HSH Nordbank Market Commentary

A Look at the Potential for Airbus and Boeing Production Cuts – If Substantial Additional Cuts are Needed Why are In-Production Aircraft not Being Parked?

There have been several recent reports re-examining whether Airbus and Boeing will need to cut production rates further given falling air travel demand and the worsening financial prospects of the airlines. Some have even suggested that production cuts of up to 30%-40% beginning in the second half of 2010 will be needed to equalize supply and demand – particularly in the popular narrow-body side where there have been minimal production cuts to date. Most analyses assuming large production cuts will be needed have tended to look at falling air traffic demand and have compared that demand to the total number of aircraft in service and on order. However, not all aircraft are the same and the current recessionary environment is occurring against a different backdrop from previous recessions. This may be altering the demand-supply equation.

Estimates of the need for production cutbacks as high as 30%-40% generally assume that this recession will follow a typical pattern with most newer, out-of-production aircraft remaining in service and with many similar parked aircraft coming back into service. However, it is important to consider whether the current down cycle in aviation isn't different in some respects to previous cycles.

First, consider the fact that the current down cycle has been led by the financial sector. This has limited the availability of financing and made it harder for new airlines to begin operations and for carriers to expand operations. In past recessions, older equipment was relatively quickly absorbed into the market by start-up carriers looking for cheap aircraft. Today, it is extremely difficult for start-up carriers to get such financing. Thus, the demand for relatively new out-of-production aircraft may be lower than in previous recessions.

Second, the current down cycle is also occurring against the backdrop of relatively high oil prices, at least compared with prices over the past decade. Most oil analysts forecast higher oil prices in the future as the global economy recovers. For example, a recent Bloomberg survey of 35 oil analysts forecasted an average price per barrel in 2010 of $75 rising to $80-$92 through 2013. Concerns over permanently higher oil prices appears to be increasing demand for the most efficient in-production equipment as airlines move to renew their fleets more quickly than they otherwise might have. This appears to be affecting demand for both out-of-production aircraft and for less efficient, smaller regional jet aircraft. Add to that increased concerns over aviation's impact on the environment and there is yet another reason for airlines to increase the efficiency of their fleets.

Third, while airlines are cutting capacity in response to weakened passenger demand, they have a significant incentive to park older aircraft rather than newer in-production models. Not only are older aircraft less efficient, they are

Global Transportation Finance:

Global Head	Phone +49-40-3333
Mathis Shinnick	-15630
mathis.shinnick@hsh-nordbank.com	
Dep. Global Head	Phone +49-431-900
Angela Behrend-Görnemann	-10269
angela.behrend-goernemann@ hsh-nordbank.com	
Head of Transportation Americas	
New York	Phone +1 212 407
Rick Macker	-6018
rick.macker@hsh-nordbank.com	
Head of Transportation Asia	
Singapore	Phone +65-6550
John Duffy	-9042
john.duffy@hsh-nordbank.com.sg	
Senior Analyst	Phone +1 415 290
Daniel W. Stone	-0583
daniel.stone@hsh-nordbank.com	

Aviation Finance

London	Phone +44 207 382
James Paterson	-5019
james.paterson@hsh-nordbank.co.uk	
Singapore	Phone +65 6550
John Francis	-9967
john.francis@hsh-nordbank.com.sg	

Research

Hamburg	Phone +49-40-3333
Claudia Erdmann	-11884
Arndt Krakau	-11548
Ines Többen	-14649

E-Mail:
firstname.name@hsh-nordbank.com

often fully paid-for which means that the airline is not faced with continued financing costs on the equipment when it is parked.

Aircraft storage statistics appear to suggest that something different is happening in the current recession. In-production aircraft do not appear to be being parked at the same levels as they were in prior recessions. Moreover, the difference in storage trends between in-production aircraft and out of production equipment is significant. It is the older aircraft that are being parked – any oversupply of aircraft in the market to date does not appear to be showing up in reduced demand for the latest technology in-production aircraft.

