

**LESSON 6A:****LEASING AND HIRE PURCHASE****6A.0 Objective:**

After reading this lesson, you will be able to understand

- Concepts of leasing and hire purchase
- Differences between leasing and hire purchase
- Types of leasing
- Evaluation of leasing

**Structure:**

- 6a.1 Introduction**
- 6a.2 Meaning**
  - 6a.2.1 Leasing**
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**6a.1 Introduction :**

Business enterprises mobilise funds from various sources for the purpose of financing assets. A company issues equity shares and debentures for mobilising equity and debt capital. It borrows funds from financial institutions. Alternative forms of financing assets are also used by availing Asset Finance Services. Asset finance facilitates the acquisition of asset without the financial burden and the use of asset without capital expenditure.

Asset finance provides another line of credit without disturbing debt-equity composition of the company. It provides finance for the entire cost of asset with generally minimum initial cash outlay. Asset can be obtained and paid for from cash flows generated by the asset. Separate capital need not be allocated.

Various asset finance services such as leasing, hire purchase, debt securitisation etc are in vogue. In this lesson leasing and hire purchase methods are discussed.

## 6a.2 Meaning :

### 6a.2.1 Leasing :

The Transfer of Property Act defines a lease as “a transaction in which a party owning the asset provides the asset for use over a certain period of time to another for consideration either in the form of periodic rent and / or in the form of down payment”.

According to the Institute of Chartered Accountants of India (ICAI), “ a lease is an agreement whereby the lessor conveys to the lessee, in return for rent, the right to use an asset for an agreed period of time”.

The following are the characteristics of a lease.

- (a) Two parties are involved, the lessor being the owner of an asset who transfers the right to use the asset for a consideration (lease rentals) and the lessee being the user of the asset with a right to use the asset.
- (b) The consideration is in the form of lease rentals.
- (c) The period of lease is agreed upon by both the parties.

### 6a.2.2 Hire Purchase :

Hire purchase is purchasing of an asset where in the purchaser (the hirer) pays the value of consideration in equal periodic installments over a period of time.

According to the Hire Purchase Act, 1972, hire-purchase is defined as “an agreement under which goods are let on hire and under which the hirer has an option to purchase them in accordance with the terms of agreement, and includes an agreement under which:

- (i) Possession of goods is delivered by the owner thereof to a person on the condition that such person pays the agreed amount in periodic payments.
- (ii) The property of the goods is to pass to such a person on the payment of the last of such installments.
- (iii) Such person has a right to terminate the agreement any time before the property so passes.

## 6a.3 Leasing V. Hire Purchase :

Following section presents the differences between both types of asset finance services.

LEASING		HIRE PURCHASE
1	Ownership of the asset lies with the lessor	Ownership is transferred to the hirer on the payment of last installment

2	Lessor is entitled to depreciation	Hirer is entitled to claim depreciation
3	After the lease period the asset is returned to lessor	After the expiry of the period the ownership transfers to the hirer
4	Lessor capitalises the asset	Hirer capitalises the asset
5	Lessee has to maintain the leased asset in case of financial lease and lessor has to maintain the leased asset in case of operating lease	Hirer has to maintain the hired asset
6	Leasing is used as a source of finance for acquiring high cost assets such as airplanes, ships, heavy machinery	Hire purchase is used as a source of finance for a acquiring selectivity low cost assets such as office equipment, automobile.
7	Down payment is required in case of financial lease	Down payment (margin money) is required
8	Lease rentals are treated as revenue expenditure and taken into account for tax purpose.	Hire interest is considered as revenue expenditure and taken into account for tax purpose
9	Lease assets are not shown in the Balance Sheet of the lessee.	Assets acquired through hire purchase are shown as assets in the Balance Sheet of the hirer and outstanding installments amount is treated as a liability.
10	Lease is preferred for long periods	Hire purchases are under taken for short periods of time

## 6a.4 Types Of Lease :

Leasing takes different forms. Most important forms are

1. Financial lease
2. Operating lease
3. Sale and lease back

### 6a.4.1. Financial Lease:

Financial lease is a lease where in the user can acquire the use of the asset for most of its useful life and pay rentals to the lessee. The wear will be responsible for maintenance of the equipment and the payment of taxes and insurance.

