

## **M.Com Course**

### **MCO-07: Financial Management**

#### **Block – 3 : Long Term Financing**

#### **Unit – 10 : Lease Financing**

**Objectives:** The objectives of this unit are to:

- Explain the concepts of lease financing as a method of raising corporate finance
- Distinguish between lease financing and hire purchase financing
- Discuss various forms of lease finance
- Survey the various benefits and costs of lease financing from the point of view of the lessee
- Evaluate the lease financing with respect to its economics from the point of view of the lessee.

**Structure:**

- 10.1 Introduction
- 10.2 Concept of Lease financing
- 10.3 Distinction between leasing and hire purchasing
- 10.4 Forms of Lease Finance
- 10.5 Benefits and costs of Lease Financing
- 10.6 Financial Evaluation of the lease
- 10.7 Problems in lease financing
- 10.8 Leasing in India
- 10.9 Summary
- 10.10 Self Assessment Questions/Exercises
- 10.11 Further Readings
- 10.12 Key words

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### **10.1 Introduction**

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As you have observed, Block-3 is intended to discuss diverse sources of Long term financing. The preceding two units (viz 8 and 9) have focused on the significance of equity, preference and debenture capitals as sources of Long term finance. The capacity of a firm to

raise long term finance depends on the conditions prevailing in the capital market. It is, therefore, nothing but imminent to survey the developments in the primary and secondary markets. Such an attempt has already been made.

In the recent years many newer forms of long term financing are gaining popularity both in the developed and developing economics. Among these, leasing, hire-purchasing and venture capital financing are the most popular modes in the recent past. In this unit, we shall discuss the significance and economics of lease financing as a part of the sources of long term financing.

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## 10.2 Concept of Lease Financing

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A lease is a contract whereby the owner of the asset (known as the 'lessor') grants to another party (known as the 'lessee') the exclusive right to use the asset, usually for an agreed period of time, in return for the payment of rent.

Thus, a lease transaction consists of two parties, the lessor and the lessee. An obvious advantage to the lessee is the use of an asset without having to buy it. For this advantage, the lessee has to pay periodic lease payments, usually monthly or quarterly. A typical lease agreement may contain the following provisions:

**Duration:** The lease contract may be for any period, from a few hours to the entire expected economic life of the asset.

**Lease rent:** As the lessee gets the exclusive right to use the asset during the lease period, he pays, in return, lease rents in instalments. If the lease period is the same as the life period of the asset rents are set to enable the lessor to recover the cost of asset plus a fair return on investment over the period of the lease.

**Alternatives at termination:** In the lease agreement, option may be given to lessee to renew the lease for another lease period or to purchase the asset at expiration. If the lessee does not exercise its option, the lessor takes possession of the asset and is entitled to, if any, residual value associated with it.

**Duties of the parties as to taxes, insurance and maintenance:** Either the lessee or the lessor may bear these obligations or these may be divided between lessee and lessor according to the terms of the agreement.

**Early termination:** The lease agreement may grant the right to terminate the contract on payment of a penalty.

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### **10.3 Distinction between Leasing and Hire Purchasing**

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As against leasing, hire purchase involves the purchase of an asset on the understanding that the purchase (called the hirer) will pay in equal periodical instalments spread over a length of time. Leasing and hire purchase have emerged as a supplementary source of intermediate long term finance. They are provided mainly by non-banking financial companies, financial institutions and other organizations.

Lease financing resembles hire purchase in certain ways. Both are similar so far as the use of the asset by the hirer or the lessee is concerned. In both the cases, the right to use the equipment is transferred to the hirer, or the lessee.

In case of leasing, the user of the asset (the lessee) is not the owner of the asset. Hence, depreciation on asset cannot be claimed by the lessee as a deduction from taxable income. As against this, the hire purchase capitalizes the asset bought under the hire purchase contract although the ownership does not pass on to him until the last instalment is paid. Hire purchaser charges depreciation regularly to profit and loss account. The liability for future hire purchase instalments are shown separately in the balance sheet.

Under leasing, the entire lease rentals represent a 'hire charge' and can therefore be treated as expenses and hence tax deductible. Under hire purchase, part of the instalment represents capital outlay and the other part is interest on loan. The part representing capital outlay is not an expense, but the interest on loan is considered a revenue expenditure and hence is tax deductible.

In case of leasing the leased asset is not shown in the balance sheet of the lessee. In case of hire purchase, the asset is shown in the balance sheet of the hirer. Generally there is no down payment in case of leasing. But a sizable amount of down payment is made in case of hire purchase.

