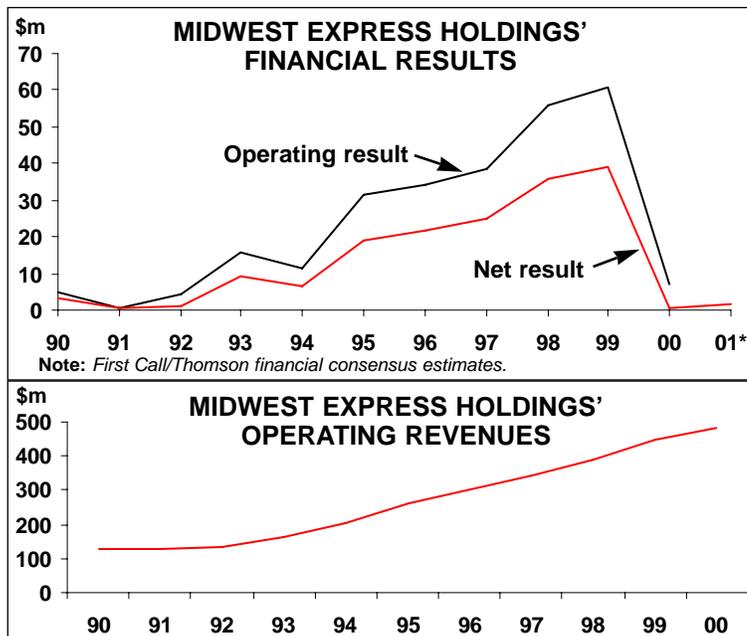
The airline's top management team, led by chairman/CEO Timothy Hoeksema, is highly respected on Wall Street. Hoeksema has headed the operation since its inception at Kimberly-Clark and is credited for identifying the unique niche, insisting on conservative growth and making sure that product and service quality is maintained.

The balance sheet remains healthy, with long-term debt of just \$2.9m, total assets of \$306m and shareholders' equity of \$129.3m at the end of last year. Cash reserves have never been strong (\$16m at the end of both 1999 and 2000 and \$19.3m on March 31), but that did not matter when strong profits were consistently generated. Since the 1995 IPO, Midwest Express has repurchased \$17m of its common stock and has \$13m remaining under the current programme.

The current problems

Midwest Express' financial performance has deteriorated progressively since early last year. The company posted only marginal operating and net profits of \$6.9m and \$514,000 respectively for 2000, in contrast with profits of \$60.8m and \$38.8m in 1999. The first quarter of 2001 saw sharply higher operating and net losses of \$10.2m and \$6.6m respectively.

Much of the deterioration was blamed on various exceptional factors that led to reduced aircraft utilisation and lower-than-expected capacity growth (10-11% in both the December and March quarters, as opposed to 15% planned). More seriously, however,



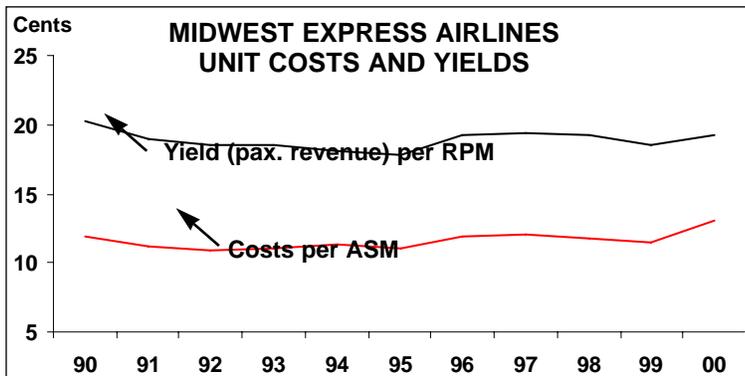
operating costs surged by 22% last year and by 18% in the March quarter due to substantial hikes in fuel, labour and aircraft maintenance expenses.

