

## Financing airlines in the wake of the financial markets crisis

Borislav Bjelicic

*Logistics and Supply Chain Management, University of Mannheim, P.O.B. 103462, 68131 Mannheim, Germany*

### A B S T R A C T

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This article outlines the impact of the 2007 to 2008 financial markets crisis on aviation finance, with a particular focus on the financing of aircraft. Essentially, the financial markets crisis brought about a decrease in the share of bank loans, compensated by increased activity from export credit agencies. The article also endeavours to demonstrate how important access to capital will be for the long-term development of the aviation industry.

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### 1. Introduction

Traditionally, aviation has been a capital-intensive industry. The focus in financing airlines is thus predominantly on financing aircraft, with a large variety of financing options available. In this context, the importance of individual sources of finance may increase or decrease over time – as seen most recently during the financial markets crisis triggered by the collapse of Lehman Brothers in September 2008. Moreover, capital has evolved into an increasingly important factor for the development of the supply-side structure in the aviation industry. In other words, the availability of finance may constitute a material barrier to market entry.<sup>1</sup>

### 2. Aircraft markets – primary and secondary market

Two markets can be distinguished when considering the financing of civil aircraft. The primary market involves aircraft ordered directly from manufacturers, whereas used aircraft are traded on the secondary market. Buyers on both market segments require finance – primarily, these are airlines and leasing companies. Businesses (corporate jets), sovereign states (government aircraft) or private individuals (e.g. for VIP transport) are also active as buyers.

In the primary market, orders for new aircraft are directly dependent upon sector expectations regarding future air transport demand. Prior to the outbreak of the financial markets crisis, market participants were highly optimistic in this respect. One of the factors for this positive outlook was the successful business model adopted by low-cost carriers – despite the fact that the

preceding decade had shown that the aviation industry is not immune to major structural shocks (September 11, SARS etc.) affecting transport developments. Another factor that gained importance was fuel consumption: driven by the strong boom in the world economy, crude oil prices rose continuously into the year 2008 – as a result, airlines' jet fuel costs literally exploded for some time. Hence, numerous new aircraft orders were also triggered by concerns about jet fuel prices remaining high or rising even further.

The cyclical peak in aircraft orders occurred in 2007, with more than 3000 new orders for civil passenger and cargo planes (western-built jets). Manufacturers still recorded a significant level of new orders during the first half of 2008; a dramatic contraction only occurred in the wake of indicators predicting an economic slump, which started to increase since the summer of 2008 – turning into the threat of a global recession after the collapse of Lehman Brothers. The total number of new jet orders fell from 1874 for the full year 2008 to just 787 in 2009 – recovering to just under 1300 new orders in 2010. At 238, the number of cancellations was slightly higher in 2009 compared to the previous years. In 2010 the figure decreased to just 128 new jets cancelled (Fig. 1).

At the end of 2010, the total fleet of western-built aircraft employed by airlines worldwide amounted to just under 23,000. At the same time, manufacturers' order books amounted to almost 7500 aircraft – one-third of the existing fleet. Whilst some new orders are designed to replace aircraft that will be taken out of service due to their age or for economic reasons (due to rising jet fuel prices, for example), the majority of investments reflects long-term growth in air traffic demand. It is fair to assume that most of the aircraft on order for the years to come will, in fact, be delivered.

Buyers on the primary market predominantly comprise airlines and leasing companies with strong financial resources, looking to renew continuously their fleet as a key element of their corporate strategy. These subsequently sell aircraft on the secondary market, as soon as aircraft ordered for replacement are due for delivery.

*E-mail address:* [borislav.bjelicic@dvbbank.com](mailto:borislav.bjelicic@dvbbank.com).

<sup>1</sup> Morrell (2007) and now in its third edition, provides fundamental research regarding the financing of airlines.

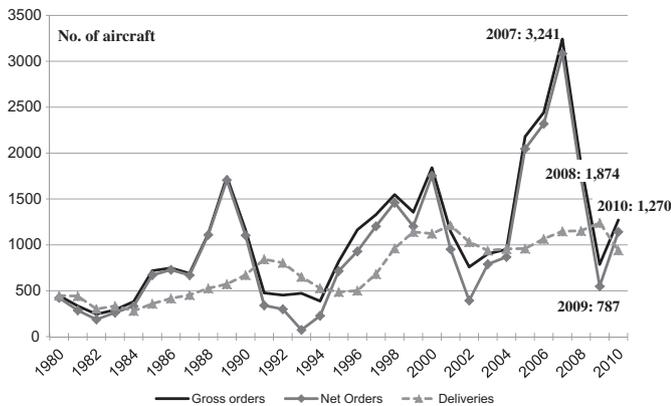


Fig. 1. Aircraft orders & deliveries 1980–2010. Source: Airclaims – Case 2 Data Base.

Some years later, secondary buyers will pass the planes on to other buyers. In other words, the financial strength of buyers is decreasing along this chain of ownership. Approaching the end of their useful lives, used aircraft primarily end up in developing countries, which helps to explain the high average age of aircraft fleets in Africa and Latin America. For passenger aircraft in particular, there is also the option of secondary buyers acquiring them for the purposes of conversion into cargo planes.

