Fundamentals of leasing – part II

In the second of a two-part series, Jeremy Dean of the Western Group concludes his study of the fundamentals of lease financing.

In the first of these two articles, which appeared in last month's edition of *The Treasurer*, the legal and technical framework relevant to leasing transactions was outlined. This article examines further the basis of economic analysis of leasing transactions for a lessee, and then looks at parameters impacting upon the calculation of lease rent as they might be expressed in a leasing contract.

Finance lease analysis – lessee post-tax NPV

The principles behind the economic analysis of a lease are reasonably straightforward. The lessee's circumstances will determine the most appropriate basis of analysis. A lease can be analysed in terms of its pre- or post-tax IRR, or its pre- or post-tax NPV. Some lessees concentrate simply on the annual cash required to service the lease. The post-tax NPV is probably the most widely used measure and the specific principles behind this calculation are outlined below. *Tables 1, 2 and 3* refer to and are based on the seven-year lease profile featured in last month's article (pre-tax IRR 6.79%).

The first step is to work out the tax relief available in respect of lease rent. This involves aggregating the annual finance charge derived from a simple IRR calculation and the relief available in respect of lease capital. As discussed in Part I, this is determined by reference to the lessee's accounting depreciation.

The second step is simply to subtract from the cost of the asset, the cash amount to be notionally set aside, which, if remunerated at the lessee's opportunity cost of funds, will be sufficient to meet future lease rentals taking into account tax relief on rent, and tax on interest earned on the cash set aside. *Table 2* assumes that the lessee's opportunity cost of funds is 7.00% pa and, to keep the analysis as simple as possible, it is also assumed that the lessee has a December year-end and a tax delay of 12 months. On this basis, the seven-year lease shows a post-tax NPV benefit of 24.19% (or £241,956 per £1m) for a full tax-paying corporate.

Whatever the basis of evaluation, this type of analysis is of little value if used alone, however. Similar calculations must be performed in respect of alternate sources of finance to enable comparison across the funding mix.

Operating lease analysis

Operating leases bring a wider range of benefits to a lessee than the finance lease, for example, provision of maintenance, asset risk transfer and off balance sheet accounting treatment (at present but perhaps not for much longer), and so a direct comparison with other forms of finance is not always possible. In theory, operating lease rent would be dis-aggregated and the various 'service' elements priced so that the cost of finance and wider benefits can be accurately measured.

Parameters impacting upon the calculation of lease rent

For major equipment financings, within the body of each lease agreement, or set out in a separate financial schedule, will be a description of the assumptions upon which lease rent is to be calculated and statements about what happens should the assumptions fail. Most leases are written on the basis that rent will be adjusted upwards or downward to reflect assumption changes. Lessees need therefore to be familiar with the various concepts expressed therein.

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A simplified set of assumptions in respect of a finance lease is shown on page 16 together with certain comments. Assumptions cover three areas: a) factual matters; b) the funding of the lease; and c) tax.

The important thing for lessees in negotiating assumptions is to recognise that had the asset been procured otherwise than by way of a lease (ie, by debt) the lessee (if other than an indefinite 0% tax payer) would be carrying risk in respect of the matters set out in the assumptions. What is important for lessees therefore, is to ensure that they do not pick up incremental risk through the lease.

In this regard, many lessors are willing to 'carve out' certain matters which might lead to assumption failure. These typically reflect lessor 'conduct of business' issues within the lessor's control and may include:

- whether or not the lessor is carrying on an actual trade of leasing;
- recklessness or wilful default by the lessor;
- a voluntary change of accounting year-end by the lessor;
- the lessor not funding the transaction by way of loans from an authorised institution in the ordinary course of business;
- the lessor or its VAT representative member not being fully taxable for VAT purposes; and
- the lessor group having insufficient taxable profits to shelter tax losses created by the lease.

