Cebu and Woodard Leases - A PBL Unfolding Problem: Instructor Guide

Title:

Cebu and Woodard Leases - A PBL Unfolding Problem

Author:

Dr. Philip G. Cottell Jr.
315A Laws Hall
Miami University
Oxford, OH 45056
cottelpg@muohio.edu

Discipline:

Accounting

Target Audience

Intermediate, accounting majors and finance majors

Keywords

Leases

Length of Time/Staging

The problem takes four seventy five minute sessions.

Abstract

Having worked through the eight phases of the Cebu and Woodward unfolding PBL problem, students will be able to understand and perform the technical aspects of accounting for leases.

The problem includes accounting for operating leases and capital leases from the point of view of the lessee and accounting for operating leases, direct financing leases, and sales type leases from the point of view of the lessor. Because the problem unfolds in stages, accounting instructors may eliminate aspects of lease accounting that they do not wish to cover.

Date Submitted

10/13/2001

Date Published

7/23/2001

Format of Delivery

The problem is delivered in a cooperative learning setting with mini-lectures interspersed.

Student Learning Objectives

Having worked through this problem, students should be able to accomplish the following:

1. Understand lease terminology.
2. Appreciate the information that must be gathered in order to classify and account for leases by the lessee.
3. Clearly define and calculate the minimum lease payments for a lease.
    a. Items included in minimum lease payments.
    b. Items excluded from minimum lease payments.
4. Classify a lease from the lessee point of view using the four lease classification criteria.
5. Be able to record journal entries for lessee operating leases
6. Be able to make journal entries capital leases by the lessee at inception.
7. Amortize a capital lease by the lessee and make corresponding journal entries.
8. Recognize and record depreciation for a capital lease.
9. Classify a lease by the lessor.
10. Make initial journal entries for the lessor.
    a. Operating leases
    b. Direct financing leases
    c. Sales type leases
11. Construct an amortization table and make entries for the periodic lease payments by the lessor.
    a. Sales type lease
    b. Direct financing lease
12. Record entries when leased equipment is returned.
13. Understand reasons companies enter into lease agreement.

[Note: watch the numbering of the learning objectives on the teaching note.]

Student Resources

Students may use an intermediate financial accounting text as a resource.

Author's Teaching Notes

1. The students are first given Phase 1 of the unfolding problem. Also give one copy of the PBL worksheet to each group.
    1. They work in groups to answer:
        1. What do you know?
        2. What do you need to know?
        3. How would you use the information that you know and the information that you need?
    2. Provide a worksheet to assist the students with these lists. Students should also discuss where they could find the needed information. Monitor the groups as they go through this process. Some items in Paragraph 2 below should emerge.
    3. Call on group reporters and get items on the board. Ask "how will knowing [item] help you answer the problem?"
    4. Do not concern yourself if certain "need to know items" have not arisen. Be patient. Let the students chew on the problem.
    5. In the learning objectives below, keep things in tension. Do not make simplifying assumptions such as "first classify the lease." Give the students a chance to discover the nuances of lease accounting on their own.
    6. The concepts, "lease," "lessee," and "lessor" should emerge. This is the beginning of fulfilling the first learning objective. Other terminology will emerge as the problem progresses.
2. Hand out Phase 2 of the unfolding problem. Just give the students the information. Let them decide what to do with it. Monitor the groups as they consider the additional information. As they discuss this problem in their groups, they should begin to fulfill the Learning Objective 1, understanding lease terminology, and Learning Objective 2, appreciation of the information that must be gathered in order to classify a lease. After an allotted time, call for student reports. The reporters should report on what they know, what they need to know, and how they will use the information.
    1. As reporters report, get a clear list of the classification criteria on the board.
        1. Lease classification—lessee. If at its inception a lease satisfies one or more of four criteria, it is a capital lease.
            1. The lease transfers ownership of the asset to the lessee by the end of the lease term.
            2. The lease contains a bargain purchase option.
            3. The noncancelable lease term is 75% or more of the estimated economic life of the asset.
            4. The present value of the minimum lease payments equals or exceeds 90% of the fair market value of the asset.
    2. Leases that satisfy none of the four criteria are classified as operating leases.
    3. Make sure the students comprehend a clear definition of what constitutes a minimum lease payment, fulfilling the Learning Objective III.
        1. As part of a lease contract there are minimum lease payments. This includes:
            1. The amounts of the periodic lease payments,

