



Accounting for Leases

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Course Description

Many U.S. companies have become heavily involved in leasing assets rather than owning them. For example, according to the Equipment Leasing Association (ELA), the global equipment-leasing market is a \$1 trillion business, with the U.S. accounting for about one-third of the global market. Any type of equipment can be leased, such as railcars, helicopters, bulldozers, barges, CT scanners, computers, and so on. The largest group of leased equipment involves information technology equipment, followed by assets in the transportation area (trucks, aircraft, rail), and then construction and agriculture. This course discusses the accounting, reporting, and disclosures of leases by lessees and lessors. It includes a discussion of sale-leasebacks, subleases, renewals and extensions, terminations, leveraged leases, and other issues.

Field of Study	Accounting
Level of Knowledge	Basic to Intermediate
Prerequisite	Basic Accounting
Advanced Preparation	None

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Accounting for Leases

Learning Objectives:

After completing this section, you should be able to:

1. Recognize the advantages and disadvantages of leasing.
2. Recognize the most material difference between ASC 842 and current practice.
3. Differentiate between the operating and capital lease method.
4. Distinguish between operating, direct financing, and sales-type method.
5. Recognize the key terms and costs included when accounting for leases.
6. Compute leased asset and depreciation expense entries.
7. Recognize differences between GAAP and IFRS when accounting for leases.

Background

For many reporting entities, leasing is an important way to obtain access to property. It allows lessees to finance the use of necessary assets, often simplifies the disposal of used property, and reduces a lessee's exposure to the risks inherent in asset ownership. Accounting for leases is regulated by the Financial Accounting Standards Board (FASB) by Accounting Standards Codification Topic 840 (ASC 840).

Leasing guidance (ASC 840) requires lessees to classify leases as either capital or operating leases. Lessees recognized assets and obligations related to capital leases; expenses associated with capital leases are recognized by amortizing the leased asset and recognizing interest expenses on the lease obligation. Many lease arrangements were classified as operating leases, under which lessees would not recognize lease assets or liabilities on their balance sheet, but rather would recognize lease payments as expense on a straight-line basis over the lease term. The leasing guidance was often criticized for not providing users the information necessary to understand a reporting entity's leasing activities, primarily because it did not provide users with comprehensive understanding of the cost property essential to a reporting entity's operations and how those costs were funded. Users frequently and analyzed information from a reporting entity's lease-related

disclosures to compare that reporting entity's performance with other companies. The user community and regulators frequently called for changes to the accounting requirements that would require lessees to recognize assets and liabilities associated with leases.

Nearly decade-long deliberations with the International Accounting Standards Board (IASB), the FASB completed in February 2016 a revision of the lease accounting standard, referred to as Topic 842 *Leases* (ASC 842) in response to the growing need for transparency and comparability among organizations. ASC 842 address concerns about the current lease accounting requirements by recognizing lease assets and lease liabilities and disclosing key information about leasing arrangements. The core principle of ASC 842 is that lessees will recognize right-of-use assets and liabilities that arise from virtually all leases. Therefore, lessees will see the most significant changes.

ASC 842, along with IFRS 16, *Leases*, are the results of the FASB's and the IASB's efforts to improve financial reporting. Although many of the requirements in ASC 842 are the same as the requirements in IFRS 16, there are several notable differences between the two standards. (see section titled "A Snapshot of Key Differences between ASC 842 and IFRS 16")

Entities should be aware of the following key provisions about the new leasing standard (ASC 842):

- A new definition of a lease could cause some contracts formerly accounted for under ASC 840 to fall outside the scope of the new standard, and vice versa.
- Lessees will be required to recognize most leases on balance sheet.
- The new guidance retain a dual lease accounting model for purposes of income statement recognition, continuing the distinction between currently known as capital and operating leases for lessees.
- Lessors will focus on whether control of the underlying asset has transferred to the lessee to assess lease classification.
- No fundamental changes made to lessor accounting model. However, ASC 842 modifies what qualifies as a sales-type and direct financing leases as well as the related accounting.
- Lessors and lessees are required to disclose more qualitative and quantitative information of their leases.
- Entities will need to adjust their accounting policies, processes and internal controls to implement the new standard.

Public business entities are required to apply the new leasing standard for annual reporting periods beginning after December 15, 2018 which means an adoption date of January 1, 2019. All other entities are required to apply the new leasing standard for annual periods beginning after December 15, 2019. This means an adoption date of January 1, 2020. Earlier application is permitted for all entities as of February 25, 2016, the issuance date of the final standard.

This course focuses on the current leasing guidance (ASC 840) since the new standard is not applicable for most entities until starting in 2019. However, the significant differences between ASC 840 and ASC 842 are discussed throughout the course.

Overview

The accounting, presentation, and disclosures for lease arrangements are provided in various authoritative pronouncements, including ASC 840-10-05, *Leases: Overall*; ASC 840-10-55-1 through 55-6, *Leases: Overall*; ASC 310-20-05-2, *Receivables: Nonrefundable Fees and Other Costs*; ASC 840, *Leases*; ASC 840-10-25-69, *Leases: Overall*; ASC 840-30-35-25, *Leases: Capital Leases*; ASC 958-840-55, *Not-for-Profit Entities: Leases*; ASC 360-20-55-66, *Property, Plant, and Equipment: Real Estate Sales*; and ASC 210-20, *Balance Sheet: Offsetting*. ASC 840 defines lease as an agreement conveys the right to use property, plant, or equipment usually for a stated period of time. Therefore, an arrangement can contain a lease even without control of the use of the asset if the customer takes substantially all of the output over the term of the arrangement. Leases are usually of a long-term noncancellable nature. *Noncancellable* means that (1) the lease cannot be terminated, (2) it is cancellable only upon the happening of a remote contingency, the lessor's approval, or entering into a new lease with the same lessor, or (3) the lease imposes a substantial penalty on the lessee for cancellation. The lessee pays the lessor (owner) a rental fee for the right to use property (tangible or intangible) for a specified time period. Although title is not transferred, the lease may in some cases transfer substantial risks and benefits of ownership. Theoretical substance comes before legality in accounting so that the lessee in a capital lease arrangement will have to record an asset and related liability. Other leases are simply a rental of property. A lessor's classification of a lease does not affect the accounting treatment for the lease by the lessee. Leases may be structured to derive certain tax benefits.

In contrast to ASC 840, an arrangement contains a lease only when such arrangement conveys the right to "control" the use of an identified asset under ASC 842. Control over the use of the identified asset means that the customer has both 1) the right to obtain substantially all of the economic benefits from the use of the asset and 2) the right to direct the use of the asset. Both criteria must be met to qualify for lease accounting. In addition, the new requirement to determine whether the customer has the right to direct the use of the asset will require significant new judgements.

ASC 840 provides that a lease transferring substantially all of the benefits and risks incident to the ownership of property should be accounted for as the acquisition of an asset and the incurrence of an obligation by the lessee. The lessor should account for the transaction as a sale and/or financing.

The lease classification approach is based on the risks and rewards of ownership under ASC 840. According to ASC 842, when a lease effectively transfer "control" of the underlying asset, the lease represents an in substance financed purchased (sale) of an asset and the lease is classified as a sale-type lease by the lessor.

In certain situations, a lease may be transacted among related parties. This arises when one company has substantial influence over the operating and financial activities of the other businesses.

The inception date of a lease is the earlier date of the rental contract or commitment. A commitment must be in written form, it must be signed, and it must contain the major terms. If principal provisions are to be negotiated at a later date, no binding commitment is deemed to exist. Assumptions relevant to lease classification and measurement are determined at lease inception. Recognition of rent expenses or capital

lease assets and liabilities begin at the commencement date. ASC 840 does not require a reassessment of lease classification unless the lease is modified or an option is exercised.

Unlike ASC 840, ASC 842 provides that the determination of whether or not a contract is a lease or contains a lease is done at the inception date. Lease classification, measurement, and recognition are determined at the lease commencement date. In addition, the lessee will need to monitor for triggering events on an ongoing basis. The lessee is required to reassess, and potentially changes, aspects of the accounting for leases (e.g. assessments of the lease term, lessee purchase options, and lease classification) during the lease term, and remeasure lease assets and lease liabilities even if there is not a lease modification. As a result, the lessee will need to implement processes and controls to monitor for events or changes that require revisions to the accounting for a lease.

Leases may include contracts that are not referred to as leases as such but have the attributes of one, including the right to use property. An example is a contract requiring the rendering of services in order to operate equipment.

The Leasing Market

Leasing is utilized by many companies because it is a means of gaining access to assets, of obtaining financial, and/or of reducing a company's exposure to the full risks of asset ownership. Seventy-two percent of US companies use some form of financing when acquiring equipment, including loans, leases and lines of credit (excluding credit cards). For example, according to the Equipment Leasing and Finance Association's (ELFA) 2015 data, (www.elfaonline.org), each year American businesses, nonprofits and government agencies invest over \$1.584 trillion in capital goods and software (excluding real estate). Some 67%, or \$1.046 trillion, is financed through loans, leases and other financial instruments. Note that these statistics are just for equipment leasing; add in real estate leasing, which is probably larger, and we are talking about a very large and growing business, one that is at least in part driven by the accounting. What types of assets are being leased? Any type of equipment can be leased, such as railcars, helicopters, bulldozers, barges, CT scanners, computers, and so on. The largest group of leased equipment involves information technology equipment, followed by assets in the transportation area (trucks, aircraft, rail), and then construction and agriculture.

Exhibit 1 summarizes what several major companies are leasing.

EXHIBIT 1: Types of Assets Being Leased

Company	Description
<i>McDonald's Corp. (MCD)</i>	"The Company was the lessee at 15,235 restaurant locations through ground leases (the Company leases the land and the Company or franchisee owns the building) and through improved leases (the Company leases land and buildings)."

Exxon Mobil Corp. (XOM)

"Minimum commitments for operating leases, shown on an undiscounted basis, cover drilling equipment, tankers, service stations, and other properties."

Maytag Corp.(MYG)

"The Company leases real estate, machinery, equipment, and automobiles under operating leases, some of which have renewal options."

Source: Company 10-K filings, <http://investing.money.msn.com/investments/sec-filings/?symbol=XOM>

This course discusses the accounting, reporting, and disclosures of leases by lessees and lessors. It includes a discussion of sale-leasebacks, subleases, renewals and extensions, terminations, leveraged leases, and other issues.