Modern In-Production Aircraft Storage Trends

Percentage of each Fleet Type Parked as of

Aircraft Type	5/2002	5/2003	5/2007	5/2008	5/2009	9/2009
A320 Family	4.9%	4.6%	1.4%	1.9%	2.8%	2.4%
B737NG Family	3.9%	1.4%	1.5%	1.9%	2.1%	1.1%
A330 (all series)	8.2%	4.2%	2.1%	1.3%	1.6%	1.8%
B777 (all series)	1.0%	1.8%	1.0%	0.8%	0.5%	0.3%

Source: Ascend

This does not mean that production cuts are not possible or even likely. Rather, storage statistics suggest that demand for newer aircraft may be being supported by factors unique to the current downturn and that any production cuts are likely to be significantly less than the most dire forecasts predict.

Those who believe significant additional manufacturer cutbacks will be needed note that the new aircraft market is being propped up by export credit financing and the fact that the manufacturers are shifting production slots from weaker to stronger credits. With Progress Delivery Payment (PDP) financing largely unavailable and with a significant percentage of the backlog going to carriers that may not qualify for export credit financing, absent any improvement in the financial markets some production reductions are likely. However, against this backdrop are the significant fuel price and environmental pressures pushing airlines to newer equipment, a significant re-fleeting need in the US market, and renewed growth in emerging markets all of which may increase demand for new aircraft above levels assumed by those who argue significant cutbacks will be needed.

From the manufacturers' perspective, sharp changes in production rates are not desirable as they increase costs and lessen efficiency. Add to that the cash flow pressures faced by the manufacturers as they seek to absorb cost overruns and production delays on new aircraft programs and they have even less incentive to cut production rates of popular models.

The manufacturers have argued that their large order backlogs are, in many ways, a blessing in that it has allowed them to maintain production rates by moving slots to customers able to find financing in the current environment. Nevertheless, the market has a significant amount of aircraft to absorb with the current backlog of over 7,000 units largely slated to be produced over the next

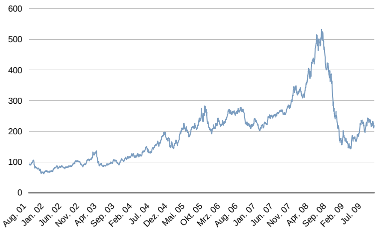
6 years. Some of these units are the new 787 and A350 lines which will be highly desirable given that they offer a step-change in efficiency. However, there are currently 4,496 narrow-body aircraft slated to be produced by Airbus and Boeing over the next six years.

Compared to an in-service narrow-body fleet today of 9,301 aircraft produced by Boeing, Airbus and McDonnell Douglas, the order book implies a narrow-body fleet increase of 48% over the next 6 years, or roughly 8% a year. Such an increase, at first glance, would appear to be too large to be absorbed given current economic forecasts. However, the need for production cuts is largely dependent on the number of out-of-production aircraft that will be taken out of service over the next 6 years. If all 2,740 out of production aircraft were taken out of the fleet over the next 6 years the global fleet would increase just 19%, or about 3% per year. Obviously, not all out of production equipment will be parked in that time period. Nevertheless, this suggests that, if larger numbers of older aircraft are parked than in past recessions and if airlines move from less efficient regional jets to larger aircraft, production cuts will likely be significantly less dramatic than the 30% or higher rates predicted by some analysts.

By Daniel W. Stone

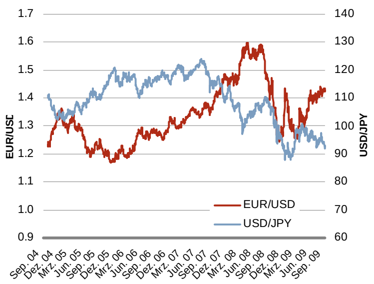
General Aviation News

Jet Fuel Price Index



Source: HSH Nordbank; Base year 1991 = 100; Average of the spot markets US Gulf, US West coast, Mediterranean, Rotterdam, Far East Singapore.

Currencies



Source: Bloomberg

World

IATA: Airlines lost 6 billion US-dollars in first half and may lose 11 billion in full year 2009

According to the International Airline Transport Association (IATA), Airline companies lost more than 6 billion US-dollars during the first half of the year due to the economic crisis. This figure – an average of 1 billion US-dollars a month – is double the amount IATA said in December that airlines would lose during the whole of 2009. Airlines made losses between April and June, when they would usually make 50 percent of their annual profits, IATA said. The Geneva-based group, which represents 230 airlines worldwide, announced seat occupancy in international markets stabilized in July – the first time over a year – but added that airlines need to further cut capacity to meet demand.

