

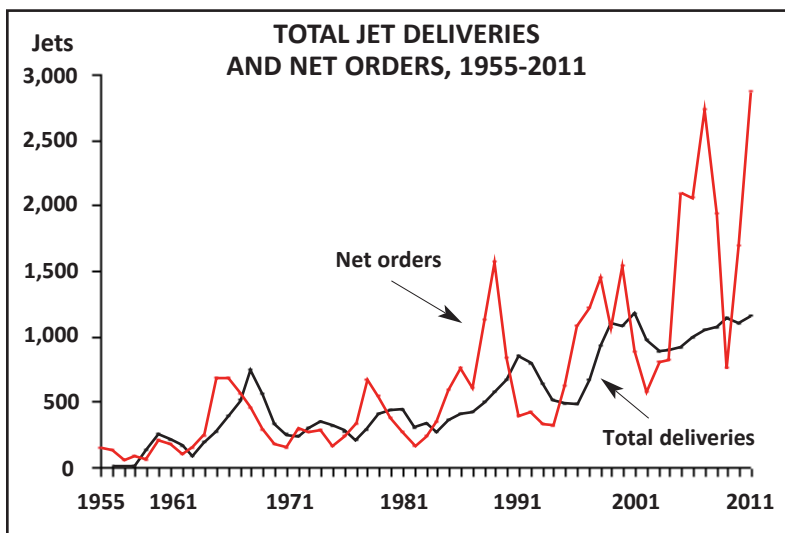
Blowing bubbles in Barcelona

The renowned February Geneva Forum, the 26th in the series, took place this year in Barcelona in March. Unusually this year there was no clear consensus on the direction of the industry.

The outlook for the economy - headlined by a presentation from Norbert Walter (former chief economist at Deutsche Bank) - was unsurprisingly shown as being in severe doubt, depending on the outcome of the Euro debt crisis. The dynamic growth in the BRICs and static performance in the developed world was seen as continuing, with some risks of a reduction in world economic growth from a lack of consumption in the developed world.

As usual the delegates were polled on various questions (see table, page 2). On the economy the audience seemed relatively positive - with most believing that the world economy would show growth of over 2.5% in 2012 (although less than 3%). Given the news flow it is hardly surprising that the biggest risk to economic growth was seen as a renewed crisis in the Eurozone. A notable 26% considered fuel prices as the major risk. On oil prices themselves, most of the delegates understandably plumped for little change to the current position, just 5% expected a dip below \$90/bbl over the next 3-5 years, and 14% looked at prices over \$150/bbl.

On the outlook for aircraft finance, the delegates expected most new aircraft finance to come roughly equally from leasing companies and the capital markets although a notable minority thought that the ECAs would be relevant despite the changes in



www.aviationeconomics.com

CONTENTS

Analysis

Geneva Forum poll results	1-3
Order backlog summaries	3-4
Virgin America: Rapid growth, elusive profitability	5-7

Briefing

Copa: The new SIA for global airline investors?	8-13
Jet values and lease rates	14-15

Databases

European, US and Asian airline traffic and financials	16-19
Regional trends	
Orders	

PUBLISHER

Aviation Economics

James House, 1st Floor
22/24, Corsham Street
London N1 6DR

Tel: +44 (0)20 7490 5215
Fax: +44 (0)20 7490 5218

email: info@aviationeconomics.com

export credit rules. When asked about the impact on the ability to raise capital of the introduction of new generation aircraft, more than a third of respondents thought there would be no impact, while a notable 30% thought it would make it easier. However, on the question of the impact of increased narrow-body production by the manufacturers, the majority expressed concern that it would lead to reduced residual values of older aircraft; and the question of the manufacturers' production rates has been a concern of the conference delegates for the past few years for this very reason. Finally, when asked for the most influential factor on the leasing industry in years to come, a third of the respondents selected lack of availability of bank finance.

There were observations - mostly from US based presenters - concerning a "bubble" in aircraft orders. Adam Pilarski of Avitas, in particular remarked on the fact that the backlog is approaching 50% of the active world fleet and represents more than seven years of current production rates (or twelve years' production of the widebody backlog). Richard Aboulafia of The Teal Group expressed further concerns about the actual money value of the order backlog. He did not go so far as saying it was a bubble, but cast doubts on the validity of some of the orders in the backlog, noting in particular that the Gulf super-connectors' widebody orders, \$82bn at list prices, accounted for 26% of the total value on order (and 62% of that with Airbus).

Can this really represent a bubble? A pre-condition for market bubbles is that there is an excess of finance available for particular asset types, and that financiers throw cash irrationally at an investment whose price is expected to continue to rise for ever. In this, the post-Lehman world, this should be unlikely; the capital requirements imposed on the banking industry under Basel III are reining in the ability to lend, as well as the appetite. Some notable banking names have withdrawn from funding the aviation industry. The new rules on ECA funding coming in next year will further remove capacity for cheap debt capi-

tal. There may be the concern that some will have difficulty finding the funding to acquire the aircraft more than there is a liquidity inspired bubble.

The current commercial order backlog stands at around 9,400 aircraft represent-

Aviation Strategy

is published 10 times a year by

Aviation Economics

Publisher:

Keith McMullan
kgm@aviationeconomics.com

Contributing Editor:

Heini Nuutinen

Production Editor:

Julian Longin
jil@aviationeconomics.com

Subscriptions:

jil@aviationeconomics.com

Tel: +44 (0)20 7490 5215

Copyright:

Aviation Economics
All rights reserved

Aviation Economics

Registered No: 2967706
(England)

Registered Office:

James House, 1st Floor
22/24 Corsham St
London N1 6DR
VAT No: 701780947

ISSN 2041-4021 (Online)

The opinions expressed in this publication do not necessarily reflect the opinions of the editors, publisher or contributors. Every effort is made to ensure that the information contained in this publication is accurate, but no legal responsibility is accepted for any errors or omissions.

The contents of this publication, either in whole or in part, may not be copied, stored or reproduced in any format, printed or electronic, without the written consent of the publisher.

POLL RESULTS

How strong will world GDP growth be during the next 5 years?

Stronger than 4%	1%
3.5 – 4%	7%
3 – 3.5%	29%
2.5 – 3%	37%
Weaker than 2.5%	26%
	100%

What is the biggest risk to economic growth during the next 5 years?

A renewed crisis in the Euro-zone	30%
A hard-landing for the Chinese economy	16%
Private sector debt	15%
The banks	14%
Oil prices	26%
	100%

Where will oil prices be in 3-5 years time?

Higher than \$150 / b	15%
\$130 – 150 / b	31%
\$110 – 130 / b	26%
\$90 – 110 / b	23%
Less than \$90 / b	5%
	100%

Where will capital come from for the purchase of aircraft?

Operating leases	45%
Pre-delivery financing	2%
Capital markets	40%
ECAs	9%
Manufacturers	4%
	100%

What will be the impact of new-generation aircraft upon ability to raise capital?

Easier to raise	30%
Harder to raise	22%
It will have to come from new sources	11%
No impact	37%
	100%

What will be most influenced by increased delivery schedules of narrowbody aircraft from the OEMs?

Residual values of older aircraft	52%
Ability to raise capital	12%
Economic life of the aircraft	36%
The interest of investors in leasing companies	0%
	100%

What will be the most important influence on the leasing environment in the future?

Capital available in the Far Eastern market	18%
Influx of new aircraft	22%
Decreased availability of bank financing	36%
Interest from investors in aircraft leasing	18%
None of the above	5%
	100%

ing over eight years of current production (the highest ratio it has ever been) and 45% of the fleet at the end of 2011. We have analysed the current order backlog - and present the analysis in the following tables. There are a large number of aircraft on order, but little sign of a bubble. Even the lessors only account for 15% of the backlog (even though there may be some duplication), slightly less than the 1991 GPA peak. The industry has been delivering around 1,000 aircraft in the past three years but this is set to increase

in the short run. The current dated orders call for annual deliveries of between 1,300 and 1,400 a year to 2015 - seemingly a significant jump. But this level of deliveries would still only represent 5-6% of the active fleet each year and is consistent with a 20 year useful life; existing aircraft almost certainly have a shorter economic life than hitherto because of the need to go for fuel efficiency.

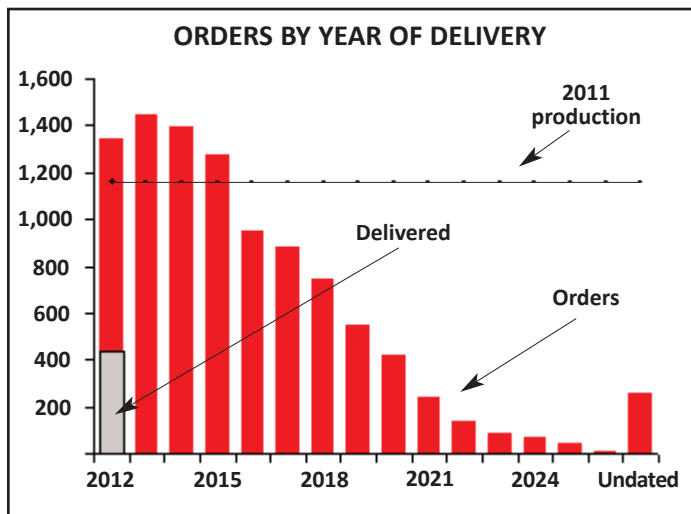
By James Halstead
jch@aviationeconomics.com

Order backlog summaries

There is a current commercial passenger and freight aircraft order backlog of some 9,400 units equivalent to 45% of the current commercial active fleet (according to our analysis of the data from *Ascend Online*)

Asia extending firm orders for 737s/A320s beyond 2023.

- There is a level of undated orders which may be deemed unlikely to be fulfilled -- but this only accounts for 3% of the total backlog.



Orders by type of customer

- The lessors account for 15% of the total order book.
- The European Legacy, US Legacy carriers and the three Gulf super-connectors each account for around 5% of the total backlog.
- LCCs make up 30% of the customer base. Notably only 37% of their orders are for delivery before 2016.
- Other airlines make up 40% of the order book - and nearly 70% of their orders are for delivery by 2015.
- The largest individual orders are from Southwest, Lion Air and AirAsia.
- The top 25 customers account for 45% of the total backlog.

