

HSH Nordbank Market Commentary

The “Funding Gap” is in the Second-Hand Commercial Aircraft Market

With the export credit agencies propping up the market for new aircraft this year, a record dollar volume of new commercial aircraft is slated to be delivered in 2009 (68 billion US-dollars). However, in the second-hand aircraft market, the export credit agencies continue to be far less active. In fact, with tight credit markets significantly limiting access to financing for used aircraft purchases, activity in the second-hand aircraft market is well below normal levels and even below levels seen in prior recessions.

Over the years, banks and other financiers have developed a comfort level with aircraft assets partly as a result of the large and liquid market for used aircraft. While no one is predicting a long-term collapse in the used aircraft market, a key metric to follow in assessing the health of the overall aircraft market will be availability of financing for used aircraft.

Estimated Size of the Second-Hand Commercial Aircraft Market

In terms of the number of units sold, the used aircraft market is about 1.5x-2.5x the size of the new aircraft market. However, with a large number of second-hand aircraft sales encompassing aircraft at the end of their useful lives or destined to be scrapped, the value of the used aircraft sold is significantly less than for new aircraft. Assuming the average price of an aircraft in the second hand market is about half that of a new aircraft (essentially averaging between the value of newer aircraft in sale and leasebacks early in their life and aircraft sold for scrap), the size of the second-hand passenger jet aircraft market is probably close to the size of the new aircraft market in very good years and closer to half the value of the new aircraft market in slower years.

Second-Hand Market is Much Smaller This Year

Below is a table showing the number of deliveries compared to the number of sales by year for Boeing and for Airbus aircraft going back more than a decade. Looking at just Airbus and Boeing (not including McDonnell Douglas) aircraft gives a focus on just the newest equipment and includes mostly in-production equipment. In this market, sales as a percent of deliveries have ranged from 150% to well over 200%. The sales data do not include aircraft sold between two companies controlled by the same entity thus eliminating most sales of convenience or sales for tax purposes. While the sales statistics do include some sale-leasebacks on delivery, these are relatively small compared to the total sales and amount to around just 15% of total sales.

Looking at the year to date, sales are substantially below their normal percentage of deliveries and appear to be running at least one-third below what one would expect in a recessionary environment. Moreover, some of the sales also likely included sale and leasebacks agreed to before the financial crisis took

Global Transportation Finance:

Global Head Phone +49-40-3333
 Mathis Shinnick -15630
 mathis.shinnick@hsh-nordbank.com

Deputy Global Head Phone +49-431-900
 Angela Behrend-Görnemann -10269
 angela.behrend-goernemann@hsh-nordbank.com

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

New York Phone +1 212 407
 Rick Macker -6018
 rick.macker@hsh-nordbank.com

Research

Hamburg Phone +49-40-3333
 Claudia Erdmann -11884
 claudia.erdmann@hsh-nordbank.com

Arndt Krakau -11548
 arndt.krakau@hsh-nordbank.com

Information and statements contained in this document are based on either thorough research by HSH Nordbank AG or on sources that are considered reliable but cannot be verified. Details from external sources are checked for plausibility. They are not scrutinised for accuracy. Although every effort is made to ensure correctness, HSH Nordbank AG cannot be held responsible for completeness, status, or accuracy of information.

The information contained in this document does not provide a sufficient basis for important economic decisions but rather represents views and opinions about markets at the time of publication offered for information purposes only. In particular, nothing in this document is intended to be, nor should be construed as, an offer to enter into a contractual relationship. This document is not a substitute for individual advice. HSH Nordbank AG cannot be held responsible for any loss howsoever arising from any use of this document or its contents.

hold. Overall, even for the newest equipment, sales activity in the secondary market appears to have been significantly affected by the financial crisis.