Lessee

Leasing has many advantages for the lessee, including:

- Immediate cash outlay is not required
- Typically, a purchase option exists, allowing the lessee to obtain the property at a bargain price at the expiration of the lease.
- The lessor's expert service is made available.
- There are usually fewer financing restrictions (e.g., limitations on dividends) placed on the lessee by the lessor than are imposed when obtaining a loan to buy the asset.
- The obligation for future rental payment does not have to be reported on the balance sheet in the case of an operating lease.
- Leasing allows the lessee under a capital lease, in effect, to depreciate land, which is not allowed if land is purchased.
- In bankruptcy or reorganization, the maximum claim of lessors against the company is three years of lease payments. In the case of debt, creditors have a claim for the total amount of the unpaid financing.
- The lessee may avoid having the obsolescence risk of the property if the lessor, in determining the lease payments, fails to estimate accurately the obsolescence of the asset.

There are several drawbacks to leasing, including:

- There is a higher cost in the long run than if the asset is purchased.
- The interest cost associated with leasing is typically higher than the interest cost on debt.

- If the property reverts to the lessor at termination of the lease, the lessee must either sign a new lease or buy the property at higher current prices. Also, the salvage value of the property is realized by the lessor.
- The lessee may have to retain property no longer needed (i.e., obsolete equipment).
- The lessee cannot make improvements to the leased property without the lessor's permission.

The lessee may account for a lease under either the operating method or capital lease method.

ASC 842 defines leases as either *Finance* or *Operating*, as opposed to *Capital* or *Operating* under ASC 840. Therefore, the term “Capital” will be replaced with “Finance” upon adoption of ASC 842.

Operating Method

Operating leases are transactions whereby lessees rent the right to use lessor assets without acquiring a substantial portion of the benefits and risks of ownership of those assets. The lessor records lease revenue, asset depreciation, maintenance, etc., and the lessee records lease payments as rental expense. Under an operating lease, the lessee recognizes periodic rental expense but records neither an asset nor a liability (except for accrued rental expense at the end of a period).

Rent expense is charged as incurred under the accrual basis. The credit is either to payables or cash. Rent expense is usually reflected on a straight-line basis over the lease term even if the payments are not on a straight-line basis. Under ASC 840, operating leases are off-balance sheet. Since ASC 842 defines that an operating lease as a lessor transfers the use of an asset to a lessee for a period of time, lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). Putting nearly all leases on the balance sheet is the biggest change, and one of the key objectives of the guidance in ASC 842.

Rental costs associated with operating leases should be (1) recognized as rental expense, (2) included in income from continuing operations, and (3) allocated over the lease term. If a more suitable and rational method exists reflective of the time pattern that the leased property is used, it may be used, although this is a rare occurrence. Because the lessee is just engaged in a regular rental, no property is shown on the lessee's balance sheet.

EXAMPLE

This example shows rent expense on a straight-line basis even though the payments are not on such a basis. A lessee leases property for a 10-year period but, owing to an incentive, will not pay a rental in the first year. After the first year, the monthly rental is \$400. Therefore, total rent under the rental agreement equals \$43,200 ($\400×108 months). The 108 months represents 9 years multiplied by 12 months in a year. As a result, the amount charged to rent expense each month will be \$360 ($\$43,200/120$ months). One hundred and twenty months represents 10 years multiplied by 12 months a year. In the first year, the journal entry each month would be to debit rent expense and credit an accrued liability since no cash payment is being made. After

the first year, as payments are made the accrued liability will be reduced by the excess of the monthly payment over the monthly rent expense, amounting to \$40 (\$400-\$360).

EXAMPLE

The lease may provide that the lessee will pay lower rentals in the early years and higher rentals in the later years of a lease. For example, in a six-year rental, the rentals per month are \$250 for years 1 and 2, \$375 for years 3 and 4, and \$500 for years 5 and 6. The total rental over the six-year period equals \$27,000 (\$6,000 + \$9,000 + 12,000), which must be amortized over the rental term on a straight-line basis. Hence, the monthly amortization for years 1 and 2 is \$375 (\$27,000/72 months) even though \$250 is being paid.

As per ASC 840-10-55-39, *Leases: Overall*, a rental based on some factor or event not determinable at the inception of the lease (e.g., future sales volume, units produced, future machine hours, inflation rate, prime interest rate) is referred to as a *contingent rental* which is excluded from minimum lease payments. However, a contingent rental does not apply to a variable that is dependent only on the passage of time. Further, a contingent rental does not include pass-through increases (escalation) in construction cost or the purchase cost of leased property. Tax indemnification payments do not qualify as contingent rentals. A contingent rental payment is charged to rent expense as incurred.

Lease incentives include giving a bonus payment to the lessee for signing the rental contract, reimbursing the lessee for certain costs (e.g., moving costs), and paying a third party an amount on behalf of the lessee (e.g., loan payment to the lessee's bank, payment for a leasehold improvement, assumption of a lessee's obligation under a preexisting lease). Lease incentive payments should be amortized by the lessee against rental expense over the rental time period. When a lease incentive is received, the lessee debits cash and credits a deferred rental incentive account. This latter account is amortized and reduces rent expense over the rental period using the straight-line method. (The lessor recognizes in a similar manner lease incentives given to the lessee by reducing rental income on a straight-line basis over the term of the new rental agreement.)

With regard to the costs or losses incurred by the lessee related to a lease incentive, the lessee will account for such costs or losses as usual. For example, moving costs will be expensed, and losses will be recognized on abandoned leasehold improvements. If the lessor incurs a loss because it provides the lessee with an incentive, the lessor will account for such loss as part of the new rental transaction.

EXAMPLE

A lessee receives a lease incentive of \$25,000 to sign a 10-year lease requiring annual rentals of \$75,000. The lessee's entry to record the incentive is to debit cash and credit deferred rental incentive for \$25,000. The deferred rental incentive account will be amortized over the lease term using the straight-line method. The amortization each year will be \$2,500 (\$25,000/10

years). The journal entries each year to record the rental payment and the amortization of the incentive follow:

Rent expense	75,000	
Cash		75,000
Deferred rental incentive	2,500	
Rent expense		2,500

The net rental cost each year is \$72,500 (\$75,000 - \$2,500).

A lease may stipulate escalated amounts that must be provided for in rent expense to the lessee. The escalated amounts are to be accounted for under the straight-line method over the rental period. If the contract gives the lessee control over additional property, the escalated rent applicable to the original leased property is charged to rent expense on a pro rata basis to the additional leased property in the years the lessee has control over the additional property. The lessor records the escalated amounts on the initial leased property as additional rental income. The rental expense of the lessee or rental income of the lessor should be on a pro rata basis dependent on the relative fair market value of the additional leased property as stipulated in the rental contract for the period the lessee controls such additional property.

An operating lease may contain a penalty clause. The lessee's payment of a penalty should be expensed as incurred. A penalty may be in the form of a cash payment, performance of services, liability incurrence, or significant extension of the lease term. A penalty should be so significant that the lessee will want to abide by contractual terms or reasonably ensure the lessee's renewal of the lease.

Any moving costs incurred by the lessee to move from one location to another are usually expensed as incurred.

The lessee can determine the periodic rental payments to be made under a lease by dividing the value of the leased property by the present value factor associated with the future rental payments.

Upon adoption of ASC 842, if a lease was classified as an operating lease under ASC 840 and will continue to be classified as an operating lease under the new lease standard, the lessee should recognize a right-of-use asset and lease liability.

EXAMPLE

Parker Corporation enters into a 10-year lease for a \$100,000 machine. It is to make equal annual payments at year-end. The interest rate is 6%.

The periodic payment equals $\$100,000/7.3601 = \$13,587$

Note: The present value of an *ordinary annuity* factor for $n = 10$, $i = 6\%$, is 7.3601 (from Table 1 in the Appendix). Assuming the same information except that the annual payments are to be

made at the *beginning* of each year, the periodic payment would equal $\$100,000/7.8017 = \$12,818$. The present value of an *annuity due* factor for $n = 10, i = 6\%$, is 7.8017 from Table 2 in the Appendix.

The interest rate associated with a lease agreement may also be computed. The value of the leased property is divided by the annual payment to obtain the factor, which is then used to find the interest rate using a present value of ordinary annuity table.

EXAMPLE

Coleman Company leased \$315,476 of property and is to make equal annual payments at year-end of \$40,000 for 11 years. The interest rate in the lease agreement is 7%. The factor equals $\$315,476/\$40,000 = 7.8869$.

Going to the present value of an ordinary annuity table and looking across 11 years to a factor of 7.8869 (from Table 1 in the Appendix) gives a 6% interest rate. Therefore, the interest rate in the lease is 6%.

Capital Lease Method

Upon adoption of ASC 842, leases defined as “Capital” will be replaced with “Finance”.

A lease must be classified as a *capital lease* by a lessee if, at its inception, any one of four criteria is satisfied. Each of these criteria indicates that a substantial transfer of the benefits and risks of ownership has occurred. The following are the four criteria:

1. The lessee is to get property ownership at the end of the lease term. This criterion is still satisfied if ownership is transferred shortly after the end of the lease term.
2. A bargain purchase option exists in which the lessee can either buy the property at a minimal amount or renew the lease at very low rental payments relative to the “going rates.”
3. The lease term is 75% or more of the estimated useful life of the property.
4. The present value of minimum lease payments (MLP) at the start of the lease equals or exceeds 90% of the fair market value of the property. Minimum lease payments do not include executory costs to be paid by the lessor, which are being reimbursed by the lessee. Examples of such costs are property taxes, insurance, and maintenance. Executory costs also include lessee payments to an unrelated third party to guarantee the salvage value. When the lessor pays executory costs, any lessor's profit on such costs is construed the same as the executory costs.

Under ASC 840, property taxes and insurance are considered executory costs rather than minimum lease payments. Under 842, property taxes and insurances are not considered as components of a contract as they are not for a service provided by the lessor to the lessee and are therefore a part of lease payments.

If the lease term starts within the last 25% of the total life of the property (including earlier years of use), criteria 3 and 4 do not apply because the property has already been used for most of its life. If criterion 1 or 2 is satisfied, the property is depreciated over its life. On the other hand, if criterion 3 or 4 is met, the lease term is the depreciation period.

ASC 840 required classification to be determined at lease inception. ASC 842 only requires the determination of whether an arrangement contains a lease at lease inception. Classification and initial measurement of right-of-use assets and lease liabilities are determined at the lease commencement date.