A crucial difference between Hire Purchase and leasing is that for Accounting and Income Tax purposes. In the case of Hire Purchase, the hirer is deemed to be the owner of the assets; whereas in leasing, the lessor is the owner. The asset figures as part of the Gross block of Assets in the books of hirer; who charges depreciation thereon. Because of this difference in tax treatment, the lease charges are generally lower than hire purchase charges. Hire purchase is generally extended for transport vehicles; whereas leasing is usually granted for industrial equipment. From the point of view of the lessee (hirer), the following differences may be noted:

<b>Leasing</b>	<b>Hire Purchase</b>
* Depreciation and Investment allowance can not be claimed by the lessee	* Depreciation and investment allowance can be claimed by the hirer
* The entire lease rental is a tax deductible expenses	* only the interest component of the hire purchase instalment is tax - deductible
* The lessee, not being the owner of the asset, does not enjoy the salvage value.	* The hirer, being the owner of the asset, enjoys the salvage value of the asset.

## **10.4 Forms of Lease Finance**

Generally leases are classified into (i) Financial Lease and (ii) Operating Lease. However, other types of leases are also prevalent.

### **1. Financial Lease**

A financial lease is also known by various names such as full payment lease, capital lease, long term lease, etc. In this type of lease, the lease period is generally equal to the expected economic life of the equipment. One of the important features of financial lease is that

the contract is non-cancellable. The lessee is obligated to pay lease rents until the lease period expires. The lessee uses the equipment exclusively, maintains it, insures and avails of the after sales service if any. The lessee pays lease rentals on a periodic basis over the period of lease.

In financial lease, the lessee may select the equipment, settle the price and terms of the sale and arrange with a leasing company to buy it. This type of lease transfers substantially all the risks and rewards incident to ownership from the lessor to the lessee.

The contractual period in a financial lease can be split up into two or three periods over the life of the equipment. The lease during the first period is called the '*Primary Lease*', which is for a pre-determined period. During this period the leasing company generally recovers the complete cost of the equipment and also interest on the money invested. The primary lease period may be followed by a '*Secondary Lease*' period during which the lease rentals stand substantially reduced. This period may be followed by a perpetual lease on token rental for the remaining period of the life of the asset.

Under a financial lease, the rate of lease rental would be fixed, based on the kind of financial lease taken, the period of lease, periodicity of rental payment and the rate of depreciation and other tax benefits and incentives available.

Like other countries, financial leases are popular in India and high cost equipment are leased under it. Locomotives, earthmoving equipment, office equipment, plant and machinery, printing machinery, textile machinery, machine tools, etc. are the equipments being leased under it.

## **2. Operating Lease**

An operating lease is also known as short-term, service or maintenance lease. In this type of lease, the lease period is generally less than the full expected economic life of the equipment. Unlike financial lease, the contract is cancellable with proper prior notice.

The risks and rewards incidental to ownership are retained with the lessor. The lessor is expected to maintain the assets in good working condition. The lessor does not recover its investment during the first lease period. The lease period is usually for a short period and may

stretch from a day to about 5 years, depending on the asset being leased, its frequency of use and other such factors. The shorter the lease contract period, the higher will be the lease rentals.

Operating leases are most suitable for equipments which are highly sensitive to obsolescence. This type of leases are most suitable and popular for computers, copy machines, electronic equipment, automobiles and other office equipments.

Finance lease and operating lease may be differentiated as follows:

<b>Basis</b>	<b>Finance Lease</b>	<b>Operating lease</b>
1. Life of contract	Approximates the economic life of the asset	Shorter than the economic life of the assets
2. Maintenance	Provided by the lessee or covered by a separate agreement	Provided by the lessor and included in the lease rentals
3. Lease Payments	Return the cost of the assets and allow a profit to the lessor	Not sufficient to cover the cost of the asset
4. Cancellation	May be cancelled only if both the lessor and the lessee agree	May be cancelled before expiring date.

It is important to note that the finance lease and operating lease differ not only on the basis of the length of the contract, but also with respect to the period of lease as against, the economic life of the asset. Although the differences between the finance and operating lease are obvious, some lease arrangements may not fit neatly into any of these two. They may have the features of both the types and may be called a combination lease.

### **Other forms of Lease Financing**

The other important form of lease financing are:

1. Direct Leasing
2. Sale and Leaseback arrangement, and
3. Leveraged Leasing

These three forms are discussed in detail below.

### **1. Direct Leasing**

Under direct leasing, a company acquires the use of an asset, it did not own previously. The major types of lessors are manufacturers, finance companies, banks and independent leasing companies. For leasing arrangements involving all but manufacturers, the vendor sells the asset to the lessor, who, in turn, leases it to the lessee. A lessee firm may also lease an asset from the manufacturer. A wide variety of direct leasing arrangements meet various needs of the firms.

