The demise of tax-based leasing structures has left a shortage of financing techniques for airlines. A few new structures have emerged, and the EETC has provided US carriers with a large source of financing capacity. Major carriers in other global regions have less choice for their acquisitions.

Financing options for blue chip carriers

Major airlines have had to reconsider options for financing new aircraft. Except in the US, the availability and benefits of tax leases have diminished to a fraction of what they were a decade ago. Interest rates have also fallen, reducing present values (PVs) of these schemes.

This comes when the industry is at a peak of delivery schedules and going through one of the largest re-equipping cycles it has ever known. Annual deliveries in recent years of about 900 Airbus and Boeing aircraft were worth $55-60 billion. These were to less than 100 of the world's major airlines, and equal to an annual delivery of about $0.5 billion per carrier. This coincides with the drying up of one a major financing technique. What options then do major airlines in North America, Europe and the Asia Pacific have for financing their new acquisitions?

Airline requirements

Of the $55 billion of new aircraft delivered each year, $20-25 billion are funded from airline cashflow. "This consists of airline profits, sales of old assets and equity issues," explains Ian Hosier, global head of transportation finance at IntesaBci. "This leaves a need for $25-30 billion of external financing."

Most of this external financing is required by major airlines in North America, Europe and the Asia Pacific, although South American and African airlines account for a small percentage.

Few airlines have the profitability to self-finance all their fleet renewals. Airline profits generate small volumes of cash compared to the cost of new aircraft. Aircraft size is increasing, and purchase prices of many types are $60-120 million. Few airlines make profits close to their annual acquisitions of $0.5 billion.

Sales of used aircraft are the biggest source of cash for purchases. Airlines still have to allocate cash for other requirements, including inventories, route expansion and information technology.

Airlines that make cash purchases are required to put down a 10-20% deposit, equivalent to the same amount of equity. Many carriers cannot justify this deposit, especially small ones which require several widebodies.

Poor airline profitability diminishes their tax capacity to make full use of the tax benefits of aircraft ownership.

The structure of finance and tax leases allowed the tax benefits gained by lessors to be passed on to lessees in the form of lower lease rentals. With this market in decline, the search for alternatives is focused on new markets.

Operating leasing continues to grow and provide the third main source of finance. Increasingly airlines are turning to straight debt, but raising this can be difficult. Debt relies on credit ratings and these are poor in many cases.

Financing breakdown

Hosier explains the external financing requirement of $25-30 billion can be broken down into three broad categories.

"I estimate that $10-12.5 billion of aircraft are provided each year by the operating lessors. This then accounts for about a quarter of the world's new aircraft deliveries," says Hosier. This value and percentage of aircraft financed through operating leases has been steadily increasing. The past decade has seen the emergence of several lessors.

Operating leasing has gained in popularity, not least because of the decline in finance and tax-based leases. In addition, operating leasing also allows airlines to acquire aircraft under easier terms than had previously been possible. Many carriers were dependent on government assistance, and operating leases provided a more flexible acquisition method. Lease terms are variable and residual value risk on the part of the airline is removed.

Hosier attributes another $10 billion of external financing to the debt capital markets. This includes enhanced equipment trust certificates (EETCs), which have grown in popularity because it was always necessary for airlines to have more access to the capital markets. This access therefore increased EETCs' popularilty, since debt capital markets were previously out of reach. Five years ago EETCs accounted for only about $0.5 billion of aircraft financings, and so their application has increased by a factor of 20.

EETCs are, however, largely confined to the US because they require high public credit ratings, which are mostly found among the US carriers. EETCs also require bankruptcy protection laws that limit the airlines' timescale in deciding whether to affirm or reject an aircraft lease in the event of bankruptcy proceedings. This protects the note holders. This has been difficult to extend outside the US. So far only Iberia and Qantas have completed EETCs.

The third main source of external financing still comes from tax leases. "This is constantly changing, but the share provided by tax investors is about $2.5 billion," says Hosier. "The remainder of the tax leases is provided by debt, which is $7.5-8.0 billion. This contributes a total of $10 billion from finance leases. This used to be highe in the past. Japanese Leveraged Leases (JLLs) alone accounted for more than

US carriers have the widest range of options of all airlines for financing aircraft. Not only do they finance the largest portion of aircraft from cashflow, they also enjoy some of the most beneficial domestic tax leases and are able to utilise EETCs.