        2. Guaranteed residual value amount (if any). This is a stipulation some leases have that require that the asset to have a specified fair market value at the end of the lease term,
        3. Amount of bargain purchase option (if any),
        4. Penalties for non-renewal (if any).
    2. It excludes executory costs. These represent incidental costs of using the assets such as maintenance, taxes and insurance to be paid by the lessee.
    3. It excludes unguaranteed residual values, which are estimates of what an asset will be worth when it is returned.
    4. Mention that the discount rate used in the minimum lease payments is the lower of the implicate interest rate and the incremental borrowing rate.
3. Having had this discussion, return the issue to the students and ask them to classify the lease. This will fulfill the Learning Objective 4. Continue to monitor the groups.
    1. Classification of the lease by Cebu:
        1. The lease does not transfer the equipment to the lessee by the end of the lease term.
        2. The lease does not contain a bargain purchase option.
        3. 75% of the economic life of the asset is (0.75 * 12 years) = 9 years < 10 year term of the lease.
        4. Present value of the minimum lease payments =

    $(P_{9\ years\_10\%} * \$20{,}000) + \$20{,}000 =$

    $(5.7590 * \$20{,}000) + \$20{,}000 = \$135{,}180$

    90% of fair market value = $0.9 * \$139{,}040 = \$125{,}136 < \$135{,}180$

    2. The lease is classified as a capital lease because it meets two of the lease classification criteria:
        1. The present value of the minimum lease payments is greater than 90% of the fair market value of the leased asset.
        2. The term of the lease is greater than 75% of the life of the leased asset.
4. Use a Think-Pair-Share to ask students for the journal entry that would be made in the event that this is an operating lease to fulfill Learning Objective 5

Lease Expense	$21,000
Cash	$21,000

to record payment on operating lease

5. Learning Objective 6 involves the journal entry for the capital lease at inception.

1. Call on a group reporter. Ask for the journal entry for the lease as we have classified it, that is a capital lease? If no group knows, let the students return to working in groups.
2. Solution to first entry:

Leased Equipment	$135,180	
Obligation under capital lease		$135,180
to record the lease		10.

1. Note the lease is recorded at the present value of the minimum lease payments.

Prepaid lease expense[1]	$1,000	
Obligation under capital lease	$20,000	
Cash		$21,000
to record the payment on the date of lease signing		

6. Learning Objective 7 calls for students to be able to amortize a lease and make journal entries. They already have sufficient information to accomplish this.
   1. Call on a group reporter. Ask for the entry to record the second through tenth lease payments. Ask if anyone has filled out a lease amortization table. If no group knows the journal entry, let the students return to working in groups.
   2. Solution for lease amortization table follows: (Have this on Excel to show to the students).

   [HTML table](); [Excel table]()

   3. Call on a student to make the journal entry for 2008 as an example:

Lease Expense	$ 1,000 [2]	
Obligation under capital lease	$15,026	
Interest expense	$ 4,974	
Cash		$21,000
to record the lease payment		

7. Learning Objective 8 calls for students to be able to recognize and record depreciation on leased equipment.
   1. Ask the students whether there are other journal entries to consider. They should respond that depreciation needs to be recorded. Use a Think-Pair-Share to ask for the criteria for useful life on depreciation.