### **2. Sale and Leaseback**

Under this type of lease arrangement, a firm, that owns a given asset sells it to the leasing company and gets it back on lease. Usually the asset is sold at approximately its market value. The firm (the lessee) received the sale price in cash and the economic use of the asset during the primary lease period. In turn it agrees to pay lease rents periodically and gives up title to the asset. Retail stores, office buildings, multipurpose industrial buildings are frequently financed by this method. Most of the “Sale and lease back” arrangements are on a net-net basis which means that the lessee pays all maintenance expenses, property taxes, insurance and lease payments. The agreement may allow the lessee to repurchase the property at the termination of the lease. Lessors engaged in sale and lease back arrangement include financial institutions, banks and independent leasing companies.

### **3. Leveraged Leasing**

In recent years, special form of leasing, known as ‘Leveraged Leasing’ has become popular in the financing of assets requiring large capital outlays. The equipments taken under leveraged leasing include aircraft, rail road, coal mining, electric power generation plants, pipelines, ships, etc.

Three parties are involved in leveraged leasing. They are (i) the lessee (ii) the lessor, and (iii) the lender. From the standpoint of the lessee, there is no difference between a leveraged lease and other types of lease. But the role played by the lessor is different here. The lessor acquires the asset in keeping with the terms of the lease arrangement and finances the asset

in part by an equity investment. The remaining part is financed by a long-term lender or lenders. Thus, the lessor is the borrower in this type of lease. This loan is secured by a mortgage on the asset. As owner of the asset, the lessor is entitled to depreciation associated with the asset and also investment allowance.

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## **10.5 Benefits and costs of Lease Financing**

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Let us look at some of the benefits and costs of leasing as a means of financing. It will facilitate our understanding and evaluation of leasing as an alternative means of capital financing.

### **Avoidance of Risk of Ownership**

One of the major reasons for acquiring an asset on lease is that the lease offers the advantage of placing the risk of obsolescence on the shoulders of the owner. When a firm purchases machinery, it has to bear the risk that the machinery may become obsolete before the completion of its service life. However, this risk can be avoided by taking the machinery on lease. It is sometimes argued that this reasoning may not always be valid because of the fact that leasing firms, who have specialized in the kind of equipment they own, are generally more knowledgeable than the lessee regarding the risk of obsolescence and accordingly will charge for bearing that risk. The risk factor will, therefore, be reflected in appreciably higher rental payments. This really means that the lessee pays for, and benefits from, the specialist's services but nevertheless avoids the risk of ownership.

### **Convenience**

Leasing enables the lessee firm to make full use of the asset without making immediate payments of the purchase price which it would otherwise have been required to pay. In view of this, firms experiencing dearth of funds can acquire assets more quickly under leasing arrangement than through buying.

Lease financing is regarded as more convenient form of financing than debt financing as it relieves the firm a number of restrictive terms and conditions which are stipulated in bond



indenture. Although lease contracts are tightening, there are still generally few restrictions on future operations and future indebtedness in a financial lease than in a loan.

### **Sustaining Borrowing Position**

Leasing is said to be useful to a lessee firm in so far as it strengthens its borrowing capacity and thereby permits the firm to raise more debt capital than direct borrowing, given the firm's existing equity base. Since the obligation created under the leasing arrangement does not appear as debt on the balance sheet, the firm's borrowing power remains intact and the lenders may extend more credit to such firm even after the lease is signed, than they would, if the asset were purchased and financed by debt; because both the asset and the debt incurred would be shown in the financial statement. Lenders may not fully appreciate the extent of the lease-created financial obligations and therefore, they may be more liberal in extending credit facilities.

### **Tax Advantage**

Lease financing is considered as one of the tax planning devices employed to minimize tax liability. Leasing can provide the tax advantages to the lessee. When a company acquires an asset on lease, the full amount of the lease payments is deductible for tax purposes. Alternatively, if the company borrows and buys the same asset, it would be entitled to deduct depreciation charges and interest expenses incurred in its financing. Which of the two sets of deductions is more valuable to the lessee as a tax shield would, in fact, depend on their magnitude and timing. Usually, it is found that a lessee firm is benefited from lease if it can charge off the cost of an asset more rapidly through rental payments than through depreciation and interest charges.

Leasing, however, suffers from certain limitations which might have serious financial implications. Let us briefly point-out these.

Many experts hold that leasing is only another form of debt financing and lies somewhere in between secured debt and unsecured debt. As such, in the long run, all the attendant advantages and disadvantages of debt financing are bound to be associated with lease also, albeit in a disguised manner.

