

Tax depreciation benefits on aircraft have been substantially reduced in recent years. Its effects have been felt in Europe, and now in Japan. Only the US is untouched. This article compares the situation in Japan and the US and looks at Japan's possible salvation: the operating lease.

Tax depreciation benefits in the US and Japan

Europe is not the only continent to see tax depreciation rates for aircraft dwindle in recent years. Japan is a prime example, given the financial crisis in that country. Cross-border Japanese finance leases are all but dead, although there may still be a reprieve for operating leases. The US, on the other hand, has maintained a generous tax depreciation scheme for aircraft assets.

An examination of the tax depreciation benefits across Europe shows that Germany is one of the few remaining countries to provide generous benefits for those who own aircraft (see *Who's getting the best tax benefit on aircraft in Europe? Aircraft Commerce, November/December 1998, page 8*).

However, the German rules regarding tax depreciation on aircraft assets are about to change. The general consensus is that the benefits could be substantially reduced.

Benefits sources

An examination of the current tax depreciation allowances in the US and Japan shows some interesting contrasts in the benefits of the various ways airlines can acquire and own aircraft.

Like all other jurisdictions, tax depreciation benefits depend on an owner having sufficient tax capacity. While this has not been a problem with US lessors, it has been the case with Japanese financial institutions in recent years due to the financial crisis in that country.

The scale of tax depreciation benefits is determined by the depreciation scheme allowed and the corporate tax rate. While Japanese corporate tax rates are still high, the situation in Japan has become less attractive. This is not just because tax depreciation schemes have been cut back, but because Japanese interest rates are so low. Although interest rates do not have a direct affect on the size of the saving

generated by depreciation, they impact the net present value of the benefit on the total lease term.

With respect to airline tax capacity there has been virtually none for domestic Japanese airlines in recent years, wiping out any benefit of direct airline ownership. The contrasting fortunes of financial institutions in the US and Japan are similar to the profitability of airlines in both those countries.

Year-end financial results for the majority of all major US carriers show an operating income-to-revenue ratio of about 10% for year ended 1996. This is an exceptional performance compared to historic results.

The exceptions were Alaska, America West, Continental and USAirways. Nevertheless, these carriers still had a reasonably strong performance of at least 5% operating income-to-revenue. The one exception was TWA, which was still ailing from performance difficulties.

US AND JAPANESE AIRLINE FINANCIAL PERFORMANCE 1997

Airline	*America West	AMR Corp	Continental	Delta	Northwest	Southwest	ANA	JAL
Revenue (\$ million)	1,739	17,753	6,360	12,952	9,881	3,269	6,100	8,243
Operating income (\$ million)	133	1,839	525	1,402	1,054	351	12	31.42
Income: revenue	7.7%	10.4%	8.3%	10.8%	10.7%	10.3%	2.0%	0.4%

* figures for 1996

Source: Merrill Lynch



Japanese airline tax capacity for aircraft ownership has been low in recent years. JAL's operating income was just 0.4% of revenue in 1997.

AMR Corp, Delta and Northwest had operating incomes in excess of \$1 billion, giving each carrier substantial tax capacity for aircraft ownership.

Japan's two largest airlines JAL and ANA had a completely different story over the same period. ANA had revenues of Yen 887 billion (\$6.1 billion) and operating revenues of Y 1.8 billion (\$12 million), just 2.0% of revenue. The news was far worse for JAL, with operating income a dismal 0.4% of revenue (see table, page 9).

US tax depreciation

US tax depreciation, while generous on aircraft ownership, is complex.

The US has two systems that owners can choose. The first is a 200% accelerated reducing balance system, the second a 150% straight line method.

In both cases aircraft are depreciated over a seven-year term. The 200% accelerated rate with a reducing balance system means that the rate of depreciation each year is doubled. That is, in the first year of the seven-year depreciation term a \$100million asset is permitted a depreciation of \$14.29 million. This is then doubled to a depreciation of \$28.58 million.

This first-year depreciation brings the aircraft's value down to \$71.42 million

at the beginning of the second year. That value is then depreciated over the remaining six years and the annual depreciation is again doubled.

This system has a clause known as the half-year basis, in which the first year's tax depreciation is halved. This is because the aircraft will not perform a full year's operation during the financial year in which it is purchased. The depreciation in the first year is then halved back to \$14.29 million.

The second depreciation system is a straight line method over seven years, which has a 150% factor on the annual depreciation rate. That is, 21.4% per annum.

The two systems then have to be combined if the owner elects to start with the reducing balance method. That is, the straight line method has to be switched to once it starts to provide a higher rate of annual tax depreciation.

The resulting rates of annual depreciation start at 14.29% of the asset value in the first year, peak at 24.49% in the second, decline to 12.49% in the fourth and then become a straight line rate of 8.93% from the fifth year thereafter, until the eighth year when the last 4.46% is used to fully depreciate the aircraft.