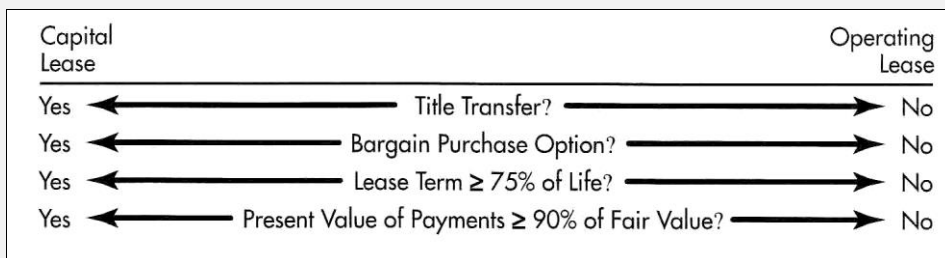
The lease classification criteria and their applicability to lessees and lessors are summarized in Exhibits 2 and 3. These criteria are now found in ASC 840.

IFRS Treatment

A lease is classified as a finance lease if it transfers substantially all the risks and rewards of ownership to the lessee. Whether the lease is finance or operating lease depends on the substance of the transaction. Thus, the criteria established by U.S. GAAP are simply among the examples of circumstances listed by IFRS that (individually or combined) ordinarily result in capitalization.

Exhibit 2: Lease Classification Criteria

Group 1

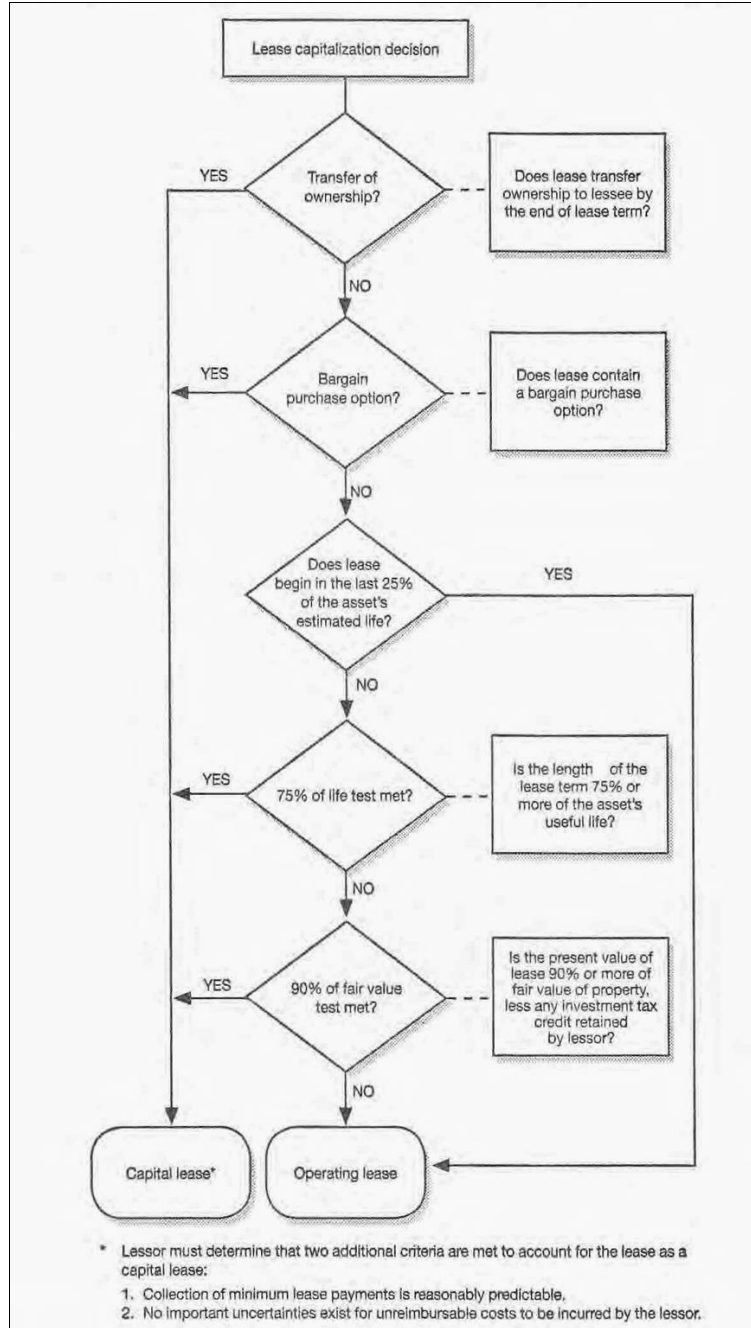


Group 2

- Additional *revenue recognition* criteria applicable to lessors:
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.
- **Lessee:** Capital lease if any one of general criteria is met.
 - **Lessor:** Capital lease if any one of general criteria is met and both revenue recognition criteria are met.

While the ASC 842 lease classification criteria are similar to the criteria in ASC 840, they are not necessarily intended to be applied by referencing the quantitative thresholds in ASC 840 (as listed under Group 1) since the FASB did not include bright lines in ASC 842. However, to ease implementation of ASC 842 guidance, applying the thresholds of ASC 840 is a reasonable approach to assess certain of these criteria. This reasonable approach is being acknowledged in ASC 842-10-55-2.

Exhibit 3: Flowchart for Classification of a Lease



As discussed earlier, the classification criteria for distinguishing between capital leases and operating leases in ASC 840 are substantially similar to the classification criteria for distinguishing between finance leases and operating leases in ASC 842 despite the removal of the bright lines. There is one additional criterion regarding the specialized nature of the underlying asset for lease classification. A specialized nature of the asset is expected to have no alternative use to the lessor at the end of the lease term.

Review Questions - Section 1

1. Current GAAP requires that certain lease agreements be accounted for as purchases. What is the theoretical basis for this treatment?
 - A. A lease of this type conveys substantially all of the benefits and risks incident to the ownership of property.
 - B. A lease of this type is an example of form over substance.
 - C. A lease of this type provides the use of the leased asset to the lessee for a limited period of time.
 - D. A lease of this type must be recorded in accordance with the concept of cause and effect.

2. Leases should be classified by the lessee as either operating leases or capital leases. Which of the following statements best characterizes operating leases under existing ASC 840, *Leases* (FAS-13)?
 - A. The benefits and risks of ownership are transferred from the lessor to the lessee.
 - B. The lessee records an asset and a liability for the present value of the lease payments.
 - C. Operating leases transfer ownership to the lessee, contain a bargain purchase option, are for more than 75% of the leased property's useful life, or have lease payments with a present value in excess of 90% of the value of the leased property.
 - D. The lessor records lease revenue, asset depreciation, maintenance, etc., and the lessee records lease payments as rental expense.

3. What are rental payments based on future sales volume, future prime interest rates, or future machine hours examples of?
 - A. Accelerated rentals
 - B. Avoidable obligations
 - C. Deferred commitments
 - D. Contingent rentals

Capital Leases - Continued

The lease period cannot go past the date of exercisability of a bargain purchase option because it is presumed that the option will be exercised and the lease will terminate on that date.

The inception date of a lease is the date of agreement or commitment (if before) of the major provisions that are fixed in nature, with no major provisions yet to be settled.

The term of a lease may represent either a stated noncancellable period, a period covered by a bargain renewal option, the time period including a renewal term because of significant penalties that, in effect, ensure renewal, the time period including extensions or renewals at the lessor's option, and the time period including renewal options because of the lessee's guarantee of the lessor's debt that is related to the leased property.

If a lease has a noncancellable period followed by cancelable renewal periods (e.g., yearly, semiannually), only the noncancellable period should be taken into account when making a determination as to the classification of the lease.

In a capital lease, there is a transfer of substantial benefits and there are risks of property ownership to the lessee. A capital lease is treated for accounting purposes as if the lessee borrowed funds to buy the property.

In a capital lease, the asset and liability are presented at the inception date at the present (discounted) value of minimum lease payments plus the present (discounted) value of any bargain purchase option. It is anticipated that the lessee will take advantage of the nominal acquisition price. However, the asset cannot be recorded at more than its fair market value because that would violate conservatism. In other words, *the asset would be recorded at the lower of the present value computation or the fair market value of the property*. The Lease Liability account should be disclosed as current portions in current liabilities and the remainder in noncurrent liabilities.

In determining present value, the lessee uses as its discount rate the *lower* of the lessee's incremental borrowing rate if it was to buy the property outright at the inception of the lease or the lessor's desired (implicit) rate of return on the lease, assuming that the implicit rate is known to the lessee. Note: *Incremental borrowing rate* is the rate that, at the inception of the lease, the lessee would have incurred to borrow the funds necessary to buy the leased asset on a secured loan with repayment terms similar to the payment schedule called for in the lease. **Note:** A lessee should compute the present value of the minimum lease payments using its incremental borrowing rate unless

1. The lessee knows the lessor's implicit rate.
2. The implicit rate is less than the lessee's incremental borrowing rate.

If both conditions are met, the lessee must use the implicit rate.

According to FASB Technical Bulletin No. 79-12, *Interest Rate Used in Calculating the Present Value of Minimum Lease Payments* (Glossary-Incremental Borrowing Rate), the lessee may use its secured borrowing interest rate as its incremental borrowing rate as long as such rate is logical in the circumstances.

The lessee's minimum lease payments (MLP) comprise the payments that the lessee is obligated to make that typically include:

- The lessee's penalty payment arising from not renewing or extending the lease upon expiration.
- A bargain purchase option.
- Minimum lease payments over the rental period plus the lessee's guaranteed salvage value. The guarantee is the stated amount that the lessee agrees to pay the lessor for any deficiency below the stipulated amount in the lessor's realization of the salvage value. **Capital Leases, do not allow any upward annual adjustments of guaranteed salvage values in lease agreements.** Besides executory costs, minimum lease payments exclude the lessee's guarantee of the lessor's debt and any contingent rentals.

The executory costs paid by the lessee are expensed as incurred. Therefore, unless paid directly with cash, executory costs will be accrued.

If during the lease term the recorded value of a leased asset exceeds its market value, it should be written down recognizing a loss.

Each minimum lease payment is debited to the liability account for the principal portion and is debited to interest expense for the interest portion. Interest expense is computed under the interest method (sometimes termed the effective interest method), which results in a constant periodic interest rate. Interest expense equals the interest rate multiplied by the carrying (book) value of the liability at the beginning of the period. Under the effective-interest method, interest is recognized to account for a change in value due to the passage of time. **Note:** Whether the lessor treats the capital lease as a direct-financing or sales-type lease, it will recognize interest revenue. The amount declines over the lease term because the effective-interest method is used. As the carrying amount decreases, the interest component (applicable interest rate x carrying amount) of the periodic lease payment also decreases.