        1. If there is a transfer of ownership or a bargain purchase option, the useful life is that of the equipment.
        2. Otherwise use the useful life is that of the lease.
        3. Entry for Cebu:

Depreciation $13,518
    Accumulated amortization on leased equipment
        $13,518
to record annual depreciation (135,518 / 10)

        1. Note there can be no salvage since the equipment is to be returned.
        2. Note also that the book value of the equipment and the book value of the lease will differ throughout the life of the lease, converging at the very end.
    6. Entry for the return of the equipment:

Accumulated amortization on leased equipment:
$13,518

    Leased equipment: $13,518

to return leased equipment

8. Learning Objective 9 calls for students to be able to classify a lease by a lessor.
    1. Hand out Phase 3 of the unfolding problem. They work in groups to answer:
        1. What do you know?
        2. What do you need to know?
        3. How would you use the information that you know and that you need? Provide another PBL worksheet to assist them with these lists. Students also discuss where they could find the needed information. Monitor the groups during the discussion.
    2. Call on group reporters and get items on the board. Ask “how will knowing [item] help you answer the problem?”
    3. Do not concern yourself if certain "need to know items" have not arisen. Be patient. Let the students chew on the problem.

9. Hand out Phase 4 of the unfolding problem. Just give the students the information. Let them decide what to do with it. Keep things in tension. Do not make simplifying assumptions such as "first classify the lease." Give the students a chance to wrestle with this problem. Continue to monitor the groups. During their discussion students should more toward classification of the lease. This fulfills Learning Objective 9. The classification of the lease by Woodard is explained below.
    1. We learned earlier that this lease meets the test for a capital lease for the lessee. Two additional tests must be met for a lessor to classify this lease as a capital lease.
        1. The first is that the collectability of the minimum lease payments is reasonably predictable. Cebu's excellent credit rating seems to assure us of this.
        2. Second, there must not be any important uncertainties surrounding amounts of unreimbursable costs yet to be incurred by the lessor. The additional information indicates that this is the fact.
    2. We are not finished yet. We still must classify the lease as a direct financing lease or a sales type lease. Classification of a lease by a lessor is not correct unless we take this step.
    3. The test is comparing the fair market value of the leased asset to the cost of the asset to the lessor. In this case the fair market value is greater ($139,040 > $100,000). Therefore this is a sales type lease.
10. Learning Objective 10 calls for the students to be able to make the initial journal entries for the lessor. The students already have sufficient information to do this for a sales type lease. Call on a student to respond to the journal entries. The correct ones are given in 1 below. Instructors may choose to deliver the minilecture contained in 2 before giving the students the correct entry.
    1. Journal entries.
        1. The entry given in the problem is erroneous and must be reversed.
        2. Correct entry:

Deferred indirect costs	$ 1,500	
Cash		$ 1,500
to record attorney's fees.		

Lease payments receivable	$210,000	
Cost of goods sold	$ 97,645	
Finished goods inventory		$100,000

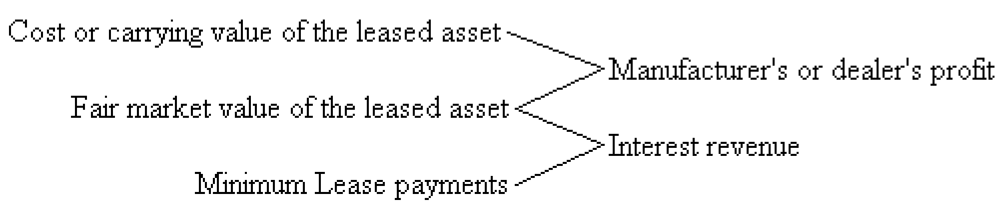
Deferred initial direct costs		$ 1,500
Unearned interest revenue		$70,965
Sales revenue		$135,180

to record the lease.

Cash	$21,000	
Lease payments receivable		$20,000
Executory costs		$ 1,000

to record receipt of first payment.

2. Mini-lecture points in support of journal entries for the lessor.
    1. In a sales type lease the lessor realizes profit from two sources, margin on the asset leased and financing revenue.
    2. The difference between the fair market value of the leased asset and the cost or carrying value of the leased asset is the manufacturer's or dealer's profit.
    3. The difference between the minimum lease payments (not present value here) and the fair market value of the leased asset is the interest revenue on the lease.
    4. These points are illustrated in this way (on board).



    5. Deferred initial direct costs are set up when paid--probably at lease signing. Then they are added to cost of goods sold and taken off the books when the lease entry is made.