Meanwhile, the IATA worsened its global financial forecast, predicting airline losses totaling 11 billion US-dollars in 2009, as fuel costs rise and carriers earn less on fares and cargo. In June, IATA estimated that airlines would lose 9 billion US-dollars in 2009, double its March forecast, but the industry outlook has worsened since then and the trade group said that it could not see a recovery to net profits until 2011, or revenues until 2012. While passenger traffic is expected to decline by 4.0% and cargo by 14%, industry revenues for 2009 are expected to fall by 80 billion US-dollars (15%) to 455 billion US-dollars compared with 2008 levels. Passenger yields, or average fare per mile, will fall 12 percent this year, compared with the 7 percent drop estimated in June. Oil prices are expected to average 5 US-dollars a barrel more than in the group's June forecast, adding 9 billion US-dollars in cost for the industry.

In 2009, European carriers are expected to lose the most – 3.8 billion US-dollars, up from a previous forecast of a loss of 1.8 billion US-dollars. Planned capacity cuts were held back by delays in relaxing slots regulation. North American carriers will lose 2.6 billion US-dollars this year, also more than double the earlier forecast, the IATA said. Asia-Pacific carriers will post losses of 3.6 billion, similar to the previous forecast. Latin American carriers are expected to break even, and Middle East and African carriers will lose 500 million US-dollars each, according to the group.

After revising its 2008 numbers downwards from a loss of 10.4 billion US-dollars to a loss of 16.8 billion US-dollars, IATA noted that the current crisis will have a larger impact than the terrorist attacks of 9/11, with industry losses totalling 27.8 billion in 2008 and 2009, compared with 24.3 billion US-dollars in losses in 2001 and 2002.

For 2010 the outlook is a little better. IATA expects 3.8 billion US-dollars in net losses, based on assumptions that passenger and cargo traffic volumes will grow 3.2 percent and 5 percent respectively, while oil holds at 72 US-dollars per barrel.

Airline News

U.S. / Americas

American Airlines parent raises 2.9 billion US-dollars

American Airlines, the world's second-largest carrier, said it raised 2.9 billion US-dollars in cash and financing in "a show of strength" and will expand at four US hubs to prepare for a recovery in travel demand. AMR, which owns American Airlines and American Eagle, said the funds included 1.3 billion US-dollars in new liquidity, including 1 billion US-dollars in cash from the advance sale of frequent-flier miles to Citigroup, and nearly 300 million US-dollars via cash loan from GE Capital Aviation Services. Other major carriers, like Delta Air Lines and UAL Corp.'s United Airlines, also have done advance sales of frequent-flier miles to raise cash. The airlines get cash up front for miles its credit card partner would provide to card holders as they make purchases. The remaining 1.6 billion US-dollars come from sale-lease finance commitments for Boeing 737 aircraft that were previously owned by the company, AMR said. The company, which lost 765 million US-dollars in the first half of 2009 amid a broad slump in airline travel, also said it was reworking its network to reduce operations in locations like St. Louis and Raleigh-Durham, N.C. and reallocating resources to hubs in Dallas-Fort Worth, Chicago, Miami and New York. Throughout the recession, the airline industry has been cutting back on flights to cut costs in the face of fuel price volatility and reduced air travel. But AMR said that capacity is actually expected to increase by 1% in 2010.