Prolongation of order backlog

- The current backlog is equivalent to more than eight years' current production levels - the highest level the industry has seen.
- 53% of the backlog is due for delivery by 2015.
- There are some significant long dated orders. A third of the backlog for the A320/737 and variants are for delivery beyond 2016 (with another 3% -- probably speculative - that have no firm delivery dates).
- The dated orders extend over the next 14 years to 2026 -- with Lion Air, IndiGo and Air

ORDERS BY CUSTOMER TYPE

Orders by Customer type	2012-2015	2016-2020	2020-2026	Undated	Total	
European Legacy	233	148	9	-	390	4%
US Legacy	278	184	12	49	523	6%
LCC	1,054	1,291	433	13	2,791	30%
Gulf superconnectors	214	286	17	-	517	5%
Other airlines	2,521	1,018	35	191	3,765	40%
Lessor	699	599	63	4	1,365	15%
OEM	23	14	14	-	51	1%
Total	5,022	3,540	583	257	9,402	100%
	53%	38%	6%	3%	100%	

Aviation Strategy

Analysis

ORDERS BY CUSTOMER

	2012-2015	2016-2020	2020-2026	Total	
Southwest Airlines	141	142	64	347	3.71%
Lion Air	64	169	112	345	3.69%
AirAsia	59	92	124	275	2.94%
Emirates Airline	108	128	-	236	2.52%
IndiGo	44	109	66	219	2.34%
Aeroflot	102	86	16	204	2.18%
ILFC	41	147	-	188	2.01%
Qatar Airways	63	114	10	187	2.00%
Norwegian	41	132	8	181	1.93%
GECAS	93	66	-	159	1.70%
China Eastern Airlines	129	18	-	147	1.57%
American Airlines	101	42	-	143	1.53%
Jetstar	51	73	15	139	1.48%
CIT Aerospace	70	66	-	136	1.45%
Aviation Capital Group	93	37	4	134	1.43%
LAN Airlines	87	45	-	132	1.41%
China Southern Airlines	125	5	-	130	1.39%
Not Known	109	17	-	126	1.35%
United Airlines	61	64	-	125	1.34%
JetBlue Airways	45	68	10	123	1.31%
Air China	90	24	5	119	1.27%
Delta Air Lines	50	56	12	118	1.26%
TAM Linhas Aereas	58	54	-	112	1.20%
Spirit Airlines	29	62	13	104	1.11%
ALAFCO	7	50	42	99	1.06%
Other 277	3,362	1,690	82	5,134	54.84%
TOTAL	5,223	3,556	583	9,362	100%

Geography

- Over a third of the orders are from operators in the Far East and a quarter in North America -- although half of the North American orders are from leasing companies.
- Europe appears slightly under-represented with only 18% of the total backlog (and 15% of the backlog ordered by airlines).
- Two-thirds of the European orders are for delivery before 2016.
- The majority of the orders from the Middle East are for delivery after 2015.

ORDERS BY OPERATOR AREA

	2012-2015	2016-2020	2020-2026	Undated	Total	
Africa	150	36	-	8	194	2%
Asia Pacific	1,880	1,245	360	11	3,496	37%
Europe	1,130	504	47	28	1,709	18%
Latin America and Caribbean	366	267	13	4	650	7%
Middle East	376	405	59	49	889	9%
North America	1,043	1,070	104	53	2,270	24%
Unknown	77	13	-	104	194	2%
TOTAL	5,022	3,540	583	257	9,402	100%
	53%	38%	6%	3%	100%	

Types on order

- Narrowbody aircraft account for two-thirds of the aircraft on order and widebody aircraft a quarter of the total.
- The delays in the production programmes have impacted some widebody replacement programmes, so the scale of widebody deliveries is going to be substantially higher at 250 a year than in the past decade.
- Only a quarter of the A380/747 deliveries are scheduled for after 2015.

ORDERS BY AIRCRAFT TYPE

	2012-2015	2016-2020	2020-2026	Undated	Total	
Regional Jet	369	199	44	31	643	7%
737/A320	3,164	2,039	488	179	5,870	62%
Other single aisle	228	251	17	4	500	5%
Widebody	1,067	989	34	37	2,127	23%
Large (747/A380)	193	62	-	6	261	3%
TOTAL	5,021	3,540	583	257	9,401	100%

By manufacturer

- Airbus appears slightly ahead in the duopoly fight - with 46% of the commercial backlog against Boeing's 42%.
- Boeing is slightly ahead on deliveries scheduled before 2016 - where the market shares are reversed - helped by the 787. (The A350 deliveries are expected to start in 2014 but only start to kick in reasonably from 2016).
- Substantially all Embraer's orders are for delivery in the next three years.

ORDERS BY MANUFACTURER

	2012-2015	2016-2020	2020-2026	Undated	Total	
Airbus	2,122	1,806	310	79	4,317	46%
Boeing	2,302	1,284	212	143	3,941	42%
COMAC	101	194	17	-	312	3%
Embraer	184	26	-	17	227	2%
Bombardier (Canadair)	109	62	-	14	185	2%
Sukhoi	133	27	-	-	160	2%
Irkut Corporation	-	84	44	-	128	1%
Mitsubishi	8	57	-	-	65	1%
Antonov	51	-	-	-	51	1%
Ilyushin	10	-	-	-	10	0%
Tupolev	2	-	-	4	6	0%
TOTAL	5,022	3,540	583	257	9,402	100%

Virgin America: Rapid growth, elusive profitability

Now almost five years old, having achieved “major carrier” status with over \$1bn revenues in 2011, and with an ambitious fleet plan to fund, Virgin America is feeling some pressure to complete an IPO. Unfortunately, the run-up in oil prices meant financial losses again in 2011, so the earliest that the San Francisco-based LCC could now enter the public markets would be 2013 or 2014.

Virgin America has incurred net losses totalling \$460m since the beginning of 2008, when it began reporting its results (operations launched in August 2007). It has seen operating profits in only three quarters (see chart, page 6) and a net profit only once (3Q10). But Virgin America has deep-pocketed and patient investors, including Cyrus Capital, which recapitalised it in late 2009 and helped it raise \$150m through a debt offering in December 2011.

Profitability has eluded Virgin America for a number of reasons. First, its start was delayed by two years due to questions about its ownership and control structure, so the airline launched into an extremely tough economic environment (the 2008 oil price surge, followed by the global recession). Then in 2009 one of its founding investors exercised an option to sell their stake back to the UK-based Virgin Group, which led to an almost year-long Department of Transportation (DOT) enquiry about the airline’s US citizenship status. Virgin America lost about a year of growth since it was unable to obtain any aircraft financing during the DOT enquiry. After a successful recapitalisation and DOT clearance, the airline staged its second “take-off” in January 2010.

Difficulties in obtaining gates and slots at desirable airports have also impeded Virgin America’s progress. Many LCCs need large primary markets to be profitable, and that is especially the case with

Virgin America because of its upscale service and desire to attract business traffic.

However, Virgin America has accomplished a great deal in the past 18 months in terms of building a foundation for a successful future. First of all, it has been able to venture into several important (and potentially more profitable) new markets, including Dallas Fort Worth (December 2010), Chicago O’Hare (May 2011), Philadelphia (April 2012) and Washington DCA (this summer).

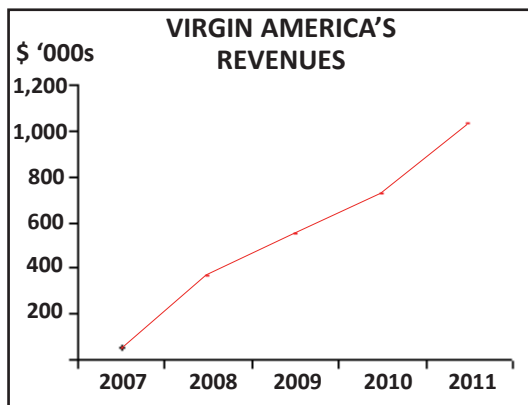
Network expansion

When it became clear that the Toronto-US West Coast markets did not have sufficient demand, Virgin America suspended what was its first international destination in April 2011 (after just 10 months), in favour of focusing on larger and more lucrative markets. Its first target was Dallas Fort Worth, one of the largest business and leisure travel markets from the West Coast. The airline boosted its DFW flights from one to three per day from both LAX and SFO, aggressively challenging AMR on its home turf. One year on, it appears that the Virgin brand and service have been well received in Dallas, though fare wars have been intense so the routes may not yet be profitable. This spring Virgin America has targeted US Airways’ Philadelphia hub, adding service there from both LAX and SFO in April.

Gaining access to slot-controlled Chicago O’Hare in May 2011 was a major victory. The opportunity came when Delta and Northwest consolidated operations at the hub after their merger and were forced to renegotiate contracts with the airport. Chicago is one of Virgin America’s most competitive markets, given that it is a hub for both American and United, though it is the only LCC serving the West Coast from Chicago O’Hare.

Aviation Strategy

Analysis



Virgin America recently again failed to secure slots at congested Newark (it was outbid by United). But it is one of four new entrants that have been granted slots at Washington DCA for new flights longer than 1,250 miles this summer (resulting from a relaxation of a law from the 1960s). The airline will be able to add a daily flight to DCA from SFO; however, the second frequency it had wanted went to United, meaning the two will compete head-on on that route.

So, Virgin America has finally made good progress towards its stated goal of serving all the major US hubs. The biggest omissions are Atlanta and Houston – both on the management's shortlist. The two additions this summer (Washington DCA and Portland) will bring the airline's net-

work to 19 points: LAX, SFO, JFK, Washington Dulles and DCA, Boston, Ft. Lauderdale, Seattle, Las Vegas, San Diego, Orlando, Dallas Fort Worth, Chicago, Palm Springs, Philadelphia, Portland and three points in Mexico.

Second, Virgin America has made stunning progress on the liquidity and aircraft financings fronts. The late-2011 fund-raising gave it decent cash reserves for the first time in its history - \$160m or 15.4% of annual revenues at year-end. Lease financing commitments are in place for all 13 A320-family aircraft slated for delivery through September 2013. And a pre-delivery payment facility is in place for the first 20 A320s VA is due to take directly from Airbus from mid-2013.