Parameters impacting upon the calculation of lease rent

Financial assumption		***Comments***
The Lessor will incur capital expenditure on the Equipment in amount equal to the Equipment Cost on the Start Date.	a	What appears to be a mere statement of fact masks a technical issue about how the lessor incurs expenditure on capital account.
The Lessor's accounting period will at all relevant times end on [31 December], and that the Lessor will be required to pay tax on its profits (or would be if there were such profits) in accordance with the regime for payment of corporation tax by way of quarterly instalments as set out in the Corporation Tax (Instalment Payment) Regulations 1998 (SI 1998 No. 3175).	b	This is a statement of fact as relates to the lessor year end and a statement of the current law in respect of the timing of tax payments by the lessor.
The Lessor will be entitled to receive and retain the full benefit of 25% writing down allowances on the statutory reducing balance basis on all of its expenditure incurred in acquiring the Equipment, for the accounting period in which such expenditure is incurred (subject to time apportionment) and for each subsequent accounting period up to and including that in which the Primary Lease Period ends.	c	Lessors may seek to cap the rate at which they claim writing down allowances. This is to limit tax capacity needed to shelter the tax losses generated by the lease. A higher rate of writing down allowances will increase the need for tax shelter. Unlike other corporates, finance lessors (but not operating lessors) are only entitled to claim allowances in the year in which expenditure is incurred on a time-apportioned basis.
The Lessor will dispose of its interest in the Equipment on the last day of the Primary Lease Period for a sum equal to its then tax written down value.	d	At the end of each lease primary period there will be a residual amount of writing down allowances left in the pool (13% – 7 years, 1% – 15 years). An assumption needs to be made as to what happens to these. Sales proceeds can be offset against any unclaimed allowances hence a 'sale' is assumed.
The corporation tax rate will be 30% throughout the life of the lease.	e	Generally, reductions in the corporation tax rate would be advantageous to a lessee, increases disadvantageous.
The Lessor's investment in the lease will be funded at LIBOR assumed to be [6.25]% pa compounding on each [semi-annual] date (each period being an 'Interest Period'). Any surplus funds in the lease will be reinvested by the Lessor at LIBID assumed to be [6.125]% pa per Interest Period. Movement of funds during an Interest Period are assumed to be funded separately to the date of receipt or from the date of payment.	f	All leases will include specific funding assumptions. Those shown relate to a transaction that is written on a variable rate basis. Some leases are written on a fixed rate basis and incorporate appropriate alternative language. Most leases have a short phase when the lessor's investment in the lease will be reversed (ie in surplus). An assumption will be made as to the rate at which such funds are reinvested. Movement of funds during an interest period will principally reflect cashflow movements due to corporation tax.
The Lessor will be entitled to treat interest payable (receivable) on funds invested (reinvested) or assumed to be invested (reinvested) in the lease as a trading expense (revenue), deductible (taxable) in the accounting period of the Lessor to which such interest relates.	g	This assumption may appear to state the obvious that interest paid (earned) should be treated as a trading expense (income). Its inclusion enables a lessor to vary rent if this changes.
The lease cashflow will be debited on the last day of each Interest Period as described in assumption (f) above with the Lessor's post tax margin of [0.50]% per annum.	h	The Lessor's margin is calculated by reference to cash invested in the lease.
There will be no change in the nature, method, or application of the laws of the UK, or in Inland Revenue or Customs & Excise interpretation thereof, or in generally accepted UK accounting practice affecting this transaction.	i	What actually constitutes a 'change of law' is often a heavily negotiated area. From the Lessee perspective is important to ensure that the Lessor carries 'current law' risk for most matters covered by the assumptions.
The Lessor's taxable profits will be computed on a daily accruals basis in so far as they relate to rentals and to interest paid or received, in each case, by reference to the accounting period in which the amount is assumed to relate, and the Lessor shall not be required to prepare its corporation tax computations on any other basis, other than in compliance with S. 12 Finance Act 1997.	j	S.12 Finance Act 1997, introduced the concept by which finance Lessors bring into account for corporation tax purposes the higher of accrued rental income and earnings recognised in the Lessor's accounts in respect of any accounting period.