The lessee will record depreciation expense on capitalized leased property. In computing depreciation of a leased asset, **the lessee should subtract a guaranteed salvage value and depreciate over the term of the lease.**

If a lessee purchases a leased asset during the lease term that was originally capitalized, the transaction is deemed an extension rather than a termination of a capital lease. The difference between the purchase price and the book value of the lease obligation is treated as an adjustment of the carrying value of the asset. No loss recognition is required on an extension of a capital lease.

In general, under the capital lease method, the lessee's journal entries are as follows:

AT INCEPTION OF LEASE:

Asset (present value of future payments)

Liability

AT THE END OF EACH YEAR, ASSUMING EACH PAYMENT IS MADE ON DECEMBER 31:

Interest expense (interest)

Liability (principal)

Cash (interest and principal)

Depreciation

Accumulated depreciation

Under the capital lease method, the lessee reports in its balance sheet the leased asset and the associated liability. In the income statement, the lessee presents interest expense and depreciation expense.

Upon adoption of ASC 842, if a lease was classified under the guidance in ASC 840 and will be classified as a finance lease under the new lease standard, the lessee should reclassify the existing capital lease asset as a right-of-use asset and the existing obligation as a lease liability for each period the lease was outstanding beginning with the earliest period presented.

Unlike ASC 840, the lessee will recognize all leases, including operating leases, on-balance sheet via a right-of-use asset and lease liability as required by ASC 842, unless the lease is a short-term lease. This may require substantial effort to identify all of the entity's leases and accumulate the lease data necessary to apply the new guidance.

EXAMPLE

On January 1, 20X2, the lessee engages in a capital lease for property. The minimum lease payment is \$30,000 per year for six years payable at *year-end*. The interest rate is 5%. The present value of an *ordinary annuity* factor for $n = 6$, $i = 5\%$ is 5.0757 (from Table 1 in the Appendix). The journal entries for the first two years follow:

1/1/20X2		
Asset	152,271	
Liability		152,271
\$30,000 × 5.0757 = \$152,271		
12/31/20X2		
Interest expense	7,614	
Liability	22,386	
Cash		30,000
5% × \$152,271 = \$7,614		
Depreciation expense	25,379	
Accumulated depreciation		25,379

$$\frac{\$152,271}{6 \text{ years}} = \$25,379$$

The liability as of December 31, 20X2 is:

Liability			
12/31/20X2	22,386		1/1/20X2
			152,271
			12/31/20X2 Balance
			129,885
12/31/20X3			
Interest expense			6,494
Liability			23,506
Cash			30,000
5% × \$129,885 = \$6,494			
Depreciation expense			25,379
Accumulated depreciation			25,379

EXAMPLE

Levsee Corporation entered into a 10-year capital lease on a building on December 31, 20X2. Lease payments of \$62,000, which include real estate taxes of \$2,000, are due annually, beginning December 31, 20X3 and every December 31 thereafter for the lease term. Levsee does not know the interest implicit in the lease, but its (Levsee's) incremental borrowing rate is 10%. The rounded present value of an *ordinary annuity* for 10 years at 10% is 6.1446. What amount should Levsee report as capitalized lease liability at December 31, 20X2?

The problem indicates that this lease is a capital lease. In addition, because payments are due at the *end* of the period (year), it is an *ordinary annuity*. The initial lease liability of the lessee must be calculated using the present value of the minimum lease payments discounted at the incremental borrowing rate because the implicit rate in the lease is not known. In general, we choose the lessee's incremental borrowing rate. However, the implicit rate in the lease is substituted if it is known and it is lower than the incremental rate.

Capitalized lease liability = minimum lease payments

$$\begin{aligned}
 &\times \text{present value of an } \textit{ordinary annuity} \text{ of } \$1 \text{ for ten years at } 10\% \text{ (Table 1)} \\
 &= (\$62,000 - \$2,000) \times 6.1446 \\
 &= \$60,000 \times 6.1446 \\
 &= \$368,676
 \end{aligned}$$

Levsee Corporation, the lessee, should report the capitalized lease liability as \$368,676.

EXAMPLE

Norm Company leased a machine for 10 years, its useful life, and agreed to pay \$25,000 at the start of the lease term on December 31, 20X1. As part of the agreement, it was also required to continue such payments each December 31 for the next nine years. The present value on December 31, 20X1, of the 10 lease payments over the lease term, using the implicit rate of interest known to Norm Company of 8%, is \$181,173. The present value of the lease payments using Norm's incremental borrowing rate of 10% is \$169,000. Norm Company made a timely second lease payment. What amount should Norm report as its capital lease liability in its December 31, 20X2 balance sheet?

In this problem, it is stated that the lease is a capital lease. In addition, because all lease payments are being made at the *beginning* of the period by the lessee, the lease represents an *annuity due*. Also, because the implicit rate in the lease is known and it is lower than Norm's incremental rate (10%), the discount rate that should be used is the 8% rate. Therefore, Norm should originally record the capitalized lease (long-term asset and liability) at \$181,173. This amount was derived in the following way:

Present value of minimum lease payments = \$25,000 × present value of an *annuity due* of \$1 for 10 years at 8% = \$25,000 × 7.2469 (from Table 2 in the Appendix) = \$181,173

Present value of minimum lease payments at 12/31/20X1		\$181,173
Less: payment at 12/31/20X1		<u>25,000</u>
Liability balance, 1/1/20X1-12/31/20X2		\$156,173
Less: payment at 12/31/20X2	\$25,000	
Less: portion of payment applicable to interest during 20X2, \$156,173 × 8%	<u>12,494</u>	<u>12,506</u>
Capital lease at December 31, 20X2		<u>\$143,667</u>

There are a number of considerations regarding salvage value. A contractual clause mandating the lessee to pay for a deficiency in salvage value applicable to unusual wear and tear, damage, or very significant usage is not deemed a lease guarantee in computing the discounted value of the minimum lease payments. This kind of guarantee is indeterminable at the lease inception date. As a result, it should be treated as a contingent rental. If a lessee receives a salvage value guarantee from an unrelated third party to benefit the lessor, the guarantee should not be used to reduce the minimum lease payments unless the lessor releases the lessee from the obligation to make up all or part of the salvage value deficiency. Any payments by a lessee to a third party to secure a guarantee are treated as executory costs. As such, they are not included in computing the minimum lease payments. According to ASC 360-10-25-2, *Property, Plant, and Equipment: Overall*, the purchase by a third party from a lessor of the unconditional right to own property at the end of the lease term should be accounted for as a purchase of an asset at the time the right is acquired.

ASC 840-10-15-16, *Leases: Overall*, requires Capital Lease treatment for arrangements containing an embedded lease, thereby conveying the right to control use of the property. The right is conveyed if the purchaser (lessee) obtains physical or operational control of the underlying property or takes substantially all of its output.

The capital lease is presented in the lessee's balance sheet under noncurrent assets as follows:

Asset under lease
Less: Accumulated depreciation
Book value

In the lessee's income statement, the capital lease shows interest expense and depreciation expense.

In the beginning years, expenses reported under a capital lease (interest expense and depreciation expense) exceed those under an operating lease (rent expense).

Under some equipment leases, a lessee is responsible for repair and maintenance of the leased asset for the lease term. In addition, certain lease arrangements require the lessee to make deposits to the lessor to financially protect the lessor if the lessee does not properly maintain the leased asset.

This applies to the lessee's accounting for maintenance deposits paid by a lessee under a lease that are refunded only if the lessee conducts specified maintenance activities.

Maintenance deposits are accounted for as a deposit asset.

When an amount on deposit is less than probable of being returned, it is recognized as additional expense. When the underlying maintenance is performed the maintenance costs shall be expensed or capitalized as per the lessee's maintenance accounting policy.

The lessee should make the following footnote disclosures:

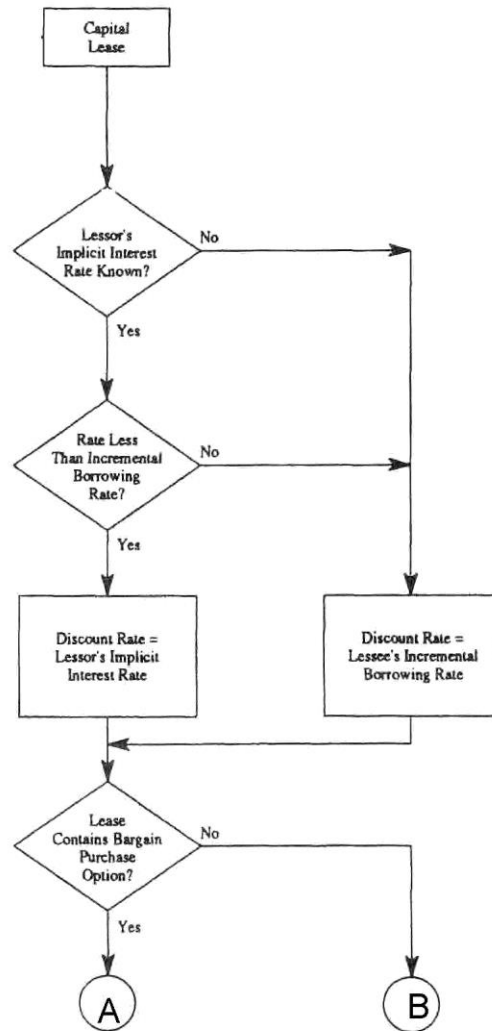
- Assets under lease by category.
- Sublease rentals.
- Contingent rentals (rentals depending on something other than time such as sales). (Contingent rentals may increase or reduce rental payments.)
- Future minimum lease payments in the aggregate and for each of the next five years.
- Description of the rental arrangement, such as expiration date of lease, purchase options, escalation clauses, renewal term, and leasing restrictions (e.g., additional leasing activity, additional debt, dividend ceilings).
- Nature and degree of leasing activity with related parties.

In contrast to ASC 840, ASC 842 includes extensive and detailed disclosure requirements intended to enable users of financial statements to understand the amount, timing, and judgements related to a reporting entity's accounting for leases and the related cash flows. The leasing standard requires disclosure of both

qualitative and quantitative information about leases. Therefore, entities should evaluate whether they have appropriate systems, processes, and internal controls to capture completely and accurately the lease data necessary to provide those expanded disclosures.

Exhibit 4 addresses the major accounting issues on the capital lease.