In some cases, leasing may prove to be costlier than a straight purchase through the conventional modes of equipment finance. This would happen particularly in the case of leveraged leasing where the lessor is only a financial intermediary, who has obtained finance from bank or financial institution and has added to the cost his own profit. Another disadvantage of leasing is that the lessee may be deprived of a substantial bonanza on account of appreciation in the value of assets at the end of the lease tenure, Further, in case of the lessor's failure to honour his commitment to repay the loans raised by him from the bank/financial Institutions, the assets obtained by the lessee through lease may be taken away by the bank/financial Institutions disrupting the lessee's production schedule.

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## **10.6 Financial Evaluation of the lease**

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Any prospective lease must be evaluated by both the lessee and lessor. The lessee must determine whether leasing an asset will be less costly than buying it. Whereas the lessor must decide whether or not the lease will provide a reasonable rate of return. Since, this unit considers leasing as an alternative to financing, we shall evaluate the effect of lease decision from the point of view of lessee only.

As such, the decision of the lessee as to whether to take an equipment on lease essentially involves choosing between leasing and borrowing / buying. An economic evaluation of lease would thus call for comparison of the financial costs of the lease with the costs of borrowing necessary funds to purchase the assets. If the cost of the lease is found higher than the cost of borrowing, it would be in the interest of the company to borrow and buy the asset. The converse will hold true where cost of borrowing is higher than the cost of leasing. A detailed, step by step, approach to leasing decision would involve the following:

1. Calculation of the loan payment schedule.
2. Calculation of saving from investment allowance
3. Calculation of after-tax effect of cash salvage value.
4. Calculation of the after-tax cost of owning

5. Calculation of the after-tax cost of leasing
6. Calculation of the present value of the cost of owning and cost of leasing.
7. Comparison of the present value of owning cost with present value of leasing cost.

Let us illustrate how a leasing decision is made by the finance manager with the help of an example.

### **Illustration – 1:**

Bajaj Manufacturing Company desires to acquire the services of a machinery worth Rs.55,000. The machine can be bought with a Rs. 5,000 down payment and 10 annual payments at 6 per cent, using the steady payment method. In case the company owns the machine, it will receive an investment allowance of Rs. 13,750 in year zero and will realize salvage value of Rs. 10,000 from the sale of the machine at the end of 10 years. The company uses straight line depreciation to a salvage value of zero over 10 years.

The company has the option of leasing the machinery with no initial payment at annual payments of Rs.7,500 for 10 years. The company's cost of capital is 10 per cent. The corporate tax rate is 50 per cent. Should the company lease or borrow and buy?

The leasing decision can be taken by following the seven-step process outlined above.

### **Step I : Calculation of the Loan-payment Schedule**

With a Rs. 5,000 down payment on a Rs. 55,000 machine, the Bajaj Company must finance Rs. 50,000 for 10 years @ 6 per cent. The annual payment will be:

$$\frac{\text{Amount borrowed}}{\text{Present value factor}} = \text{Rs. } 50,000 / 7.360 = \text{Rs. } 6,793$$

Where 7.360 is the 6 per cent, 10 year factor in the annuity table. The annual interest being 6 per cent on the outstanding balance, for the first year, it is (Rs.50,000) (.06) = Rs.3,000. The principal repayment is (Rs.6793 – 3000) Rs. 3,793. The outstanding balance at the end of the

first year is Rs. 50,000 – Rs. 3,793 = Rs. 46,207. If this process is continued for 10 years, we shall obtain the figures, as set out in Table 10.1.

**Table 10.1**

**Repayment schedule for 6 per cent Loan for Rs. 50,000 plus Rs.5,000 Down Payment**

<b>Year</b>	<b>6% Loan Payment</b>	<b>Annual Interest (approx)</b>	<b>Principal Repayment (approx)</b>	<b>Balance outstanding (approx)</b>
0	Rs. 5,000	Rs. ----	Rs. 5,000	Rs. 50,000
1	6,793	3,000	3,793	46,207
2	6,793	2,772	4,021	42,186
3	6,793	2,531	4,262	37,924
4	6,793	2,275	4,518	33,406
5	6,793	2,004	4,789	28,617
6	6,793	1,717	5,076	23,541
7	6,793	1,412	5,381	18,160
8	6,793	1,090	5,703	12,457
9	6,793	747	6,046	6,411
10	6,793	385	6,408	---
	72,930	17,933	54,997	

**Step II: Calculation of Saving from Investment Allowance**

If the purchase option allows the company to realize a tax savings from an investment allowance, the amount of the saving should be calculated in accordance with the existing tax provisions. In the present example, the investment allowance has been determined as Rs.13,750 in year zero. This will be used as tax savings to reduce the after-tax cost of owning in the year zero.