The exceptional factors last year included a shortage of trained pilots, new stricter FAA-mandated crew rest/reserve rules, maintenance issues and substantial weather-related cancellations in December. The airline was able to operate only 1.9% more flights in 2000 even though it had two additional aircraft in service.

In the March quarter, in turn, aircraft utilisation fell because Midwest Express discontinued its lossmaking Indianapolis service in early January but did not re-deploy the two aircraft until April. Also, the company's dedicated charter aircraft was damaged by a fuel truck in November and was out of service until February, causing a \$700,000 negative operating income impact.

Midwest Express has been particularly hard hit by the fuel price hike because two-thirds of its fleet is made up of DC-9s and because it has not had any fuel hedges in place since the first quarter of last year.

Labour costs have surged primarily because of bonuses and wage increases granted by the pilots' first-ever contract in early 2000. Agreement on a five-year deal was reached under a strike threat, as the



union had been released into a 30-day cooling off period following 18 months of unsuccessful talks. The cost increases were partially offset by reduced profit sharing and management incentive payments.

Maintenance costs surged by 31% in the March quarter because of Midwest's conversion to a new maintenance programme, the outsourcing of one C-check, higher engine repair costs, increased use of contract labour and higher de-icing expenses.

Depreciation, interest and aircraft rental expenses have also surged because of the addition of more MD-80s at Midwest Express, the introduction of regional jets at Skyway and a DC-9 hushkitting programme. Last year aircraft rentals went up by 22.5%, as Skyway leased five new RJs and Midwest Express completed a sale-leaseback on an MD-80 in late 1999. In the March quarter, in turn, interest expenses multiplied as two RJs were purchased rather than leased.

The only positive on the cost side was that, in line with the industry trend, commission expenses fell by 16.7% last year. However, the bad news is that the trend is now levelling off as no further commission cuts are anticipated. The company has already achieved its 2001 target of 11% of bookings on its own web site (the Internet total is estimated at 35-38%).

Last year's three-point decline in load factor was blamed on the poor performance of the Indianapolis operation, loss of bookings due to the pilot strike threat in the first quarter and increased competition on some routes. The 1.7-point decline in the March quarter was attributed to competition, unproductive

new capacity and "some undeterminable decrease in business travel".

Despite its premium service focus, Midwest Express has so far avoided the steep decline in business travel reported by the major carriers. Operating revenues rose by a healthy 11.4% in the March quarter and the yield improved by 2.6% (in part because it is still influenced by a fuel surcharge implemented last year). Unit revenues have been flat because of the load factor deterioration.

While advance bookings looked strong in late April, the company said that it was concerned about the potential effects of a softening economy. Analysts believe that, at the very least, load factors will continue to weaken in the current quarter.

Planned remedies

When announcing the poor first quarter results in late April, Midwest Express' top management said that the company is "taking aggressive steps to better align our cost structure with our planned capacity and improve our productivity without impacting our product and service levels".

The immediate focus is to reduce costs by "a minimum of \$1.5m per month". This will be done by eliminating about 250 positions, or 7% of the total, across the company within 90 days through improved scheduling, attrition and select reductions of the workforce. Also, planned non-aircraft related capital spending would be cut by \$5m this year.

This year's capacity growth has again been reduced, to 10% for Midwest Express (it will place one fewer aircraft in service than previously planned) and 34% for Skyway. Midwest had hoped to return to its historical level of 15-20% annual growth, but the new level is still better than last year's 5.8% and, by the management's admission, "probably more in line with the current economic conditions".

Midwest Express is also looking to do sale-leaseback transactions on a couple of MD-80s over the next few months, in order to boost cash reserves to a level that it feels more comfortable with in the current economic climate. The company still owns nine of its 12 MD-80s.

