

## LEASES REVIEW

### I. LEASE DEFINITIONS:

- a. **Lease term:** The fixed noncancelable portion of the lease plus all renewal terms that are reasonably expected to be renewed preceding a BPO including but not limited to
1. Periods for which failure to renew imposes a penalty
  2. Ordinary renewal during which guarantees by the lessee of lessors debt with respect to the leased property are in effect.
  3. Periods representing renewal or extension of the lease at lessor's option.

- b. **BPO:** A bargain purchase option; option to purchase the leased asset at substantially less than FMV at the time the BPO can be exercised.

c. **Minimum lease payments (MLP)**

Lessee:

1. The minimum payments specified in the lease plus
2. The guaranteed residual
3. Penalty for failure to renew the lease
4. BPO

Lessor: \*same as above plus any guarantee of residual of payments beyond the lease term by a third party.

- d. **Unguaranteed residual:** Estimated FMV of the leased asset at the end of the lease term exclusive of the residual guaranteed by the lessee.

e. **Gross investment in the lease:**

1. MLP plus
2. Unguaranteed residual less
3. Executory costs

f. **Net investment in the lease:**

1. Present value of the gross investment or
2. Gross investment minus unearned interest income (these are equivalent)

- g. **Lessee's incremental rate:** Interest rate available to lessee if lessee wanted to borrow and purchase the leased asset.

- h. **Lessor's implicit rate:** The rate that discounts the minimum lease payments plus unguaranteed residual (gross investment in the lease) to equal the FMV of the leased asset less any investment tax credit (ITC) retained by the lessor.

- i. **Initial Direct Costs (IDC):** costs directly associable with negotiating and consummating a lease with an unrelated party; (accounted for differently depending on type of lease. IDC do not include amounts expended for advertising, soliciting potential lessees, servicing existing leases, rent, depreciation, and supervisory and administrative functions (these would be executory costs) **NOTE:** See part III below

Examples of IDC: document preparation charges; credit investigations; legal fees; commissions

- j. **Executory costs:** annual costs associated with operating the leased asset (taxes, maintenance, insurance etc.). These costs are never capitalized into the lease cost, they are expensed as incurred.

- k. **Fair Value:** The fair value of the leased property is the price for which the leased property could be sold in an arms-length transaction limited by the following:

Lessor is a manufacturer or dealer: Fair value is ordinary SP less applicable volume or trade discounts;

Lessor is not a manufacture or dealer: Fair value is ordinarily cost or carrying amount

II. **TYPES OF LEASES:** The issue is whether the rights and responsibilities of ownership have been transferred to the lessee (capital lease). In an operating lease these rights and responsibilities have not been transferred and no special accounting issues exist. The transaction is viewed merely as a rental agreement. The types of leases and their classification are outlined below:

| <u>Lessor</u>       | <u>Lessee</u> |
|---------------------|---------------|
| 1. Operating        | 1. Operating  |
| 2. Direct financing | 2. Capital    |
| 3. Sales-type       |               |
| 4. Leveraged        |               |
| 5. Leaseholds       | 3. Leaseholds |

a. Operating leases: (Basically equivalent to rental agreements; the rights/responsibilities of ownership do not transfer to lessee)

| Event           | Lessee               | Lessor                        |
|-----------------|----------------------|-------------------------------|
| Purchase asset: | no entry             | Asset..... xx<br>Cash..... xx |
| Asset leased:   | no entry             | no entry                      |
| Lease payments  | Rent expense..... xx | Cash..... xx                  |
| Lessee:         | Cash..... xx         | Rent Revenue. xx              |

\*Remember: lessor records normal depreciation

b. Capital leases: Capital leases are all recorded in the same manner for the lessee, but for the lessor a distinction must be made between DFL's, STL's and Leveraged leases (leveraged leases present special accounting problems and are not covered in this handout).

Lessee entries (Capital Lease)

Record the lease:

|  |     |
|--|-----|
| Leased asset (PV of MLP; cannot exceed FMV)..... | xxx |
| Lease payable.....                               | xxx |

Record the payment:

|  |     |
|--|-----|
| Executory cost (expense currently).....                              | xxx |
| Interest expense .....   | xxx |
| Lease payable (actual cash payment - current years interest expense) | xxx |
| Cash.....  | xxx |

[(PV of MLP) - (total reduction in lease payment to date)] x (lesser of incremental or implicit rate)

Record Depreciation:

|  |     |
|--|-----|
| Depreciation expense (PV of MLP)/life..... | xxx |
| Accumulated depreciation.....              | xxx |

Lessor Entries (Capital Leases)

Direct Financing Leases(DFL):