**Step III: Calculation of After-tax Effect of Cash Salvage Value**

At the end of the 10 year service life, the machine will have a cash salvage value of Rs.10,000. This will be a gain and hence taxable. The tax liability will be Rs. 5,000 (50% of s.

10,000). The after-tax net cash value is Rs.5,000. This Rs. 5,000 is an inflow at the end of the final year and will reduce the after-tax cost of owning in year 10.

#### **Sept IV: Calculation of the After-tax Cost of Owning**

After-tax cost of owning is calculated by subtracting the tax savings from the loan payment. This is done each year during the term of loan to develop a cash flow stream.

To get the tax shields, we add together the major tax shields that result from purchasing the machine and multiply them by the tax rate. In the present example, the tax shields are the depreciation and interest. Other shields could also be involved. For example, if the lease agreement included maintenance of the assets at no additional charge, the cost of maintenance would be added to the loan payment as a cost of owning. In this situation, the tax shield from the maintenance expense would be added to depreciation and interest in calculating the tax savings.

In our problem, the first-year depreciation using the straight line method is Rs. 5,500 and the first-year interest is Rs. 3,000. The total tax shield is Rs. 8,500 and the tax saving is Rs. 8,500 times 50 per cent or Rs. 4,250. We can subtract Rs. 4,250 from the loan payment of Rs. 6,793 to get Rs. 2,543 as the after-tax cost of owning for the first year.

When Steps II, III and IV are brought together in a single table showing the after-tax cost of owning, we get the streams as shown in Table 10.2.

#### **Step V: Calculation of After-tax Annual Lease Cost**

This entire lease payment may be used as an operating expense and hence provides a tax shield. The after-tax cost of the lease payment is derived with the help of the following formula:

$$\text{After-tax lease} = (\text{Lease Payment} (1 - \text{Tax rate}))$$

Substituting the formula with figures given in our problem (Rs.7,500) (1-0.5) = Rs. 3,750

#### Step VI : Calculation of Present Value of Cost of Leasing & Owning

Since the cash flows that arise in a lease/buy decision are most predictable that are cash flows of capital expenditure projects, these cash flows should therefore be discounted at risk-free rate rather than the overall cost of capital.

**Table 10.2.**  
**After-tax Cost of Owning for the Sample problem**

Year	Loan Payment	Depreciation	Interest	Total Depreciation and Interest	Tax 50% (Dept. + Int.)	After-Tax Cost Of Owning (Loan Payment Tax saving)
0	Rs. 5,000	Rs. -----	Rs. ----	Rs. ----	Rs. 13,750*	Rs. 18,750
1	6,793	5,500	3,000	8,500	4,250	2,543
2	6,793	5,500	2,772	8,272	4,136	2,657
3	6,793	5,500	2,531	8,031	4,016	2,777
4	6,793	5,500	2,275	7,775	3,888	2,905
5	6,793	5,500	2,004	7,504	3,752	3,041
6	6,793	5,500	1,717	7,217	3,609	3,184
7	6,793	5,500	1,412	6,912	3,456	3,337
8	6,793	5,500	1,090	6,590	3,295	3,498
9	6,793	5,500	747	6,247	3,124	3,669
10	6,793	5,500	385	5,885	2,943	3,850
* Investment allowance						5000 **
** After-tax cash salvage value						

The cost of debt can be taken as a riskless rate. This rate is usually lower than the cost of capital and commonly used for determining the present value factor for cash flows other than cash salvage value. In our calculations, we shall use the cost of debt as the discount factor for all cash flows with the exception of cash salvage value which will be discounted at overall cost of

capital. We have discounted future cash flows at 6 per cent rate while cash salvage value has been discounted at 10 per cent rate. Table 10.3 exhibits present value of after tax cost of leasing and owning.

Table 10.3

**Present Value of After-Tax Cost of Leasing and Owning**

<b>Year</b>	<b>After-Tax Leasing Cost</b>	<b>Present Value of After-tax Leasing Cost</b>	<b>After-tax Owning Cost</b>	<b>Present Value of After-tax Owning Cost</b>
	Rs.	Rs.	Rs.	Rs.
0	-----	-----	(8,750)	(8,750)
1	3,750	3,538	2,543	2,399
2	3,750	3,338	2,657	2,365
3	3,750	3,149	2,777	2,332
4	3,750	2,970	2,905	2,301
5	3,750	2,802	3,041	2,273
6	3,750	2,644	3,184	2,245
7	3,750	2,494	3,337	2,219
8	3,750	2,353	3,498	2,195
9	3,750	2,220	3,669	2,172
10	3,750	2,004	3,850	2,150
11	0	0	(Rs. 5,000)	(1,928)

**Step VII: Comparison of Present Value of Owning Cost with Leasing Cost.**

After calculating the present value of owing cost with leasing cost, difference between the two is worked out to determine advantage or loss of owning. Table 10.4 brings out present value of advantage to owning.