Exhibit 4: Accounting problems – Capital Lease



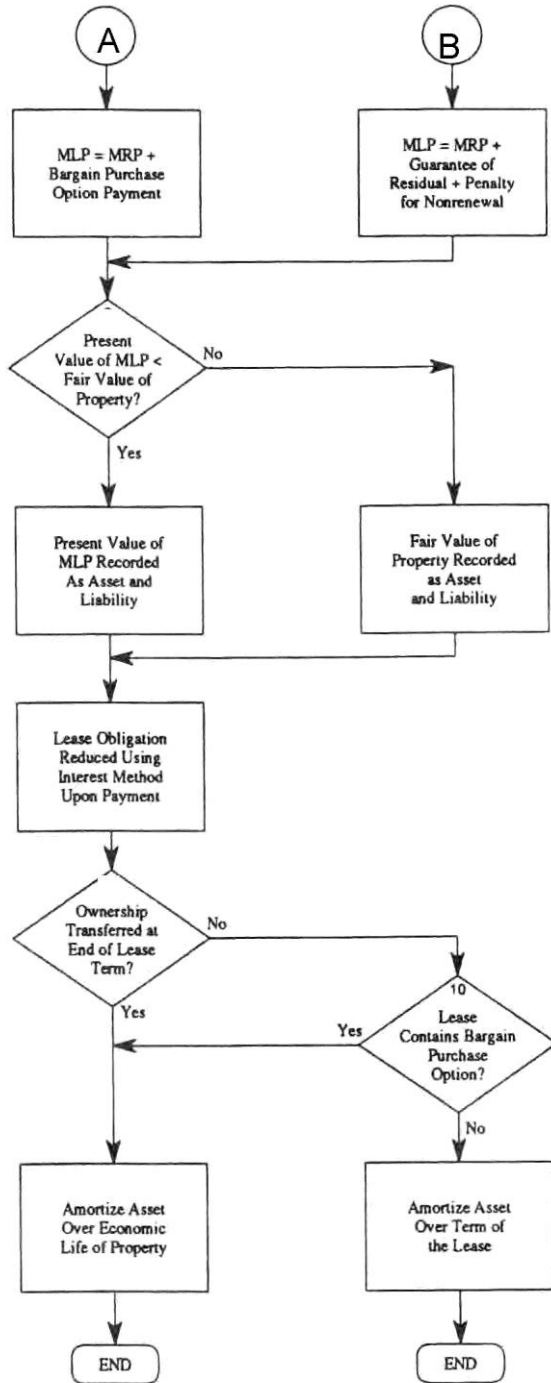


Exhibit 5 presents financial statement excerpts for the 2011 annual report of United States Steel. These excerpts represent the statement and note disclosures typical of a lessee having both capital leases and operating leases.

Exhibit 5: United States Steel 2011 Annual Report

23. Leases

Future minimum commitments for capital leases (including sale-leasebacks accounted for as financings) and for operating leases having initial non-cancelable lease terms in excess of one year are as follows:

(In millions)	Capital Leases	Operating Leases
2012	\$ 22	\$45
2013		31
2014		25
2015		21
2016		19
Later years		18
Sublease rentals		
Total minimum lease payments	22	\$159
Less imputed interest costs	1	
Present value of net minimum lease payments included in long-term debt (see Note 16)	\$ 21	

Operating lease rental expense:

(In millions)	2011	2010	2009
Minimum rentals	\$ 95	93	\$74
Contingent rentals	11	10	9
Sublease rentals		(5)	(5)
Net rental expense	\$106	98	\$78

U.S. Steel leases a wide variety of facilities and equipment under operating leases, including land and building space, office equipment, production equipment and transportation equipment. Most long-term leases include renewal options and, in certain leases, purchase options. See the discussion of residual value guarantees under "other contingencies" in Note 24. Contingent rental payments are determined based on operating lease agreements that include floating rental charges that are directly associated to variable operating components.

Review Questions - Section 2

4. On January 1, 20X3, Cutlip Co. signed a 7-year lease for equipment having a 10-year economic life. The present value of the monthly lease payments equals 80% of the equipment's fair value. The lease agreement provides for neither a transfer of title to Cutlip nor a bargain purchase option. In its 20X3 income statement, which of the following should Cutlip report?

- A. Rent expense equal to the 20X3 lease payments
- B. Rent expense equal to the 20X3 lease payments minus interest
- C. Lease amortization equal to one-tenth of the equipment's fair value
- D. Lease amortization equal to one-seventh of 80% of the equipment's fair value

5. Crane Mfg. leases a machine from Frank Leasing. Ownership of the machine returns to Frank after the 15-year lease expires. The machine is expected to have an economic life of 17 years. At this time, Frank is unable to predict the collectibility of the lease payments to be received from Crane. The present value of the minimum lease payments exceeds 90% of the fair value of the machine. What is the appropriate classification of this lease for Crane under existing ASC 840, Leases (FAS-13)?

- A. Operating
- B. Leveraged
- C. Capital
- D. Installment

6. On January 1, Year 4, Harrow Co. as lessee signed a 5-year noncancelable equipment lease with annual payments of \$100,000 beginning December 31, Year 4. Harrow treated this transaction as a capital lease. The five lease payments have a present value of \$379,000 at January 1, Year 4, based on interest of 10%. What amount should Harrow report as interest expense for the year ended December 31, Year 4?

- A. \$37,900
- B. \$27,900
- C. \$24,200
- D. \$0

7. Under existing ASC 840, *Leases* (FAS-13), in order for a lease to qualify as a capital lease, which one of the following conditions must be satisfied?

- A. The future value of the minimum lease payments must be equal to or exceed 10 percent or more of the fair value of the asset.
- B. The lease term must be no more than 50 percent of the remaining useful life of the leased asset.
- C. There must be a bargain purchase at the end of the lease.
- D. There must not be a transfer of ownership.

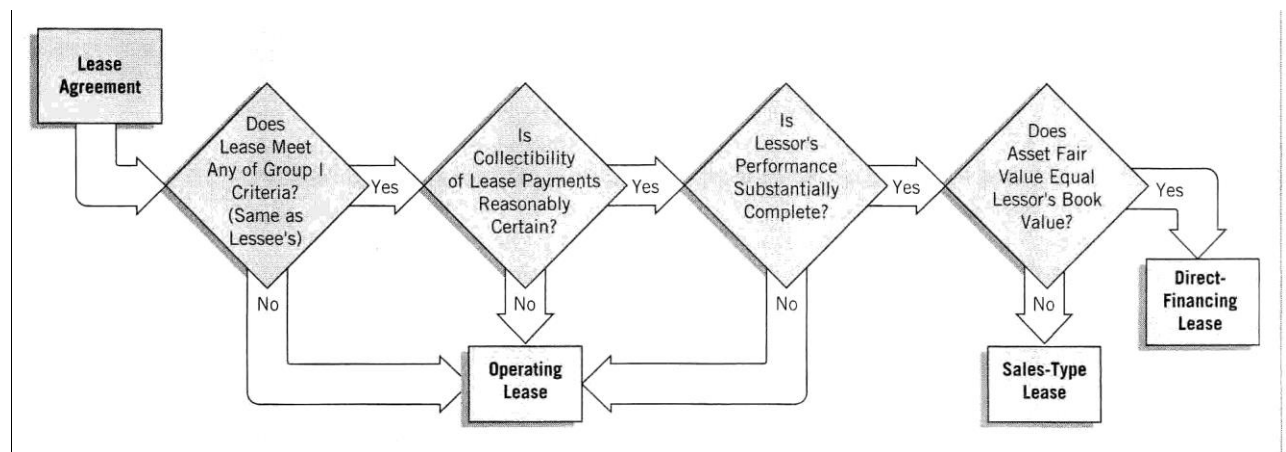
8. Under existing ASC 840, *Leases* (FAS-13), which of the following is NOT one of the criteria for a capital lease?

- A. At the inception of the lease, the present value of the minimum lease payments, with certain adjustments, is 75% or more of the fair value of the leased property.
- B. The lease contains a bargain purchase option.
- C. The lease is substantially (75% or more) equal to the estimated useful life of the leased property.
- D. By the end of the lease term, ownership of the lease property is transferred to the lessee.

Lessor

Lessors classify and account for all leases that do not qualify as direct-financing or sales-type leases as operating leases. Exhibit 6 shows the circumstances under which a lessor classifies a lease as operating, direct-financing, or sales-type. As a consequence of the additional Group II criteria for lessors, a lessor may classify a lease as an operating lease but the lessee may classify the same lease as a capital lease. In such an event, both the lessor and lessee will carry the asset on their books, and both will depreciate the capitalized asset.

Exhibit 6: Lessor's Criteria for Lease Classification



There are three possible methods a lessor may use to account for leases as follows:

1. Operating method.
2. Direct financing method.
3. Sales-type method.

Operating Method

The operating method is a regular rental by the lessor, such as Hertz's leasing of automobiles to companies. With the operating method, the lessor recognizes rental income less applicable expenses (e.g., repairs, depreciation, insurance, taxes). Rental income is recognized as earned under the straight-line method over the lease period except if another method is more appropriate. Contingent rentals are accrued as earned. Therefore, the lessor's income statement under the operating method will show rental revenue less

expenses. The balance sheet presents the asset under lease less accumulated depreciation to derive book value.

Initial direct costs are deferred and amortized proportionately over the lease term based on the rental revenue recognized. However, if initial direct costs are insignificant in amount, they may be immediately charged against earnings. Initial direct costs are those related to negotiating and closing a lease (such as preparing and processing). Reference should be made to the FASB Implementation Guide (*Questions and Answers*) to ASC 310-20-05-2, *Receivables: Nonrefundable Fees and Other Costs*.

If the lessor makes incentive payments to the lessee to motivate the lessee to sign the contract, such payments should be amortized against rental revenue over the lease term. The payment is charged to a deferred lease incentive account (an asset) and credited to cash. The amortization of the deferred lease incentive account should be based on the straight-line method.

If the lessor assumes a lessee's preexisting lease with a third party, the lessor should treat any resulting loss as a rent incentive. The loss should be determined after taking into account the costs incurred less any anticipated benefits arising from a sublease or use of the property.

EXAMPLE

Dan Company leased office space from Ron Company for a five-year term beginning January 2, 20X2. Under the requirements of the operating lease, rent for the first year would be \$9,000 and rent for the following year through year 5 (that is, year 2 through year 5) would be \$12,000 per year. Ron Company offered Dan Company an inducement to enter the lease. The inducement consisted of waiving the rental payments for the first six months of the lease, making this period rent free for Dan. In its December 31, 20X2 income statement, what amount should Ron report as rental income?