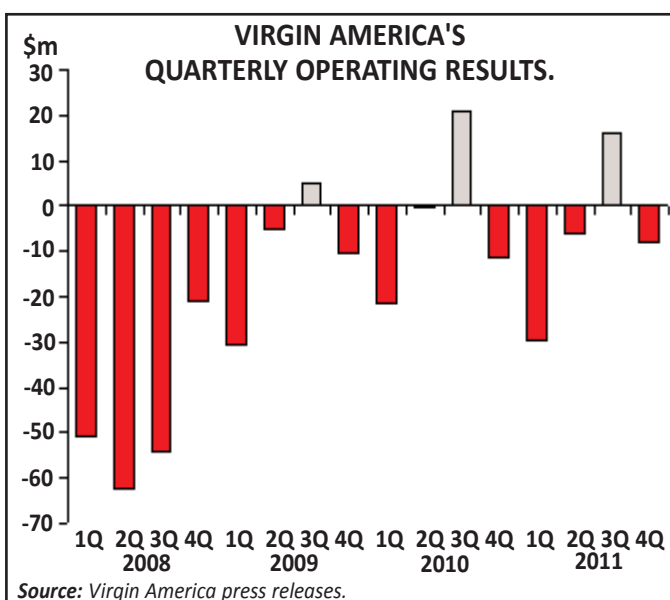
All of that means that Virgin America can wait another 12-24 months before going public. But it cannot really wait longer than that because of the start of deliveries of the \$5.1bn, 60-aircraft Airbus order placed in January 2011. It will want to tap the public markets (debt or equity) to fund those deliveries. Therefore Virgin America must become profitable in 2012 or 2013.

Third, Virgin America has already made important technology investments such as switching to the Sabre reservations platform in late 2011 (something other US LCCs have typically done much later). The new system will accommodate the significant growth the airline forecasts, improve codeshare and interline capability and facilitate FFP enhancements.

Ambitious Virgin?

The Virgin brand has gone down extremely well in the US. Virgin America has been a huge hit in the marketplace with its upmarket product that features "mood-lit" cabins, superior in-flight entertainment systems and other amenities. It continues to win "best airline" type awards.

It is also clear that San Francisco is an excellent base. The product has been keenly embraced by the typical younger Silicon Valley business travellers, as well as small and medium-sized businesses in



Aviation Strategy

Analysis

VIRGIN AMERICA'S FLEET			
	In Service	On order	Options
A319-100	10		
A320-200	41	31	38
A320neo		30	
TOTAL	51	41	38

the Bay Area generally. As California's only airline, Virgin America is in a position to develop an attractive niche as San Francisco's hometown or business airline, mirroring what JetBlue has done at JFK and Boston.

Virgin America has been very successful on the revenue side. Among LCCs, it has been closest to industry-average RASM because of its full GDS participation, three-class service, upmarket product, extensive use of alliances and legacy-style revenue management. But Virgin America has not performed so well on the cost side; in the past four years, its ex-fuel CASM has not improved despite significant ASM growth. The reason for this is continued heavy spending to facilitate growth (facilities, training etc).

Rapid growth - specifically the large number of new markets in Virgin America's network - is exerting consider-

able pressure on profit margins. The management said recently that established markets (those added in 2010 or earlier) were in fact profitable in 2011, and the new markets added last year are expected to become profitable this year. Given that the 2010-2011 operating losses were only marginal (1.7-2.6%), and now that oil prices appear to be moderating, an operating profit in 2012 may be achievable.

Virgin America's aircraft orderbook indicates that it has ambitions to become a much bigger player, operating perhaps 120-130 aircraft by the end of 2018, compared to the current 51 (as of May 1). The airline is due to receive 30 A320s in 2013-2016 and 30 A320neos in 2016-2018. Because of its greater range, the A320neo would allow Virgin America to expand its network to Hawaii.

One interesting new development is the tightening of links between the Virgin Group airlines, made possible by the Sabre transition. In early May Virgin Atlantic, Virgin America and Virgin Australia announced that they had teamed up to launch a joint "Virgin Skies" media campaign, to mark their global FFP partnership - perhaps a step towards deeper cooperation.

By Heini Nuutinen
hnuutinen@nyct.net

Aviation Economics

Our expertise is in strategic and financial consulting in Europe, the Americas, Asia, Africa and the Middle East, covering:

- Start-up business plans
- Expert witness
- Credit analysis
- Privatisation projects
- Slot valuations
- Turnaround strategies
- Merger/takeover proposals
- Corporate strategy reviews
- IPO prospectuses
- Market forecasts

For examples of our expertise go to: www.aviationeconomics.com

Or contact **Tim Coombs** or **Keith McMullan**

T: + 44 (0)20 7490 5215. F: +44 (0)20 7490 5218.

E: tdc@aviationeconomics.com kgm@aviationeconomics.com

Copa: the new SIA for global airline investors?

With virtually all the world's major airlines posting either losses or meagre profits for the high fuel-cost impacted March quarter, Panama's Copa is in a category of its own with its stunning 20.5% and 17.6% operating and net margins in the latest period. Unlike its peers, Copa is also very much in the growth mode: its capacity is slated to increase by 23% in 2012, following similar growth last year.

Of course, Copa has been profitable at this level for almost a decade. Its annual operating margins have been in the 17-21% range since 2003. In the past five years, its earnings per share have increased at an 18% CAGR, despite 14% annual growth for ASMs. The airline has long been creating buzz with its hugely successful "Hub of the Americas" strategy, which channels traffic between North, South and Central America via the Panama City hub. Ever since Copa made its debut on the NYSE in December 2005, many investors have seen it as a safe and attractive way to participate in the rapidly growing Latin American airline industry.

What has now changed is that the other former high-flyers in the airline industry have stumbled, while Copa's performance has only continued to improve. Most notably, Singapore Airlines, the leader in the global airline profit league until the late 2000s and a carrier that also relies on sixth freedom traffic, has just reported its first quarterly loss in more than two years. SIA has been hit by higher fuel costs, weaker demand from Europe and intensifying competition from Middle Eastern carriers. Among the former Latin American high-flyers, Brazil's Gol and TAM also reported poor results for the first quarter, amid higher fuel costs and a weakening GDP and air travel demand growth in Brazil.

"With Singapore Air's surprise loss, buy Copa instead?" read a headline from *Seeking Alpha* in early May. Noting that even "Middle Eastern behemoth" Emirates has seen its profits fall sharply because of fuel, the stock

market analysis website commended Copa for its continued rapid growth and strong profits "even in times of elevated crude oil".

In recent months Copa has performed some amazing feats. In particular, analysts were impressed by the carrier's yield performance in the March quarter: the yield rose by 7% despite capacity being up by 23% and the average length of haul increasing by 16%.

Such yield performance was possible because of an exceptionally strong demand environment, resulting from continued robust GDP growth in most of Copa's markets. It meant strong growth in business travel and an overall healthy pricing environment, allowing the airline to more than offset a significant hike in fuel prices. Copa's operating income rose by 12% to US\$111.6m in the March quarter, despite a 19.5% increase in the effective price of fuel.

Copa stands out from its peers also because of its promising outlook. Panama is now the fastest-growing economy in Latin America, with 10% GDP growth seen in 2011 and at least 7-8% expected in 2012. The Latin America region as a whole is projected to see 4% GDP growth this year. Copa has not detected any softening in Brazil-originating demand.

So, Copa is poised for another year of industry-leading results. Yield, RASM and load factors are all expected to improve, despite a 23% capacity addition. The management is projecting an 18-20% operating margin in 2012, which some analysts feel is a conservative estimate.

Copa's ROIC exceeded 15% in 2011 and is expected to rise to 17-20% in the next couple of years. Its balance sheet has strengthened significantly over the past five years. Its leverage ratios are now similar to Southwest's, and its cash reserves amount to a very healthy 33% of lagging 12-month revenues. So Copa is well positioned to fund its fleet plans, which include firm orders for 45 737-800s plus 16 options,

scheduled for delivery in 2012-2018.

Copa's annual investor day in March and its 1Q earnings call in early May also provided reminders of one important advantage enjoyed by the carrier: lack of infrastructure constraints at its Panama hub. Tocumen International Airport is expanding to accommodate Copa's growth. The current quarter will see the opening of a new North Terminal, which will increase the total gates from 22 to 34. And in the coming months the Panamanian government will be inviting bids for a new South Terminal, which will provide 20-30 additional gates in two to three years' time.

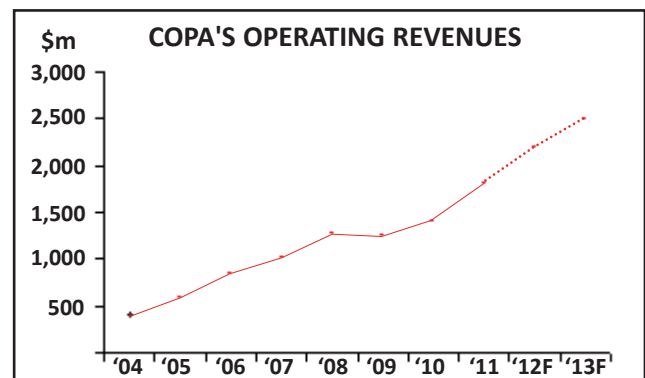
In the longer term, the question remains whether Copa's excessive reliance on connecting traffic will crimp its growth prospects. However, right now it seems that the airline is benefiting from a stronger confluence of positive factors than at any point in its history. Copa is well positioned for the market share battles that may result from the current industry consolidation phase, which will essentially lead to five carriers (LAN/TAM, AviancaTaca, Aeromexico, Gol and Copa) competing for intra-Latin America traffic.

Interesting questions include: Where will Copa put all that significant additional capacity? Could there be units similar to Copa Colombia in more Latin American countries? How will Copa tackle the Brazilian market?

