

Changing composition of financing sources in aviation

Professor David Yu, Istat certified aviation appraiser, examines trends in the aviation finance sector driven by the role of insurance companies and commercial banks.

Throughout the history of aircraft leasing, various financing trends have come and gone while the industry has grown significantly to the current \$126 billion forecasted of new delivery funding requirements for 2017¹.

There are now more commercial banks than ever before involved in the equity side of the business, along with newer capital sources such as insurance companies. These new players are additionally more diverse in geographical break down by their funding sources compared with the traditional western players and newer eastern players.

As 2017 further develops, several trends can be observed in relation to geographical sources of the funding as well as its characteristics.

Background

Sources of capital for aircraft transactions have had many forms since the days of the original aircraft finance leases back in 1968 with the start of McDonnell Douglas Finance Corporation (later after the merger renamed as Boeing Capital) and leases of DC-8s and DC-9s. Before that, the aircraft industry was mainly funded by classic equity and bank debt.

From that time to the start of the aircraft

operating leasing industry in the mid-1970s by the pioneering International Lease Finance Corporation (ILFC) and Guinness Peat Aviation (GPA), aircraft leasing has continued to grow to where it is 42% of the world's fleet².

This growth continues to be driven by the demand for air travel as global economies have grown along with the number of airlines, as well as revenue passenger kilometres and available seat kilometres.

Global state of aircraft funding

Airlines and aircraft have traditionally been financed by equity and bank financing facilities. These sources have continued to evolve with the support of the aircraft manufacturers and other innovative structures by the continued increase in demand from the users, mainly the airlines.

These innovative financing structures include the use of the operating lease by capital sources such as commercial banks and leasing companies both captive and non-captive to banks or manufacturers.

The other sources of funding include: cash or equity (28% of 2016 funding); export credit agencies (7% of 2016 funding); bank debt (33% of 2016 funding) by commercial banks, institutional

players such as private equity and hedge funds, and tax equity; capital markets (30% of 2016 funding), including asset-backed securities (ABSs) and enhanced equipment trust certificates (EETCs); and aircraft and engine manufacturer financings (2% of 2016 funding) with a total of \$122 billion of new aircraft funding requirements in 2016³.

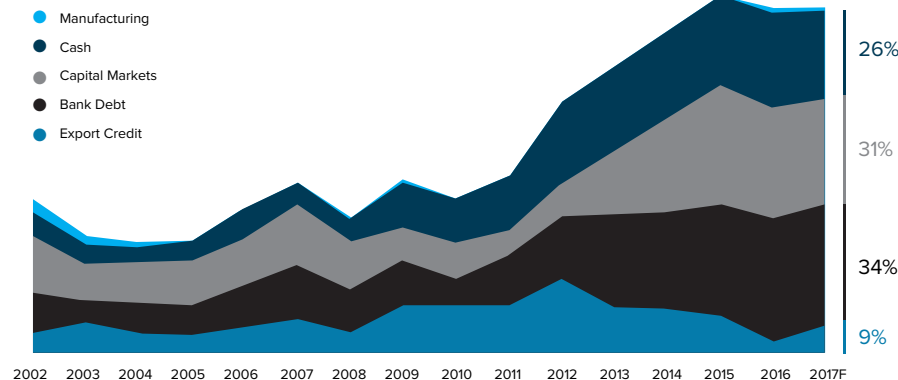
Export credit financing

Export credit agencies (ECAs) have been a significant source of funding, especially during the financial crisis, but this has been trending lower as capital markets financing has increased. The recent low exhibited in 2016 has been the uncertainty of US Export-Import Bank (US Exim), given its large historical support, especially to aircraft deliveries.

After letting its charter expire in July 2015, the US Congress reauthorised the bank in December 2015, but it is still in a state of limbo because it is not able to conduct new business given it awaits Senate confirmation of members to reconstitute a quorum. Only with a quorum can new funding decisions be made.

Graph 4: Percentage of Boeing Deliveries Funded By US Exim (Source: Boeing Capital Corporation)

Boeing Delivery Funding 2016



Source: Boeing Capital Corporation

¹ Boeing Capital Corporation Current Market Finance Outlook 2017.