One major handicap on the revenue side has been lack of corporate contracts - a strategy that is helping the major carriers retain business traffic. To rectify that and find new ways to enhance revenues, Midwest Express retained a new top marketing executive in late April. Some new corporate contracts have already been secured and a few more are on the horizon.

The company hopes to complete the transition to a new maintenance programme by early in the third quarter, as a result of which its extremely high maintenance costs will start to come down gradually. However, only the eventual fleet replacement will provide a proper solution.

Midwest's fuel prices are currently running at about the year-earlier level. But its labour costs are on a steep upward trend because of the pilot deal and the need to secure an initial contract with the flight attendants, who joined AFA in 1999 and are now in mediated negotiations.

Earnings prospects are weak for this year and 2002 because of the reduced capacity growth, cost pressures and a slowing economy. The consensus of five analysts' estimates is very marginal net earnings of 70 cents and \$1.33 per share in 2001 and 2002 respectively, compared to 24 cents last year. James Parker, analyst with Raymond James & Associates, points out that the earnings are not expected to recover to 1999's level of \$2.71 until the benefits of the new fleet begin to be felt in 2003.

But Midwest Express looks on the positive side of it. "Deferring delivery of the first 717 will allow us to focus on stabilising our operational performance - an issue we have struggled with over the past year - and better position our company for future growth."

The fleet renewal plans

The new Boeing order (or MoU) is for 20 717-200s, valued at \$750m, plus 30 purchase rights. Deliveries will begin in February 2003 and continue at a rate of one aircraft every other month through 2006. The aircraft was chosen over the Airbus A318 because of commonality benefits with the existing DC-9/MD-80 fleet.

The 717 will provide for growth and eventually replace the 24-strong DC-9 fleet. The aircraft is an excellent fit for Midwest Express' typical short haul, high-frequency markets, just like it is for AirTran's. It will seat 88 passengers (compared to AirTran's 117), a useful increase over the DC-9's 60-84 seats.

Most significantly, the 717 offers a major reduction in maintenance and fuel costs and improved operational reliability. AirTran's 717s have achieved a 24% better fuel burn over the DC-9, compared to 18% guaranteed by Boeing.

Midwest Express still expects to place into service four MD-80s purchased from SAS in a late 1999 deal - two this year and two in 2002, after the aircraft have been refurbished and modified. They will be used to increase capacity on high-density routes and expand service in new markets.

The new Embraer order is initially for 20 44-seat ERJ-140s, valued at \$400m, plus 20 options, though the purchase may eventually include also the 37-seat ERJ-135s and 50-seat ERJ-145s. Having all three models would enhance Skyway's flexibility to serve different sized markets. Deliveries will start in March 2002 and continue at a rate of one aircraft every other month through 2005.

The ERJ's "excellent reputation among travellers" and attractive price and economics were cited as reasons for the decision. The aircraft will provide for growth and over time replace some of Skyway's 15 Beech 1900D turboprops.

The company is still evaluating the future of the 328JET, of which there are seven in the fleet, with one more scheduled for delivery in June. Skyway was the launch customer for the aircraft, but the ability to also acquire the larger 428JET was a key factor in the original decision. But Fairchild Dornier cancelled the 428JET programme last year, and Skyway has since filed a demand for arbitration, alleging a breach of contract, and is seeking damages.

Since operating small numbers of two entirely different RJs has an adverse cost impact, the company is evaluating the possibility of disposing of the 328JET fleet in favour of the ERJ. A decision on the 328JETs is expected later this year.

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The airline CFO's headaches

Hot on the heels of the announcement of the largest corporate loss in Swissair's history (see *Aviation Strategy*, April 2001), the group's CFO, Georges Schorderet spoke at the IATA Financial Conference in New York at the beginning of April. He was speaking under the title of "Major Concerns and Decisions of the Airline CFO".