The 150% straight line system is the original one. The tax benefits from this method are substantial. Combined accelerated and straight line methods provide a depreciation of 77.69% in the first five years. The corporate rate of tax in the US is 35% and so the total tax benefit or reduction in tax over the

same period is \$27.2 million. US airlines, however, also have to pay state or local taxes at a rate of about 5%. This additional tax increases the benefit to \$31.07 million in the first five years.

Entitlement in the US

US rules governing US airlines' entitlement to tax depreciation allowances are complex compared to other tax jurisdictions. For example, UK tax depreciation is only available to UK airline owners of aircraft and to UK lessors using UK tax leases. The UK tax lease laws stipulate that the lessee must be a UK airline for the lease to benefit from UK tax allowances.

In the US there are several rules. The basis of whether the lessee or lessor gets the tax benefits of ownership depends if the lease is a finance or operating lease.

Operating leases are referred to as untrue leases in the US, and the lessee gets the tax benefits. Finance or true leases are those where the lessor gets the depreciation benefits. These are also called synthetic leases.

The difference between true and untrue leases is very subjective, but ultimately it depends on whether the lessor or lessee has exposure to the residual value risk in the aircraft. That is, the party which takes the residual value risk also enjoys the tax benefits of owning the aircraft.

Generally speaking, a lease is regarded as a true or finance lease if the

term is less than 80% of the economic life of the aircraft and the lessor sells the aircraft for at least 20% of the original purchase price before taking into account the effects of inflation. After the length of a typical lease term this works out to about \$35 million for an asset with a purchase price of \$100 million.

If the lease term is less than 80% of the useful life of the aircraft then the lessor takes the residual value risk, since it has to re-lease the aircraft and ultimately sell it for a residual value at some point. One subjective area here is the useful life of the aircraft. This period varies between types, and can be changed unexpectedly with the arrival of new technology. Generally, the useful life of the aircraft is increasing.

Techniques have been developed to reduce the amount of the potentially high residual value the lessee gives to the lessor in a true lease.

The most usual technique is for the lessee to enter into an agreement to buy the aircraft back from the lessor at the end of the lease term. Therefore, although the lessor still gets the tax benefits and a guaranteed residual value, the lessee does not lose out since it can buy the aircraft for a reasonable amount and then continue to operate it. The lessee can also sell the aircraft, sometimes making a gain on the residual value itself.

However, putting in fixed purchase prices at the end of the lease means the lessor is not taking a risk on the residual value. The US tax rules are not so rigid, though, to totally disallow fixed price buy-back options at the end of the lease term.

This means there is some scope for lessors and lessees to agree fixed price buy-outs for the lessee without the lessor losing its right to tax benefits.

Early buy-out

Lessees often agree buy-out options with the lessor where the aircraft can be sold to the lessee before the end of the lease term. There may be several times at which the lessee can terminate the lease.

In each case the buy-out price has to be such that at each time it meets the requirement of providing the lessor with at least a 20% residual value upside. These prices have to be considered against the amount by which the loan is amortised. By adding the fixed residual pricing of the aircraft at various stages there becomes a narrow margin between a true and non-true lease.

Despite the capping or controlling of buy-out prices, the residual value exposure is deemed as remaining with the lessor, which then is permitted to keep the tax benefits. This is in the interests of the lessee, since the benefits are passed on in the form of lower lease rentals.



The IRS in the US is not so strict about which party takes the residual risk and enjoys the tax benefits when both the lessor and lessee are US tax payers.

US cross-border leases

Cross-border leases are where the lessor is US and enjoys the tax benefits. The lessee is a non-US company, but still has the benefits of reduced lease rentals as a result of the lessor getting the tax depreciation.

For the lessor to enjoy the benefits of tax depreciation in a cross-border lease the structure then has to be a clear-cut true lease. This means there can be no fixed-price purchase options on the aircraft by the lessee and its residual risk must remain totally with the lessor.

Despite more stringent rules on cross-border leases with respect to fixed purchase prices, the lease structures are usually double-dip. That is, the lessee is also permitted to claim tax depreciation for the aircraft in its own country.

US-German cross-border leases were popular at one time, and US-UK leases can also be done. Cross-border leases have also been done with Sweden, Finland and Denmark. In fact, there are few jurisdictions with which the IRS disallows cross-border leases. Those not allowed include Iran, Iraq, Libya and North Korea.

Under cross-border leases the rates of tax depreciation are different from rates for domestic leases described earlier. The depreciation system is slower for the lessor, since the lessee is a US tax-exempt entity.

The US maintains one of the most relaxed and generous tax lease schemes in the world.

The depreciation rate used is a straight line process of about 8% per year over 12 years. An aircraft is deemed to be used predominantly outside the US if it is physically located outside the US for more than 50% of the year, making the lessee a tax-exempt entity.

Other cross-border lease structures include lease in-lease out transactions. This structure allows US lessors to achieve higher rates of depreciation than tax depreciation benefits in a cross-border lease.