The International Accounting Standard (IAS) No: 17 defines a financial lease as “a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. Title may or many not eventually be transferred”.

In the case of financial lease, the lessee selects the equipment it wants and the supplier of that equipment. Lessee negotiates terms with a leasing company. When the terms are set the leasing company buys the equipment. The supplier delivers the equipment to the lessee. The supplier is paid by the lessor (Leasing Company) plant, Machinery and equipment are acquired through financial lease arrangements.

Financial lease is some times called capital lease. A lease should be treated as '**Capital Lease**' if it meets any one of the following four conditions, as per the Financial Accounting Standards Board.

- If the lease life exceeds 75% of the life of the asset
- If there is a transfer of ownership to the lessee at the end of the lease term.
- If there is an option to purchase the asset at a "bargain price" at the end of the lease term
- If the present value of the lease payments, discounted at an appropriate discount rate exceeds 90% of the fair market value of the asset.

### **6a.4.2 Operating Lease :**

Operating lease is a contract between the lessor and lessee such that the cost of the asset is not fully recovered from a single lessee. The period of the lease will be shorter since the lessor will recover the cost of the asset from multiple lessees. Repair and maintenance of the asset is the lessor's responsibility.

Operating lease is also known as service lease, which provides for financing and maintenance. Computers, office equipment, automobiles and trucks are acquired through operating lease.

### **6a.4.3 Sale And Lease Back :**

Sale and lease back is a transaction where the lessee already owns the asset he wants to lease. The lessee sells the asset to the lessor who pays for the asset and immediately leases it back to the lessee. This type of lease is an alternative to a mortgage. This method is similar to financial lease. The only difference is that the leased equipment is not new and lessor buys it from the user-lessee. It provides non-fund based finance to the selling company and brings down debt-equity ratio.

### **6a.4.4 Structure Lease :**

In the case of structure lease, lease rentals are not flat or equated over the lease term. Rentals vary over the lease term. The rental structure is scheduled in such a way that it typically fits the lessee's inflows from the asset. Main types of structured lease are

1. Stepped up rentals where rentals are structured so that the lessee will pay smaller rental amounts at the beginning of the lease period and larger rental amounts towards the end of the lease period.
2. Stepped - down rentals are structural so that the lessee will pay larger rental amounts at the beginning of the lease period and lower rental amounts towards the end of the lease period.

### **6a.4.5 Other Types**

#### **6.4.5.a Secondary Lease :**

A second lease period during which the lessee will pay nominal peppercorn rentals in order to ensure that the lease period is long enough for the lessee to gain maximum benefit from the lease.

#### **6.4.5.b Sub – Lease :**

A transaction in which the lease property is re-leased by the original lessee to another party and the lease agreement between the two original parties remains the same.

### 6a.5 Essential Features Of Leasing :

The essential features of leasing are as follows:

1. Leasing is a contract between the lessor and lessee and hence should satisfy the requirements of a valid contract as per the Indian Contract Act 1872.
  2. The parties to the lease contract are lessor and lessee. Lessor must be competent and must have a clear title to the equipment leased, lessee must be competent to contract.
  3. Equipments are bought by lessor at the request of lessee.
  4. Lease contract specifies the period of contract.
  5. The lessee uses the equipment.
  6. The lessee in consideration pays the lease rentals to the lessor.
  7. The lessor is the owner of the assets and is entitled to the benefit of depreciation and other benefits under the Income Tax Act 1966a.
  8. The lessee can claim the lease rentals as expenses chargeable.
- Lessee selects the supplier and the equipment required
  - Lessor enters into a contract with the lessee
  - Lessor acquires the title to the equipment to be leased by paying the value of the equipment
  - Supplier delivers the equipment to the lessee
  - Lease rentals are paid by the lessee to the lessor
  - The equipment is returned to the lessor at the end of the lease period
- or
- The lessee continues to use it on small annual secondary rental payment