Headache #1

He started off by outlining the big problems. An airline has a large number of stakeholders in the business with vastly differing requirements and effects. The basic stakeholders under the European plan are the employees, customers, and providers of finance. The customers provide the revenues - through a mixture of the volume, price and quality. Employees, highly unionised, create the largest pressure on costs through labour charges. Shareholders want their return on investment. Finance houses want their pound of flesh - but unlike other stakeholders will have security. In addition however, he suggested that there were other stakeholders in the game.

Suppliers, such as the airline manufacturers, computer reservation systems, travel agents and fuel vendors all have an interest in the survival of the airline, their customer, but want to ensure that their services attract the highest price possible. Furthermore, governments and airports (not always separable) require the airline to exist but impose almost unnegotiable costs of airport charges, overflying charges, ATC charges, traffic right restrictions, concessions and delays.

Headache #2

Looking back over the past decade, the IATA airlines have seen operating revenues rise by an annual average 5.6%, while yields have fallen by an annual average 1% and unit costs have declined by an annual average 0.8%. The industry, as we all know, is cyclical but since the introduction of the jet in the 1960s has never achieved

an operating profit in excess of 6% in any one year.

Headache #3

The third source of cranial pressure arises from the profile of an airline's profit & loss account. For the average European airline, 85% of all revenues are directly related to traffic generation - with 75% coming from passenger services and a further 10% from cargo operations. These of course relate to the short term aspects of the business, are directly dependant on the economic environment and over which the airline has minimal control. Importantly the "product" has an extremely short shelf life - once the aircraft door is shut, you cannot fit another bum on a seat. The remaining 15% of revenues are on the whole more stable, relating to maintenance, catering and other services - although these are revenues that offset the costs of operations that most carriers regard as essential parts of their core business.

On the cost side, 63% of costs are now effectively long term and inescapable in the short run (although some of these cost categories may have some variable elements). These relate to staff costs, aircraft ownership costs, fuel costs and the catch-all "other". Therefore, Schorderet suggested that the average cost of distribution at 18% of total revenues (or costs) was the area that could provide the largest source of improvements to the bottom line.

However, *Aviation Strategy* is not convinced that that huge improvements in financial fortunes can be made from the reduction in distribution costs. As we are already seeing, as soon as any carrier changes its distribution strategy in any one market, its competitors follow suit. An airline that is dominant in any one area can more afford to undercut the competition in the commissions it pays to agents - but equally cannot afford to do so in areas where it has below average market share.

As for the new distribution methods, each has access to the same technology. In the end, when

the internet actually is providing the conduit for the majority of airline booking, the cost of distribution will become more and more of a zero sum non-competitive game, and as usual the airlines will return to the customer the savings they make. In the end, it may be personnel costs and the wonderful "other" that provide the greatest cost and profitability differentiation between carriers.

Headache #4

Airlines make the lowest returns in the wider industry. The airline operator is only one of the links in the air transport chain. It is also as a whole the weakest link, and the one that provides the lowest rate of return on capital.

Indeed over time, it is the one element of the wider industry that does not provide returns in excess of its cost of capital. The providers to the industry (the aircraft manufacturers, airline lessors and the airlines) all have a relatively high cost of capital relating primarily to the volatility and cyclicity inherent in the business.

However, there are only two manufacturers and four major lessors. In contrast, there are hundreds of individual airlines in direct competition, despite the globalisation trend into a handful of alliances with world-wide reach. In complete contrast, the servicers (ground handling, catering, airports and reservation systems) have a far lower average cost of capital, but all make superior returns. In each case, the competition is very limited.

Headache #5

When any business makes returns lower than its costs of capital it is destroying value. The CFO has to focus on all areas of the airline operations with the aim of value creation - which vary from the very long term to the day-to-day worries. This is to ensure that the balance between the cash flow returns over time and the capital employed in the business are sufficient to provide excess cash returns over the weighted average cost of capital.