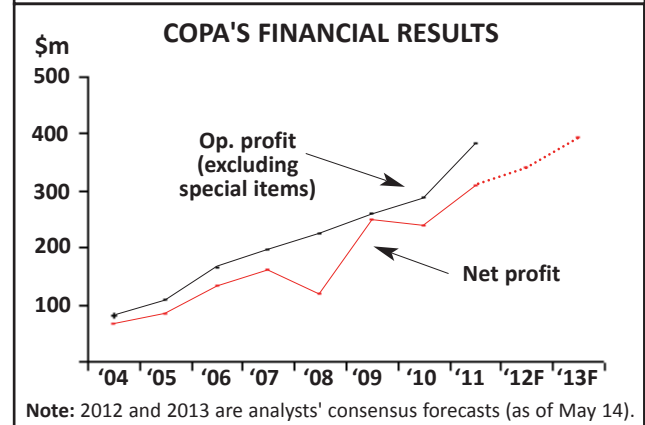
Copa's background

Copa's background and growth path have been unusual. Established in 1947 as a joint venture between Pan Am and local Panamanian investors, the airline led a very quiet existence until new owners and management arrived in the late 1980s. CIASA, which is controlled by the Motta, Heilbron and Arias families and is a major economic force in Panama with interests in banking, insurance and other sectors, purchased 99% of Copa in 1986, which led to a growth phase in the 1990s.

A new management team, led by the current CEO Pedro Heilbron, took over in 1988 and guided the airline through several important strategies. First and most significantly,



Note: 2012 and 2013 are analysts' consensus forecasts (as of May 14).



Note: 2012 and 2013 are analysts' consensus forecasts (as of May 14).

the new management saw an opportunity to develop connecting traffic via Tocumen, and Copa began a hub operation there in 1992.

Second, the management took Copa into international alliances. After initially teaming up with TACA and American, in 1998 Copa forged a comprehensive alliance with Continental, which also involved the Houston-based carrier acquiring a 49% stake in Copa. Since Panama had signed an open skies ASA with the US in 1997, the alliance secured early antitrust immunity in the US. The Continental alliance developed into a deep and long-lasting partnership, one that has been highly beneficial for Copa.

Third, in 1999 the management initiated a vital part of Copa's transformation into a successful modern airline: complete fleet renewal. The process, which was completed in 2005, replaced the carrier's 737-200 fleet with new 737-700/800s and E190s.

Copa got an opportunity to go public in December 2005 simply because Continental needed cash. The Houston-based airline and CIASA both sold shares in the IPO, collecting

about \$172m each in proceeds, which for Continental represented a nice gain on the \$53m it paid for the 49% stake in 1998 (of course, Continental also collected significant amounts in profits and dividends from Copa). Continental further reduced its stake from 27.3% to 10% in a follow-on offering in June 2006, before selling its remaining shares in the public market in May 2008.

The IPO gave Copa a listing on the NYSE. CIASA has remained in control through its ownership of 100% of Copa's Class B shares, which carry voting rights and the right to designate 6-7 directors (there are also three independent directors and one designated by United Continental). The class B shares represent about 25% of Copa's capital stock; the rest is held publicly in the form of Class A shares. Copa's board directors and executive officers as a group hold about 1% of the A shares. Major institutional investors include FMR and Ameriprise Financial.

The Copa-Continental partnership has been so strong that Copa left the SkyTeam alliance concurrently with its partner in October 2009. All of the service and alliance agreements with Continental were extended to the new United and are currently in force until 2015.

In April 2005 Copa acquired an initial 85.6% stake for \$23.4m in AeroRepublica, now Copa Colombia, which at that time was Colombia's second largest carrier. The ownership interest has since then been increased to 99.9%. It was a strategic move to gain a foothold in Latin America's third largest market in terms of population (45.5m in 2010). The country shares a border with Panama and represents a significant market for many Panamanian businesses (for historic, cultural and business reasons). But Copa also faced the challenging task of replacing the smaller carrier's old fleet and turning it around financially, while fending off growing competition.

The Panama hub advantage

The Panama hub has grown to become Copa's most valuable asset, now offering connections between 2,900-plus city pairs. First of all, it is geographically well located, allowing 737NGs to fly nonstop to practical-

ly anywhere in the Americas. The airport benefits from a sea-level location – the two key competing airports in the region are at hot and high locations – and favourable weather, which has given Copa excellent on-time performance and completion factors.

Because of its manageable size and Panama's policies accommodating transfer passengers, the airport offers easy transfers and short connecting times.

Tocumen is the only airport in Central America with two operational runways. It is not gate-constrained and has ample room to grow. Two expansion phases since 2004 have increased the airport's total gates from 14 to 34 and have provided new taxiways and ramp and support areas, facilitating Copa's planned growth for the next 3-5 years. The next expansion phase, which will kick off this year, will see a new terminal built to the south, along with expanded customs, immigration, security and baggage handling facilities.

Tocumen also has competitive user fees. Copa, which accounts for around 80% of the airport's traffic, previously estimated that the airport was in the lowest third in terms of costs in Latin America and probably in the world. Tocumen is operated by a government-owned entity that is by law required to use a significant portion of its revenues for airport expansion and improvements.

Copa benefits from Panama's stable, dollar-based economy, free-trade zone and growing tourism. According to IMF, between 1999 and 2010 Panama's real GDP grew at an average annual rate of 5.7%, while inflation averaged 2.4% annually. Copa faces much less currency risks than many other Latin American carriers (also because of its diversified network), and the low tax environment meant that it had only a 10.3% effective income tax rate in 2011.

Panama has been enjoying an economic boom in recent years because of the expansion of the Panama Canal, a \$5.25bn project that kicked off in late 2007 and which will double the canal's capacity by 2014 or 2015. In 2010 Fitch, S&P and Moody's all upgraded Panama's sovereign ratings to investment grade, citing the strong growth supported by the canal expansion and improvements in

the country's fiscal and debt positions.

As a result, Panama has attracted significant new foreign investment and strengthened its role as a major financial, trade, shipping and international business centre. Having long been home to many regional offices of multinational corporations, Panama has now seen this activity accelerate sharply. Last year 68 new regional headquarters were established there by multinationals, compared to 46 in 2010, 39 in 2009, 18 in 2008 and seven in 2007. As a result, having long generated international business traffic way beyond the size of the population (about 3.5m in 2010, the majority living in Panama City), business travel to and from Panama is booming.

Panama is also a growing tourist destination, following in Costa Rica's footsteps. Recent years have seen a construction boom, fuelled by tourism and retirees from the US, Canada and Spain buying second and third homes in Panama (a trend that may have accelerated because of the drug-related violence in Mexico).

Copa noted in its latest annual report that Panama's stable, service-oriented economy and steady population growth have also boosted locally generated traffic. Panama still has extensive poverty but, like other Latin American countries, is seeing the emergence of middle classes.

These trends have meant that Panama O&D traffic has grown to account for 48% of Copa's total traffic at Tocumen; the remaining 52% is in-transit traffic. Strong local traffic will make Copa's business model more sustainable in the longer term.

All of this has enabled Copa to significantly strengthen the Tocumen hub. According to the investor day presentation, Copa now offers nonstop service to 60 destinations from Panama (including cities to be added in June), which is far more than key competitors at their hubs (Avianca serves 24 cities from Bogotá, Taca 17 from Costa Rica, Taca 20 from Lima and LAN 20 from Lima). Copa also leads in terms of frequencies offered: nine destinations with at least four daily flights (Avianca has one such destination from Bogotá and LAN one from Lima). Copa has at least daily flights to 34 destinations from

Panama - more than twice as many as the other airlines from their key hubs.

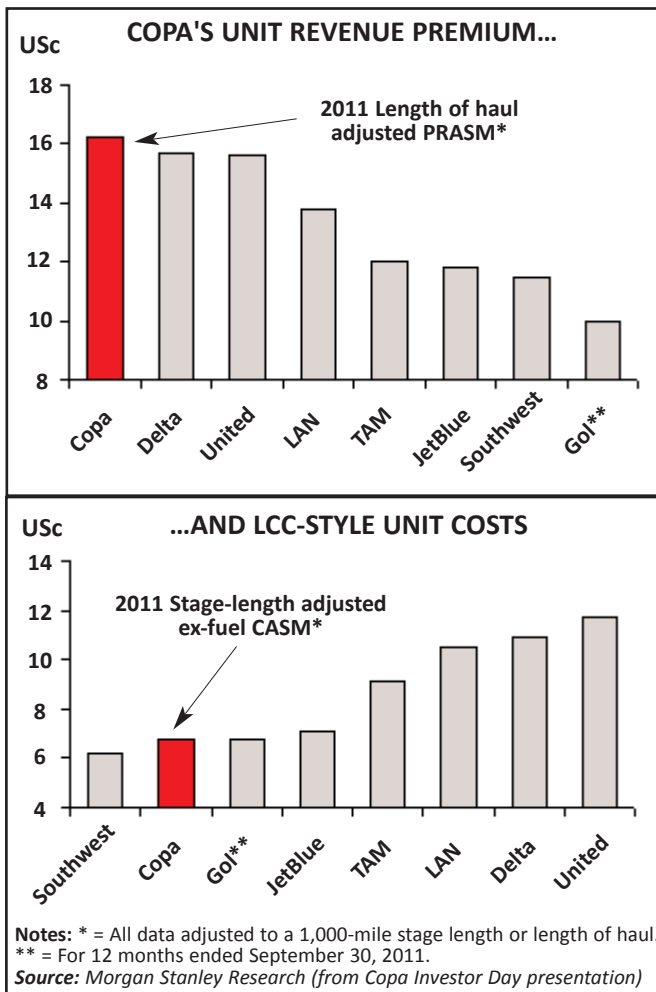
Last year Copa switched from a four-bank to a six-bank hub operation at Tocumen by adding new early morning and afternoon banks of flights. This has had a number of benefits: facilitating growth without affecting on-time performance, more efficient use of airport facilities and other fixed assets, improved schedules in many markets, more time of day choices for passengers and improved passenger convenience through a greater use of jetways. The average connecting time for transfer passengers has remained unchanged (one hour 13 minutes), while the daily hub capacity has almost doubled from 124 to 240 departures.