The problem specifies that this is an operating lease. Under an operating lease, rental revenue should be recognized on a straight-line basis unless it is shown that some other systematic methodology is deemed to be more representative. Therefore, total rental revenue should be evenly recognized over all the years of the operating lease.

The following computation should be made. The total revenue over the life of the lease is:

1. $1/2 \times 9,000 = \$4,500$ for the first year (because the first six months are rent free) plus
2. $\$12,000 \times 4 \text{ years} = \$48,000$ (years 2 through 5) Therefore, total rental revenue over the life of the lease = $\$4,500 + \$48,000 = \$52,500$.

In its December 31, 20X2 income statement, Ron should record $\$52,500/5 \text{ years} = \$10,500$.

EXAMPLE

On April 1, 20X2, XYZ Company manufactured equipment costing \$600,000, which it leased out under the operating method. The lease is for 10 years, with equal monthly payments of \$6,000 payable at the beginning of each month. The first payment was made on April 1, 20X2. The depreciation period is 12 years, with a salvage value of \$40,000.

The lessor reports the following for 20X2 for the period 4/1 to 12/31:

Rental revenue (\$6,000 × 9 months)	\$54,000
Less: depreciation expense [(\$600,000 - \$40,000)/12 years × 9/12]	35,000
Income before tax	<u>\$19,000</u>

The lessor determines the amount of rental based on its desired rate of return. The return the lessor will seek depends on such factors as the financial standing of the lessee, period of rental, and technological risk. The rental payment is often based on a present value computation.

EXAMPLE

The fair market value of leased equipment is \$300,000 and the discounted (present) value of the residual (salvage) value is \$20,000. There will be five *beginning-of-year* lease payments to yield a 10% return. The annual rental payments are computed as follows:

Fair market value of leased equipment	\$300,000
Less: present value of salvage value	<u>20,000</u>
Recoverable amount	\$280,000

Annual rental equals

Recoverable amount/present value of an *annuity due* of \$1 factor for $n = 5$, $i = 10\%$ (Table 2)

$$\frac{\$280,000}{4.1699} = \$67,148$$

Revenue applicable to maintenance services should be recognized into income as those services are performed using a proportional performance method based on what is most appropriate in the situation.

Upon adoption of ASC 842, if a lease was classified as an operating lease under the guidance in ASC 840 and will be continue to be classified as an operating lease under the new lease standard, the lessor should continue to recognize the carrying amount of the underlying asset and any lease assets or liabilities (for example, prepaid or deferred rent) at the same amounts previously recognized in accordance with ASC 840.

Direct Financing Method

The direct financing method meets one of the four criteria for a capital lease by the lessee plus both of the following two criteria for the lessor:

1. No significant uncertainties are present with respect to future costs to be incurred. However, a performance guarantee might present a significant uncertainty, negating this condition. Unusual and uncustomary warranties and commitments represent important uncertainties that violate this condition. If the leased property has not been built or bought by the lessor at the lease date, this criterion is applied at the construction completion date or the date the property is bought.
2. There is assurance of lease payments being collected. This condition is met even if some uncollectibility is expected as long as payment can be reasonably estimated. However, if credit risks are substantial, this criterion is negated.

Under ASC 842, the classification criteria are similar to that for lessees, with an additional requirement to assess collectability to support classification as a direct financing lease. According to ASC 842, the key distinction is based on control. As a practical matter, this will likely depend on whether the lease payments criterion has been met in part due to a third-party residual value guarantee. When this is the case, presuming payments are collectible, the lease is classified as a direct financing lease.

The lessor is not a manufacturer or dealer in the item. The lessor purchases the property only for the purpose of leasing it. The lease is treated as a financing arrangement. An example is an insurance company renting electronic equipment.

In a direct financing lease, the book value and fair value of the leased property are the same at the inception of the lease. In consequence, no profit or loss arises.

Note: Although in a direct financing arrangement, the fair value of the property is usually the same as its cost, market conditions need to be taken into account, particularly when there is a long time period between the time of lease and the purchase or construction of the property.

The lessor uses as the discount rate in determining the present value of future minimum lease payments its desired rate of return (implicit rate). The implicit rate is the rate that discounts the lease payments and the unguaranteed salvage value to the property's fair value at the time of the lease.

Note: The lessor's minimum lease payments are identical to the lessee's except that the lessor includes a guarantee of the lease payments or salvage value after the lease term by a third party as long as that party is financially healthy to meet its commitments.

Interest revenue is computed under the interest method. Interest revenue equals the interest rate multiplied by the carrying (book) value of the receivable at the beginning of the period. In effect, unearned interest

revenue is amortized over the lease term, resulting in a constant interest rate. Contingent rentals are recognized as earned.

The lessor's minimum lease payments include:

- The minimum lease payments to be paid by the lessee.
- Any guarantee of salvage value of the leased item or of rental payments after the lease term, made by an unrelated, financially sound third party.

If a change in the lease term occurs that would have meant an initially different lease classification, then the lease is deemed to be a new arrangement and should be classified and treated for accounting purposes under the new terms. However, exercising a renewal option is not considered an alteration of the lease. Further, a change in estimate does not mean a new lease.

An escalation clause related to the minimum lease payments during a construction or preacquisition period may be involved. The ensuing increase in minimum lease payments is used to determine the leased item's fair value at the time of the lease. Further, a change in salvage value may also arise because of the escalation provision.

Initial direct costs are paid or accrued by the lessor to negotiate and finalize a lease. Examples are finders' commissions, attorney fees, credit appraisal, negotiating and processing fees, and an allocated portion of salesperson and employee compensation. In a direct financing lease, such costs are included in the gross receivable (investment). Initial direct costs do not include costs for failed lease opportunities, advertising and solicitation, and indirect costs (e.g., administrative, supervisory). The initial direct costs under a direct financing lease are amortized over the lease period using the interest method.

Under ASC 840, initial direct costs can include internal costs as well as external costs such as legal fees, even if incurred before the lease was obtained. ASC 842 narrows the definition of initial direct costs so that they include only incremental costs that an entity would not have incurred had the lease not been executed. Therefore, certain incremental costs previously eligible for capitalization such as employee salaries will be expensed under ASC 842. This could particularly affect lessors that incur significant costs in the lease origination process.

A portion of unearned income equal to the initial direct costs is recorded as income in the same accounting period.

If the leasing contract includes a penalty clause for not renewing and the penalty does not apply because of renewal or time extension, an adjustment must be made to the unearned interest income account for the difference between the present values of the original and revised agreements. The discounted value of future minimum lease payments under the new contract should be determined using the rate in the original lease.

Lease termination is accounted for by the lessor through eliminating the net investment and recording the leased property at the lower of cost or fair value. The net investment is then charged against earnings.

Contingent rentals are immediately recognized in earnings. They are not included in computing minimum lease payments.

Note: Contingent rentals do not include lessee reimbursement to the lessor of any tax savings because of a change in tax legislation.

ASC 310-20-05-2, *Receivables: Nonrefundable Fees and Other Costs*, provides for the accounting treatment of nonrefundable fees and expenses related to lending activities, including buying loans. The lessor's loan origination charges and associated costs are deferred and amortized over the loan period. Yield is adjusted accordingly.

In general, the journal entries under the direct financing method follow:

AT DATE OF LEASE

Gross receivable (total payments equal to principal + interest)
 Asset (principal)
 Unearned interest revenue (total interest)

Note: The difference between the gross receivable (investment) and the carrying value of the leased property (asset) equals unearned interest revenue.

AT EACH DATE OF RECEIPT OF RENTAL PAYMENT

Cash (amount of receipt including principal and interest portion)
 Gross receivable
Unearned interest revenue
 Interest revenue (interest earned for period)

On the balance sheet, the lessor reports as gross receivables (investment) the total minimum lease payments (net of any included executory costs and associated profits to be paid by the lessor) plus the unguaranteed salvage value of the property belonging to the lessor at the end of the lease period. The unearned interest revenue account is deducted from gross receivables (investment) to obtain net receivables (investment). In summary, net receivables (investment) equals the gross receivables plus unamortized initial direct costs less the unearned interest income. The net receivables is classified as current or noncurrent, depending on whether collection will be made within one year from the balance sheet date. The presentation in the balance sheet follows:

Gross lease payments receivable (principal + interest)
Less: unearned interest revenue (interest)
Net lease payments receivable (principal)

In the income statement, the following is presented:

Interest revenue

Less: executory costs
Net Income

Upon adoption of ASC 842, if a lease was classified as direct financing in accordance with ASC 840 and will be classified similarly under the new standard, the lessor should continue to recognize its net investment in the lease at the later of the earliest period presented or lease commencement.

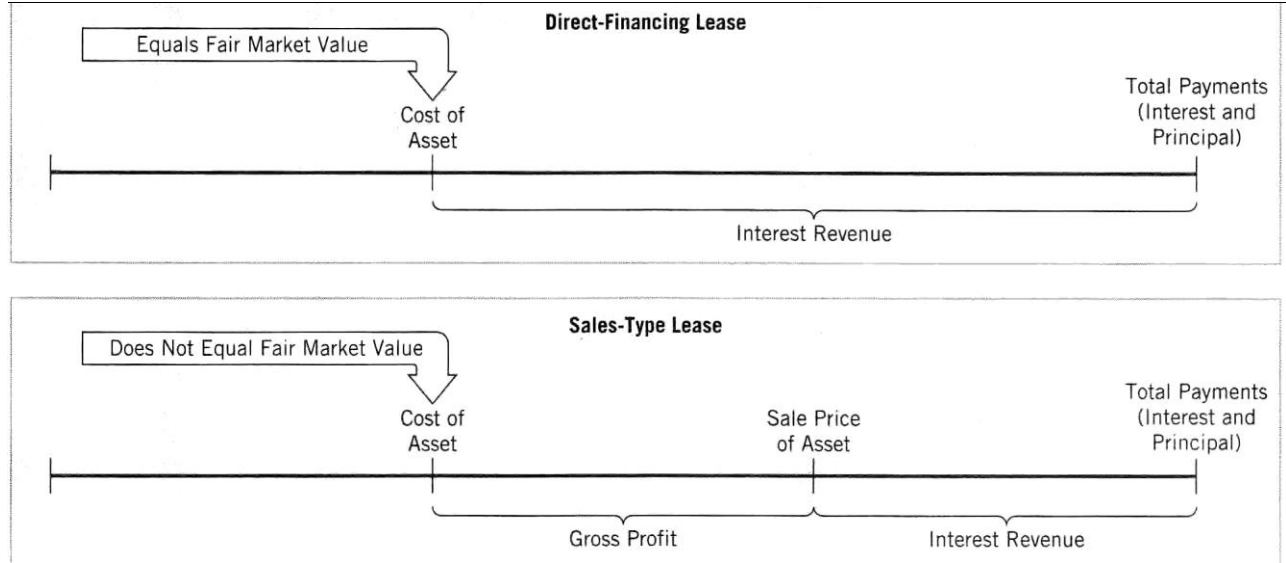
Note: The income statement may also include a loss associated with a permanent decline in the unguaranteed salvage value requiring a writedown of the net receivable (investment) in the lease. However, the unguaranteed salvage value should not be written up because to do so violates conservatism.