Deliveries and Sales of Airbus and Boeing Aircraft by Year

Year	Deliveries	Sales	Sales as % of Deliveries
2009 To date	746	725	97.2
2008	858	1,402	163.4
2007	893	1,659	185.8
2006	833	1,786	214.4
2005	668	1,597	239.1
2004	605	1,339	221.3
2003	586	1,204	205.5
2002	684	1,340	195.9
2001	850	1,274	149.9
2000	794	1,236	155.7
1999	867	1,253	144.5
1998	740	1,160	156.8
1997	503	916	182.1
1996	346	872	252.0
1995	330	762	230.9

Source: Ascend as of October 22, 2009

Looking at the broader aircraft market, a similar trend is apparent. Below is a table showing deliveries and sales of all western built aircraft – both in production and out of production. Again, annual sales by units range from a low of about 160% of deliveries by units to well over 250%. Even so, for 2009, sales as a percent of deliveries are at an historic low of 112.7%.

Deliveries and Sales of All Western-Built Jet Aircraft by Year

Year	Deliveries	Sales	Sales as % of Deliveries
2009 To date	930	1,048	112.7
2008	1,149	2,132	185.6
2007	1,148	2,621	228.3
2006	1,066	2,557	239.9
2005	960	2,546	265.2
2004	957	2,039	213.1
2003	939	1,859	198.0
2002	1,031	2,110	204.7
2001	1,213	1,892	156.0
2000	1,123	1,965	175.0
1999	1,142	2,021	177.0
1998	962	1,778	184.8
1997	683	1,499	219.5
1996	502	1,532	305.2
1995	488	1,216	249.2

Source: Ascend as of October 22, 2009

One might have expected that the broader data for all Western-built aircraft would have shown an even greater decline since it includes many more used

Information and statements contained in this document are based on either thorough research by HSH Nordbank AG or on sources that are considered reliable but cannot be verified. Details from external sources are checked for plausibility. They are not scrutinised for accuracy. Although every effort is made to ensure correctness, HSH Nordbank AG cannot be held responsible for completeness, status, or accuracy of information.

The information contained in this document does not provide a sufficient basis for important economic decisions but rather represents views and opinions about markets at the time of publication offered for information purposes only. In particular, nothing in this document is intended to be, nor should be construed as, an offer to enter into a contractual relationship. This document is not a substitute for individual advice. HSH Nordbank AG cannot be held responsible for any loss howsoever arising from any use of this document or its contents.

aircraft than the Airbus and Boeing data cited earlier. However, sales of the older aircraft are probably propped up by the fact that a significant number are ready to be scrapped and are low enough in price to sell without financing.

Seasonal patterns also do not appear to be significantly reducing the number of aircraft sold to date in 2009. While it is true there is often a seasonal spike of sales at the end of the calendar year, there is also a similar spike before the end of June and a much smaller spike before the end of each quarter. In 2008, on average there were 117 Airbus and Boeing aircraft sold per month with 235 sold in June and 134 in December. It does not appear a seasonal spike at the end of the year will significantly alter the sales versus delivery trends seen to date in 2009.

Going forward, it will be important for the used aircraft market to begin to recover in order to ensure the stability of the market for new commercial aircraft. The key question is how long the process will take. In the meantime, slower used aircraft markets could begin to influence financing structures for new aircraft transactions (for example, potentially limiting the willingness to finance using non-recourse bullet maturity structures). Nevertheless, there is reason to be optimistic that the credit markets for second-hand aircraft will begin to open up soon given significant renewed activity of the capital markets and the opening of the EETC markets in the US much sooner than most industry analysts expected.

By Daniel W. Stone

General Aviation News

World

Aviation industry's proposals for climate conference in Copenhagen

Shipping and air traffic are to support targets for climate protection. This is one of the key objectives of EU environment ministers for the United Nations Framework Convention on Climate Change (UNFCCC) meeting on Copenhagen this December. So far shipping and aviation are not covered by Kyoto Protocol, which runs out in 2012. In total EU aims to reduce carbon dioxide emissions by 30% till 2020. In the long run, target is cutting emissions by 80-95% compared to 1990 in 2050.