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TABLE 1 Lessee post-tax NPV analysis – Step 1 lessee tax deduction

	Book depreciation (A)	Finance charge (B)	SP3/91 deduction (A) + (B)
31/12/99	£0	£0	£0
31/12/00	£142,857	£68,093	£210,950
31/12/01	£142,857	£61,636	£204,493
31/12/02	£142,857	£54,381	£197,238
31/12/03	£142,857	£46,062	£188,919
31/12/04	£142,857	£36,677	£179,534
31/12/05	£142,857	£25,824	£168,681
31/12/06	£142,857	£13,672	£156,529
	£1,000,000	**£306,345**	**£1,306,345**

TABLE 2 Lessee post-tax NPV analysis – Step 2(a) lessee cashflow

	Asset cost	Lease rent	Interest 7%	NPV	Net tax (Step 2 (b)	Balance
31/12/99	£1,000,000	–	–	(£241,957)	£0	£758,043
31/12/00	–	(£160,445)	£53,208	–	£0	£650,806
31/12/01	–	(£168,467)	£45,556	–	£47,323	£575,218
31/12/02	–	(£176,891)	£40,265	–	£47,681	£486,274
31/12/03	–	(£185,735)	£34,039	–	£47,092	£381,670
31/12/04	–	(£195,022)	£26,790	–	£46,464	£259,902
31/12/05	–	(£204,773)	£18,193	–	£45,823	£119,145
31/12/06	–	(£215,012)	£8,340	–	£45,146	(£42,380)
31/12/07	–	–	(£2,967)	–	£45,347	(£0)
Totals	**£1,000,000**	**(£1,306,345)**	**£223,426**	**(£241,957)**	**£324,876**	

TABLE 3 Lessee post-tax NPV analysis – Step 2(b) determination of lessee net cash position

	Lease rent (SP3/91)	Interest (Step 2(a))	Net relief	Tax rate	Net tax
31/12/99	£0	£0	£0	30%	£0
31/12/00	£210,950	(£53,208)	£157,742	30%	£47,323
31/12/01	£204,493	(£45,556)	£158,937	30%	£47,681
31/12/02	£197,238	(£40,265)	£156,973	30%	£47,092
31/12/03	£188,919	(£34,039)	£154,880	30%	£46,464
31/12/04	£179,534	(£26,790)	£152,744	30%	£45,823
31/12/05	£168,681	(£18,193)	£150,488	30%	£45,146
31/12/06	£156,529	(£8,340)	£148,189	30%	£44,457
31/12/07		£2,967	£2,967	30%	£890
Totals	**£1,306,345**	**(£223,426)**	**£1,082,919**		**£324,876**

In higher value transactions lessees should also anticipate contest rights in respect of any disputes arising with the Inland Revenue and/or Customs & Excise.

Rental calculation and variation

The assumptions set out in the lease essentially form a series of inputs that the lessor will feed into a bespoke lease evaluation system to calculate rent. Good practice for lessees is to have the right to require the lessor to evidence the initial rental calculation by production of the relevant lease cashflow and associated tax reports. Any recalculation of rent should be made on a consistent basis with the original calculation and similarly evidenced.

Although in practice it is a right that may not be used, lessees should seek to reserve the right to refer lessor calculations to an independent entity for determination. As with many complex calculations, mistakes do occasionally occur, perhaps with data input or more fundamentally with interpretation of the lease contract. These are areas in which lease advisers can often assist lessees in bringing expertise to match that found within lessors. ■

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The Lessor will be entitled to shelter the tax losses generated by the transaction by way of group relief in accordance with Sections 402 to 413 ICTA 1988, and that any receipts by the Lessor in respect of consideration received for group relief will be received on the due dates for payment of corporation tax in respect of each relevant accounting period in which such losses arise.	**k**	As in all corporate tax groups, losses in one entity can be sheltered against profits in another. Lessors rely upon group relief to shelter losses in a leasing company against profits arising in the wider parent group.
The Lessor will incur no irrecoverable VAT in connection with the transaction.	**l**	Expenditure on the asset by the Lessor will be subject to VAT. In the ordinary course this should be fully recoverable. [A lease does constitute the supply of services and so lease rentals are similarly subject to VAT].