Remember: In a DFL there can be no profit; CV of lease = cost or carrying value (refer to the definition of FMV with respect to non-dealer lessors)

NET METHOD

GROSS METHOD

Record the lease

|   |     |
|---|-----|
| Lease receivable (net investment in lease). | xxx |
| Leased asset (cost or carrying value)..     | xxx |

|  |     |
|--|-----|
| Lease Receivable (Gross investment in lease).. | xxx |
| Leased Asset (net investment in lease).....    | xxx |
| Unearned interest income (gross - net).....    | xxx |

Record receipt of cash

|                                    |     |
|------------------------------------|-----|
| Cash.....                          | xxx |
| Lease receivable (see note 1)..... | xxx |
| Interest revenue (see note 2)..... | xxx |
| A/D-Leased Asset.....              | xxx |

|  |     |
|--|-----|
| Cash.....                                    | xxx |
| Lease receivable (gross amount of payment).. | xxx |
| Unearned interest (see note 2).....          | xxx |
| Interest income (see note 2).....            | xxx |
| A/D-Leased Asset.....                        | xxx |

NOTE 1: net receivable = cash received - interest earned (see note 2)

NOTE 2: interest revenue = Gross investment - (rent collected + net unearned income) x implicit rate

In a STL profit is recognized; this is to say that the value of the leased asset will not equal the net or gross investment in the lease (profit = Cost or carrying value - net investment)

Sales Type Leases (STL):

NET METHOD

GROSS METHOD

Record the lease

|   |     |
|---|-----|
| Lease Receivable (net investment in lease). | xxx |
| CGS (CV + IDC - PV of unguaranteed resid)   | xxx |
| Sales (PV of MLP to lessor).....            | xxx |
| Asset (same as CGS).....                    | xxx |
| A/D-Leased Asset.....                       | xxx |

|   |     |
|---|-----|
| Lease receivable (gross investment in lease). | xxx |
| CGS (same as net method).....                 | xxx |
| Sales (same as net method).....               | xxx |
| Asset (cost or carrying value).....           | xxx |
| Unearned interest income (plug).....          | xxx |
| A/D-Leased Asset.....                         | xxx |

Record receipt of cash

|                       |     |
|-----------------------|-----|
| Cash.....             | xxx |
| Lease receivable..... | xxx |
| Interest revenue..... | xxx |

|                                |     |
|--------------------------------|-----|
| Cash.....                      | xxx |
| Lease receivable.....          | xxx |
| Unearned interest revenue..... | xxx |
| Interest revenue.....          | xxx |

III. ACCOUNTING FOR INITIAL DIRECT COSTS (IDC)

- a. operating leases: capitalize and amortize over the term of operating lease as an expense to be matched against rental revenue (i.e. reduce rental revenue by the amount of annual amortization of IDC)
- b. DFL's: expense as incurred by debiting unearned interest income. This has the affect of not creating a loss in the period in which the costs are incurred and effectively amortizes the IDC over the life of the lease as unearned interest income becomes earned; an added benefit is that this procedure effectively matches the recognition of interest revenue with the costs of negotiating and consummating the lease.
- c. STL's: Charge to operations (CGS) in the year the sale is recorded;

IV. LEASE CLASSIFICATION: A lease is a capital lease if it meets any of the following criteria at its inception:

Lessee:

1. transfers ownership to lessee
2. contains a BPO
3. Lease term > 75% of the estimated economic life of the asset (this does not apply if lease commences in the last 25% of an assets economic life.
4. Present value of MLP > 90% of the excess of FMV over any ITC retained by the lessor

Lessor: A lease is a capital lease for the lessor if it meets any of the above and both of the following:

1. Collectibility of MLP is reasonably predictable and
2. no important uncertainties surround the amount of unreimbursable future costs to lessor

\*\*\*NOTE: Once you have determined the lessor has a capital lease you must go on and further categorize it as either a DFL or STL; in addition, once a lease is classified, the classification does not change.

Accounting for leases Illustrated (not intercompany leases)

**EXAMPLE ONE Capital Lease: Lessee**

Facts: On 12/31/x1 Lessee Company signs a ten year noncancelable, nonrenewable agreement to lease equipment from Lessor Co.