The carbon dioxide emissions of air traffic should be reduced by 10% till 2020 compared to 2005. IATA calls for a global sectoral approach led by the International Civil Aviation Organization (ICAO) to handle the issue in the post-Kyoto period. The definition for sectoral approach focuses on accounting for emissions at a global level and not by state, paying once and not several times for the emissions, and getting access to global carbon markets. IATA announced that aviation industry has committed to three sequential targets: (1) Improving average annual fuel efficiency by 1.5% to 2020. (2) Stabilizing emission with carbon-neutral growth from 2020. (3) An aspirational goal to cut net emissions in half by 2050, compared to 2005. Part of savings might be realized by using biofuels.

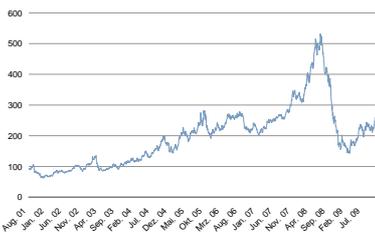
Boeing sees signs of stability in economy and estimates strong demand in northeast Asia

Despite the fact that Boeing continues to face delays with its new 787 Dreamliner aircraft as well as with its 747-8 program, its expectations for world economy don't look too bad. According to Randy Tinseth, Vice President of Commercial Airplanes for Boeing, 2010 may begin to see an economic recovery, 2011 a more solid airline recovery, and 2012 an increase in demand for commercial airplanes. Boeing is especially optimistic for northeast Asia. This region's demand for new planes is estimated at 1,200 planes worth 190 billion US-dollars over the next 20 years. Tinseth reaffirmed that Boeing plans to deliver the first of its repeatedly delayed 787 to All Nippon Airways in Q4 2010.

Fitch considers key players of Aerospace Industry as panic-proof

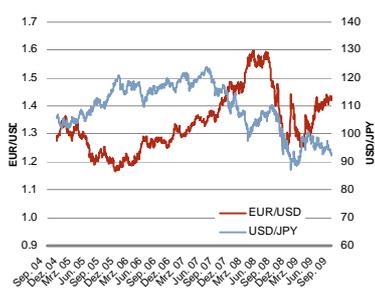
Rating Agency Fitch recently had some encouraging perspectives on the aerospace industry. With most aerospace firms demonstrating comfortable liquidity levels and unused credit lines, Fitch suggests that even in a continued challenging economic environment in 2010, most aerospace firms would survive.

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

Information and statements contained in this document are based on either thorough research by HSH Nordbank AG or on sources that are considered reliable but cannot be verified. Details from external sources are checked for plausibility. They are not scrutinised for accuracy. Although every effort is made to ensure correctness, HSH Nordbank AG cannot be held responsible for completeness, status, or accuracy of information.

The information contained in this document does not provide a sufficient basis for important economic decisions but rather represents views and opinions about markets at the time of publication offered for information purposes only. In particular, nothing in this document is intended to be, nor should be construed as, an offer to enter into a contractual relationship. This document is not a substitute for individual advice. HSH Nordbank AG cannot be held responsible for any loss howsoever arising from any use of this document or its contents.

First commercial flight powered by blend of GTL and kerosene

Qatar Airways operated the world's first commercial passenger flight powered by a fuel partly made from natural gas. The 50-50 blend of synthetic Gas to Liquids (GTL) kerosene and conventional oil-based kerosene fuel has been developed and produced by Shell. The fuel, as an alternative to conventional oil-based kerosene, will contribute to diversification of aviation fuel supply. It also burns with lower sulphur dioxide and particulate emissions than pure conventional oil-based kerosene, making it attractive for improving local air quality at busy airports. The blend of conventional kerosene and GTL kerosene will be known as GTL Jet Fuel and should be put into commercial production from 2012. The flight from London Gatwick to Doha was operated with an Airbus A340-600 aircraft using Rolls-Royce Trent 556 engines.

Trans States orders 100 Mitsubishi Regional Jets

US regional carrier Trans States Holdings has ordered 100 Mitsubishi Regional Jets (MRJ), of which 50 are firm orders and 50 are options. This is the second firm order for the new MRJ after ANA's order for about 15 aircraft. The MRJ is a family of 70 – 90 seat regional jets and still under development by Mitsubishi Aircraft Corporation. The first flight is scheduled for mid 2012 and first delivery to ANA could be at the beginning of 2014. Trans States Holding is the parent company of Trans States Airlines and GoJet Airlines. Trans States Airlines is the second largest private regional airline in the US and operates a feeder service as US Airways Express and United Express. GoJet Airlines also operates as United Express. All together the Holding serves nearly five million passengers annually to 50 cities.