Europe

EU allows acquisition: Lufthansa completes takeover of Austrian Airlines

German airline Lufthansa formally closed its acquisition for about 42 percent of the Austrian government shares in Austrian Airlines after the European Commission (EC) had finally given the go-ahead for the takeover, subject to conditions. The EC also approved a 500 million euro government restructuring program, which Lufthansa said in the past would be necessary to reduce Austrian's debt. It has been a long road before the deal could be finally completed, with more than a year of negotiations, fierce opposition from rival airlines and competitive concerns on the part of the European Commission. The EC announced its decision after Lufthansa agreed to give up 19 take-off and landing slots on connections between Vienna and Brussels and various German cities, allowing new entrants to offer flights on those routes. Lufthansa, which is now Europe's largest airline by sales, had also made a 166 million euro offer for the free floating Austrian shares. In total, Lufthansa said the merger means it will hold more than 90 percent of Austrian shares. Lufthansa also recently bought Brussels Airlines in a deal worth up to 250 million euros and lifted its stake in British carrier BMI to 80 percent. Airlines around the world are seeking to merge with or take over rivals to boost scale and expand into growth regions as travelers cut back on air travel in the global economic crisis. The EC has relaxed its monopoly rules in recent months to aid the rescue of companies affected by the crisis.

In 2008, the airlines of the Lufthansa Group carried 70.5 million passengers (behind Air France-KLM with 74.4 million), flying to 242 destinations with a fleet of about 550 aircraft. Austrian Airlines currently operates a fleet of 91 aircraft. In 2008, 10.7 million passengers flew with Austrian to 120 different destinations. Moody's downgraded Deutsche Lufthansa's credit rating to junk status (Ba1) as the German carrier finalized its acquisition of struggling Austrian Airlines and said it would pursue further costs. At a press conference at Vienna's Schwechat airport, Lufthansa's chief executive Wolfgang Mayrhuber said the Austrian Group would stop losing money in 2010.

SkyEurope halts operations and files for bankruptcy

Slovakia-based low-cost carrier SkyEurope has filed for bankruptcy and suspended all flights after it lost a struggle to restructure debt and cope with sinking revenues. SkyEurope operated a fleet of a dozen Boeing 737s and served 38 destinations in 19 European countries. The airline – the first low-cost carrier in central Europe when it started eight years ago in the run-up to expansion of the European Union in 2004 – canceled all flights from its hubs in Bratislava, Vienna and Prague, leaving passengers stranded across Europe. It carried nearly 2.9 million passengers in the year to July 31, though in recent month as many as one-quarter of its seats went unsold. The airline reported a net loss of 54.4 million euros in the year that ended September 30, 2008, on sales of 260.9 million euros. In the six months to March 30, its net loss was 31.9 million euros on revenue of just under 85 million euros. SkyEurope, which had secured protection from creditors in June, tried to obtain additional financing earlier this summer, striking a preliminary agreement that would have injected as much as 16.5 million euros, but that deal fell through at the last minute. Ryanair and EasyJet, Europe's biggest discount airlines, may add services in central Europe as the collapse of SkyEurope sparks a tussle for market share in the region. The SkyEurope bankruptcy came the same day that the International Air Transportation Association announced that the airline industry lost more than 6 billion US-dollars in the first half of the year.

TUI Travel abandons Air Berlin shareholding pact

Air Berlin and TUI Travel's aviation unit TUIfly, have scrapped plans for a cross-shareholding following talks with Germany's federal Cartel Office. The two companies had agreed earlier this year to a cross-shareholding in which Air Berlin would take a stake of up to 20 percent in TUIfly, which would in turn acquire a corresponding stake in Air Berlin via capital increase. The companies did not say why they had decided to scrap plans for a cross-shareholding. The airlines said TUI Travel will now either buy a 9.9 percent stake in Air Berlin for a cash consideration of 33.5 million euros, which it will sell over a period of time, or pay Air Berlin 15 million euros. Additionally, TUI Travel will no longer receive the right to nominate a non-executive director to the board of Air Berlin and the German carrier will no longer purchase a stake in TUIfly. Other commercial agreements announced March 27 and benefits of transfer of TUIfly's scheduled flying business will remain, TUI Travel said. Germany's federal Cartel Office has already approved Air Berlin's takeover of TUIfly's city carrier business, but not the possible acquisition of a minority interest in Air Berlin by TUIfly, Air Berlin said. The transfer of the TUIfly scheduled flying operations will take place by the end of October. Through its takeover of the routes, Air Berlin will strengthen its presence in Cologne and Stuttgart – both key routes for business travel – along with routes to markets in Italy and Austria. In recent weeks, the cartel authorities in Italy, Austria and Portugal had already agreed to the Air Berlin takeover of TUIfly's intercity flights. Air Berlin will operate 13 of TUIfly's aircraft in the winter 2009/10 season and 14 aircraft during summer 2010 season.