Copa has a nicely diversified revenue base within the Americas. In 2011 its revenues were generated as follows (based on point of sale): Panama 12%, North America 17%, Central America and the Caribbean 13%, Colombia 15%, Brazil 13%, Venezuela 10% and other South America 21%. Copa and Copa Colombia currently operate a 65-point network covering 29 countries. Over 130 other destinations are served through code-sharing with United. Copa also has some codeshares with KLM, Gol and Aeromexico.

Copa does not currently operate domestic service. Travel within Panama is mostly by ground transport, as distances are short. The main local airline is Air Panama, which operates turboprops of mostly less than 50 seats and also offers limited international flights. The local airlines operate to a domestic terminal in Panama City that is a 30-minute drive from Tocumen.

Business model and strategy

Along with the Panama hub advantage, Copa's key strength is that it focuses on underserved thin markets. More than 70% of its O&D city pairs have fewer than 20 passengers per day in each direction, and another 10% have only 21-50 passengers per day. The airline consolidates traffic from numerous points via the hub to achieve a satisfactory load factor to every destination city. These markets really need a hub. They would not be profitable as point-to-point operations.



This makes Copa's business model highly defensible. It is not easy for LCCs or any other competitors to profitably bypass the hub in most markets. It means that Copa enjoys benign competitive conditions – something that gives it added pricing power. According to the management, in about 50% of its O&D markets it has at least a 70-75% market share. In markets that make up half of its revenues, it has a 60%-plus market share. Competition for Copa is mainly from other hubs, hence the efforts to make sure that Panama offers the fastest and most convenient transfers.

Another factor that distinguishes Copa is that it enjoys the very unusual combination of premium unit revenues and low unit costs. Its RASM is strong because of its high business traffic content (about 50%) and the lack of competition. According to a comparison by Morgan Stanley Research, Copa had the

highest length-of-haul adjusted PRASM in 2011 among a group of carriers that included Delta, United and LAN (see chart, left).

The Morgan Stanley analysis found that Copa has LCC-level unit costs. Its stage-length adjusted ex-fuel CASM in 2011 was a little higher than Southwest's, the same as Gol's and lower than JetBlue's (see chart, left).

The cost structure is amazing for a hub-and-spoke carrier that operates in a healthy economic and revenue environment. Copa attributes it to its modern fleet, efficient operations and Panama's low labour costs. Copa's aircraft utilisation is relatively high (11 hours daily) because of its high average stage length.

In the mid-2000s Copa was in the middle of the pack in terms of CASM – lower than the US legacies but higher than the LCCs. But since then Copa's ex-fuel CASM has declined, partly due to ASM growth but also because of a reduction in distribution costs and efficiency improvements through technology and automation. Between 2007 and 2011, Copa reduced its ex-fuel CASM by 7%, which almost offset the 21% hike in fuel unit costs, meaning that total CASM remained virtually unchanged in the four-year period. Thanks to continued rapid ASM growth and further anticipated distribution cost savings, Copa expects to keep its ex-fuel CASM flat in 2012.

Copa benefits from excellent labour relations. However, given the strong profits and the fact that the airline is 58% unionised, some analysts are concerned about potential labour cost pressure.

Copa is also notable for its world-class product and strong brand. In that area it has benefited greatly from the unusually comprehensive alliance with Continental. From the start, Copa's brand was closely associated with Continental's. Its logo, livery and aircraft interiors are similar (the new United uses the former Continental livery and logo). Copa also adopted Continental's OnePass FFP (now MileagePlus) and participates in the airport lounge programme. Copa's latest annual report notes that the co-branding "helped leverage the brand recognition that Continental already enjoyed across Latin America" and has enabled Copa to compete more effectively against AviancaTaca, American and others.

Copa has also benefited enormously from Continental's technology, know-how and economies of scale. Among other things, it shares Continental's Sceptre inventory management system, which allows it to pool spare parts with the larger carrier. The partnership has also enabled it to negotiate more competitive rates for spare parts and third-party maintenance work.

JP Morgan analyst Jamie Baker said some years ago that Copa had one of the highest quality management teams he had come across. One of their accomplishments has been to create a Southwest/Gol-style employee culture "based on teamwork and focused on continuous improvement". The highly motivated workforce benefits from the best training practices, performance bonuses, profit sharing, etc.

At the investor day Copa's executives summarised the company's strategic focus as follows: further strengthening of intra-Latin America network and regional growth opportunities, continuous improvement of passenger experience, keeping costs competitive and maintaining company culture.

Growth plans

Copa's 2012 plan calls for another year of heady 20%-plus ASM growth, though most of it will be the result of last year's expansion (when nine new destinations were added) and new frequencies. So far Copa has announced five new cities for 2012, four of them starting in June: Las Vegas, Recife (Brazil), Liberia (Costa Rica), Curacao and Iquitos (Peru).

The management made the point that the opportunities to grow via additional frequencies are particularly good, because more than 40% of Copa's current destinations have been served for less than five years. Including the June additions, 18 cities have less than daily service and another 15 cities have only daily flights.

This year's growth will be facilitated by the net addition of 10 aircraft – 13 new 737-800 deliveries and the return to lessors of three 737-700s. At the end of March, the consolidated fleet consisted of 77 aircraft, including 31 737-800s, 20 737-

700s and 26 E190s. By the end of 2014, Copa expects to operate 94 aircraft – 50 737-800s, 18 737-700s and 26 E190s.

Capitalising on opportunities at Copa Colombia is a key element of Copa's growth strategy. The venture has been a demanding project but is finally yielding positive results. It has contracted sharply domestically and is focusing its efforts on international expansion. This means that Copa Colombia should not be greatly impacted by VivaColombia, the Medellin-based LCC start-up that is planning to start flying at the end of May.

Almost all of Copa's Panama-Colombia service is now provided by Copa Colombia. The venture, which currently operates 14 E190s and three 737NGs, has launched six international destinations (Guayaquil, San Jose, Guatemala City, Mexico City, Havana and Cancun) and is authorised to fly to a handful of others. A new Colombia-US open skies ASA, due to take effect in January 2013, will provide added opportunities.

Copa is due to officially join the Star alliance in the coming weeks, after a slight delay from the originally scheduled April entry. The management considers FFP reciprocity with the 26-27 members as the main benefit; after all, the key alliance, with United, is already in place and working extremely well, with extensive codesharing and other forms of cooperation. There seems to be some unease about entering the same alliance with AviancaTaca. Copa's latest annual report mentioned it under the "risk factors": "We cannot predict the extent to which participating in the same alliance as one of our direct competitors may impact on our revenues, our ability for future growth" and so on.

While Copa's business model is clearly very "defensible", the airline is wise to diversify with ventures such as Copa Colombia, because in the future some of its larger (and most lucrative) markets are likely to attract point-to-point operators. As air travel demand increases in Latin America, more city pairs will become candidates for non-stop service, particularly by LCCs.

By Heini Nuutinen
hnuutinen@nyct.net

Jet values and lease rates

The following tables reflect the current values (not “fair market”) and lease rates for narrowbody and widebody jets. Figures are provided by The Aircraft Value Analysis Company (see following page for contact details) are not based exclusively on recent market transactions but more reflect AVAC’s opinion of the worth of the aircraft.

These figures are not solely based on market averages. In assessing current values, AVAC bases its calculations on many factors such as number of type in service, number on order and backlog, projected life span, build standard, specification etc. Lease rates are calculated independently of values and are all market based.

NARROWBODY VALUES (US\$m)									
	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A318 (CFM)	26.1	17.9			717-200			7.3	
A319 (IGW)		26.1	20.1		737-300 (LGW A)				3.1
A320-200 (IGW)		30.8	24.0	10.3	737-400 (LGW A)				3.0
A321-200 (LGW)			26.2		737-500 (LGW A)				2.6
					737-600 (LGW)			12.3	
					737-700 (LGW)	26.3	20.5		
					737-800 (LGW)	33.2	25.3		
					737-900			18.0	
					757-200 (RB 211)				8.8
					757-200ER (PW)			14.3	8.8
					757-300 (LGW)			16.7	
					MD-82				1.1
					MD-83				1.6
					MD-87				1.2
					MD-88				1.6
WIDEBODY VALUES (US\$m)									
	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A300B4-600				3.8	747-400 (PW)			37.8	17.9
A300B4-600R				7.4	767-200 (CF6)				3.6
A310-300 (IGW)				5.0	767-300 (CF6)				7.7
A330-200			51.2		767-300ER (LGW)			24.7	13.5
A330-300 (IGW)			40.7		777-200 (PW)			34.9	
A340-300 (LGW)			29.5		777-200ER	98.5	77.9	57.2	
A340-300 (HGW)			34.5		777-300			51.9	
A340-300ER			36.2		787-8	107.7			
A340-500 (IGW)			41.9						
A340-600 (IGW)			48.4		MD-11P				12.7
A380-800	202.0	161.6							

Source: AVAC
Note: As assessed at end-April 2012; mid-range values for all types

Aviation Strategy

Jet lease rates

NARROWBODY LEASE RATES (US\$000s per month)

	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A318 (CFM)	215	163			717-200			107	
A319 (IGW)		233	187		737-300 (LGW A)				68
A320-200 (IGW)		241	212	118	737-400 (LGW A)				57
A321-200 (LGW)			245		737-500 (LGW A)				51
					737-600 (LGW)			114	
					737-700 (LGW)	240		192	
					737-800 (LGW)	274		222	
					737-900			151	
					757-200 (RB 211)				124
					757-200ER (PW)			145	125
					757-300 (LGW)			159	
					MD-82				48
					MD-83				53
					MD-87				42
					MD-88				55

WIDEBODY LEASE RATES (US\$000s per month)

	NEW	5 years old	10 years old	20 years old		NEW	5 years old	10 years old	20 years old
A300B4-600				115	747-400 (PW)			378	243
A300B4-600R				97	767-200 (CF6)				88
A310-300 (IGW)				102	767-300 (CF6)				113
A330-200			516		767-300ER (LGW)			285	210
A330-300 (IGW)			439		777-200 (PW)			367	
A340-300 (LGW)			393		777-200ER	976	701	657	
A340-300 (HGW)			431		777-300			529	
A340-300ER			440		787-8	830			
A340-500 (IGW)			495						
A340-600 (IGW)			573		MD-11P				157
A380-800	1,784	1,518							