**Table 10.4**  
**Calculation of present Value Advantage to Owning**

<b>Year</b>	<b>Present Value of Leasing Cost</b>	<b>Present Value of Owing Cost</b>	<b>Present Value Advantage to Owning</b>
0	0	(Rs.8750)	8750
1	3538	2399	1130
2	3338	2365	973
3	3149	2332	817
4	2970	2301	669
5	2802	2273	529
6	2644	2245	399
7	2494	2219	275
8	2353	2195	158
9	2220	2172	48
10	2094	2150	(56)
11	0	(1928)	1928
			<hr/> 15629

A comparison of the present value after-tax leasing cost with that of owing cost leads to owning advantage of Rs. 15629 which means owning cost is less than leasing cost. If leasing cost were less than the owing cost, there would have been leasing advantage. In the present case, the management of Bajaj Manufacturing Company should go for borrowing and buying the machine.

#### **Illustration - 2:**

ABC Ltd. is considering to buy a machine costing Rs. 1,10,000, Rs. 10,000 payable down and the balance in 10 annual equal installments inclusive of interest chargeable at 15%. Another option before it is to acquire the asset on a lease rental of Rs. 15,000 per annum for 10 years. As a financial manager, decide between these two options that:



- i) Scrap value of Rs. 20,000 is realizable if the asset is purchased
- ii) The firm provides 10% depreciation on straight line method on the original cost.
- iii) The tax rate is 50%, and after tax cost of capital is 15%.

***Solution:***

**Option I – To buy the asset:** In this option, the firm has to pay Rs. 10,000 down and the balance Rs. 1,00,000 together with interest @ 15% payable in 10 annual equal installments. The annuity amount may be calculated by dividing Rs. 1,00,000 by the Present Value Annuity Factor (PVAF) for 10 years at 15% *i.e.*, annual repayment = Rs. 1,00,000/5.019 = Rs. 19,925

The cash flows of the borrowing and purchase option may be evaluated as follows:

Year	Installment	Interest	Repayment	Balance
1	Rs.19,925	Rs.15,000	Rs. 4,925	Rs. 95,075
2	19,925	14,261	5,664	89,411
3	19,925	13,412	6,513	82,898
4	19,925	12,435	7,490	75,408
5	19,925	11,311	8,614	66,794
6	19,925	10,019	9,906	56,888
7	19,925	8,533	11,392	45,496
8	19,925	6,824	13,101	32,395
9	19,925	4,859	15,066	17,329
10	19,925	2,596	17,329	---

Year	Installment (1)	Interest (2)	Dep. (3)	Tax Shield (4) 50% of (2+3)	Net CF (1-4)	PVF	PV
1	Rs.19,925	Rs.15,000	Rs. 11,000	Rs. 13,000	Rs. 6,925	.870	6,025
2	19,925	14,261	11,000	12,631	7,294	.756	5,514
3	19,925	13,412	11,000	12,206	7,719	.658	5,079
4	19,925	12,435	11,000	11,718	8,207	.572	4,694
5	19,925	11,311	11,000	11,156	8,769	.497	4,358
6	19,925	10,019	11,000	10,510	9,415	.432	4,067
7	19,925	8,533	11,000	9,767	10,158	.376	3,819
8	19,925	6,824	11,000	8,912	11,013	.327	3,601
9	19,925	4,859	11,000	7,930	11,995	.284	3,407
10	19,925	2,596	11,000	6,798	13,127	.247	3,242
	Present Value of total outflows						-53,806
10	Salvage Value (after tax)		--	--	10,000	.247	+2470
	Net present value of outflows						-51,336

It may be noted that (i) depreciation of Rs. 11,000 has been provided for all the years, this is 10% of the original cost of Rs. 1,10,000; (ii) The asset is fully depreciated during its life of 10 years, therefore, the book value at the end of 10<sup>th</sup> year would be zero. As the asset is having a salvage value of Rs. 20,000, this would be capital gain, and presuming it to be taxable at the normal rate of 50%, the net cash inflow on account of salvage value would be Rs. 10,000 only. This is further discounted to find out the present value of this inflow.

**Option II – Evaluation of Lease option:** In case the asset is acquired on lease, there is a lease rent of Rs. 15,000 payable at the end of every year for the next 10 years. This lease rental is tax deductible, therefore, the net cash outflow would be only Rs.7,500 (after tax). The PVAF for 10 years @ 15% is 5.019. So, the present value of annuity of Rs. 7,500 is

$$\text{Present value of annuity of outflow} = \text{Rs. } 7,500 \times 5.019 = \text{Rs. } 37,643$$

If the firm opts to buy the asset, the present value of outflow comes to Rs. 51,336; and in case of lease option, the present value of outflows comes to Rs. 37,643. Hence, the firm should opt for the lease option. In this way, the firm will be able to reduce its costs by Rs. 13,683 i.e., Rs. 51,336-Rs.37,643. This may also be referred to as Net Benefit of Leasing.