Asia Pacific & Middle East

Air Arabia launches new low-cost carrier in Egypt

A new low-cost carrier with ambitions to increase the Egyptian tourist market has been launched by United Arab Emirates budget carrier Air Arabia and Middle Eastern travel and hospitality company Travco Group. The new carrier is to be branded as Air Arabia Egypt and will give the UAE airline its third base after Sharjah and Casablanca. According to Air Arabia, the new airline will serve Europe, Middle East and Africa. The new venture, in which Air Arabia holds a 40 percent stake, will have a start-up capital of 50 million US-dollar. Air Arabia was the first no-frills carrier to be launched in the Middle East in October 2003. The airline is now facing growing competition from local rivals including Kuwait's Jazeera Airways and Dubai-owned flydubai, as well as from fully-fledged carriers such as Emirates, struggling to cope with a sharp drop in international passenger travel. Despite a slowing global travel market, Air Arabia's net profits for the first half of this year increased some 21 percent to 52.6 million dollars compared to the same period of 2008. Air Arabia's average seat load factor – or passengers carried as a percentage of available seats – for the first six month of 2009 stood at 80 percent. The airline operates a fleet of 20 new Airbus A320 aircraft and serves 57 destinations from its hubs in the United Arab Emirates and Morocco. It has confirmed order with Airbus for the purchase of 44 A320 aircraft. "The new carrier will operate same type of aircraft operated by Air Arabia, the Airbus A320", said Adel Ali, CEO of Air Arabia Group.

Japan Airlines in tie-up talks

Lenders to Japan Airlines (JAL) may seek to split the carrier between its profitable and loss-making parts, as part of a radical overhaul that could also see foreign carriers invest in Asia's largest airline by revenue. JAL confirmed that it is in tie-up talks with foreign carriers and that it will cut its work force by 14% as it seeks to turnaround. Up to 6,800 jobs and 50 unprofitable routes will be cut by March 2012 in an effort to slash operational costs by 30%, according to the draft plan. JAL lost about 1 billion US-dollars between April and June as ticket sales fell during the global economic downturn. Japan's new government said it will review restructuring plans announced by the airline. JAL is a target for both American Airlines and Delta, which are keen to expand in Asia. To prevent JAL from leaving their OneWorld Alliance to join the Delta-led SkyTeam, American Airlines together with British Airways and Qantas have reportedly made a joint financial assistance offer to their sole Japanese ally, in a move to pre-empt Delta's tie-up bid. The JAL Chief Executive confirmed news reports that the airline has been in talks with Delta Airlines and American Airlines' parent AMR Corp. for possible investments in Japan's flag carrier, as well as other tie-ups. Carriers are discussing investing between 200 and 300 million US-dollars in exchange for a minority stake and a code-sharing deal. Air France-KLM Group has also reportedly been in talks to invest in JAL. JAL said it aims to conclude tie-up talks with foreign carriers by mid-October.

Upcoming Events

2009	Organization/Company	Event/Announcement
October		
7-9	ERA General Assembly	in Interlaken, Switzerland
15	AMR CORP	Q3-Report
15	SOUTHWEST AIRLINES	Q3-Report
20-22	NBAA Annual Meeting	in Orlando, Florida/USA
21-22	Aero Engine Expo	in London, UK
21	CONTINENTAL AIRLINES	Q3-Report
21	UAL CORP	Q3-Report
21	BOEING	Q3-Report
22	DELTA AIR LINES	Q3-Report
22	ALASKA AIR GROUP	Q3-Report
23	JETBLUE AIRWAYS	Q3-Report
23	US AIRWAYS GROUP	Q3-Report
23	AIRTRAN HOLDINGS	Q3-Report
29	DEUTSCHE LUFTHANSA	Q3-Report
29	FINNAIR	Q3-Report
29	AUSTRIAN AIRLINES	Q3-Report
30	EVA AIRWAYS	Q3-Report
30	ALL NIPPON AIRWAYS	Half Year Report
30	SHANGHAI AIRLINES	Q3-Report
31	THAI AIRWAYS	Q3-Report

Source: HSH Nordbank, Bloomberg