Source: AVAC

Note: As assessed at end-April 2012; mid-range values for all types

AIRCRAFT AND ASSET VALUATIONS

Contact Paul Leighton at AVAC
(Aircraft Value Analysis Company)

- Website: www.aircraftvalues.net
- Email: pleighton@aircraftvalues.net
- Tel: +44 (0) 20 7477 6563
- Fax: +44 (0) 20 7477 6564

Aviation Strategy

Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.
Air France/ KLM Group YE 31/03	Jul-Sep 09	8,015	8,082	-67	-210	-0.8%	-2.6%	66,862	56,141	84.0%	19,668	105,444
	Oct-Dec 09	7,679	8,041	-362	-436	-4.7%	-5.7%	61,407	49,220	80.2%	17,264	105,925
	Year 2009/10	29,096	31,357	-2,261	-2,162	-7.8%	-7.4%	251,012	202,453	80.7%	71,394	104,721
	Apr-Jun 10	7,301	7,469	-168	939	-2.3%	12.9%	60,345	49,283	81.7%	17,623	102,918
	Jul-Sep 10	8,579	7,835	743	374	8.7%	4.4%	66,558	56,457	84.8%	19,704	
	Oct-Dec 10	7,956	7,847	109	-62	1.4%	-0.8%	62,379	50,753	81.4%	17,551	101,946
	Year 2010/11	31,219	19,236	1,171	810	3.8%	2.6%	250,836	204,737	81.6%	71,320	102,012
	Apr-Jun 11	8,947	9,153	-206	-283	-2.3%	-3.2%	66,531	53,931	81.1%	19,653	
	Apr-Sep 11	18,600	18,240	360	-257	1.9%	-1.4%	137,282	114,846	83.7%	40,605	102,516
	Year 2011	34,109	34,602	-493	-1,131	-1.4%	-3.3%	264,895	217,169	81.8%	102,012	102,012
Jan-Mar 12	7,400	8,058	-658	-482	-8.9%	-6.5%	63,391	51,733	81.6%	17,463	101,222	
British Airways YE 31/03	Year 2009/10	12,761	13,130	-369	-678	-2.9%	-5.3%	141,178	110,851	78.5%	31,825	37,595
	Apr-Jun 10	3,092	3,207	-115	-195	-3.7%	-6.3%	32,496	24,192	74.4%	7,013	
	Jul-Sep 10	3,908	3,332	576	365	14.7%	9.3%	37,163	31,066	83.6%	9,339	
IAG Group YE 31/12	Oct-Dec 10	5,124	5,116	8	121	0.2%	2.4%	50,417	39,305	78.0%		56,243
	Jan-Mar 11	4,969	5,109	-139	45	-2.8%	0.9%	51,118	37,768	73.9%	11,527	56,159
	Apr-Jun 11	5,951	5,678	273	135	4.6%	2.3%	53,425	42,635	79.8%	13,288	56,649
	Jul-Sep 11	6,356	5,842	514	401	8.1%	6.3%	55,661	47,022	84.5%	14,553	57,575
	Year 2011	22,781	22,105	676	735	3.0%	3.2%	213,193	168,617	79.1%	51,687	56,791
	Jan-Mar 12	5,136	5,463	-326	-240	-6.4%	-4.7%	51,425	39,140	76.1%	11,384	56,532
Iberia YE 31/12	Year 2009	6,149	6,796	-647	-381	-10.5%	-6.2%	62,158	49,612	79.8%		20,671
	Jan-Mar 10	1,453	1,552	-98	-72	-6.8%	-5.0%	14,360	11,605	80.8%		19,643
	Apr-Jun 10	1,502	1,498	27	40	1.8%	2.6%	15,324	12,648	82.5%		20,045
	Jul-Sep 10	1,730	1,637	93	95	5.4%	5.5%	16,834	14,404	85.6%		20,668
Lufthansa YE 31/12	Year 2009	31,077	30,699	378	-139	1.2%	-0.4%	206,269	160,647	77.9%	76,543	112,320
	Jan-Mar 10	7,978	8,435	-457	-413	-5.7%	-5.2%	52,292	39,181	74.9%	19,031	117,732
	Apr-Jun 10	8,763	8,560	203	248	2.3%	2.8%	57,565	45,788	79.5%	22,713	116,844
	Jul-Sep 10	9,764	8,754	1,010	810	10.3%	8.3%	63,883	53,355	83.5%	26,089	116,838
	Year 2010	36,057	34,420	1,636	1,492	4.5%	4.1%	235,837	187,700	79.3%	91,157	117,019
	Jan-Mar 11	8,792	9,031	-239	-692	-2.7%	-7.9%	60,326	43,726	72.5%	22,078	117,000
	Apr-Jun 11	10,967	10,636	331	433	3.0%	3.9%	68,763	53,603	78.0%	28,147	118,766
	Jul-Sep 11	11,430	10,616	814	699	7.1%	6.1%	73,674	60,216	81.7%	30,408	120,110
	Year 2011	40,064	38,920	1,143	-18	2.9%	0.0%	268,939	207,536	77.2%	106,335	120,055
	Jan-Mar 12	8,675	9,174	-499	-520	-5.8%	-6.0%					
SAS YE 31/12	Year 2009	5,914	6,320	-406	-388	-6.9%	-6.6%	35,571	25,228	70.9%	24,898	18,786
	Jan-Mar 10	1,322	1,428	-106	-99	-8.0%	-7.5%	7,951	5,471	68.8%	5,735	15,835
	Apr-Jun 10	1,321	1,367	-46	-66	-3.5%	-5.0%	8,769	6,612	75.4%	6,282	15,709
	Jul-Sep 10	1,471	1,538	-67	-145	-4.6%	-9.8%	9,180	7,239	78.9%	6,655	15,570
	Oct-Dec 10	1,556	1,606	-51	7	-3.2%	0.4%	8,761	6,389	72.9%	6,557	15,123
	Year 2010	5,660	5,930	-270	-308	-4.8%	-5.4%	34,660	25,711	74.2%	25,228	15,559
	Jan-Mar 11	1,336	1,395	-59	-54	-4.4%	-4.0%	8,528	5,655	66.3%	6,093	14,972
	Apr-Jun 11	1,793	1,648	145	88	8.1%	4.9%	9,848	7,494	76.1%	7,397	15,264
	Jul-Sep 11	1,642	1,565	77	33	4.7%	2.0%	9,609	7,579	78.9%	6,928	15,375
	Oct-Dec 11	1,507	1,559	-51	-308	-3.4%	-20.5%	9,019	6,446	71.5%	6,788	14,958
	Year 2011	6,386	6,286	100	-260	1.6%	-4.1%	37,003	27,174	73.4%	27,206	15,142
	Jan-Mar 12	1,419	1,548	-128	-108	-9.0%	-7.6%	8,701	5,943	68.3%	6,416	14,836
Ryanair YE 31/03	Year 2009/10	4,244	3,656	568	431	13.5%	10.2%			82.0%	66,500	
	Apr-Jun 10	1,145	992	152	120	13.3%	10.5%			83.0%	18,000	7,828
	Jul-Sep 10	1,658	1,150	508	426	30.7%	25.7%			85.0%	22,000	8,100
	Oct-Dec 10	1,015	1,016	-1	-14	-0.1%	-1.3%			85.0%	17,060	8,045
	Year 2010/11	4,797	4,114	682	530	14.2%	11.0%			83.0%	72,100	
	Apr-Jun 11	1,661	1,418	245	201	14.7%	12.1%			83.0%	21,300	
	Jul-Sep 11	2,204	1,523	681	572	30.9%	25.9%			87.0%	23,000	
	Oct-Dec 11	1,139	1,099	39	20	3.4%	1.8%			81.0%		
	Year 2011/12	6,053	5,112	942	772	15.6%	12.8%			82.0%	75,800	
	Jan-Mar 12											
easyJet YE 30/09	Year 2007/08	4,662	4,483	180	164	3.9%	3.5%	55,687	47,690	85.6%	43,700	6,107
	Oct 08-Mar 09	1,557	1,731	-174	-130	-11.2%	-8.3%	24,754	21,017	84.9%	19,400	
	Year 2008/09	4,138	3,789	93	110	2.3%	2.7%	58,165	50,566	86.9%	45,200	
	Oct 09-Mar 10	1,871	1,995	-106	-94	-5.6%	-5.0%	27,077	23,633	87.3%	21,500	
	Year 2009/10	4,635	4,364	271	240	5.9%	5.2%	62,945	56,128	87.0%	48,800	
	Oct 10-Mar 11	1,950	2,243	-229	-181	-11.7%	-9.3%	29,988	26,085	87.0%	23,900	
	Year 2010/11	5,548	5,115	432	362	7.8%	6.5%	69,318	61,347	88.5%	54,500	
	Oct 11-Mar 12	2,302	2,458	-156	-141	-6.8%	-6.1%	30,785	27,329	88.8%	25,200	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation.