6. The journal entry for a sales type lease takes this form: Notice there are sophistications above what is shown in the diagram above.

Lease payments receivable	amount of MLP[4] plus unguaranteed residual value
Cost of Goods Sold	carrying value of inventory plus initial direct costs less present value of unguaranteed residual values
Finished goods inventory	carrying value of inventory
Deferred initial indirect costs	as incurred offset amount in CGS[5]
Unearned interest revenue	gross receivable less FMV of asset
Sales revenue	present value of minimum lease payments

7. When the lease includes a bargain purchase option or guaranteed residual value, these amounts are already contained in the minimum lease payments and thus the present value of the minimum lease payments. Therefore following the chart above will cause the numbers to be correct.

3. Supporting computations
   1. The lease receivable is recorded as the amount of the minimum lease payments plus the unguaranteed residual

($20,000 * 10) + $10,000 = $210,000

   2. Cost of goods sold is the dealers carrying cost, plus the initial indirect costs, less the present value of the unguaranteed residual value.

$p_{10\ year\_10\%}$ * $10,000 = 0.3855 * $10,000 = $3,855

$100,000 + $1,500 - $3,855 = $97,645

   3. Finished goods inventory is reduced by its cost = $100,000
   4. Deferred initial indirect costs are written off = $1,500
   5. Unearned interest revenue is recorded as amount of the minimum lease payments plus the unguaranteed residual value less the fair market value of the asset. (Note, the astute student may ask why the fair value of the asset and the present value of the minimum lease payments differ. The difference lies in the present value of the unguaranteed residual value.)

$200,000 + $10,000 - $139,040 = $70,960

6. Sales revenue is recorded at the present value of the minimum lease payments. $135,180
7. There is $5 rounding error. It does not matter where you put it. I added it to unearned interest revenue.

11. Learning Objective 11 calls for students to be able to construct an amortization table and make entries for the periodic lease payments by the lessor. Hand out Phase 5 of the unfolding problem. The students already have sufficient information to accomplish the directions for a sales type lease. An amortization table (shown below) is a product the students should produce. This is in response to the request for a schedule in additional information.
    1. Amortization table: (Have this on Excel to show to the students).

    HTML table; Excel table

    2. Note to the students that this amortization schedule will answer questions as to how revenue is recognized and how the lease is amortized.
    3. Journal Entries: Use a Think-Pair-Share to ask what journal entry should be made for the payment received by Woodard on December 31, 2007?

Cash	$21,500	
Lease payments receivable		$20,000
Executory costs		$ 1,000
to record receipt of payment.		

Unearned interest revenue	$ 6,961	
Interest revenue		$ 6,961
to recognize revenue from the payment.		

    4. Mention that if there is a transfer of ownership or a bargain purchase option, there can be no unguaranteed residual value or guaranteed residual value.

12. Learning Objective 12 calls for students to be able to make the journal entry when the equipment is returned. hand out Phase 6 of the unfolding problem. This phase has a twist in that the returned asset is impaired. Students should discuss this phase in their groups while you monitor. Then call for a report.
    1. Journal entries:

Equipment		$10,000
Lease Payments receivable		$10,000

to record the return of the equipment.

Unearned interest revenue	$ 991	
Interest revenue	$991	

to recognize the last interest accrual.
This is actually on the equipment

Impairment loss on equipment		$9,850
Equipment		$ 9,850

to record an impairment loss.

2. The equipment is impaired because the carrying value of $10,000 is greater than the undiscounted sum of the future cash flows of $250. The impairment loss is the difference between the carrying value and the fair value.

13. Phase 7 and Phase 8 of the unfolding problem return to Learning Objectives 10 and 11 for operating leases and direct financing leases.

1. The students are first confronted with the additional information contained inPhase 7. They should discuss this additional information briefly. Then call for a group report.
2. Additional information is contained in Phase 8. Pass this out to the students. They now have sufficient information to do the accounting for the direct financing lease and the operation lease. Give the students some time to discuss the new information while you monitor.
3. Direct financing lease first.
    1. After some group processing time conduct a Think-Pair-Share: Ask the students to calculate the present value of the minimum lease payments.