He has to ensure that the right long-term decisions are made for the structure of the business: the right aircraft at the right times and on the right financial basis; the right set of alliances; the right portfolio of businesses. He has to be involved in the management of the "Human Capital". He has to concern himself with the product, service and

quality of output. In the short run he has to manage the risks effectively - currency, fuel, and interest costs - to ensure that the airline survives and creates value through each separate cycle.

Headache #6

To achieve the ultimate aim of value creation and a cash flow return on assets exceeding the WACC, the CFO has to juggle the drivers. Business operations can be split into basic operating drivers: Variable cost and fixed cost elements, which will determine the operating margins; gross assets, stock, creditors and debtors which determine the asset turn; volume and price realisation which determine the revenue growth.

The financial drivers of operating margins and asset turns determine the value driver of cash flow return on investment (CFROI). Asset turns and revenue growth determine the value driver of growth. The primary value drivers of CFROI are growth, asset base and the position of the business on the S-curve of its maturity. It is the combination of these value drivers which determine the success in achieving a satisfactory cash flow return.

The aspirin or placebo

Any business in effect has a portfolio of businesses and interrelated operations. Some of these do provide returns in excess of the cost of capital and therefore create value. The business decision should be to close the value destructive elements of the business. Schorderet admitted that in Swissair's case the business decision to expand by acquisition of minority stakes in other airlines was severely, near fatally, flawed - it had increased significantly its asset base in businesses that destroy capital without having the necessary control over the investment.

The logical conclusion from his speech was that the Swissair Group would dispose of its non-performing investments and - although he did not quite go that far -- that it should sell or close Swissair and just run the ancillary businesses of catering, maintenance and duty free. If only sufficient numbers of carriers could make that decision, it would fulfil the value chain requirement of reducing competition to allow returns to improve to a point where the industry as a whole can create value.

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
Feb 01	15.6	8.8	56.8	16.0	10.6	65.9	10.4	8.1	77.8	37.3	27.1	72.6	55.8	37.8	67.8
Ann. chng	0.2%	5.6%	2.9	-1.7%	1.5%	2.0	-4.8%	-4.1%	0.6	-3.1%	-1.3%	1.3	-1.9%	0.3%	1.4
Jan-Feb 01	32.5	17.7	54.5	34.0	22.4	66.0	22.0	17.0	77.0	79.0	57.3	72.5	117.6	78.9	67.1
Ann. chng	2.1%	6.7%	2.3	2.1%	4.5%	1.5	-2.2%	1.0%	2.4	-0.1%	2.5%	1.8	0.7%	3.5%	1.8

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 %
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
2000	1,033.5	740.1	71.6										380.9	289.9	76.1
Feb 01	79.2	52.1	65.7										28.7	19.5	67.9
Ann. chng	-2.0%	-3.2%	-0.8										3.2%	4.0%	0.2
Jan-Feb 01	166.6	106.7	64.0										60.5	41.7	68.9
Ann. chng	1.3%	0.9%	-0.3										6.5%	7.2%	0.4

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 %
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	2,005	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	2,079	1,414	68.0	2,879	2,028	70.4	4,958	3,442	69.4	3.7	1.7	4.9	2.9	4.4	2.4
*2002	2,146	1,463	68.2	3,007	2,122	70.6	5,154	3,587	69.6	3.2	3.5	4.5	4.7	4.0	4.2
*2003	2,237	1,533	68.7	3,176	2,258	71.1	5,413	3,794	70.1	4.2	4.9	5.6	6.3	5.0	5.8
*2004	2,344	1,607	68.7	3,373	2,398	71.1	5,717	4,007	70.1	3.7	4.8	6.2	6.2	5.6	5.6

Note: * = Forecast; ICAO traffic includes charters. Source: Airline Monitor, January 2001.

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
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	134	121	117	119	114	198	162	174	172	153	250	164	166	153	139
*2001	138	124	121	122	116	216	173	191	188	162	272	176	179	165	148

Note: * = Forecast; Real = inflation adjusted. Source: OECD Economic Outlook, December 2000.