Airline News

U.S. / Americas

Merger of Avianca and Grupo TACA

Latin-Americans Avianca and TACA have agreed to merge. The merged entity will be two-thirds controlled by Avianca's parent company, Synergy Group, and one-third by TACA. Avianca CEO, Fabio Villegas, is slated to become CEO of the new holding company. The two airlines are expected to maintain their separate brand identities. The combined entity will serve more than 100 destinations with 129 aircraft, realizing sales of 3 billion US-dollars. The merger still needs approval by the relevant authorities.

Europe

Lufthansa is taking final 20% of BMI, starting Squeeze-out with AUA and cutting costs

German Airline, Lufthansa, is purchasing the remaining 20% of British Midland (BMI) that it does not own from Scandinavian SAS. As a result, Lufthansa gets

Information and statements contained in this document are based on either thorough research by HSH Nordbank AG or on sources that are considered reliable but cannot be verified. Details from external sources are checked for plausibility. They are not scrutinised for accuracy. Although every effort is made to ensure correctness, HSH Nordbank AG cannot be held responsible for completeness, status, or accuracy of information.

The information contained in this document does not provide a sufficient basis for important economic decisions but rather represents views and opinions about markets at the time of publication offered for information purposes only. In particular, nothing in this document is intended to be, nor should be construed as, an offer to enter into a contractual relationship. This document is not a substitute for individual advice. HSH Nordbank AG cannot be held responsible for any loss howsoever arising from any use of this document or its contents.

exclusive control over the British Airline. Lufthansa has stated it will explore options for the British carrier including a potential sale. Several competitors are interested in BMI, because of its valuable slots at Airport London Heathrow. Both British Airways and Virgin Atlantic have publicly indicated their potential interest in the carrier. In the meantime, Lufthansa is working on restructuring BMI. As part of its purchase agreement with SAS, Lufthansa must share any profits from BMI if it sells all or a part of BMI within two years. Lufthansa paid an equivalent of 42 million euros for the 20% stake.

Lufthansa is planning a squeeze-out for the remaining Austrian Airlines shares it does not own and is offering 0.50 euros for each share. Lufthansa currently holds 95.4% of the carrier. The settlement amount is still needed to be approved by its board and the decision for a squeeze-out will be taken at an extraordinary shareholders' meeting in mid-December.

As part of its austerity program, Lufthansa wants to reduce costs in its European business by 40%. Lufthansa hopes to make this segment profitable again by 2011. The aim of the austerity program is to lower costs in its passenger service division by 1 billion euros. Lufthansa plans to cut jobs in administration and may delay taking new aircraft. Lufthansa is also considering allocating its intra-European flights to its low cost subsidiary Germanwings. Germanwings recently announced it expects this year to be its most profitable fiscal year to date.

Iberia announces new strategic plan

In the light of declining revenues, weak demand and mounting losses, Iberia's Board of Directors has adopted a new strategic plan ("Plan 2012"). The new plan focuses on generating revenues, saving costs and improving efficiency and service. While Iberia plans to grow its long-haul business, it plans to cut capacity in the short- and medium haul segment. To cut short-haul costs, Iberia plans to set up a new lower-cost carrier in Madrid by 2011. The new airline would feed and distribute traffic to Iberia's long-haul network.

Other cost-cutting measures include a hiring freeze, a company-wide wage freeze in 2010 and 2011, and job-cuts. Additional savings in overhead costs as well as productivity measures are also planned.

Air France is considering delay in taking new Aircraft

According to press-reports, Air France is taking another look at its fleet-planning and may take some Airbus A380 and Boeing 777F aircraft later than originally planned. So far, Air France has ordered twelve A380s. Three of these aircraft will be taken on schedule while the others may be delayed. In the meantime Air France is holding an auction for tickets for the first Air France-A380 flight from Paris to New York and back. The auction proceeds will be donated to children's charity organizations.