Present value of the periodic lease payments:	
(as calculated earlier for Cebu)	$135,180
Present value of the payment under the bargain purchase option	
($P_{10\ year\_10\%}$ * $4,000) = (0.3588 * $4,000)	$ 1,542
Present value of the minimum lease payments	$136,722

    2. First we must recognize that the second lease to Cebu is a direct financing lease through our classification scheme. It is identical to the first lease except the cost to Woodard. Because the fair market value of the leased asset is equal to the cost to the lessor in this case, the second lease is classified as a direct financing lease.
    3. The journal entries for the signing of the lease follow:

Deferred initial direct costs	$ 1,500	
Cash		$ 1,500
to record attorney's fees.		

Lease payments receivable	$204,000	
Equipment purchased for lease		$136,722
Unearned interest revenue		$ 67,278
to record the lease.		

Cash	$ 21,000	
Lease payments receivable		$ 20,000
Executory costs		$ 1,000

to record the first lease payment.

4. Note the present value of the minimum lease payments will always equal the cost under the direct financing lease. If it does not, it means the interest rate is different. We could calculate the interest rate in these cases, but it is beyond the scope of the course. Many students may already know how to do it.
5. Explanation of journal entry to record the lease:

Lease payments receivable	Amount of MLP[6] plus unguaranteed residual value
Equipment purchased for lease	Cost to the lessor[7]
Unearned interest revenue	Gross receivable less FMV of asset

10. The lease amortization schedule looks like this: Show this to the students on Excel.

HTML table; Excel table

11. The journal entries for the receipt of the second payment follow:

Cash $21,000

Lease payments receivable $20,000

Executory costs $1,000

to record receipt of second lease payment.

Unearned interest revenue $11,040

Interest revenue
$11,040

to recognize interest revenue.

Interest revenue $150

Deferred initial direct costs
$150

to amortize initial indirect costs.

Notice straight-line amortization.

Cash $21,000

Lease payments receivable
$20,000

Executory costs $1,000

to record receipt of second lease payment.

Unearned interest revenue $11,040

Interest revenue
$11,040

to recognize interest revenue.

Interest revenue $150

Deferred initial direct costs
$150

to amortize initial indirect costs.

Notice straight-line amortization.

Cash $21,000

Lease payments receivable
$20,000

Executory costs
$1,000

to record receipt of second lease payment.

Unearned interest revenue $11,040

Interest revenue
$11,040

to recognize interest revenue.

Interest revenue $150

Deferred initial direct costs
$150

to amortize initial indirect costs.

Notice straight-line amortization.

4. Operating lease.
   5. Journal entries at the lease signing follow.
5.

Deferred initial direct costs

Cash

to record attorney's fees.

Cash	$21,000	
Unearned rent revenue		$20,000
Executory costs		$ 1,000

to record the payment received at the signing of the lease.

5. Note the unearned rent revenue. This is necessary because of the cut-off.
6. Journal entries when the second lease payment is received:

Cash $21,000

Rent revenue $20,000

Executory costs $1,000

to record receipt of the second payment

5. Note the revenue is recognized here. Actually that is the pre-recorded unearned rent revenue. But now there is more unearned rent revenue. So for practical purposes we record the revenue here and the unearned revenue remains on the books until the equipment is returned.

Depreciation expense on leased equipment $8,333

Accumulated depreciation on leased equipment $8,333

to record depreciation ($100,000 / 12 years)

5. Note that while the lessee depreciated the equipment over the life of the lease, the lessor depreciates over the life of the asset because of the assumption that it will be returned and has two more year's value. Also notice the base for the depreciation is the lessor's cost.

Amortization of initial direct costs $150

Deferred initial direct costs $150

to amortize initial direct costs.

5. Note amortization is over the period of the lease.

14. Having worked through the eight phases of the unfolding problem, time permitting, you may want to review the salient points about leases with the students.
    1. Define lease and answer the question of why it exists.
        1. Think-Pair-Share: Write the definition of a lease in your notes. During the share part make sure the fact that a lease is a contract between two parties, a lessee and a lessor emerges.