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		
1993	111	109	114	108	106	1992	0.570	1.562	5.294	1.406	0.773	126.7	3.84%
1994	113	109	117	110	107	1993	0.666	1.653	5.662	1.477	0.854	111.2	3.36%
1995	117	112	119	112	107	1994	0.653	1.623	5.552	1.367	0.843	102.2	5.06%
1996	120	114	121	113	107	1995	0.634	1.433	4.991	1.182	0.765	94.1	6.12%
1997	122	117	123	114	108	1996	0.641	1.505	5.116	1.236	0.788	108.8	4.48%
1998	123	120	124	115	109	1997	0.611	1.734	5.836	1.451	0.884	121.1	5.85%
1999	125	122	126	116	108	1998	0.603	1.759	5.898	1.450	0.896	130.8	5.51%***
2000	128	124	127	117	107	1999	0.621	1.938	6.498	1.587	1.010	103.3	5.92%***
*2001	131	127	128	119	107	2000	0.603	2.119	7.108	1.658	0.923	118.1	5.36%***
						Apr 2001	0.695	2.180	7.311	1.705	0.897	121.8	4.02%***

Note: * = Forecast. Source: OECD Economic Outlook, December 2000. **Euro rate quoted from January 1999 onwards. 1990-1998 historical rates quote ECU. *** = \$ LIBOR BBA London interbank fixing six month rate.

AIRCRAFT AVAILABLE FOR SALE OR LEASE

	Old narrowbodies	Old widebodies	Total old	New narrowbodies	New widebodies	Total new	TOTAL
1988	126	34	160	16	1	17	177
1989	216	38	254	42	2	44	298
1990	380	77	457	74	14	88	545
1991	457	129	586	114	27	141	727
1992	433	138	571	75	15	90	661
1993	370	195	565	103	37	140	705
1994	267	182	449	61	23	84	533
1995	238	157	395	49	29	78	473
1996	124	101	225	32	22	54	279
1997	162	104	266	54	13	67	333
1998	187	125	312	67	55	122	434
1999	243	134	377	101	53	154	531
2000	302	172	474	160	42	202	676
2001-Jan	288	150	438	172	43	215	651
2001-Feb	298	155	453	152	46	198	651

Source: BACK Notes: As at end year; Old narrowbodies = 707, DC8, DC9, 727, 737-100/200, F28, BAC 1-11, Caravelle; Old widebodies = L1011, DC10, 747-100/200, A300B4; New narrowbodies = 737-300+, 757, A320 types, BAe 146, F100, RJ; New widebodies = 747-300+, 767, 777, A600, A310, A330, A340.

JET AND TURBOPROP ORDERS

	Date	Buyer	Order	Price	Delivery	Other information/engines
ATR	Mar 30	Khalifa Airways	10 ATR72-500s		2001-02	
Airbus	Apr 26	Virgin Atlantic	6 A380s			
	Apr 5	LTU International	2 A321s		2003	CFM56-5B3/P engines
BAE Systems	-					
Boeing	Apr 2	All Nippon	9 767-300ERs	\$1bn+	2002-03	
Bombardier	Apr 16	Air Wisconsin	51 CRJ200s	\$1.14bn	3Q2001+	Plus 24 conditional orders & 75 options
Embraer	Apr 17	British Midland	1 ERJ145		2Q2001	Exercise of option
	Apr 17	Skyway Airlines	20 ERJ140ERs		1Q2002+	Plus 20 options
Fairchild	-					