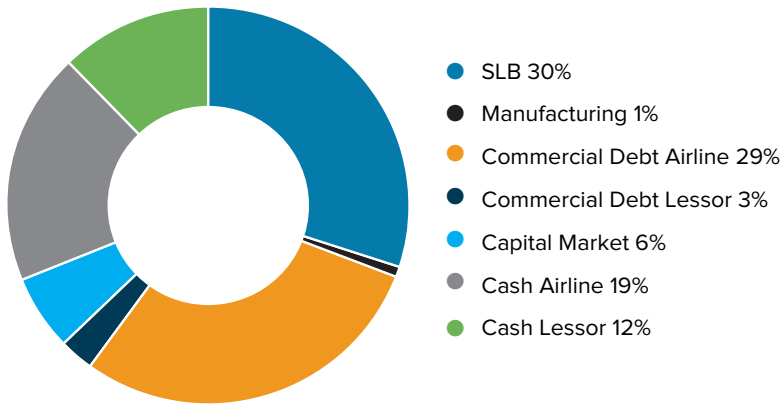
² JP Morgan.

³ Boeing Capital Corporation Current Market Finance Outlook 2017.

China's history of a formal export credit bank is far shorter than the West's. The Exim-Import Bank of China (CEXim), one of the three policy banks under the State Council, was founded in 1994 with a mission to implement state policies to promote the export of Chinese products and services. Unlike US Exim, CEXim funds projects directly instead of through guarantees or insurance, which is akin to what US Exim did in its early years.

While direct aggregate funding numbers are not published, the author has seen a significant rise in new financings by CEXim especially over the past few years. This increase in funding is in line with the continued increased share of China's new deliveries in the global aviation market. CEXim will continue to have a larger impact in respect to the global ECAs and the

Airbus Delivery Funding through October 2016



Source: Airbus

overall global aircraft financing market. This, in addition to the hopeful resolution of the quorum issue at US Exim, will have global ECAs play a larger role in the overall aircraft finance market.

Since the tail end of the financial recession, capital markets have seen a significant rise in the number and magnitude of deals and it has risen to represent about one-third of all new aircraft funding. These are represented by various securitisation transactions, including ABSs and EETCs. During this period, the vast majority of the capital markets deals have been completed in the West but, in Asia, the market has only just started. There are more innovative financing structures now being completed in onshore China and Hong Kong.

I predict that this trend will continue because more capital markets deals will be completed globally in 2017 but not by much in relative terms to other sources. The number of capital markets transactions in Asia will increase substantially, along with the expanding interest by financial players as described below, but as a percentage of the overall global market, this will not move the needle much in 2017.

Commercial banks as investors

Commercial banks have always played a significant role in the aviation finance market. They have traditionally provided financing facilities, both secured and unsecured term or revolving credit facilities. Recently there have been more unsecured term loan facilities completed at the lessor company level where traditionally the commercial banks have focused on the senior secured financing of specific aircraft assets. In addition, more commercial banks have again acted as lessors and have also become equity players.

One of the sub-trends is in the change of overall mix in terms of geography. In the late 1980s and early 1990s, banks such as Morgan Stanley not only arranged but

also used their balance sheets to become equity investors. Dean Witter was one of the original founding shareholders of Aviation Capital Group (ACG) in 1986. The merged Morgan Stanley Dean Witter combined their aircraft portfolios into the acquired Awas in 2000. The end of this era came when John Mack took over as chief executive officer and almost immediately sold Awas to Terra Firma once it was determined to be a non-strategic asset.

Today in the US, Bank of America Merrill Lynch and CIT are still active as bank-owned lessors through their mainly Irish subsidiaries. CIT will soon be removed from this list when the expected closing of the sale to HNA Group is completed in the first quarter of 2017 because it too has been deemed a non-core asset.

Wells Fargo too entered the space through a joint venture with Avolon in 2013. In Europe, DVB, Santander and Standard Chartered, through its acquisition of Pembroke in 2007, are still active as investors. It is interesting to note that Standard Chartered is now in a joint venture with an undisclosed Chinese investor for a separate aircraft leasing investment entity.

The once active HSH Nordbank, through its formation of the Amentum platform, has since been sold to its management in an management buy-out. This was because the bank has downsized as a result of the problems with its shipping portfolio.