### 6a.6 Advantages of Leasing :

The following are the important advantages of leasing from the lessee's point of view:

- (i) It is an easy method of financing capital assets requiring huge capital outlays
- (ii) No margin money is required as in the case of borrowing
- (iii) It helps for read the capital cost over a period
- (iv) For business with shortage of capital or which cannot access capital market for funds leasing is an ideal source.
- (v) Lease rentals are deductible for tax purpose
- (vi) It helps conserve scarce capital resources
- (vii) Lessee is protected from technological obsolescence when it is under operating lease agreement
- (viii) It is an 'off Balance sheet ' method of financing
- (ix) It gives the facility to possess and operate the asset without owning the asset

The advantages to the lessor are:

- (i) It is a safe method of asset based financing
- (ii) Lessor enjoys tax benefit arising out of depreciation on leased asset
- (iii) Lease rentals provide better liquidity through regular cash inflows.

### 6a.7 Disadvantages of Leasing :

The following are the disadvantages of leasing from the lessee's point of view:

- (i) When compared other methods, lease financing is costly
- (ii) Lessee will have no flexibility once the contract terms are agreed upon

(iii) Lessee can not claim depreciation on leased asset

### 6a.8 Evaluation of Lease :

Both lessor and lessee should evaluate a prospective lease. Lessee must determine whether (a) taking an asset on lease is beneficial or (b) buying an asset is beneficial. As lease is comparable to borrowing lessee must compare between the following options

- (i) buying an assets by borrowing the funds required
- (ii) leasing the asset

Lease evaluation from the viewpoint of lessee involves the following steps:

☆ Find after tax cash out flows for each year under the leasing after native. Lease rental payments are deductible for income tax purpose.

After – Tax Cash out flows = Lease rental Payment (1 – Tax rate)

☆ Find after tax cash out flows for each year under the buying alternative. When an asset is bought by borrowing, annual installment payable by the borrower will have two components (i) loan (capital) repayment (ii) interest on borrowed amount (deductible for income tax purpose).

Annual cash outflow = Loan repayment + Interest

After tax cash outflow = Loan repayment + Interest (1 – tax rate)

☆ Find the tax benefit when annual depreciation is charged under buying alternative.

When asset is purchase by borrowing the lessee will be the owner and eligible for depreciation claim which is deductible for income tax purpose. Lessee gets the tax benefit.

Tax benefit = Annual Depreciation x Tax rate

☆ Find net after tax cash outflows for each year under buying alternative

Net after tax cash outflows = Loan repayment + Interest (1 - tax rate)  
– tax benefit due to depreciation.

☆ Find the present value of the cash outflows under both the alternatives at a discount rate i.e., after-tax cost of capital (K) of the company.

☆ Select the alternative with the lowest present value of cash outflows.

#### Example:

A company is proposing to acquire a machine for a period of ten Years. The company is evaluating two alternatives.

The cost of the machine is Rs. 1,00,000.

#### Alternative 1 :

If the asset is taken on lease the company would be required to pay lease rentals at the rate of Rs. 34,000 per annum for the first five years and Rs. 600 per annum for the next five years.

**Alternative 2 :**

If the asset is to be owned / purchased by the company to finance the asset a loan of Rs. 75,000 can be raised at 9% per annum interest. Interest is payable annually and principal is repayable in year ten.

Rate of depreciation is to be charged at 15% per annum under written down value method. Tax rate is 33%.

Advise the company as to which alternative it should adopt.