2. Learning Objective 13 calls for students to understand reasons companies enter into lease agreements. Think-Pair-Share: Why do companies use leases? During the share part the text's advantages for lessees and lessors should emerge. This fulfills Learning Objective 13.
    1. Advantage to lessee:
        1. No down payment-preservation of capital.
        2. Reduce risks of ownership.
        3. Flexibility--allows updates for improved technology for example.
        4. May be the only financing available.
    2. Advantage to lessor
        1. Increased sales
        2. Ongoing business relationship with lessee
        3. Residual value retained
        4. Higher interest. This may be a third party providing the financing.

2. Characteristics of leases:
    1. The right to use the lessor's asset is exchanged for a fee called the lease payment.
    2. These lease payments are usually paid in installments over a period of time called the lease term lessee can purchase the asset at a price substantially below its expected market value at that time. This is called a bargain purchase option.
    3. Some leases require that the asset have a specified fair market value at the end of the lease term. This is called a guaranteed residual value.
    4. As part of a lease contract there are minimum lease payments. Think-Pair-Share: What is included in minimum lease payments?
        1. The amounts of the periodic lease payments,
        2. Guaranteed residual value amount (if any).
        3. Amount of bargain purchase option (if any)
        4. Penalties for non-renewal (if any)
        5. It excludes executory costs. These represent incidental costs of using the assets such as maintenance, taxes and insurance to be paid by the lessee.
    5. The rate used by the lessor to calculate the amount of the lease payment is called the implicit interest rate. When we calculate the present value of the minimum lease payments the rate used is the lower of the implicit interest rate and the lessee's incremental borrowing rate. The later is the rate the lessee would have to pay to borrow from a financial institution to purchase the asset. If the lessee does not know the implicit interest rate, then the incremental borrowing rate must be used.

3. Lease classification criteria. Current GAAP requires classification of leases as capital leases or operating leases.
    1. Lease classification--lessee. If at its inception a lease satisfies one or more of four criteria, it is a capital lease. Think-Pair-Share: What are the lease

classification criteria? (Students have been exposed to this. No need to write on the board).

   1. The lease transfers ownership of the asset to the lessee by the end of the lease term.
   2. The lease contains a bargain purchase option.
   3. The noncancelable lease term is 75% or more of the estimated economic life of the asset.
   4. The present value of the minimum lease payments equals or exceeds 90% of the fair market value of the asset.
2. Leases that satisfy none of the four criteria are classified as operating leases.
3. Lease classification--lessor. The lessor classifies a lease as a capital lease if it satisfies one of the four general criteria for the less plus two additional revenue recognition criteria. Think-Pair-Share: What are these?
   1. Collectibility of the minimum lease payments is reasonably predictable.
   2. No important uncertainties surround the amount of unreimbursable costs yet to be incurred by the lessor.
4. Capital leases for the lessor may be one of two types.
   1. It is a direct financing lease if the lessor is a financial institution and derives its revenue solely from interest.
   2. It is a sales type lease if the lessor is either the manufacturer of the leased asset of a dealer who sells these types of assets. Here a portion of the revenue is derived from sales.

4. Accounting for Leases-lessee.
   1. Operating leases. Lease payments are treated as rent expense. The expenses should be the same for each year of the lease.
   2. Capital leases.
      1. The lessee records an asset and a liability equal to the present value of the minimum lease payments. Note unguaranteed residual values are not included.
      2. The lease payments are allocated between interest expense and principal payment using the effective interest method.
      3. The leased asset is amortized. TPS: What is the term over which the lease is amortized?
         1. If there is a transfer of ownership at the end of the lease term or there is a bargain purchase option, amortize the leased asset over the useful life of the asset.
         2. Otherwise amortize the leased asset over the term of the lease.
      4. Executory costs are recorded separately as expenses or prepaid assets.
5. Accounting for Leases-Lessor.