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## **10.7 Problems in lease financing**

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In spite of the increasing importance, the leasing industry is facing the following problems.

### **1. Financial Assistance**

There is a lukewarm response from the commercial banking sector for financial assistance to leasing companies, with the result that many leasing companies find it difficult to support their fund based operations. Banks and financial institutions are becoming increasingly selective and stringent in extending refinancing facilities, even against lease receivables despite the superior repayment performance of leasing companies as compared to most other borrowers.

Those companies which have recently gone to public are finding it difficult in getting their issues fully subscribed in the face of inadequate public support. At the same time, well established leasing companies are finding their margins drastically reduced as a result of incessant competitions brought about by a flood of new leasing companies in the market. It is feared that the Indian leasing industry which is not in dire straits will never be able to recover from the present state of difficult funds position with them. The reason is keen competition.

While rental rates have firmed up, there are problems in recovery arising from the unsatisfactory financial performance of many lessees. The inability of the lessors to receive their dues has exacerbated the cash flow problems.

### **2. Sale Tax**

Consequent to the 46<sup>th</sup> Amendment to the Constitution, various States have enacted legislation that subject lease rental to sales tax. This is inequitable as leased assets are already

subject to sales tax at the time of purchase. The problem is further compounded as the legislation in various states is not uniform, so much so that there is concern that a transaction, subject to sales tax in one state, may be taxed once again in another state. Since the cost of effectiveness of leasing is significantly affected, there is thus, an urgent need to provide relief to the industry from such inequitable taxation.

### **3. Risk of Obsolescence**

The modern techno-dynamic age has given chance for obsolescence at a high rate due to technological improvements in production of machinery and process. It will be beneficial for the lessee to have equipment on operating lease, where the risk of obsolescence is borne by the leasing company. At the same time, the leasing company will get much trouble since it has to bear the capital loss in case of obsolescence.

### **4. Cut Throat Competition**

The immediate future of leasing companies in India is bleak, since many companies entered in field almost at the same time. It leads to cut throat competition and in the process lease rentals have come down to much uneconomic levels. It has been reported that the rate of interest is worked out to be 13 to 14 per cent which is very much below the average cost of capital and as such the survival of many companies is at stake. A buoyant market did not exist for all these companies in the segments they wished to operate. With rising competition, the major players are diversifying their activities to other activities.

Further, the leasing industry has been facing competition from the manufacturing sector. This segment has been concentrating mostly in lease financing items where 100 per cent depreciation write off is available.

### **5. Lack of Qualified Personnel**

The success or failure of any business depends on the qualifications and experience of its personnel and leasing business is not an exception. As the nature of leasing business is nothing but financing the capital equipments, the personnel working in these organizations must be well-versed with all procedures like appraisal, judging, integrity and capability of the borrowed party,

legal matters, recovery of rentals, maintenance of accounts, etc. In India, the concept of leasing business is a recent one and naturally it is very difficult to get the right person to deal with the problems of this new business. The leasing companies have to develop expertise and sophistication in handling new types of business.

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## 10.8 Leasing in India

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Leasing activity was initiated in India in 1973. The first leasing company of India, named First Leasing Company of India Ltd. was set up in that year by Farouk Irani, with industrialist A C Muthia. For several years, this company remained the only company in the country until 20<sup>th</sup> Century Finance Corporation was set up – this was around 1980.

By 1981, the trickle started and Shetty Investment and Finance, Jaybharat Credit and Investment, Motor and General Finance, and Sundaram Finance etc. joined the leasing game. The last three names, already involved with hire-purchase of commercial vehicles, were looking for a tax break and leasing seemed to be the ideal choice.

The industry entered the third stage in the growth phase in late 1982, when numerous financial institutions and commercial banks either started leasing or announced plans to do so, ICICI, prominent among financial institutions, entered the industry in 1983 giving a boost to the concept of leasing. Thereafter, the trickle soon developed into flood, and leasing became the new gold mine. This was also the time when the profit-performance of the two doyen companies, First Leasing and 20<sup>th</sup> Century had been made public, which contained all the fascination for many more companies to join the industry. In the meantime, International Finance Corporation announced its decision to open four leasing joint ventures in India. To add to the leasing boom, the Finance Ministry announced strict measures for enlistment of investment companies on stock-exchanges, which made many investment companies to turn overnight into leasing companies.