**Solution :**

## 6a. After tax cash outflows under leasing alternative

Year	(Lease Rental X 1 – Tax rate)
1 – 5	(34,000 X (1 – 33%) = 22,780
1 – 6	(600 X (1 – 33%) X 5 = 402

## 2. After tax cash outflows under buying alternative

			Rs.	Rs.
Year	0	Own Investment	-	25,000
	1 – 10	Interest	6,750	4,523
	10	Repayment of Loan	-	75,000

## 3. Tax benefit due to depreciation

Year	Depreciation	Tax Benefit
1	15,000	4,950
2	12,750	4,208
3	10,838	3,577
4	9,212	3,040
5	7,830	2,584
6	6,656	2,196
7	5,657	1,867
8	4,809	1,587
9	4,087	1,349
10	3,474	1,146

## 4. Net after tax cash outflows under buying alternative

Year	After Tax Cash outflow	Tax Benefit	Net after Tax Cash flow
	25,000	-	25,000
1	4,523	4,950	- 427
2	4,523	4,208	315
3	4,523	3,577	946
4	4,523	3,040	1,483
5	4,523	2,584	1,939
6	4,523	2,196	2,327
7	4,523	1,867	2,656
8	4,523	1,587	2,936
9	4,523	1,349	3,174
10	4,523 + 75,000	1,146	3,377 + 75,000

## 5. PV of Cash on flows

Year	PV factor at 10%	After Tax cash out flows		PV of cash out flow	
		Leasing	Buying	Leasing	Buying
0	6a.0	----	25000	----	25000
1	0.909	20780	-427	20707	-388
2	0.826	22786	315	18816	260
3	0.751	22780	946	17108	710
4	683	22780	1483	15559	1013
5	0.621	22780	1939	14146	1204
6	0.564	402	2327	227	1312
7	0.513	402	2656	206	1363
8	0.467	402	2936	188	1371
9	0.424	402	3174	170	1346
10	0.386	402	78377	155	30254
				<b>87282</b>	<b>63833</b>

**Conclusion :**

Purchase of plant out of borrowed funds is the best alternative rather than taking it on lease. From the lessor's point of view leasing agreement would be beneficial if the asset earns return that exceeds the cost of capital (K). The cash inflows (lease rentals) must be adjusted to the tax payable and the tax savings accruing due to the claim of depreciation. The lessor is entitled to depreciation, as he is the owner of the asset. Following are the steps in the lease evaluation from the lessor's point of view.

1. **Find the Cash Outflows:** Cost of the asset proposed to be leased is the cash outflow (Co)



2. **Find out Cash Inflows after Tax (CIAT):**

Rs.

Annual Lease Rentals            xxxx [Cash Flows Before Depreciation and Tax]

Less: Annual Depreciation    xxx

Earnings Before Tax            xxxx    \_\_\_\_\_

Less: Tax                            xxx

Earnings After Tax            xxxx    \_\_\_\_\_

Add: Annual Depreciation    xxx

Annual Cash flows After Tax    xxx    \_\_\_\_\_

## 3. Find the present value of the Annual CFAT:

PV of annual CFAT = CFAT x PV of annuity of Rs. 1 at Cost of Capital(K) for n Years.

$$4. \quad \text{Net Cash flow} = \text{PV of ACFAT} - \text{Cost of the asset} \\ = \text{PV of ACFAT} - \text{Co}$$

5. The lessor should go for leasing the asset if the net cash flow is positive i.e., PV of ACFAT exceeds cost of the asset (Co).

**6a.9 Hire Purchase:**

The features of hire purchase and the differences between hire purchase and leasing have been discussed in 6.2.2 and 6.3 respectively. In this part of the lessor let us see how the hire purchase installments can be split in to interest and principal repayment.

Hire Purchase instalments cover interest as well as principal repayment. The hiree charges interest on a flat basis. This means that a certain rate of interest is charged on the initial investment made by the hiree and not on the diminishing balance.