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The story of Boullioun is interesting because it was bought from Sumitomo Trust and Banking by Deutsche Bank in 1998 and subsequently sold to WestLB, another German bank, in 2001. WestLB, once quite active as an equity investor, also had a 35.5% shareholding in Singapore Aircraft Leasing Enterprise (SALE) (now BOC Aviation) until its sale to Bank of China in 2006, when it decided these were non-core assets and refocused on its traditional European banking business. WestLB too had issues in its shipping portfolio and has further retrenched and this could be said about many of the European banks in the space. The shipping problem story will continue to be an impact, especially for European banks.

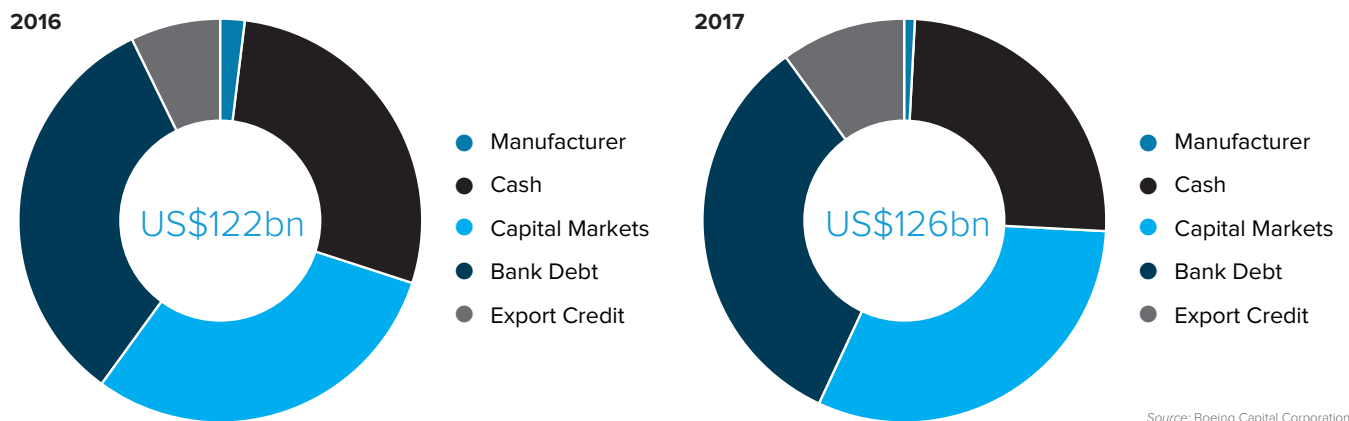
In Russia, VEB, Serbank and VTB banking groups have also been active through their leasing subsidiaries. Lately, they have encountered difficulties with sanctions and currency issues.

All of the above has happened as the East and the Middle East have seen large increases in activity in the sector. Japan originally had a lot of interest in aircraft leasing – for example, with Sumitomo Trust and Banking Company's acquisition of Boullioun in 1994 from the manufacturer's namesake founder and its subsequent sale to Deutsche Bank in 1998 as a result of the financial crisis of Japan Inc. This interest in aviation was resurrected post-2010 and was highlighted by SMBC's acquisition of RBS Aviation Capital in 2012, among other merger and acquisition transactions by other local parties. Australia's Macquarie, Commonwealth Bank of Australia and Investec have all been active principal investors. Middle Eastern banks joined the mix, including the National Bank of Abu Dhabi.

In China, almost all of the top 15 banks by assets⁴ are active as investors through their owned leasing companies, except for Postal Savings Bank of China and Agricultural Bank of China, a policy bank. With the exception of Bank of China through its acquisition of SALE in 2006, all the other banks' activities are newly formed financial leasing entities created after the 2007 edict by the China Banking Regulatory Commission allowing the creation of financial leasing entities owned by banks.

While financial leasing companies could be formed under the Ministry of Commerce, bank-owned financial leasing proved even more popular as new Administrative Measures for Financial Leasing Companies (Order of China Banking Regulatory Commission No 3) were issued in 2014 that lowered the barriers to entry into the financial leasing industry. These lessors are now some of the top 20 globally, according to *Airfinance Journal's* Top Lessors 2016 by aircraft: BOC Aviation is eighth place

Global Industry Funding Breakdown



with 267 aircraft; ICBC Leasing 12th with 218 aircraft; and CDB Leasing 17th with 148 aircraft. Meanwhile, Minsheng Financial Leasing is 46th with 39 aircraft.