Aviation Strategy

Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.	
Alaska	Jul - Sep 10	1,068	851	216	122	20.2%	11.4%	10,531	8,980	85.3%	4,562	8,737	
	Oct - Dec 10	959	839	119	65	12.4%	6.8%	10,037	8,410	83.8%	4,141	8,711	
	Year 2010	3,832	3,361	472	251	12.3%	6.6%	44,636	36,758	82.4%	23,334	11,696	
	Jan - Mar 11	965	831	134	74	13.9%	7.7%	11,445	9,419	82.3%	5,752	11,884	
	Apr - Jun 11	1,110	1,052	58	29	5.2%	2.6%	12,020	10,127	84.3%	6,246	11,907	
	Jul - Sep 11	1,198	1,055	143	77	11.9%	6.4%	12,469	10,787	86.5%	6,709	11,859	
	Oct - Dec 11	1,044	930	114	64	10.9%	6.1%	11,745	9,950	84.7%	6,083	11,807	
	Year 2011	4,318	3,869	449	245	10.4%	5.7%	47,679	40,284	84.5%	24,790	11,840	
	Jan - Mar 12	1,039	967	72	41	6.9%	3.9%	11,819	10,029	84.9%	5,995	11,832	
	American	Year 2010	22,170	21,862	308	-471	1.4%	-2.1%	246,611	201,945	81.9%	86,130	78,250
Jan - Mar 11		5,533	5,765	-232	-436	-4.2%	-7.9%	60,912	46,935	77.1%	20,102	79,000	
Apr-Jun 11		6,114	6,192	-78	-286	-1.3%	-4.7%	63,130	52,766	83.6%	22,188	80,500	
	Jul-Sep 11	6,376	6,337	39	-162	0.6%	-2.5%	64,269	54,552	84.9%	22,674	80,600	
Delta	Jul - Sep 10	8,950	7,947	1,003	363	11.2%	4.1%	102,445	87,644	85.6%	44,165	79,005	
	Oct - Dec 10	7,789	7,495	294	19	3.8%	0.2%	91,774	74,403	81.1%	39,695	79,684	
	Year 2010	31,755	29,538	2,217	593	7.0%	1.9%	374,458	310,867	83.0%	162,620	79,684	
	Jan - Mar 11	7,747	7,839	-92	-318	-1.2%	-4.1%	90,473	69,086	76.4%	36,764	81,563	
	Apr-Jun 11	9,153	8,672	481	198	5.3%	2.2%	96,785	81,054	83.7%	42,918	82,347	
	Jul - Sep 11	9,816	8,956	860	549	8.8%	5.6%	101,807	87,702	86.1%	44,713	79,709	
	Year 2011	35,115	33,140	1,975	854	5.6%	2.4%	377,642	310,228	82.1%	163,838	78,392	
	Jan - Mar 12	8,413	8,031	382	124	4.5%	1.5%	87,559	69,765	79.7%	37,557	78,761	
	Southwest	Jul - Sep 10	3,192	2,837	355	205	11.1%	6.4%	41,130	33,269	80.9%	22,879	34,836
		Oct - Dec 10	3,114	2,898	216	131	6.9%	4.2%	38,891	32,196	80.7%	22,452	34,901
Year 2010		12,104	11,116	988	459	8.2%	3.8%	158,415	125,601	79.3%	88,191	34,901	
Jan - Mar 11		3,103	2,989	114	5	3.7%	0.2%	39,438	30,892	78.3%	25,599	35,452	
Apr-Jun 11		4,136	3,929	207	161	5.0%	3.9%	50,624	41,654	82.3%	27,114	43,805	
Jul - Sep 11		4,311	4,086	225	-140	5.2%	-3.2%	53,619	43,969	82.0%	28,208	45,112	
Oct - Dec 11		4,108	3,961	147	152	3.6%	3.7%	50,368	40,524	80.5%	27,536	45,392	
Year 2011		15,658	14,965	693	178	4.4%	1.1%	194,048	157,040	80.9%	103,974	45,392	
Jan - Mar 12		3,991	3,969	22	98	0.6%	2.5%	49,298	38,116	77.3%	25,561	46,227	
Continental		Year 2009	12,586	12,732	-146	-282	-1.2%	-2.2%	176,305	143,447	81.4%	62,809	41,000
	Jan - Mar 10	3,169	3,220	-51	-146	-1.6%	-4.6%	42,350	33,665	79.5%	14,535	39,365	
	Apr - Jun 10	3,708	3,380	328	233	8.8%	6.3%	39,893	33,910	85.0%	16,300	38,800	
	Jul - Sep 10	3,953	3,512	441	354	11.2%	9.0%	46,844	40,257	85.9%	16,587	38,900	
United	Year 2009	16,335	16,496	-161	-651	-1.0%	-4.0%	226,454	183,854	81.2%	81,246	43,600	
	Jan - Mar 10	4,241	4,172	69	-82	1.6%	-1.9%	53,023	42,614	80.4%	18,818	42,800	
	Apr - Jun 10	5,161	4,727	434	273	8.4%	5.3%	58,522	49,319	84.3%	21,234	42,600	
	Jul - Sep 10	5,394	4,859	535	387	9.9%	7.2%	61,134	52,534	85.9%	22,253	42,700	
United/Continental Pro-forma FY 2010	Oct-Dec 10	8,433	8,515	-82	-325	-1.0%	-3.9%	100,201	82,214	82.0%	35,733	80,800	
	Year 2010	34,013	32,195	1,818	854	5.3%	2.5%	407,304	338,824	83.2%	145,550	81,500	
	Jan - Mar 11	8,202	8,168	34	-213	0.4%	-2.6%	96,835	75,579	78.0%	32,589	82,000	
	Apr-Jun 11	9,809	9,001	808	538	8.2%	5.5%	104,614	87,296	83.4%	37,000	81,100	
	Jul - Sep 11	10,171	9,236	935	653	9.2%	6.4%	107,236	91,494	85.3%	38,019	80,500	
	Oct - Dec 11	8,928	8,883	45	-138	0.5%	-1.5%	97,707	79,610	81.5%	34,191	82,700	
	Year 2011	37,110	35,288	1,822	840	4.9%	2.3%	406,393	333,977	82.2%	141,799	81,600	
	Jan - Mar 12	8,602	8,873	-271	-448	-3.2%	-5.2%	97,112	75,809	78.1%	32,527	83,700	
US Airways Group	Jul - Sep 10	3,179	2,864	315	240	9.9%	7.5%	36,808	30,604	83.1%	20,868	30,445	
	Oct - Dec 10	2,907	2,802	105	28	3.6%	1.0%	33,823	27,271	80.6%	20,118	30,871	
	Year 2010	11,908	11,127	781	502	6.6%	4.2%	138,107	111,996	81.1%	79,560	30,871	
	Jan - Mar 11	2,961	3,000	-39	-114	-1.3%	-3.9%	33,034	25,762	78.0%	18,851	30,621	
	Apr-Jun 11	3,503	3,326	177	92	5.1%	2.6%	36,698	30,754	83.8%	21,209	31,321	
	Jul - Sep 11	3,436	3,256	180	76	5.2%	2.2%	36,357	30,911	85.0%	20,655	31,327	
	Oct - Dec 11	3,155	3,047	108	18	3.4%	0.6%	33,393	27,352	81.9%	19,857	31,548	
	Year 2011	13,055	12,629	426	71	3.3%	0.5%	139,483	114,777	82.3%	80,572	31,548	
	Jan - Mar 12	3,266	3,207	59	48	1.8%	1.5%	34,032	26,970	79.2%	19,822	31,186	
	JetBlue	Jul - Sep 10	1,039	890	140	59	13.5%	5.7%	14,648	12,390	84.6%	6,573	10,669
Oct - Dec 10		940	883	57	9	6.1%	1.0%	13,727	11,239	81.9%	6,039	11,121	
Year 2010		3,779	3,446	333	97	8.8%	2.6%	55,914	45,509	81.4%	24,254	11,121	
Jan - Mar 11		1,012	967	45	3	4.4%	0.3%	13,696	11,143	81.4%	6,039	11,281	
Apr - Jun 11		1,151	1,065	86	25	7.5%	2.2%	15,193	12,379	81.5%	6,622	11,609	
Jul - Sep 11		1,195	1,087	108	35	9.0%	2.9%	15,856	13,409	84.6%	7,016	11,443	
Oct - Dec 11		1,146	1,063	83	23	7.2%	2.0%	15,168	12,472	82.2%	6,693	11,733	
Year 2011		4,504	4,182	322	86	7.1%	1.9%	59,917	49,402	82.5%	26,370	11,733	
Jan - Mar 12		1,203	1,114	89	30	7.4%	2.5%	15,346	12,726	82.9%	6,853	11,965	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1.6093 ASK. All US airline financial year ends are December 31st.