$2.5 billion of tax credits. Providers of commercial debt have also changed. These used to be banks like Sanwa, but now include French banks, The Halifax and IntesaBci."

With $2.5 billion of tax credits, the JLL alone probably financed $12 billion of aircraft deliveries a year at one time, equal to the annual total of aircraft now financed by tax leases. There were also UK, German, French and US tax leases, and a few other European tax leases.

While this is an approximation of the current situation, the choices open to major airlines in different parts of the world vary. Hosier expects that operating leasing will maintain a similar share or increase. "The tax-based element will probably reduce even further," says Hosier. "Domestic tax leases are drying up, and cross-border leases are under still more pressure. Governments do not like their tax benefits being exported. The US domestic tax lease markets are still large, and US carriers are using a lot of them at the moment."

Cross-border tax leases

Until two years ago, tax benefits for aircraft were still substantial in several major economies around the world.

The best known tax-based structures was the JLL. Domestically, a finance lease in Japan is one where the residual value risk lies with the lessee. For the Japanese lessors to get allowances under the JLL, they had to persuade the Japanese authorities that the JLL was in fact an operating lease.

Tax depreciation is either straight line or reducing balance. Reducing balance rates are either 20% or 25%, depending on aircraft type. Corporation tax rates are high in Japan, and so a domestic lease has a high present value (PV) benefit. The structure is still economic domestically.

The JLL was also used extensively on a cross-border basis, and in many countries tax benefits could be claimed again on the aircraft, thus creating 'double-dip' structures. Britain is one example of this application.

Reducing balance rates of tax depreciation now only apply when the aircraft is used domestically in Japan. In the past, lessees outside Japan could also use the generous reducing balance rates of tax depreciation in a cross-border structure. Overseas lessees could also claim tax depreciation in their own jurisdictions. In the UK, for example, a 25% reducing balance method was permitted until a few years ago.

Japanese tax depreciation rates for overseas lessees were reduced to a 5% straight line method in 1998. This came at the same time as Japanese corporation tax and interest rates were reduced. These have all combined to lower the PV of the JLL, and make it uneconomic for cross-border applications.

Tax benefits have also been diminished for lessees in many jurisdictions. In the UK they switched from a 25% reducing balance to a 6% straight line system. The JLL has been made even more difficult as a consequence of the reduced sources of debt. "While the JLL is still legal in a cross-border application, it is no longer economic. It is still an economic tool domestically in Japan, and used by Japan Airlines (JAL) and All Nippon Airways (ANA)," Hosier explains.

The demise of the JLL has given rise to a close replacement, the Japanese Operating Lease (JOL). This is a near relative of the JLL, with a cross-border tax-based structure. Under Japanese rules an operating lease is regarded as one where the investor takes the residual value risk with the asset. The lessor is still entitled to reducing balance tax depreciation, regardless of the lessee's nationality.

The JOL not only uses double declining tax depreciation regardless of lessee nationality, but it also has flexible lease terms of 4-12 years and so can be applied like other operating leases. The JOL accounted for $1 billion of aircraft financings in 1999, and has been used extensively in Europe. JOLs, however, are only available to top airline credits because of currency and asset risks faced by investors. Lease rentals are paid in US Dollars, exposing lessors to currency fluctuations. Most JOL users are major airlines in Asia and Europe.

The JOL is now a popular financing tool. "Its application has grown fast, and now accounts for $1.0-1.5 billion of aircraft financing annually," says Hosier. "Out of the $2.5 billion provided by tax investors annually for all finance leases, $0.5 billion is used in JOLs."

The second major cross-border lease structure is the new Extra Territorial Income (ETI), which has replaced the Financial Sales Corporation (FSC) in a cross-border application.

Used domestically, a US tax lease allows double-declining accelerated tax depreciation, bringing large benefits to lessees in the form of reduced lease rentals. The benefit in the first five years is equal to as much as $31 million on an investment of $100 million.

US tax depreciation was also applied in cross-border transactions. This is on the basis that the lease is a true lease, although a lower rate of depreciation is allowed and consequently is regarded as an operating lease. The lease also cannot be longer than 80% of the useful life of the aircraft. Under a cross-border structure, the lessee was sometimes able to claim tax depreciation in its own jurisdiction and so was a 'double-dip' transaction.