Sales-Type Method

A sales-type lease is sometimes entered into by the lessor in order to improve the marketability of a costly asset. A sales-type lease must meet the same criteria as must a direct financing lease. The only difference is that the former involves a lessor who is either the producer or dealer in the leased item. Therefore, a manufacturer or dealer profit arises. In a sales-type arrangement the book value of the leased property differs from its fair value (price the property may be exchanged for between unrelated parties in an arms-length agreement), resulting in a gain or loss to the lessor. Even though no legal sale has occurred, theoretical substance comes before legal form, and a sale is presumed to have occurred. An example of a sales-type lease is a manufacturer of a computer or photocopy system leasing it to a lessee with the option of the lessee purchasing it.

The primary difference between a direct-financing lease and a sales-type lease is the manufacturer's or dealer's gross profit (or loss). In a sales-type lease, the lessor records the sale price of the asset, the cost of goods sold and related inventory reduction, and the lease receivable. The diagram in Exhibit 7 presents the distinctions between direct-financing and sales-type leases.

Exhibit 7: Direct-Financing versus Sales-Type Leases



The differentiation between a sales-type lease and a direct financing lease is only of concern to the lessor. The lessee still uses the capital lease method, irrespective of which of the two methods the lessor uses.

In a sales-type lease, profit on the assumed sale of the property is recorded in the year of the lease and interest income is recorded over the lease term. The interest income calculation is based on the interest method. At inception of the lease, the cost and fair value (usually the normal selling price) of the leased item are different. Therefore, under the sales-type method, there is both a profit and financial income component.

In ASC 840, the difference between a sales-type lease and a direct finance lease is the presence of upfront profit. When present, the arrangement is a sales-type lease. Under ASC 842, the lessee will need to obtain control over the leased asset in order to recognize upfront revenue and profit in a sales-type lease. Control means that the collection of payments due must be probable.

Each year the salvage value of the property should be evaluated. Such appraisal may require loss recognition with a reduction of the net receivable (investment).

Against the sales price is matched the cost of the leased item so as to obtain the assumed profit in the year of lease. Cost of sales equals the cost (or carrying value) of the leased property reduced by the discounted value of any unguaranteed salvage value. In a sales-type lease, *initial direct costs are immediately expensed*.

Note: A lessor must recognize immediately in the current year's income statement a loss on selling peripheral equipment as a marketing strategy.

In general, under the sales-type method, the journal entries are:

AT DATE OF LEASE

Gross receivable (total payments equal to principal + interest)
 Sales (assumed selling price of leased item)
 Unearned interest revenue (total interest)
Cost of sales (cost of assumed item sold)
 Inventory

Note: The gross receivable (investment) in lease equals the total minimum lease payments to be received (net of executory costs and any associated profits to be paid by the lessor) plus the unguaranteed salvage (residual) value accruing to the lessor at the termination date of the lease. However, the estimated unguaranteed residual value may not be more than the amount of residual value estimated at lease inception. If the salvage value was guaranteed, it would be included in the minimum lease payments.

AT EACH DATE OF RENTAL RECEIPT

Cash (amount received equal to principal and interest)
 Gross receivable
Unearned interest revenue
 Interest revenue (interest earned)

Under the sales type method, the balance sheet is identical to that of the direct financing method, namely:

Gross lease payments receivable (principal + interest)
Less: unearned interest revenue (interest)
Net lease payments receivable (principal)

Note: The lease payments receivable to be collected within one year should be classified as a current asset.

Under the sales-type method, the income statement in the first year only will show:

Interest revenue
Gross profit on leased item (sales less cost of sales)
Less: executory costs
 Initial direct costs (e.g., attorney fees, commissions)

In the second year and thereafter, the income statement will show:

Interest revenue
Less: executory costs

The journal entries under the sales-type method are generally the same as those under the direct financing method, with the exception of the initial entry. This is illustrated in the following example.

EXAMPLE

On January 1, 20X3, the lessor leases property to the lessee. The lessee accounts for the lease under the capital lease method. The minimum lease payments are \$30,000 per year for six years payable at *year-end*. The interest rate is 5%. The present value of an *ordinary annuity* factor for $n = 6, i = 5\%$ is 5.0757 (Table 1). The cost of the leased property is \$120,000. (Note that this problem is identical to the one illustrated previously under the capital lease method used by the lessee. The calculations were provided in that example.) The lessor's accounting, assuming a direct financing lease and a sales-type lease, follows:

Direct Financing Lease

1/1/20X3

Gross receivable ($6 \times \$30,000$)	180,000	
Asset ($5.0757 \times \$30,000$)		152,271
Unearned interest revenue		27,729

12/31/20X3

Cash	30,000	
Gross receivable		30,000
Unearned interest revenue	7,614	
Interest revenue ($5\% \times \$152,271$)		7,614

The balance sheet as of December 31, 20X3 presents the following:

Gross Receivable	\$150,000
Less: unearned interest revenue ($\$27,729 - \$7,614$)	20,115
Net receivables	<u>\$129,885</u>

The income statement for 20X3 presents interest revenue of \$7,614.

12/31/20X4

Cash	30,000	
Gross receivable		30,000
Unearned interest revenue	6,494	
Interest revenue ($5\% \times \$129,885^*$)		6,494

* $\$30,000 - \$7,614 = \$22,386$. $\$152,271 - \$22,386 = \$129,885$.

The balance sheet as of December 31, 20X4 shows:

Gross receivable	\$120,000
Less: unearned interest revenue ($\$20,115 - \$6,494$)	13,621
Net Receivable	<u>\$106,379</u>

The income statement for 20X4 presents interest revenue of \$6,494.

Sales-Type Lease

1/1/20X3

Gross receivable	180,000	
Sales		152,271
Unearned interest revenue		27,729
Cost of sales	120,000	
Inventory		120,000

All other entries at year-end 20X3 and 20X4 are the same as that under the direct financing method in this set of facts.

The balance sheets at year-end 20X3 and 20X4 are also the same as that under the direct financing method. However, the income statement in the year of lease (20X3) will show not only the interest revenue of \$7,614 but also the assumed gross profit on the sale of the item in the year of lease. In this example, the gross profit equals \$32,271 (sales of \$152,271 less cost of sales of \$120,000). The income statement after 20X3 will be the same as that under the direct financing method based on the facts in this particular example.

EXAMPLE

On January 1, 20X2, Coleman Company leased equipment to a lessee under a sales-type lease. There will be 11 annual rentals of \$10,000 beginning on January 1, 20X2. Further, the lessee will make an initial payment of \$5,000 on the date of lease. The lessee will buy the property at the termination date of the lease for \$5. The implicit interest rate is 10%. The book value of the leased property on Coleman Company's records is \$45,000.

On January 1, 20X2, the gross receivable in the lease equals \$115,000, calculated as follows:

Total lease payments (\$10,000 × 11 payments)	\$110,000
Down payment	5,000
Gross receivable (investment)	\$115,000

The present (discounted) value of the gross receivable (investment) equals \$76,450, computed as follows:

Present value of future payments (\$10,000 × 6.1446*)	\$61,446
Payment made on 1/1/20X2 (\$10,000 + \$5,000)	15,000
Total	\$76,446

* The present value of an *ordinary annuity* of \$1 factor for $n = 10$, $i = 10\%$ is 6.1446 (Table 1)

The journal entry on January 1, 20X2 follows:

Gross lease receivable	115,000	
Equipment		45,000
Unearned interest income (\$115,000 - \$76,446)		38,554
Gain on sale of asset		31,446

EXAMPLE

On October 1, 20X2, Mavis Company leased machinery to Buyko Company. The lease is treated as a sales-type by the lessor and as a capital lease by the lessee. The lease period is 10 years with equal annual payments of \$400,000 due on October 1 each period. The first payment was made on October 1, 20X2. The machinery cost Mavis \$1,800,000. It has a life of 12 years with a salvage value of \$200,000. The relevant interest rate is 10%.

Buyko, the lessee, will make the following calculations:

$$\text{Present value of lease payments equals } (\$400,000 \times 6.7590^*) = \$2,703,600$$

* The present value of an *annuity* due of \$1 factor for $n = 10$, $i = 10\%$ is 6.7590 (Table 2)

Therefore, the asset will be recorded at \$2,703,600.

Buyko presents the following in its income statement for 20X2:

Depreciation expense:

$$(((\$2,703,600 - \$200,000)/12 \text{ years}) \times 3/12)] \quad \$43,825$$

$$\text{Interest expense } (\$2,303,600^* \times 10\% \times 3/12) \quad \$57,590$$

$$* \text{ Present value of lease payments} \quad \$2,703,600$$

$$\text{Less: initial payment} \quad 400,000$$

$$\text{Balance at beginning of lease} \quad \$2,303,600$$

Mavis, the lessor, presents the following in its income statement for 20X2:

$$\text{Interest revenue} \quad \$57,590$$

Gross profit:

$$\text{Sales} \quad \$2,703,600$$

$$\text{Less: cost} \quad 1,800,000 \quad 903,600$$

EXAMPLE

Carol Company leased a truck to Queens Corporation on January 2, 20X2 for a 7-year period. Equal lease payments of \$500,000 are due at the *beginning* of each year beginning January 2, 20X2. The carrying cost of the machine is \$1,800,000. The lease expires January 2, 20X9. The lease is accounted for as a sales-type lease. The lessor's interest rate is 10%. What amount of profit on the sale should Carol report for the year ended December 31, 20X2?

The problem denotes that the lease is appropriately accounted for by the lessor (Carol) as a sales-type lease. The machine's sales price may be derived by calculating present value of the lease payments discounted at the lessor's interest rate (10%).

