

# Aircraft finance: Drought and flood?



THE POST-2007 ECONOMIC DOWNTURN has affected civil aero markets in wildly different ways. Most civil markets have suffered exactly the kind of cyclical downturn that could be expected from a serious drop in economic growth. Regional transports, civil rotorcraft, and most of all business aircraft have all fallen by 20-30% since their 2008 market deliveries peak.

Yet commercial jetliners, by far the largest civil aero segment, have actually seen 2008-2011 compound annual growth rates (CAGRs) that are roughly in line with what they achieved in the 2003-2008 market boom. In fact, deliveries in 2012 expanded by a near-record 18% by value over 2011.

This remarkable divergence between jetliner market fortunes and the rest of the civil aircraft industry revolves around third-party financing. External sources of capital have come to regard jetliners as a safe and mobile asset. They have also come to regard business jets as risky assets, in a time when risk is to be avoided.

### The pleasures of jetliner finance

The key distinguishing characteristic of the post-2007 economic downturn was the collapse of commercial credit. Banks became increasingly risk averse after the high-profile collapse of several key financial institutions. In addition,

the increased reserve requirements that were a regulatory reaction to the crisis meant that banks needed to build up their cash base before they could resume lending, which also produced risk aversion.

Meanwhile, for many investors, large commercial jetliners have come to embody an ideal combination of safety and profit. As hard assets, they are also a solid hedge against the threat of inflation. This desire for a safe asset has tracked a broader economic trend termed 'excessive demand' for safe assets, such as U.S. government debt. However, financiers' demand for jetliners arguably has not yet risen to excessive levels.

Also, there is a lack of other global investment opportunities. As the satirical newspaper *The Onion* put it, "Recession-Plagued Nation Demands New Bubble To Invest In." In other words, it's not just that cash is cheap. It's also that there are no other good places to earn decent returns with that cash.

The role of low interest rates in driving strong jetliner demand has been augmented by high fuel prices. The current ratio between the two trends (fuel prices and interest rates) is unprecedented.

Yet it does not look as though fuel prices will return to low, or even moderate, levels any time soon. This implies a continued market preference for new equipment and a willingness to dispose of older jets, even at premature ages. With high fuel prices it makes sense to replace older planes with newer ones, because the fuel and maintenance savings for airlines can be greater than the lease payments on the new airplanes.

And government-backed finance further complicates the picture. Export credit agencies, or

ECAs, are backing a record number of jetliner transactions, helping to eliminate any finance risk that remains in the world jetliner business. Since the economic crisis began in 2008, the ECA role in backing jetliner transactions has risen from about 15% to about one-third today.

The U.S. Export-Import Bank, of course, is the largest such agency. Through the third quarter of the year, Ex-Im authorized a record \$35.8 billion in financing, a 9% increase over 2011's first three quarters. Looking at year-end 2011 numbers, about 40% of this goes to aircraft financing, mostly Boeing jetliners. Added to this is the global rise of government-owned airlines and government-owned banks. Together, the overwhelming majority of jetliner transactions today involve one or more governments acting in a financial role (as either buyer or financier).

This combination of easy third-party financing and government cash has created a recipe for market distortion. And of course the recent jetliner boom is out of line with passenger traffic. Although 2011 saw respectable growth rates, with revenue passenger kilometers up 6.9% over 2010, traffic growth has slowed in the past few months to around 5%.

As more cash comes in to the jetliner finance business, and as industry capacity continues to increase at a considerably faster pace than airline traffic growth, returns on this cash are falling, even if they are still healthier than most other investment opportunities. This would explain the notable return of Japanese banks to the jetliner finance arena. Japanese banks have long been in the position of being cash rich, yet with a very limited set of investment options that earn any kind of returns. Even with shrinking returns, jetliner finance is still more attractive to Japanese banks than most of their other available options.





Most financial company demand for jets over the past few years has focused on just two single-aisle aircraft families, Airbus's A320 and Boeing's 737. These are consistently rated the two most appealing jets by investors. In both absolute and relative terms, their production has reached record levels, equating to over 50% of all jetliner deliveries by value for the past five years.

The biggest challenge for the market, therefore, is that the new single-aisle generation is coming, with serious consequences for the current models. Up-front pricing indicates that there will be little or no premium paid for A320neos and 737 MAXs. They will likely sell at the same price, implying a relatively fast and painful impact on current A320 and 737NG values. It is difficult to imagine why customers would line up to take record numbers of the last copies produced of the older models, particularly if traffic growth remains anemic. Ramping up right until the new models enter service in 2015/2017 makes little sense for anyone involved.

In short, there is likely to be a day of reckoning, with new models and weak traffic forcing some kind of jetliner production rate reduction in a few years. But this impact is unlikely to be nearly as severe as the notional impact of a rise in interest rates, and/or a fall in fuel prices.

### Bottom-half business jet horrors

While the story of the business jet market over the past four years reflects sluggish demand, it also reflects changed financing terms. The best way to prove this assertion is to look at the market as two completely different segments.

Historically, the business jet market could be divided in half by value. The top half consists of jets costing \$25 million plus (in today's money).

The bottom half consists of jets costing less than \$25 million. Also historically, these two halves usually rose and fell in tandem. In fact, in the 2003-2008 market boom, bottom-half jets actually outperformed the market for top-half ones, with deliveries growing at a 20.2% CAGR (top-half jets grew by a 15.7% CAGR). Still, between the mid-1980s and 2008, in aggregate, both halves stayed roughly equal in size.