In addition to using US tax depreciation, aircraft financed under a US

Japanese airlines still enjoy high present value benefits from domestic Japanese Leveraged Leases. The Japanese Operating Lease also provides generous rates of tax depreciation.

cross-border lease were also entitled to the Foreign Sales Corporation (FSC) subsidy.

Use of FSC cross-border structures have now been outlawed, following pressure by the European Union (EU) on the World Trade Organisation (WTO), on the basis that the FSC provided an unfair export subsidy. The US has immediately followed the FSC with the ETI, which has similar tax benefits to the FSC. The ETI can be used in cross-border transactions, but is likely to be opposed by the EU.

There are also a few opportunities for cross-border French tax leases. French tax leases are limited, but in 1998 tax benefits were actually increased and capital gains tax on the sale of used aircraft was scrapped. The tax benefits are applied in a reducing balance system, 40-50% of the aircraft's value can be written down over 9-13 years and the PV benefits are 6-10%.

The difficulty in obtaining a French Leveraged Lease (FLL) is that the tax authorities require application soon after an aircraft order is placed. Forward planning and limited availability means deals are hard to structure. Usually some benefit to French industry must be demonstrated, so FLLs are more common with Airbus equipment.

North America

Airlines in North America have the luxury of the widest range of financing vehicles to finance their fleet acquisitions.

US carriers have had some of their best financial results in the past two years. This has provided them with the tax capacity to take the benefit of owning a large portion of their aircraft.

High profitability has also allowed these airlines to maintain high credit ratings, a requirement to use several financing techniques.

Tax benefits in the US are still substantial. "The US domestic tax lease markets for all asset types are very large," says Hosier. "US airlines are using a lot of domestic tax leases at the moment."

Other choices for financing are EETCs and operating leasing. Most airlines have few problems in securing operating leases. Re-marketing in the event of a lessee default is the least problematic option in the US because of the large market available for placing aircraft. The financial status of airlines in North America is also more transparent than in other parts of the world.

The alternatives to tax-based leasing depend on the airline's jurisdiction and its access to a system where it can take advantage of depreciation benefits. Although there are no tax benefits in operating leases, operators do not have the burden of aircraft disposal. Airbus aircraft, for example, have heavy maintenance visits at five and 10 years, and airlines use these as return dates in the leases. The responsibility of the heavy maintenance checks are the lessor's. Airlines can also use early termination options, which are appealing to carriers. British Midland (BMA), for example, has just taken delivery of two A330-200s. These might be purchased for $80-90 million each, so a deposit of $8-20 million would be required. This is a lot to a carrier the size of BMA. Although operating leases have early termination penalties of six months' lease rentals, it is better for the airline to pay this, rather than having the burden of re-marketing the aircraft.

Operating leasing continues to grow in popularity. In 1998 about 14% of aircraft deliveries were accounted for by operating leases. This had grown to about 20% in 2000, and is expected to reach about 40% in 2013.

The explosion of EETCs has been virtually confined to the US. EETCs work on the basis of debt from the capital markets being supplied in tranches. Each tranche has a different interest rate according to the level of the risk of expected loss in the event of an airline default. The first debt tranches carry a high risk, and so is charged at higher rates of interest.

When debt is supplied from the private sector, note holders require protection from the risk of a lessee defaulting and lease payments not being made. This risk is covered by Section 1110 protection. Under Chapter 11 bankruptcy protection US airlines have 60 days to affirm or reject a lease. This is so that lease payments can be re-continued or aircraft be returned to the lessor after a short period. This short period of non-payment of lease rentals is covered by a liquidity facility, which protects the bond holders. The bond holders receive an 18-month interest payment if the aircraft is re-marketed. Outside the US there are no laws to force airlines to affirm or reject the lease in such a short period. The liquidity facilities required have to be larger than in the US. In Spain, for example, the liquidity facility has to provide cover for 42 months of interest payments. This makes it expensive to apply EETC

Asia Pacific carriers are sub-divided between those able to use a wide range of financing techniques and those that are virtually unbankable. These have few financing options available to them.

financing outside the US.

In addition to liquidity facilities, capital markets require airlines to have strong credit ratings to get competitive interest rates. Publicly available credit ratings are only held by US airlines.