Terms:

- \$80,000 payment to be made at the end of each year (\$10,000 of which are executory).
- The FMV of the equipment is agreed to be \$500,000.
- The estimated economic life of the equipment at the inception of the lease is 16 years.
- The equipment reverts to the lessor at the end of the lease term.
- The lessee's incremental borrowing rate is 8%
- The lessor's implicit rate is known and 10%

REQUIRED:

A. Classify the lease by the lessee (must meet any of the four requirements)

1. not met
2. not met
3. not met (.75 x 16=12 yrs)
4. met (PV of \$70,000 n=10; i=.08 is \$469,706; while 90% of FMV (.9 x \$500,00) is \$450,000)

B. Present the lessee's amortization table (to amortize the liability)

| <u>Date</u> | <u>Annual Lease Pmt</u> | <u>Interest</u> | <u>Amortization</u> | <u>Lease Obligation</u> |
|-------------|-------------------------|-----------------|---------------------|-------------------------|
| 12/31/x1    |                         |                 |                     | \$469,706               |
| 12/31/x2    | \$70,000                | \$37,576        | \$32,424            | 437,282                 |
| 12/31/x3    | 70,000                  | 34,983          | 35,017              | 402,265                 |
| 12/31/x4    | 70,000                  | 32,181          | 37,819              | 364,446                 |
| 12/31/x5    | 70,000                  | 29,156          | 40,844              | 323,602                 |
| 12/31/x6    | 70,000                  | 25,888          | 44,112              | 279,490                 |
| 12/31/x7    | 70,000                  | 22,359          | 47,641              | 231,849                 |
| 12/31/x8    | 70,000                  | 18,548          | 51,452              | 180,397                 |
| 12/31/x9    | 70,000                  | 14,432          | 55,568              | 124,829                 |
| 12/31/x10   | 70,000                  | 9,986           | 60,114              | 64,814                  |
| 12/31/x11   | <u>70,000</u>           | <u>5,186</u>    | <u>64,814</u>       | -0-                     |
|             | 700,000                 | 230,295         | 469,805             |                         |

C. Record the necessary journal entries on the lessee's books for years one and two.

|   |         |                                       |        |
|---|---------|---------------------------------------|--------|
| <u>Record the lease</u> (12/31/x1)            |         | <u>Record payment</u> (12/31/x3)      |        |
| Leased asset.....                             | 469,706 | Executory cost.....                   | 10,000 |
| Lease obligation.....                         | 469,706 | Interest expense.....                 | 34,983 |
| <u>Record payment</u> (12/31/x2)              |         | Lease obligation.....                 | 35,017 |
| Executory costs.....                          | 10,000  | Cash.....                             | 80,000 |
| Interest expense.....                         | 37,576  | <u>Record depreciation</u> (12/31/x3) |        |
| Lease obligation.....                         | 32,424  | Depreciation expense.....             | 46,971 |
| Cash.....                                     | 80,000  | Accumulated depreciation.             | 46,971 |
| <u>Record Depreciation expense</u> (12/31/x2) |         |                                       |        |
| Depreciation expense....                      | 46,971  |                                       |        |
| Accumulated depreciation.                     | 46,971  |                                       |        |

EXAMPLE TWO Capital Lease: Lessor (DFL)

- Lessor purchases an asset for \$5,000 on 1/1/x7 and immediately leases it to Lessee Co.
- estimated life of asset is 5 years
- lease term is 30 months, noncancelable
- rental cost is \$135 per month payable at the beginning of the month
- guaranteed residual is \$2,000 at the end of the lease; any excess goes to lessee
- straight line depreciation is to be used
- implicit interest cost is 12.036% per annum
- at the end of the lease, the asset is sold for \$2,100

REQUIRED:

**A. Classify the lease**

1. not met
2. not met
3. not met (lease term of 30 months is not > 75% of 5 year life (.75 x 60=45 months)).
4. met PV of MLP = \$5,000 | (PV of rental: n=29; i=1.003; pmt=\$135 is \$3,382 + \$135 = \$ 3,517) ANNUITY DUE!  
(This is > 90% of FMV-ITC | Add PV of guaranteed residual (\$2,000 in 30 mos @ 1.003%= 1,483)  
\$ 5,000

**B. Present the amortization table for the first four months of year 7**

| Date   | Payment | Interest | Amortization | Balance  |
|--------|---------|----------|--------------|----------|
| 1/1/x7 | \$135   | -0-      | \$135        | \$ 4,865 |
| 1/2/x7 | 135     | \$49     | 86           | 4,779    |
| 1/3/x7 | 135     | 48       | 87           | 4,692    |
| 1/4/x7 | 135     | 47       | 88           | 4,604    |

**C. Compute the minimum lease payments**

\$6,050: (30 x \$135=\$4,050+\$2,000)

**D. Compute the gross investment in the lease**

\$6,050: (MLP from above plus unguaranteed residual)

**E. Compute the net investment in the lease**

\$5,000: (PV of Gross; already computed in part A, #4)