Yet this market downturn has seen a serious split between these two segments' fortunes. The lower half fell by a record-breaking 56.4% by value in 2008-2011. The top half of the market, by contrast, is holding up reasonably well, finishing the same period with virtually no change (0.3% growth by value). When we discuss business jet market dynamics, we are effectively discussing two very different markets. One is large and doing well, while the other is shrunken and dormant.

Corporate profits are historically the most important driver behind business jet demand. These fell in 2008-2009, but in 2010-2012 they have made a strong recovery. In fact, U.S. corporate profits in the first half of 2012 set a record, reaching \$2.1 trillion on an annualized basis. This has helped maintain top-half business jet deliveries at record levels. Yet lower-half deliveries are still scraping the

bottom of the market trough, with no sustainable deliveries increase in sight.

The most likely explanation for this persistent market bifurcation revolves around differing finance requirements. Transactions for larger business jets are more likely to be self-financed, either from a large corporate balance sheet or a very wealthy individual's checking account. By contrast, the strong majority of small/mid-sized (bottom-half) business jet purchases are dependent on third-party finance.

These bottom-half workhorse jets typically go to mid-sized enterprises that continue to face difficulties getting credit at reasonable terms. But it's not just the nature of the customer that is hobbling business jet finance. It's also the jets themselves. Jetliners can be deployed around the globe to earn money in airline service. Business jets are a form of private transportation, and asset values often drop fast after the original customer sells them.

Also, jetliner types are relatively homogenous, with few models and a manufacturer emphasis on commonality to enable easy remarketing. Business jets tend to have more options,

### WORLDWIDE DELIVERIES BY 2012 \$ VALUE

	CAGR 2003-2008	CAGR 2008-2011	Change 2008-2011	Change 2010-2011
Large jetliners	7.4%	6.8%	21.7%	8.2%
Business aircraft	17.3	-10.5	-28.4	-1.0
Regionals	4.1	-10.1	-27.3	3.3
Civil rotorcraft	17.1	-7.6	-21.2	4.2
Military rotorcraft	8.7	13.5	46.2	11.2
Fighters	2.0	6.7	21.4	10.1
All civil	9.7	0.6	1.7	5.8
All military	3.7	7.5	24.3	7.7
<b>Total</b>	<b>8.1</b>	<b>2.3</b>	<b>7.1</b>	<b>6.3</b>

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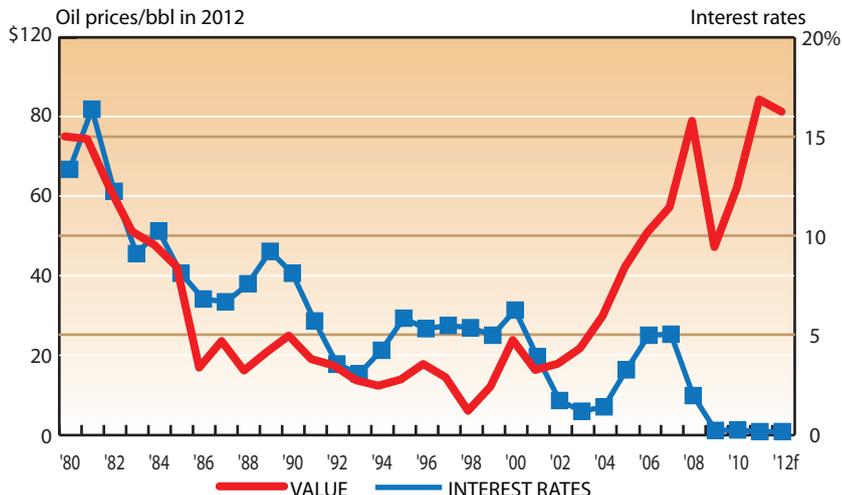
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## Aircraft Update

### OIL PRICES AND INTEREST RATES



and come in many more models. For comparison, the top two jetliners today, Airbus's A320s and Boeing's 737s, make up 54% of 2012 industry output by value. The five top-selling business jet series represent just 52% of 2012 industry output by value.

### The age of missing forecasts

Clearly, the two biggest civil aircraft market segments have been affected profoundly by the question of finance. The jetliner market has been artificially distorted in an upward direction by a flood of near-free credit. Conversely, the bottom half of the business jet market has been artificially distorted in a downward direction by a profound credit drought.

These trends greatly complicate market forecasting. Forecasters can make educated long-term assumptions about the traditional drivers of civil aircraft markets, such as economic growth or fuel prices. But the future of the new market drivers—interest rates, competing investment opportunities, and investor tolerance for asset risk—is anyone's guess. Meanwhile, those traditional market drivers, economic growth and fuel prices, have grown ever more volatile.

The next step in understanding this complicated finance dynamic may well be the Federal Reserve Bank's plans for a third quantitative easing program.

QE3, as it is known, is the most ambitious U.S. QE program yet. It is designed to spend \$40 billion per month in the U.S. home mortgage market. While that is a relatively small amount for a \$10-trillion mortgage market, the Fed is hoping to use its influence to 'crowd out' private investors from this market. The Fed thereby hopes to encourage these investors to move on to more risky (and, the Fed also hopes, more productive) investments, which should stimulate the economy.

As a consequence, if QE3 works as planned, investors would shift to financing riskier assets such as bottom-half business jets. QE3 success would stimulate that market as business jet buyers see financial terms and options improve for these jets. Greater availability of credit could further help the market by encouraging buyers psychologically. Even if they do not need credit, buyers will not want to be last in line for new jets in a boom market.

But if QE3 produces unintended and undesirable consequences, risk-averse investors will merely take their cheap cash away from houses and put it into any other low-risk assets they can identify. That could just translate into further market inflation for new-build commercial jet transports.

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