As per RBI's records by 31<sup>st</sup> March, 1986, there were 339 equipment leasing companies in India whose leased assets totalled Rs. 2395.5 million. One can notice the surge in number

from merely 2 I in 1980 to 339 in 6 years. There has been appreciable entry of first generation entrepreneurs into leasing, and in retrospect it is possible to say that specialized leasing firms have done better than diversified industrial groups opening a leasing division.

Another significant phase in the development leasing in India was the Dahotrc Committee's recommendations based on which the RBI framed guidelines on commercial bank funding to leasing companies. The growth of leasing in India has distinctively been assisted by funding from banks and financial institutions.

Banks themselves were allowed to offer leasing facilities much later – in 1994. However, even to date, commercial banking machinery has not been able to gear up to make any remarkable difference to the leasing scenario.

The post-liberalisation era has been witnessing the slow but sure increase in foreign investment into Indian leasing. Starting with GE Capital's entry, an increasing number of foreign-owned financial firms and banks are currently engaged or interested in leasing in India.

As per the data compiled by the Association of Leasing and Financial Services companies, the value of the leased and hired assets will be about Rs. 261 billion by the end of March 1997. This data is based on the 226 companies reported to the Association. As a matter of fact, it is estimated that there will be some 3000 large and small companies involved in the leasing business in India with an outstanding business of Rs.5 million done by each firm. In addition, the Indian Railway Finance Corporation (IRFC) – a 100% subsidiary of Indian Railways – does a business of around Rs. 120 billion. Thus, the aggregate volume of leasing business is estimated to be around Rs. 381 billion.

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## **10.9 Summary**

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The objectives of the unit were to highlight the significance of leasing as a part of long term financing. Leasing has become one of the very popular forms of financing during the later part of the 20<sup>th</sup> Century. Lease is a contract whereby the owner of the asset grants exclusive

right to use the asset to the user. In return, the owner gets rent and the user gets the privilege of using the asset, without owning it.

Lease financing resembles hire purchasing in certain ways. But there are certain inherent differences. The main difference hovers around the tax treatment. Nevertheless, there is wider preference to leasing. There are two kinds of leasing, viz., financial lease and operating lease. Usually, in financial lease, the lessee selects the equipment, settles the price and terms of sale and request the leasing company to buy the same for leasing. Operating leases are for maintenance only, In case of highly sensitive equipment, this type of lease is preferred.

The crucial part of the leasing as a source of finance is its evaluation with respect to benefits and costs. The lessee is supposed to compare the merits and demerits of the alternative ways of financing like the lease vs. buy, to come to a decision. Naturally, the benefits should be more in case of leasing than owning the asset.

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## 10.10 Self Assessment Questions/Exercises

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1. Explain the concept of lease Financing
2. Distinguish between Leasing and Hire Purchasing
3. Distinguish between Financial lease and operating lease.
4. How is leasing beneficial to a lessee?
5. What are the major considerations in lease vs. Buy decision?
6. Leasing in India has not become as popular as expected; can you explain why it is so?
7. XYZ Ltd is contemplating to have an access to a machine for a period of 5 years. The company can have the use of the machine for the stipulated period through leasing arrangement or the requisite amount can be lent at 14% to buy the machine. The firm is in the 50% tax bracket.

In the case of leasing, the firm would be required to pay at the end of the year, a lease rent of Rs. 1,20,000 for 5 years. All maintenance, insurance and other costs are to be borne by the lessee.

In the case of purchase of the machine (which costs Rs. 3,43,300), the firm would have 14% five year loan to be paid in 5 equal installments, each installment becoming due at the end of each year. The machine would be depreciated on a straight line

basis, with no salvage value. Advise the company as to which option it should prefer, assuming lease rents are paid:

- a) at the end of each year
- b) in advance

8. A firm can lease a Rs. 5 laks machine for five years for Rs. 1.25 laks annually. It can buy the machine for Rs. 1 laks down and the balance in five equal payments at 10% interest. The firm qualifies for a Rs. 1.25 laks investment allowance in year zero if it buys. The machine will be depreciated by straight line method to a book salvage value at that time will be zero. The cost of debt is 10% and cost of capital is 12%. Calculate the after tax cost of leasing and owning. Corporate rate tax is 50%.
9. Indian Drugs Ltd. Is contemplating to acquire a machine for Rs. 2.50 lcs. The machine would have an expected life of 8 years. The acquisition can be financed either with an 8-year term loan at 10% interest repayable in equal installment of Rs. 45,000 per year. In both cases payments are due at the end of each year. Assuming straight line depreciation and a 50% tax rate, which of the financing alternative should the firm choose?

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### 10.11 Further Readings

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