## Leases

- Lease Classification
- Capital vs. Operating
- Classification criteria
- Bargain Purchase Option
- Minimum Lease Payments
- Discount Rate
- Financial Reporting Implications
- Operating Leases (Rental Contracts)
- Capital Leases
- Classification
- Direct Financing vs. Sales-Type
- Form of Journal Entries
- Residual Value
- Bargain Purchase Options
- Executory Costs
- Sale-Leaseback Arrangements
- Leveraged Leases


## Lease Classification

A lease is a contract whereby one party "Lessee" agrees to pay another party "Lessor" for the use of an asset.

Leases can either be classified as a "Capital" lease or an "Operating" lease. This distinction only exists for financial reporting purposes (GAAP), it does not exist in the Internal Revenue Code (does not affect the tax liability).

- Operating Lease
- Treated like a rental contract.
- Lessee only intends to use the asset for a short period of time.
- Capital Lease
- Lessee has acquired substantially all of the economic value of the asset.
- Treated like a dealer-financed purchase/sale.


## Why Do We Do This?

Prior to SFAS \#13, firms used to acquire many of their productive assets through lease (rental) agreements. Rather than taking out a loan and using the proceeds to purchase an asset, they would lease the asset. They would therefore avoid recording a liability on their books and avoid increasing their asset base.

Many of these contracts were "abusive". Firms would lease an asset for its entire useful life.

The FASB decided to close this loophole by stating that if the firm essentially purchased the asset by acquiring substantially all of its economic value, then the firm would have to treat the contract like a financed purchase.

## Classification Rules

If any of the following holds, the lease is considered to be a capital lease. Otherwise, the lease is an operating lease.

- The lease includes a transfer of ownership
- The lease includes a Bargain Purchase Option
- The lease term is at least $75 \%$ of the useful life of the asset.
- The present value of the minimum lease payments is at least $90 \%$ of the fair value of the asset.

The first three can be determined by examining the lease agreement. The fourth criterion requires the calculation of a present value. This means that you need to define the payments and the discount rate.

## Present Value of Minimum Lease Payments

Minimum Lease Payments

- Periodic cash payments required by the lease
- Any Guaranteed Residual Value.

The Residual Value is the expected value of the asset at the end of the lease term. At times the lessee will guarantee that value. This means that if the actual value of the asset at the end of the lease term is below the guarantee, the lessee will make up the difference. Example: if the lessee guarantees a residual value of $\$ 100,000$ and the value turns out to be $\$ 80,000$, the lessee will make an additional $\$ 20,000$ payment at the end of the lease term.

## Discount Rate

- Lessor always uses the "Implicit" rate of return on the lease. This is the rate of return the lessor used in order to determine the lease payments.
- Lessee uses the lower of the implicit rate (if known) and the "Incremental Borrowing Rate". The incremental borrowing rate is the rate the lessee would pay if they borrowed the funds to purchase the asset.

Example: On 1/1/00 Lessor Corp. leased an asset to Lessee Co. The asset has a normal sales price of $\$ 100,000$, historical cost of $\$ 80,000$, and useful life of 10 years. The lease calls for 7 payments of $\$ 16,500$ (first payment on $1 / 1 / 00$ ). The residual (unguaranteed) is $\$ 22,680$. Assume that Lessee has an incremental borrowing rate of $8 \%$, the implicit rate on the lease is $10 \%$ (known to both parties), there is no change in ownership and there is no bargain purchase option.
$\operatorname{PVF} \$ 1(8 \%, 7)=0.58349 \quad \operatorname{PVF} \$ 1(10 \%, 7)=0.51316$
$\operatorname{PVF}_{\text {annuity due }}(8 \%, 7)=5.62288 \quad \operatorname{PVF}_{\text {annuity due }}(10 \%, 7)=5.35526$
Because the residual is not guaranteed, the minimum lease payments consist of the 7 payments of $\$ 16,500$. Because the lessor uses the implicit rate of $10 \%$, and the lessee uses the lower incremental borrowing rate of $8 \%$, the present value of the minimum lease payments can be computes as follows:

Lessor: $\$ 16,500 \times 5.35526=\$ 88,362$
Lessee: $\$ 16,500 \times 5.62288=\$ 92,788$
Because $90 \%$ of the asset's fair value is $\$ 90,000$, this lease would be a capital lease for the lessee and an operating lease for the lessor.

## Lease Entries

## Operating Lease

Initiation of Lease

| Lessor | Lessee |
| :--- | :--- |
| Dr. Cash | Dr. Prepaid Rent |
| Cr. Unearned Rental Revenue | Cr. Cash |
| At the end of the year |  |$\quad$| Dr. Rent Expense |
| :--- |
| Dr. Unearned Revenue <br> Cr. Rent Revenue |
| Cr. Prepaid Rent |

Dr. Depreciation Exp.
Cr. Accumulated Depreciation

## Capital Lease

Initiation of Lease
Lessor
Dr. Lease Receivable
Dr. Cash
Cr. Asset
Cr. Unearned Interest Revenue

Dr. COGS
Cr. Sales Revenue
At the end of the year
Dr. Unearned Int. Revenue
Cr. Interest Revenue

Additional Entries
for a sales-type lease
Cr. Interest Payable
Dr. Interest Expense
Dr. Depreciation Expense
Dr. Accumulated Dep.