Assume that the cost of equipment is Rs. 1 crore, the flat interest rate is 15% and hire purchase period is 36 months.

$$\text{Total Interest} = \text{Rs. } 1,00,00,000 \times 15\% \times 3 \text{ Years} \\ = \text{Rs. } 45,00,000$$

$$\text{Hire Purchase Installment per annum} = \frac{\text{Rs. } 1,00,00,000 + \text{Rs. } 45,00,000}{3 \text{ years}} \\ = \text{Rs. } 48,33,333$$

$$\text{Hire purchase Installment per month} = \frac{\text{Rs. } 48,33,333}{12 \text{ months}} \\ = \text{Rs. } 4,02,777.$$

As per the sum of the years digit method the proportions of interest allocated to the three years are as follows:

$$\begin{array}{l} 36+35+34+\dots\dots\dots+25 \qquad \qquad \qquad 366 \\ \text{Year 1} \qquad = \qquad \frac{\qquad\qquad\qquad}{36+35+34+\dots\dots\dots+1} \qquad = \qquad \frac{\qquad\qquad\qquad}{666} \\ \\ 24+23+22+\dots\dots\dots+13 \qquad \qquad \qquad 222 \\ \text{Year 2} \qquad = \qquad \frac{\qquad\qquad\qquad}{36+35+34+\dots\dots\dots+1} \qquad = \qquad \frac{\qquad\qquad\qquad}{666} \\ \\ 12+11+10+\dots\dots\dots+11 \qquad \qquad \qquad 78 \\ \text{Year 3} \qquad = \qquad \frac{\qquad\qquad\qquad}{36+35+34+\dots\dots\dots+1} \qquad = \qquad \frac{\qquad\qquad\qquad}{666} \end{array}$$

Based on these proportions, the interest allocations are:

$$\begin{array}{l} 366 \\ \text{Year 1} \qquad = \qquad \frac{\qquad\qquad\qquad}{666} \times \text{Rs. } 45,00,000 \qquad = \text{Rs. } 24,72,972 \end{array}$$

$$\begin{array}{l} 222 \\ \text{Year 2} \qquad = \qquad \frac{\qquad\qquad\qquad}{666} \times \text{Rs. } 45,00,000 \qquad = \text{Rs. } 15,00,000 \end{array}$$

$$\begin{array}{l} 78 \\ \text{Year 2} \qquad = \qquad \frac{\qquad\qquad\qquad}{666} \times \text{Rs. } 45,00,000 \qquad = \text{Rs. } 5,27,027 \end{array}$$

Year	Hire Purchase Installment Rs.	Interest Component Rs.	Principal Component Rs.
1	48,33,334	24,72,972	23,60,361
2	48,33,333	15,00,000	33,33,333
3	48,33,333	15,27,027	43,06,306
<b>Total</b>	<b>1,45,00,000</b>	<b>45,00,000</b>	<b>1,00,00,000</b>

### 6a.10 Summary:

In this unit major types of asset financing services are discussed. Lease is an agreement whereby the lessor conveys to the lessee, in return for rent, the right to use an asset for an agreed period of time. Hire purchase is purchasing of an asset where the hirer pays the value of consideration in equal periodical installments over a period of time. Under leasing the lessor will be the owner of the asset while in hire purchase the hirer will be considered as the owner. Hire purchase is extended for transport vehicles where as leasing is granted for industrial equipments.

**6a.11 Self Examination Questions:**

1. Discuss the meaning and features of leasing.
2. Distinguish between leasing and hire purchase.
3. What are the various types of leasing? Discuss.
4. Explain advantages and disadvantages of leasing.
5. What steps are involved in the evaluation of leasing V. Purchase.

**6a.12 Further Readings:**

1. M.Y. Khan, Financial Services, Tata Mc Graw Hill Publishing Company Ltd., New Delhi, 2006a.
2. S. Gurusamy, Financial Services & Systems, Vijay Nicole imprints Pvt. Ltd., Chennai, 2004.
3. V.K. Bhalla, Management of Financial Services, Anmol Publications Pvt Ltd., New Delhi, 2002.

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