A foreign lessee, for example an airline, such as British Airways (BA), leases the aircraft to a US lessor and receives a payment for a large quantity of the lease rentals as an up-front payment at the beginning of the lease.

The lessor is entitled to claim the rentals it pays as a tax-deductible cost. So, for example, it may pay BA \$90 million in rentals for the \$100 million aircraft at the start of the lease. The lessor is then entitled to depreciate these over, say, a 10-year-period, which provides an annual depreciation charge of \$9 million a year. The lessor then leases the aircraft back to BA for 15 years.

Under a conventional structure, if the US lessor owned the aircraft it would have been permitted a straight-line depreciation of 125% over 15 years. The \$100 million amount would then generate an annual depreciation charge

of \$5.33 million. This compares with the \$9 million it is actually able to claim. This higher allowance would lead to a better net present value of the lease, as well as getting round the tax-exempt entity rule.

FSC

Under US tax laws US-manufactured aircraft also receive an export subsidy. This is known as a foreign sales corporation (FSC). Aircraft used outside the US get an extra export subsidy. Effectively, the FSC is equal to a deduction of 15% of taxable income, which is rent less depreciation and interest, and is treated like a tax deduction.

Japanese tax depreciation

The rules governing Japanese tax allowances are relatively straightforward. By definition a finance lease is one which is a full pay-out transaction and where the lessee enjoys the full economic benefits of the asset. That is, the residual value risk lies with the lessee. This is the opposite to a US true lease.

Tax depreciation is determined using either a straight line or a reducing balance method. Assets used outside Japan, on a cross-border lease, must use the straight-line method.

The terms of the lease period are dictated by the Japanese government. The declining balance method uses terms of eight years for narrowbody aircraft and ten years for widebodies.

Narrowbodies using the eight-year term have a declining balance rate of 25%, whereas widebodies with a

ten-year term use a 20.6% rate. In both cases the aircraft are depreciated to a 5% balloon which does not get depreciated.

Straight-line rates of 12.5% and 10% are applied to eight- and ten-year leases.

In parallel with these rates of depreciation the corporate rate of tax in Japan is a high 47%. This means any method of depreciation will deliver an appreciable tax benefit.

The eight-year reducing balance method provides a write off of 64.85% in the first five years. This translates to a tax saving benefit of \$32.17 million over the same period.

The ten-year declining balance system depreciates by 76.27% in the first five years, delivering a tax benefit of \$35.85 million.

The straight-line system depreciates the aircraft by 62.5% and 50% in the first five years for eight- and ten-year terms, generating savings of \$23.50 million and \$29.38 million, respectively.

Cross-border leasing

As already described, the declining balance rates of depreciation only apply when the asset is used in Japan. This has only been the case recently.

In earlier years accelerated rates of depreciation were permitted for all cases. The annual depreciations in the first years were so high that they were greater than lease rentals, making a loss for the lessor which deferred its tax liability.

Cross-border leases provided high rates of depreciation, since in many other jurisdictions the structure of a Japanese lease was regarded as a hire purchase transaction. Therefore, UK lessees could

claim UK tax depreciation in addition, which also used to be substantial with the 25% declining balance rate allowed until recently.

The double-dip cross-border leases also gave the lessee the option to purchase the asset at the end of the term at a price 45% or less than the original cost.

These double-dip cross-border Japanese leases have lost virtually all their benefits. Now, not only do lessors have to use straight-line depreciation for cross-border leases, but the rate of depreciation allowed is only 5% per year. This small rate, combined with lowered rates of tax depreciation in other states has wiped out all benefits of the structure.

In addition to lowered tax depreciation, rates of interest are now so low in Japan that the net present value of such transactions is small. This makes them financially uncompetitive compared to other structures. Finally, the collapse of the Japanese financial services sector has dried up the source of funds and tax capacity for Japanese tax leases.

With the elimination of tax benefits from cross-border leases, operating leases are now the trojan horse that will give lessees the mechanism to exploit declining balance tax depreciation in Japan.

Under Japanese rules, an operating lease is where the investor takes the residual risk on the asset. Because the structure is regarded as an operating lease, it is hoped the lessor will still be entitled to declining balance rates of depreciation regardless of whether the lessee is domestic or foreign.

Operating leases could be the way to re-open the path to cross-border leases, but it is still not absolutely clear, however, whether the lessor will be entitled to accelerated depreciation. The guidelines for tax leases are due to be published at the end of 1998. Until then financiers and arrangers will have to wait to see if the Japanese operating lease is worth holding out for.

If the Japanese cross-border leasing market is revived with operating leases it is certain to become an extremely popular structure. There will be relatively little supply to satisfy demand over the next few years, because of Japan's financial problems.

One reason for its probable popularity is the reduced tax depreciation benefits in many European countries, which could soon include Germany. This would leave the US as one of the few countries still providing generous tax benefits for owning aircraft. This will further fuel the popularity of operating leasing.

Operating leasing could re-open the door for Japanese cross-border transactions.