The secondary market has particular importance for the structure of the aviation market, as it offers the opportunity of establishing a new airline with a moderate amount of capital. Aircraft leasing companies play a similar role in keeping the air transport markets open to newcomers: they facilitate market entry, since a start-up’s capital requirements are much lower when leasing planes (compared to buying them). Not all airline operators established with used aircraft bought on the secondary market and/or leased planes have been successful over the longer term. But taking Ryanair – the pioneer of low-cost airlines in Europe – as an example, this article aims to highlight the way in which the secondary market contributes to shaping the structure of the aviation market overall.

Established in 1985, Ryanair would probably not have survived had not the UK and Ireland agreed on a liberalising aviation convention in the mid-1980s. This put Ryanair in a position to succeed with its low-cost approach on the London-Dublin “race-track”. Liberalisation of air traffic in the EU, which took place in three steps, eventually made it possible for Ryanair – and other carriers at later stages – to expand free from regulatory hindrances within the EU. Besides deregulation, the creation and proliferation of the internet is often cited as a factor in the fast business expansion. Yet the third factor which facilitated the success of low-cost carriers is often overlooked: the existence of a functioning secondary market for used aircraft. Initially, Ryanair bought its aircraft exclusively on the secondary market. In January 1999, Ryanair’s fleet in service comprised 21 second-hand aircraft, of which the oldest was 20 years and the youngest 16 years old. The airline’s first new aircraft was a Boeing 737-800 delivered in March 1999.<sup>2</sup> As its business grew over time, and Ryanair became successful, it moved into the primary market where the company has evolved into a major buyer.

There are several examples of other (now) large airlines which started out via the secondary market, or by leasing planes. Nowadays, Air Berlin is the second-largest German airline, operating a total of 133 aircraft (both owned and leased; figures as at

<sup>2</sup> All fleet composition details taken from the Airclaims CASE database.

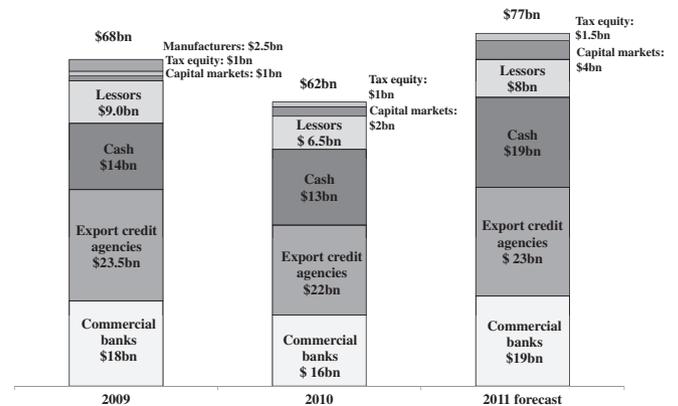


Fig. 2. Sources of finance. Source: Myers, Tim: Aircraft Financing Update. Boeing Capital Corporation, May 2011. [http://www.boeingcapital.com/einvite/nyc2011/presentations/06\\_Tim\\_FL\\_NY\\_2011.pdf](http://www.boeingcapital.com/einvite/nyc2011/presentations/06_Tim_FL_NY_2011.pdf).

November 2010). Back in 1991, the company had started out with just three leased aircraft.<sup>3</sup> Air Asia is another example, having started air transport operations with three leased aircraft, following the appointment of Tony Fernandes as CEO in 2002. Today, the company is a leading low-cost carrier in Asia, flying a total of 53 owned and leased aircraft (November 2010).

### 3. Current developments in aviation finance

Capital, which had been freely available for many years, suddenly turned into an extremely scarce resource in the wake of the financial markets crisis triggered by the collapse of Lehman Brothers. Besides other factors, this reflected the withdrawal of numerous banks from aviation finance. Mann (2009), Michaels (2009), Mueller (2010a), Scheinberg (2009), Zolotusky (2009) and others focused on the issue of whether sufficient financial resources were still available for deliveries scheduled for 2009. In fact, the only way that a financing gap could be averted in 2009 was through export credit agencies. These institutions therefore significantly increased their exposure to aircraft financing, replacing banks, and maintained a similarly strong presence in 2010 (Fig. 2).

#### 3.1. Corporate cash flows

The aviation industry ranks among less profitable sectors, for various reasons. First of all, the aviation business is a cyclical one, with income depending strongly upon the general economic development. In addition, the industry had to absorb special burdens from various exogenous shocks, as already mentioned. In the aftermath of the financial markets crisis, it was thus no surprise to see strong declines in demand in both passenger and air freight traffic. Above-average declines in premium-segment bookings had a particularly negative effect on the cash flow of many airlines. During 2010, airlines benefited from a recovery in demand: since this was also evident in the premium classes, the cash flow situation improved. Accordingly, in its financial forecasts published during

<sup>3</sup> Air Berlin was originally established with capital provided from the US; the company started operating routes from and to Berlin as early as in 1979, using Allied Forces’ overflight rights to pass over the German Democratic Republic at the time. When such rights became obsolete with German reunification, the company was taken over by new German majority shareholders in 1991, changing its legal form and acquiring the status of a German airline.

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