Aviation Strategy

Databases

		Group revenue US\$m	Group costs US\$m	Group op. profit US\$m	Group net profit US\$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.
ANA YE 31/03	Year 2006/07	12,763	11,973	790	280	6.2%	2.2%	85,728	58,456	68.2%	49,500	32,460
	Year 2007/08	13,063	12,322	740	563	5.7%	4.3%	90,936	61,219	67.3%	50,384	
	Year 2008/09	13,925	13,849	75	-42	0.5%	-0.3%	87,127	56,957	65.4%	47,185	
	Year 2009/10	13,238	13,831	-582	-614	-4.4%	-4.6%	83,827	55,617	66.3%	44,560	
	Year 2010/11	15,889	15,093	796	269	5.0%	1.7%	85,562	59,458	69.5%	45,748	
Cathay Pacific YE 31/12	Year 2007	9,661	8,670	991	900	10.3%	9.3%	102,462	81,101	79.8%	23,250	19,840
	Year 2008	11,119	12,138	-1,018	-1,070	-9.2%	-9.6%	115,478	90,975	78.8%	24,959	18,718
	Year 2009	8,640	7,901	740	627	8.6%	7.3%	111,167	96,382	86.7%	24,558	18,511
	Year 2010	11,522	10,099	1,813	1,790	15.7%	15.5%	115,748	96,548	84.0%	26,796	21,592
	Year 2011	12,635	11,929	706	706	5.6%	5.6%	126,340	101,535	79.3%	27,581	
JAL YE 31/03	Year 2005/06	19,346	19,582	-236	-416	-1.2%	-2.2%	148,591	100,345	67.5%	58,040	53,010
	Year 2006/07	19,723	19,527	196	-139	1.0%	-0.7%	139,851	95,786	68.5%	57,510	
	Year 2007/08	19,583	18,793	790	148	4.0%	0.8%	134,214	92,173	68.7%	55,273	
	Year 2008/09	19,512	20,020	-508	-632	-2.6%	-3.2%	128,744	83,487	64.8%	52,858	
Korean Air YE 31/12	Year 2006	8,498	7,975	523	363	6.2%	4.3%	71,895	52,178	72.6%	22,140	16,623
	Year 2007	9,496	8,809	687	12	7.2%	0.1%	76,181	55,354	72.7%	22,830	16,825
	Year 2008	9,498	9,590	-92	-1,806	-1.0%	-19.0%	77,139	55,054	71.4%	21,960	18,600
	Year 2009	7,421	7,316	105	-49	1.4%	-0.7%	80,139	55,138	68.8%	20,750	19,178
	Year 2010	10,313	8,116	120	421	1.2%	4.1%	79,457	60,553	76.2%	22,930	
Year 2011	11,094	10,678	416	-89	3.7%	-0.8%	84,285	64,483	76.9%	22,934		
Malaysian YE 31/12	Year 2006	3,696	3,751	-55	-37	-1.5%	-1.0%	58,924	41,129	69.8%	15,466	19,596
	Year 2007	4,464	4,208	256	248	5.7%	5.6%	56,104	40,096	71.5%	13,962	19,423
	Year 2008	4,671	4,579	92	74	2.0%	1.6%	52,868	35,868	67.8%	12,630	19,094
	Year 2009	3,296	3,475	-179	140	-5.4%	4.3%	42,790	32,894	76.9%	11,950	19,147
	Year 2010	4,237	4,155	82	73	1.9%	1.7%	49,624	37,838	76.2%	13,110	
Year 2011	4,549	5,300	-751	-825	-16.5%	-18.1%	52,998	39,731	75.0%	13,301		
Qantas YE 30/6	Year 2007/08	14,515	13,283	1,232	869	8.5%	6.0%	127,019	102,466	80.7%	38,621	33,670
	Year 2008/09	10,855	10,733	152	92	1.4%	0.8%	124,595	99,176	79.6%	38,348	33,966
	Year 2009/10	12,150	11,926	223	102	1.8%	0.8%	124,717	100,727	80.8%	41,428	32,490
	Year 2010/11	14,842	14,200	642	249	4.3%	1.7%	133,281	106,759	80.1%	44,456	32,629
Singapore YE 31/03	Year 2005/06	6,201	5,809	392	449	6.3%	7.2%	109,484	82,742	75.6%	17,000	13,729
	Year 2006/07	9,555	8,688	866	1,403	9.1%	14.7%	112,544	89,149	79.2%	18,346	13,847
	Year 2007/08	10,831	9,390	1,441	1,449	13.3%	13.4%	113,919	91,485	80.3%	19,120	14,071
	Year 2008/09	11,135	10,506	629	798	5.6%	7.2%	117,789	90,128	76.5%	18,293	14,343
	Year 2009/10	8,908	8,864	44	196	0.5%	2.2%	105,674	82,882	78.4%	16,480	
Year 2010/11	10,911	9,956	955	863	8.8%	7.9%	108,060	81,801	75.7%	16,647		
Air China YE 31/12	Year 2006	5,647	5,331	316	338	5.6%	6.0%	79,383	60,276	75.9%	31,490	18,872
	Year 2007	6,770	6,264	506	558	7.5%	8.2%	85,257	66,986	78.6%	34,830	19,334
	Year 2008	7,627	7,902	-275	-1,350	-3.6%	-17.7%	88,078	66,013	74.9%	34,250	19,972
	Year 2009	7,523	6,718	805	710	10.7%	9.4%	95,489	73,374	76.8%	39,840	23,506
	Year 2010	12,203	10,587	1,616	1,825	13.2%	15.0%	107,404	86,193	80.3%	46,420	
China Southern YE 31/12	Year 2006	5,808	5,769	39	26	0.7%	0.4%	97,044	69,575	71.7%	49,200	45,575
	Year 2007	7,188	6,974	214	272	3.0%	3.8%	109,733	81,172	74.0%	56,910	45,474
	Year 2008	7,970	8,912	-942	-690	-11.8%	-8.7%	112,767	83,184	73.8%	58,240	46,209
	Year 2009	8,022	7,811	211	48	2.6%	0.6%	123,440	93,000	75.3%	66,280	50,412
	Year 2010	11,317	10,387	930	857	8.2%	7.6%	140,498	111,328	79.2%	76,460	
China Eastern YE 31/12	Year 2006	3,825	4,201	-376	-416	-9.8%	-10.9%	70,428	50,243	71.3%	35,020	38,392
	Year 2007	5,608	5,603	5	32	0.1%	0.6%	77,713	57,180	73.6%	39,160	40,477
	Year 2008	6,018	8,192	-2,174	-2,201	-36.1%	-36.6%	75,919	53,754	70.8%	37,220	44,153
	Year 2009	5,896	5,629	267	25	4.5%	0.4%	84,422	60,918	72.2%	44,030	45,938
	Year 2010	11,089	10,248	841	734	7.6%	6.6%	119,451	93,153	78.0%	64,930	
Air Asia (Malaysia) YE 31/12	Year 2008	796	592	203	-142	25.5%	-17.9%	14,353	10,515	73.3%	9,183	4,593
	Year 2009	905	539	366	156	40.4%	17.3%	21,977	15,432	70.2%	14,253	
	Year 2010	1,245	887	358	333	28.8%	26.7%	24,362	18,499	75.9%	16,050	
	Year 2011	1,464	1,072	392	185	26.8%	12.6%	26,074	21,307	81.7%	17,986	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation..

Aviation Strategy

Databases

	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
2001	212.9	133.4	62.7	217.6	161.3	74.1	131.7	100.9	76.6	492.2	372.6	75.7	743.3	530.5	71.4
2002	197.2	129.3	65.6	181.0	144.4	79.8	129.1	104.4	80.9	447.8	355.1	79.3	679.2	507.7	74.7
2003	210.7	136.7	64.9	215.0	171.3	79.7	131.7	101.2	76.8	497.2	390.8	78.6	742.6	551.3	74.2
2004	220.6	144.2	65.4	224.0	182.9	81.6	153.6	119.9	78.0	535.2	428.7	80.1	795.7	600.7	75.5
2005	309.3	207.7	67.2	225.9	186.6	82.6	168.6	134.4	79.7	562.6	456.4	81.1	830.8	639.3	76.9
2006	329.9	226.6	68.7	230.5	188.0	81.5	182.7	147.5	80.7	588.2	478.4	81.3	874.6	677.3	77.4
2007	346.6	239.9	69.2	241.4	196.1	81.2	184.2	152.1	82.6	610.6	500.4	81.9	915.2	713.9	78.0
2008	354.8	241.5	68.1	244.8	199.2	81.4	191.1	153.8	80.5	634.7	512.4	80.7	955.7	735.0	76.9
2009	322.1	219.3	68.1	227.8	187.7	82.4	181.2	145.8	80.5	603.8	488.7	80.9	912.7	701.1	76.8
2010	332.3	232.6	70.0	224.2	188.1	83.9	180.2	150.0	83.2	604.1	500.4	82.8	922.7	752.8	78.7
2011	349.6	248.8	71.2	248.5	205.4	82.7	204.9	163.3	79.7	670.3	544.9	81.3	1,006.8	785.0	78.0
Feb 12	24.2	15.9	65.7	16.2	11.7	72.5	15.9	12.5	78.4	50.2	38.9	77.5	73.7	54.3	73.7
Ann. change	1.3%	5.3%	2.5	1.7%	6.7%	3.4	6.7%	5.0%	-1.3	6.1%	8.2%	1.5	4.9%	7.8%	2.0
Jan - Feb 12	49.7	32.3	65.1	34.3	25.6	74.8	32.9	25.9	78.5	105.1	82.7	78.7	153.4	114.3	74.5
Ann. change	0.5%	5.5%	3.1	0.8%	5.1%	3.0	4.6%	3.0%	-1.2	4.5%	6.4%	1.3	3.4%	6.3%	2.0

JET ORDERS

	Date	Buyer	Order	Delivery/other information
Boeing	09 May	EVA Air	3 x 777-300ER	plus 4 purchase rights
	09 April	Transaero Airlines	4 x 787-8	
	02 April	TAAG Angola	3 x 777-300ER	plus 3 purchase rights
Airbus	11 April	Garuda Indonesia	11 x A330-300	RR Trent 700 engines

Note: Only firm orders from identifiable airlines/lessors are included. Source: Manufacturers.

Aviation Strategy Online

Aviation Strategy is distributed electronically –
via email and by downloading from our website: www.aviationeconomics.com
Please email your e-delivery details to Julian Longin: jil@aviationeconomics.com

Aviation Economics

The Principals and Associates of *Aviation Economics* apply a problem-solving, creative and pragmatic approach to commercial aviation projects.

Our expertise is in strategic and financial consulting in Europe, the Americas, Asia, Africa and the Middle East, covering:

- Start-up business plans
- Due diligence
- Antitrust investigations
- Credit analysis
- IPO prospectuses
- Turnaround strategies
- Privatisation projects
- Merger/takeover proposals
- Corporate strategy reviews
- Antitrust investigations
- State aid applications
- Asset valuations
- Competitor analyses
- Market analyses
- Traffic/revenue forecasts

For further information please contact:

Tim Coombs or Keith McMullan

Aviation Economics

James House, 1st Floor, 22/24 Corsham Street, London N1 6DR

Tel: + 44 (0)20 7490 5215 Fax: +44 (0)20 7490 5218. e-mail: kmg@aviationeconomics.com

SUBSCRIPTION FORM

Enter my Aviation Strategy subscription for:

- 1 year (10 issues - January/February and July/August are combined)
- UK: £450 + VAT @20% (Fully reclaimable if VAT-registered)
 - EU: €550 (Tax-free, intra-Community supply, but VAT Registration No. needed)
 - US and RoW: US\$750 (Tax free)

starting with the _____ issue

Delivery address

Name _____
Position _____
Company _____
e-mail _____
VAT No. _____

DATA PROTECTION ACT

The information you provide will be held on our database and may be used to keep you informed of our products and services or for selected third party mailings

I enclose a Sterling, Euro or US Dollar cheque, made payable to: Aviation Economics

Please invoice me

Please charge my AMEX/Mastercard/Visa credit card the relevant sum as per VAT rules

Card number _____
Name on card _____ Expiry date _____

I am sending a direct bank transfer of the relevant sum, net of all charges to Aviation Economics' account: HSBC Bank,
IBAN: GB33MIDL40043791256904
Sort code: 40 04 37 Account no: 91256904

Invoice address (if different from delivery address)

Name _____
Position _____
Company _____
Address _____
Country _____ Postcode _____

PLEASE RETURN THIS FORM TO:

Aviation Economics Ltd.
James House, 22/24 Corsham Street
London N1 6DR
Fax: +44 (0)20 7490 5218
VAT Registration No. 701 7809 47