Air Berlin wants to rise ticket-prices

Despite the challenging competitive environment, Air Berlin aims to increase ticket prices. Although the airline would like to increase load factors, gaining market share must not come at the expense of profitability, Air Berlin CEO, Joachim Hunold, says. At the beginning of the month, Air Berlin reached an agreement with pilots and flight attendants of its subsidiary LTU over a new salary-scheme. The new scheme contains no wage increase but guarantees a minimum number of working-hours, increasing costs in one-digit million euros.

The recently discussed share take-over by TUI Travel has been finalized. The leisure travel company with its aviation unit TUfly has bought a 9.9 percent stake in Air Berlin for a cash consideration of 33.5 million euros.

Asia Pacific & Middle East

India's government is considering capital injection into Air India

India's aviation Minister, Praful Patel, has publicly indicated that India's government is considering an injection of equity amounting to 1 billion US dollars into Air India. Any support will be conditional on the airline's implementing cost-cutting measures as well as on steps to boost revenues. In the current challenging environment, Air India is suffering from low load factors and an inability to benefit from economies of scale that should have resulted from its merger with Indian Airlines. The government plans to appoint an independent board to advise Air India's management. The board will include prominent private business-sector leaders.

In order to reduce surplus capacity Air India aims to lease out four Airbus A310 freighter aircraft and three Boeing 777-200LR. The A-310 aircraft are available now, the 777s by Q3 2010.

China Eastern takes-over Shanghai Airlines

Shareholders of Shanghai Airlines and China Eastern Airlines have agreed finalized the terms of their previous merger agreement.. China Eastern said it would swap 1.3 Shanghai-listed A share for every Shanghai Airlines share. All relevant authorities have already approved the transaction with the exception of the antitrust authority whose approval is expected. Shanghai Airlines will likely keep its separate brand identity. By the end of year the merged company will decide which alliance they are going to join. Shanghai Airlines is Member of Star Alliance.

Upcoming Events

2009 / 2010	Organization/Company	Event/Announcement
November		
2	Ryanair Holdings	S1-Report
5	SAS	Q3-Report
	Skywest	Q3-Report
6	British Airways	S1-Report
	Fraport	Q3-Report
9	Korean Airlines	Q3-Report
10	Singapore Airlines	Q2-Report
10-12	IATA Aviation Fuel Forum	in Vienna, Austria
11	ACE Aviation Holdings	Q3-Report
13	Iberia Lineas Aer de Espana	Q3-Report
	Japan Airlines	S1-Report
	Mesa Air Group	Q4-Report
15-19	Dubai Air Show	in Dubai, UAE
16	EADS	Q3-Report
16-18	Conference on Aviation and Alternative Fuels	in Rio de Janeiro, Brazil
17	EasyJet	FY-Report
18	Air France / KLM	Q2-Report
19	Air Berlin	Q3-Report
26	AirAsia	Q3-Report
	Malaysian Airline System	Q3-Report
January		
21	AMR	Q4-Report
	Continental Airlines	Q4-Report
	Southwest Airlines	Q4-Report
	UAL	Q4-Report
27	Delta Air Lines	Q4-Report
28	Airtran Holdings	Q4-Report
	Boeing	Q4-Report
29	Alaska Air Group	Q4-Report
	US Alrway	Q4-Report

Source: HSH Nordbank, Bloomberg

Information and statements contained in this document are based on either thorough research by HSH Nordbank AG or on sources that are considered reliable but cannot be verified. Details from external sources are checked for plausibility. They are not scrutinised for accuracy. Although every effort is made to ensure correctness, HSH Nordbank AG cannot be held responsible for completeness, status, or accuracy of information.

The information contained in this document does not provide a sufficient basis for important economic decisions but rather represents views and opinions about markets at the time of publication offered for information purposes only. In particular, nothing in this document is intended to be, nor should be construed as, an offer to enter into a contractual relationship. This document is not a substitute for individual advice. HSH Nordbank AG cannot be held responsible for any loss howsoever arising from any use of this document or its contents.