## Journal Entry Comments

- The lease receivable includes the total value of all expected payments. This includes the periodic cash payments and the residual value (whether it is guaranteed or not).
- Unearned Interest Revenue converts the lease receivable to present value. It is the difference between the total value and the present value of the future payments (including the residual value).
- If the residual is not guaranteed, the present value of the residual is deducted from both cost of goods sold and sales revenue.
- Interest is computed on the "net" receivable (lease receivable minus unearned interest revenue).
- The lessee depreciates the asset for the lease term up to the guaranteed residual value.

Example: P15-5. On 12/31/00 Rhone-Metro (RM) leased equipment to Western Soya (WS) for a four-year period ending $12 / 31 / 04$. The equipment cost RM $\$ 365,760$ and has an expected useful life of six years. Its normal sales price is $\$ 365,760$. The lessee guaranteed the residual value of $\$ 25,000$. Equal payments of $\$ 100,000$ are due on $12 / 31$ of each year with the first payment made on $12 / 31 / 00$. WS' incremental borrowing rate is $12 \%$ and the implicit rate (known to WS) is $10 \%$.

PVF $1(10 \%, 4)=0.6830$
$\operatorname{PVF} \$ 1(12 \%, 4)=0.6355$
$\mathrm{PVF}_{\text {annuity due }}(10 \%, 4)=3.4869 \quad \mathrm{PVF}_{\text {annuity due }}(12 \%, 4)=3.4018$ Prepare the Required Journal Entries

## 12/31/00



Lessee


## 12/31/01

Lessor


12/31/02
Lessor


12/31/03
Lessor

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
| - |  |  |
|  |  |  |
|  |  |  |

Lessee


Lessee


12/31/04 (assume actual value on 12/31/04 is $\$ 1,500$.

Lessor


Lessee


Another Example: P15-6 (excluding executory costs) We will use the same information as in $15-5$, except that now the leased asset costs RM $\$ 300,000$ to manufacture and the residual is not guaranteed.
$\begin{array}{ll}\operatorname{PVF} \$ 1(10 \%, 4)=0.6830 & \operatorname{PVF} \$ 1(12 \%, 4)=0.6355 \\ \operatorname{PVF}_{\text {annuity due }}(10 \%, 4)=3.4869 & \operatorname{PVF}_{\text {annuity due }}(12 \%, 4)=3.4018\end{array}$
Prepare the Required Journal Entries

12/31/00


Lessee


## 12/31/01

Lessor


12/31/02
Lessor


12/31/03
Lessor

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
| - |  |  |
|  |  |  |
|  |  |  |

Lessee


Lessee


12/31/04 (assume actual value on 12/31/04 is $\$ 1,500$.

Lessor


Lessee


## Operating Lease Disclosures

## Airborne Freight

NOTE G - COMMITMENTS AND CONTINGENCIES OPERATING LEASES
The Company is obligated under various long-term operating lease agreements for certain equipment and for a substantial portion of its facilities. These leases expire at various dates through 2016. Rental expense for 1999,1998 and 1997 was $\$ 110,204,000$, $\$ 117,862,000$ and $\$ 115,350,000$, respectively.

Rental commitments under long-term operating leases at December 31, 1999 total $\$ 402,018,000$ and are payable as follows (in thousands):

2000
2001
2002
2003
2004
2005 and beyond

| Facilities |  | Equipment |
| :---: | :---: | :---: |
| $\mathbf{\$ 7 0 , 9 8 8}$ |  | $\$ 5,259$ |
| 68,269 |  | 4,398 |
| 59,362 |  | 1,961 |
| 49,164 |  | 905 |
| 40,054 |  | 137 |
| 101,517 |  |  |

## Eastman Kodak

Other Commitments and Contingencies
Rental expense, net of minor sublease income, amounted to $\$ 142$ million in 1999, \$149 million in 1998 and $\$ 182$ million in 1997. The approximate amounts of noncancelable lease commitments with terms of more than one year, principally for the rental of real property, reduced by minor sublease income, are $\$ 94$ million in 2000, $\$ 69$ million in 2001, $\$ 49$ million in 2002, $\$ 28$ million in 2003, $\$ 20$ million in 2004, and $\$ 42$ million in 2005 and thereafter.

## For the Next Class Session

- Find the disclosure of future operating lease payments in your footnote.
- Using an $8 \%$ discount rate, calculate the present value of the payments. Assume all payments are made at the end of the indicated year.
- Divide the present value by the carrying value of the long-term debt.


## Suggested Problems:

P15-3, P15-4, P15-8, P15-9, P15-10