Financing aircraft in the US is not difficult. Interest rates are also low and under most structures monthly lease rate factors are less than 1%.

Europe

Few European countries now offer tax benefits that make domestic tax leases efficient. German and UK tax benefits and corporation tax rates have declined.

The JOL is now the largest cross-border tax lease used in Europe, with the cross-border FLL being difficult to use.

Higher-credit major European airlines have the options of domestic tax leases, cash purchases, operating leases, simple debt and JOLs. Air France, for example, has used JOLs, cash purchases and FLLs.

British Airways (BA) still continues to use UK tax leases, but these are weaker. It has also used JOLs and straightforward operating leases. Under UK tax laws a UK lessee cannot claim UK tax benefits for a cross-border JOL, but it still has a higher PV than a UK tax lease. The JOL has become more marginal since US interest rates have fallen.

The JOL is the only cross-border tax lease structure available to most European airlines, and is attractive because it is treated like an operating lease, and so has flexible lease terms. This has meant underwriting capacity for JOLs is limited.

While the German tax lease has dwindled, there is speculation that a German equivalent of a JOL may emerge.

A few other European domestic tax lease structures remain. Sweden in particular has high rates of tax depreciation, as does Italy.

Weaker airlines in Europe may have to rely on export credit guarantees. This provides lenders with European government guarantees that the aircraft can be repossessed in the event of a default. It also allows lower pricing on account of lower risk.

All European carriers have now had the FSC closed off to them, and so are faced with a smaller number of financing techniques for new aircraft. The ETI could alleviate some of this pressure.

The options for weaker credit European carriers are even more limited. Some flag carriers may even find it hard to secure operating leases, and will have to get guarantees from their governments to secure export credits. This may even become difficult if the EU has already had bad experiences with certain airlines in the past. European airlines with a poorer credit rating may be wholly dependent on operating lessors.

Asia Pacific

Asia Pacific carriers broadly fall into two categories. A few of these airlines are high credit quality and generate respectable profits. Singapore Airlines (SIA) and Cathay Pacific (CX) are two examples. Despite continued economic difficulties, JAL and ANA are still regarded as low risk when it comes to financing new aircraft. This group also includes operators like EVA, Qantas and Air New Zealand.

The group of high risk airlines includes some that have defaulted on leases in the past. This group is known to include Garuda and Korean Air.

The options open to the higher-credit airlines include JLLs, JOLs, US and French cross-border tax leases, operating leases and cash purchases.

Straight cash purchases account for a large number of CX's and SIA's acquisitions. SIA enjoys generous tax benefits of ownership in Singapore, as well as consistently high profits and large cash reserves. SIA has rarely even needed to consider cross-border tax leases.

Cathay Pacific is in a less easy position, but can nevertheless use Hong Kong tax leases. This is one of the few Asia Pacific countries to have economic domestic tax leases. It has also recently used French cross-border leases, although this may soon become more difficult. CX has also used JOLs, made cash purchases, and used export credits to get fixed interest rates several years before delivery.

JAL and ANA are able to make use of JLLs and JOLs, and so probably need to consider few other financing techniques.

There are several weaker credit airlines that do have problems financing aircraft. "Other than Cathay Pacific, few Asia Pacific carriers use US cross-border leases, and so they rely on Japanese tax-based structures," says Hosier. "The problem is the combination of country and airline risk, and so these airlines have difficulty getting tax-based products. This will often only be made easier if the airline is able to get an enhancement, via something like an export credit structure, but this is very hard to do. Export credits are very important for many Asia Pacific carriers. This is because credit committees in lending banks are very nervous because of losses they have incurred in the past with many of these airlines. Export credits cover 85% of the aircraft cost."

Export credits are difficult to apply to all structures, and Hosier explains that they have not yet been 'wrapped around' the FSC because of its complicated structure. "It will probably be equally hard to protect the ETI with export credits," Hosier warns.

The few options left to weaker Asia Pacific carriers are operating leases. "The operating lessors cleaned up in the Asia Pacific after 'Asian flu'," says Hosier. "The airlines have also done sale and leasebacks with the lessors, as well as asset-based transactions and used straight debt. Very few airlines have been able to make cash purchases. Operating leases are the only option for some of these poorer-credit quality airlines." AC