**F. Make all necessary journal entries the first two months in year 7 under the Net and Gross methods**

NET METHOD

Record the lease (1/1/x7)

|   |       |
|---|-------|
| Lease receivable (net investment in lease). | 5,000 |
| Leased asset.....                           | 5,000 |

Record receipt of cash (1/1/x7)

|                       |     |
|-----------------------|-----|
| Cash.....             | 135 |
| Lease receivable..... | 135 |

Record receipt of cash (1/2/x7)

|                                    |     |
|------------------------------------|-----|
| Cash.....                          | 135 |
| Lease receivable (see note 1)..... | 86  |
| Interest revenue (see note 2)..... | 49  |

GROSS METHOD

|  |       |
|--|-------|
| Lease Receivable (Gross investment in lease).. | 6,050 |
| Leased Asset (net investment in lease).....    | 5,000 |
| Unearned interest income (gross - net).....    | 1,050 |

|                       |     |
|-----------------------|-----|
| Cash.....             | 135 |
| Lease receivable..... | 135 |

|  |     |
|--|-----|
| Cash.....                                  | 135 |
| Lease receivable (gross amount of pmnt)... | 135 |
| Unearned interest (see note 2).....        | 49  |
| Interest income (see note 2).....          | 49  |

**EXAMPLE THREE Capital Lease: Lessor (STL)**

- On 12/31/x1 lessor leases a machine which cost it \$350,000 to Lessee
- The lease is noncancellable and has a ten year term
- The economic life of the machine is 10 years
- A payment of \$70,000 per year was to be made at the end of each year
- The machine can be purchased by the lessee at the termination of the lease for \$1
- The lessor's implicit rate is 8%

**A. CLASSIFY THE LEASE**

- 1. not met; 2,3 and 4 are met

**B. Present the amortization table to amortize the lease receivable for the lessor.**

| Date      | Payment       | Interest (.08) | Amortization  | Balance   |
|-----------|---------------|----------------|---------------|-----------|
| 12/31/x1  |               |                |               | \$469,705 |
| 12/31/x2  | \$70,000      | \$37,577       | \$32,423      | 437,282   |
| 12/31/x3  | 70,000        | 34,983         | 35,017        | 402,265   |
| 12/31/x4  | 70,000        | 32,181         | 37,819        | 364,446   |
| 12/31/x5  | 70,000        | 29,156         | 40,844        | 323,602   |
| 12/31/x6  | 70,000        | 25,888         | 44,112        | 279,490   |
| 12/31/x7  | 70,000        | 22,359         | 47,641        | 231,849   |
| 12/31/x8  | 70,000        | 18,548         | 51,452        | 180,397   |
| 12/31/x9  | 70,000        | 14,432         | 55,568        | 124,829   |
| 12/31/x10 | 70,000        | 9,986          | 60,014        | 64,814    |
| 12/31/x11 | <u>70,000</u> | <u>5,186</u>   | <u>64,814</u> | -0-       |
|           | 700,000       | 230,295        | 469,705       |           |

**C. Present all necessary journal entries for year 7 under both the Net and Gross methods**

| <u>NET METHOD</u>                           |         | <u>GROSS METHOD</u>                           |         |
|---|---------|---|---------|
| <u>Record the lease 12/31/x1 ***</u>        |         |   |         |
| Lease Receivable (net investment in lease). | 469,707 | Lease receivable (gross investment in lease). | 700,001 |
| CGS (CV + IDC - PV of unguaranteed resid).. | 350,000 | CGS (same as net method).....                 | 350,000 |
| Sales (PV of MLP to lessee).....            | 469,707 | Sales (same as net method).....               | 469,707 |
| Asset (same as CGS).....                    | 350,000 | Asset (same as net method).....               | 350,000 |
|   |         | Unearned interest income (plug).....          | 230,294 |

\*\*\*This entry is not necessary for year 7; it is for review purposes only

Record receipt of cash 12/31/x7

|                       |        |                                |        |
|-----------------------|--------|--------------------------------|--------|
| Cash.....             | 70,000 | Cash.....                      | 70,000 |
| Lease receivable..... | 47,641 | Lease receivable.....          | 70,000 |
| Interest revenue..... | 22,359 | Unearned interest revenue..... | 22,359 |
|                       |        | Interest revenue.....          | 22,359 |

Note on amortization of leased assets

Leased assets will **normally be amortized over the life of the lease**. An exception exists if the life of the leased asset is greater than the life of the lease and either the lease transfers ownership to the lessee or a BPO exists. **If the lease transfers ownership or a BPO exists and the life of the asset is longer than the lease term, amortize the asset over the life of the asst rather than the life of the lease.**