1. Initial direct costs-costs to negotiate the lease, perform credit checks, and prepare the lease document. Accounting for these differs depending on the type of lease.
    1. Operating-record as an asset and amortize over the lease term (amortization expense).
    2. Direct financing-record as an asset and amortize over the lease term, reducing interest revenue.
    3. Sales type lease-immediately recognize as a reduction in manufacturer's or dealer's profit. This is accomplished by adding these costs to cost of goods sold.
2. Accounting for operating leases. The lessor recognizes the payments as revenue. These should be the same each year (similar to expenses to lessee). The leased asset remains on the lessor's books and is thus depreciated by the lessor.
3. Accounting for Direct Financing Leases.
    1. Accounting for direct financing leases is almost the mirror image of accounting for capital leases by lessees. Exception, unguaranteed values are included in the lease receivable.
    2. Lease payments consist of a reduction in the lease receivable and interest revenue.
    3. Notice that executory costs may be included in the lease payment. They should be separated out. That is they are not part of the lease receivable. They are a liability until they are actually paid by the lessor. In essence, the lessor acts as a conduit. This is kind of like an escrow account on a mortgage.
    4. In practice the lease receivable is recorded at gross and a contra asset-unearned interest revenue reduces the asset to net lease investment, which is recorded on the balance sheet. Unearned interest revenue becomes earned at year-end.
    5. Notice that, unlike the operating lease, the lessor records no depreciation. The lessee recognizes the depreciation.
    6. Residual values, whether guaranteed or not, are added to the gross amount of the lease receivable. Note the difference with lessee accounting. Non-guaranteed residuals included by the lessor; they are not included by the lessee.
    7. Initial direct costs are recorded as a separate asset.
4. Accounting for Sales Type Leases.
    1. Accounting for sales type leases adds one more dimension to the lessor's revenue-the profit realized on the sale of the leased asset.
    2. The difference between the fair market value of the leased asset and the cost or carrying value of the leased asset is the manufacturer's or dealer's profit.
    3. The difference between the minimum lease payments (not present value here) and the fair market value of the leased asset is the interest revenue on the lease.

        4. Deferred initial direct costs are recorded when paid, probably at lease signing. Then they are added to cost of goods sold and taken off when the lease entry is made.
15. Financial statement effects of leases. (This material may be added if there is additional time for the lease topic.)
    1. Lessee
        1. Under an operating lease total expenses equal total cash flow.
        2. Under a capital lease total expense equals the sum of the interest payments and the amortization of the leased asset.
        3. Operating and capital leases give identical cumulative lifetime charges to expense.
        4. The timing of the expense charges differs between the two methods. The capital lease approach leads to higher expense charges in earlier years.
        5. Lessees prefer operating leases for two reasons:
            1. Operating leases permit "off balance sheet financing."
            2. Capital leases accelerate expense recognition.
        6. Footnotes disclosures enable analysts to make lease comparisons.
    2. Lessor:
        1. Operating leases and direct financing leases give identical cumulative lifetime incomes.
        2. The timing of the income differs between the two methods. The direct financing lease approach leads to higher income in the earlier years.
        3. Lessors prefer direct financing leases for two reasons.
            1. Direct financing leases improve financial ratios
            2. The direct financing approach recognizes income sooner.
        4. Just as in the case of the lessee, footnote disclosures enable analysts to make lease comparisons for lessors.
        5. In the case of the sales type lease the only added effect is the dealer's profit realized from gross margin.
16. Final wrap!

Footnotes:

[1] This entry is made for the initial payment only. Afterwards lease expense is debited. Thus the prepaid asset would remain on the books for the lease term.

[2] This wipes out the prior years prepaid (it rolls over).

[3] There is a $5 rounding error arbitrarily placed in unearned interest revenue.

[4] Minimum lease payments.

[5] These would be amortized over the life of the lease in operating leases and direct financing costs.

[6] Minimum lease payments.

[7] Also its fair market value and the present value of the minimum lease payments.

Assessment Strategies

The PBL worksheet that is included contains a block at the bottom that asks students what they have learned. Throughout the process, the instructor may use student responses to assess learning (formative assessment). Having worked through this problem, students should be able to successfully take traditional accounting tests containing lease questions (summative assessment).

Solution Notes

Contained in the Teaching Notes.