Looking at the top 50 lessors by value 2016, BOC Aviation is in sixth place (\$11.4 billion), ICBC Leasing is eighth (\$10.2 billion), CDB Leasing is 13th (\$6 billion), Bocom Leasing is 19th (\$4.2 billion) and Minsheng Financial Leasing is in 41st place (\$900 million).⁵ This trend will continue as the demand for aircraft in the region increases.

In addition, there is a new trend that is emerging in aircraft leasing of commercial banks downsizing their investments. Investec, for example, recently sold its 20% share of Goshawk Aviation to Hong Kong based co-shareholders Chow Tai Fook Enterprises (CTFE) and NWS Holdings Limited, which now both have 50% shareholding.

Goshawk is Investec's third aircraft leasing platform, along with Global Aircraft Fund and Aircraft Syndicate Limited. It is also interesting to note that Goshawk was originally set up with backing from Investec, CTFE and Cheung Kong (CK), but CK subsequently sold its stake in the lessor to NWS. CK has since established Accipiter and several other joint ventures with global aircraft lessors.

Another driver rationale for this trend is the increased implementation higher reserve capital requirements on global banks by Basel III regulations enacted by the global financial crisis and set for implementation shortly. In addition, proposed amendments to the final Basel III even before its implementation, unofficially Basel IV, has even more stringent requirements that would standardise risk models and do away with internal risk ratings.

Aircraft leasing is under the specialised lending exposures class and object finance

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sub-category of the Basel Committee on Banking Supervision, a category that "generally exhibits higher risks and losses" than other categories of lending. Basel IV would, therefore, have negative effects for aviation and higher financing costs when it is enacted.

ECAs, on the other hand, have a cover effect on this standardised higher risk rating. Areas requiring large capital requirements such as aircraft leasing and private equity may propel banks to re-examine and restructure further or leave these investments.

In addition, the industry is seeing more insurance companies come into the space. Insurance companies with their large investment mandates have traditionally invested in public equities, capital markets and alternative investments such as hedge funds. Through these asset classes, insurance companies have had exposure to the aircraft leasing companies through one or multiple streams. Some insurance companies have direct investments in aircraft leasing assets, which started when ILFC (one of the founding companies in the space) was acquired by AIG Group in 1990. Subsequently, AIG sold its ILFC subsidiary after the financial crisis to AerCap and took a large shareholding in the new combined entity in 2014.

Other large notable direct investments by insurance firms include Pacific Life Insurance Company in ACG in 1996. The

group has continued to expand, including acquiring Boulliou in 2005 and embarking on a new joint venture with NWS in 2016.

Other mid-sized insurance companies in Europe have also started to invest directly into aircraft leasing assets. Generally, these firms have invested in similar profiled investments such as infrastructure or real assets through ABS, EETC or other public and non-public equity and debt.

Increased interest in the sector from large insurance companies in China has also emerged. Like its compatriot banks, most of the major insurance firms in China have created financial leasing companies under China's Ministry of Finance regulations and have primarily focused on finance leases, although some have started specific aviation divisions and others have diversified into operating leases.

These new players include Ping An Insurance (\$753 billion in assets in 2015 and ranked number five top global insurance company), China Taiping Insurance (\$63 billion in assets in financial year 2015⁶) through its joint venture with Sinopec, and China Life (\$378 billion in assets in 2015 and number 20 top global insurance company) through its joint venture entity.⁷

This is not a surprising trend given that most financial groups and large conglomerates have joined the bandwagon in investing directly in aircraft leasing assets. As the industry continues to grow in 2017 and beyond, even more players from insurance companies and other sectors will be entering the industry.

These new capital sources will continue to change the composition of finance capital globally and increase weight towards insurance companies and Asian-based companies along with the continued growth of the global aircraft leasing industry. ▲

⁴ The Largest Banks in China (by Assts as of 30 June 2016) <http://www.reitbanks.com/asia/china>.

⁵ Airfinance Journal Leasing Top 50 2016 Supplement <https://airfinancejournal.com/Magazine/Download/84>

⁶ China Taiping 2015 annual reports.

⁷ Basel Committee on Banking Supervision. Second consultative document. Standards. Revisions to the Standardised approach for credit risk. March 11, 2016 <http://www.bis.org/bcbps/publ/d347.pdf>