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	%	
American*														
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
Jan-Mar 01	4,760	4,743	17	-43	62,725.7	42,590.7	67.9	7.59	7.56					108,900
America West														
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				
Jan-Mar 01	587	612	-25	-13	11,355.2	7,857.8	69.2	5.17	5.39	5,104				
Continental														
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				
Jan-Mar 01	2,451	2,375	76	9	34,533.9	24,322.9	70.4	7.10	6.88	11,220				
Delta														
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				
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				
Jan-Mar 01	3,842	3,957	-115	-133	60,714.1	40,690.6	67.0	6.33	6.52	26,932				
Northwest														
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					
Jan-Mar 01	2,611	2,847	-236	-171	40,211.6	29,394.7	73.1	6.49	7.08					
Southwest														
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				
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				
Jan-Mar 01	1,429	1,218	210	121	25,512.2	17,169.7	67.3	5.60	4.77	15,716				29,563
TWA														
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														
Jan-Mar 01														
United														
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
Jan-Mar 01	4,424	4,815	-391	-313	67,741.4	46,267.7	68.3	6.53	7.11	18,860				98,600
US Airways														
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
Jan-Mar 01	2,241	2,469	-228	-171	27,752.4	18,372.1	66.2	8.07	8.90	14,193				44,077
ANA														
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	5,288	4,793	495	359	47,586.3	31,753.1	66.7	11.11	10.07	24,958				
Oct-Dec 00	SIX MONTH FIGURES													
Jan-Mar 01	SIX MONTH FIGURES													
Jul-Sep 99	1,989	1,658	331	133	29,313.0	22,167.9	75.6	6.79	5.66	5,600.0				
Oct-Dec 99	SIX MONTH FIGURES													
Jan-Mar 00	2,070	1,765	305	285	29,839.0	22,588.1	75.7	6.94	5.92	5,483.0				
Apr-Jun 00	SIX MONTH FIGURES													
Jul-Sep 00	2,356	1,983	373	382	32,070.0	24,586.6	76.7	7.35	6.13	6,147.0				
Oct-Dec 00	SIX MONTH FIGURES													
Jan-Mar 01	SIX MONTH FIGURES													
JAL														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 99	TWELVE MONTH FIGURES													
Jan-Mar 00	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	
Apr-Jun 00	TWELVE MONTH FIGURES													
Jul-Sep 00	TWELVE MONTH FIGURES													
Oct-Dec 00	TWELVE MONTH FIGURES													
Jan-Mar 01	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	%	
Korean Air														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 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	
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
Malaysian														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 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	
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
Singapore														
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	
Oct-Dec 00														
Jan-Mar 01														
Thai Airways														
Jul-Sep 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	
Oct-Dec 99	TWELVE MONTH FIGURES													
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00				108	55,517.0	41,347.0	74.5			17,700	7,752.0	5,469.0	70.6	
Oct-Dec 00														
Jan-Mar 01														
Air France														
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	
Oct-Dec 00														
Jan-Mar 01														
Alitalia														
Jul-Sep 99	SIX MONTH FIGURES													
Oct-Dec 99	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	
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
BA														
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
Oct-Dec 00	3,328	3,212	116	84	42,347.0	29,008.0	68.5	7.86	7.58	10,493	6,230.0	4,128.0	66.3	62,831
Jan-Mar 01														
Iberia														
Jul-Sep 99	TWELVE MONTH FIGURES													
Oct-Dec 99	3,712	3,659	53	179	50,227.6	34,606.8	68.9	7.39	7.28	21,877				
Jan-Mar 00														
Apr-Jun 00														
Jul-Sep 00														
Oct-Dec 00														
Jan-Mar 01														
KLM														
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
Oct-Dec 00	1,617	1,574	43	4	19,050.0	14,715.0	77.2	8.49	8.26		3,316.0	2,618.0	78.9	26,349
Jan-Mar 01														
Lufthansa***														
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	
Oct-Dec 00														
Jan-Mar 01														
SAS														
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				27,201
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
Oct-Dec 00	1,310	1,131	179	174*	8,541.0	5,492.0	64.3			5,747				27,767
Jan-Mar 01														
Swissair**														
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														
Oct-Dec 00														
Jan-Mar 01														

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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