Sales price of the machine = \$500,000 × present value of an *annuity due* of \$1

$$\begin{aligned} & \text{for } n = 7, i = 10\% \text{ (from Table 2 in the Appendix).} \\ & = \$500,000 \times 5.3553 \\ & = \$2,677,650 \end{aligned}$$

The profit on the sale is the difference between the sales price of the machine and the lessor's carrying value of the asset sold. That is,

$$\$2,677,650 - \$1,800,000 = \$877,650$$

EXAMPLE

Hank Company, a dealer in equipment and machinery, leased equipment to Oak Inc. on July 1, 20X1. The lease is appropriately accounted for as a sale by Hank and as a purchase by Oak. The lease is for a 10-year period (the useful life of the asset). The first of 10 equal annual payments of \$500,000 was made on July 1, 20X1. Hank had purchased the equipment for \$2,675,000 on January 1, 20X1 and set a list selling price of \$3,375,000 on the equipment. The present value at July 1, 20X1 of the minimum rental payments (MRP) over the lease term discounted at 12% (the appropriate interest rate) was \$3,165,000.

The entries for the lessor using the sales-type method follow:

TO RECORD THE SALE ON JULY 1, 20X1:

Lease payments receivable	5,000,000	
Sales		3,165,000
Unearned interest revenue		1,835,000
Cost of sales	2,675,000	

Equipment		2,675,000
<u>TO RECORD THE PAYMENT ON JULY 1, 20X1:</u>		
Cash	500,000	
Lease payments receivable		500,000
<u>TO RECORD INTEREST REVENUE ON DEC 31, 20X1:</u>		
Unearned interest revenue	159,900	
Interest revenue		159,900**
** Sales price	\$3,165,000	
Payment, 7/1/20X1	500,000	
Outstanding balance, 7/1/20X1	\$2,665,000	
Interest $\$2,665,000 \times 12\% \times 6/12 = \$159,900$		

The entries for the lessee follow:

<u>TO RECORD THE PURCHASE ON JULY 1, 20X1:</u>		
Leased equipment	3,165,000	
Liability		3,165,000
<u>TO RECORD THE PAYMENT ON JULY 1, 20X1:</u>		
Liability	500,000	
Cash		500,000
<u>TO RECORD INTEREST EXPENSE AND DEPRECIATION ON DEC 31, 20X1:</u>		
Interest expense ($\$2,665,000 \times .12 \times 6/12$)	159,900	
Depreciation expense ($\$3,165,000/10 \times 6/12$)	158,250	
Accrued interest payable		159,900
Accumulated depreciation		158,250

Upon adoption of ASC 842, if a lease was classified as sales-type lease in accordance with ASC 840 and will be classified similarly under the new standard, the lessor should continue to recognize its net investment in the lease at the later of the earliest period presented or lease commencement.

Lessors should footnote the following:

- Major types of assets leased.
- Components of the net investment.

- Lease provisions, including interest rate, term, restrictions, renewal options, escalation clauses, and disposition of property when the lease expires.
- Executory costs.
- Initial direct costs.
- Unearned interest revenue.
- Contingent rentals.
- Future minimum lease payments in the aggregate and for each of the next five years.
- Lessee defaults and allowance for uncollectibles.
- Unguaranteed salvage values accruing to the lessor's benefit.
- Nature and amount of third-party financing.
- Leasing activities with related parties.
- Tax treatment of the lease

In contrast to ASC 840, ASC 842 requires extensive and detailed disclosure requirements intended to enable users of financial statements to understand the amount, timing, and judgements related to a reporting entity's accounting for leases and the related cash flows. The leasing standard requires disclosure of both qualitative and quantitative information about leases. Therefore, entities should evaluate whether they have appropriate systems, processes, and internal controls to capture completely and accurately the lease data necessary to provide those expanded disclosures.

Exhibit 8 presents the lease note disclosure from the 2011 annual report of Hewlett-Packard Company. The disclosure highlights requires lessor disclosures.

Exhibit 8:

Hewlett-Packard Company - 2011 Annual Report

Note 11: Financing Receivables and Operating Leases

Financing receivables represent sales-type and direct-financing leases resulting from the placement of HP and third-party products. These receivables typically have terms from two to five years and are usually collateralized by a security interest in the underlying assets. Financing receivables also include billed receivables from operating leases. The components of net financing receivables, which are included in financing receivables and long-term financing receivables and other assets, were as follows for the following fiscal years ended October 31:

	2011	2010
Minimum lease payments receivable	\$ 7,721	\$ 7,094
Unguaranteed residual value	233	212
Unearned income	(647)	(596)
Financing receivables, gross	7,307	6,710
Allowance for doubtful accounts	(130)	(140)

Financing receivables, net		7,177	6,570
Less current portion		(3,162)	(2,986)
Amounts due after one year, net	\$	<u>4,015</u>	\$ <u>3,584</u>

As of October 31, 2011, scheduled maturities of HP's minimum lease payments receivable were as follows for the following fiscal years ended October 31:

	2012	2013	2014	2015	Thereafter	Total
Scheduled maturities of minimum lease payments receivable	\$ 3,518	\$ 2,256	\$ 1,257	\$ 517	\$ 173	\$ 7,721

Equipment leased to customers under operating leases was \$4.0 billion at October 31, 2011 and \$3.5 billion at October 31, 2010 and is included in machinery and equipment. Accumulated depreciation on equipment under lease was \$1.3 billion at October 31, 2011 and \$1.0 billion at October 31, 2010. As of October 31, 2011, minimum future rentals on non-cancelable operating leases related to leased equipment were as follows for the following fiscal years ended October 31:

	2012	2013	2014	2015	Thereafter	Total
Minimum future rentals on non-cancelable operating leases	\$1,273	\$801	\$414	\$152	\$42	\$2,682

Residual Value Considerations

A leased asset's residual (salvage) value is how much it is worth at the end of the lease. In most cases residual value goes to the lessor's benefit. However, it occasionally may accrue to a nonlessor (e.g., lessee, lease broker).

Unguaranteed residual value is defined as the expected residual value of the leased property excluding any part guaranteed by the lessee, by a related party to the lessee, or by a third party. However, if the guarantor is associated with the lessor, the residual value is deemed unguaranteed.

A periodic review (at least yearly) should be made to ascertain whether there has been a permanent decline in the estimated unguaranteed residual values associated with direct financing or sales-type leases. If a permanent decline has occurred, the new estimated life should be used and any ensuing loss recognized in the year the change in estimate was made. However, no adjustment is made for a temporary decline. As noted before, an upward adjustment is prohibited either to unguaranteed or guaranteed residual values.

An increase in the estimated residual value is allowed to take place because of an escalation clause in the lease contract for leased property bought or built by the lessor. For example, when a lease was originally signed, the residual value was estimated at \$50,000, and during the construction period the leased property increased in fair value by \$5,000. The escalation provision allows for an increase in residual value to \$55,000.

ASC 860-10-05-3, *Transfers and Servicing: Overall*, and ASC 360-10-25-2 through 25-4; 360-10-30-3 and 30-4; 360-10-25-35-13 and 35-14, discuss the transfers of residual value. When there has been a purchase of interests in residual values of leased property by companies whose major business activity is not leasing or financing, such rights should be accounted for by the buyer at the fair value of the assets received. The purchaser may be buying either the right to own the leased property or the right to receive the sales proceeds of the leased property at the end of the lease period. If there has been an increase in value of the financial interest in the residual value after purchase but before the end of the lease period, it may be recorded as guaranteed residual values because they are financial assets. However, no accreditation in residual value is allowed for unguaranteed residual values. A permanent loss in residual value should be recognized immediately.

Transfer of Lease Receivable

The lessor may transfer a lease receivable. The gain on sale equals the cash received less both the portion of the gross investment sold applicable to the minimum lease payments and the unearned income related to the minimum lease payments.

EXAMPLE

A lessor has on its books a lease receivable with an unguaranteed residual value. The lessor sells an 80% interest in the minimum lease payments for \$100,000. The lessor retains a 20% interest in the minimum lease payments and a 100% interest in the unguaranteed residual value. Other data follow:

Minimum lease payments		\$110,000
Unearned income in minimum lease payments		75,000
Gross investment in minimum lease payments		<u>\$185,000</u>
Unguaranteed residual value	\$7,000	
Unguaranteed income in residual value	<u>13,000</u>	
Gross investment in residual value		<u>20,000</u>
Gross investment in lease receivable		\$205,000

The journal entry for the sale of the lease receivable is:

Cash	100,000	
Unearned income ($\$75,000 \times 80\%$)	60,000	
Lease receivable ($\$185,000 \times 80\%$)		148,000
Gain on sale		<u>12,000</u>

Review Questions - Section 3

9. Which of the following is true?

- A. Direct financing is not a form of capital leases.
- B. Direct financing leases do not create a manufacturer's or dealer's profit or loss.
- C. Sales-type leases are not a form of capital leases.
- D. The occurrence of a manufacturer's or dealer's profit or loss is generally not present in a sales-type lease.

10. Which of the following statements is false regarding review of residual values?

- A. Upward annual adjustments are allowed.
- B. The unguaranteed residual values of both sales-type and direct financing leases should be reviewed at least annually.
- C. If a decline in estimated value is not temporary, the accounting for the transaction should be revised using the new estimate.
- D. If a decline is not temporary, the resulting loss should be recognized in the period that the change is made.

11. On January 1, Year 4, Day Corp. entered into a 10-year lease agreement with Ward, Inc. for industrial equipment. Annual lease payments of \$10,000 are payable at the end of each year. Day knows that the lessor expects a 10% return on the lease. Day has a 12% incremental borrowing rate. The equipment is expected to have an estimated useful life of 10 years. In addition, a third party has guaranteed to pay Ward a salvage value of \$5,000 at the end of the lease. (Note: The present value of an *ordinary annuity* of \$1 at 12% for 10 years is 5.6502, and at 10% for 10 years is 6.1446. The present value of \$1 at 12% for 10 years is .3220, and at 10% for 10 years is .3855.) In Day's October 31, Year 4, balance sheet, what was the principal amount of the lease obligation?

- A. \$63,374
- B. \$61,446
- C. \$58,112
- D. \$56,502

12. Howe Co. leased equipment to Kew Corp. on January 2, Year 4, for an 8-year period expiring December 31, Year 11. Equal payments under the lease are \$600,000 and are due on January 2 of each year. The first payment was made on January 2, Year 4. The list selling price of the equipment is \$3,520,000, and its carrying

cost on Howe's books is \$2.8 million. The lease is appropriately accounted for as a sales-type lease. The present value of the lease payments at an imputed interest rate of 12% (Howe's incremental borrowing rate) is \$3.3 million. What amount of profit on the sale should Howe report for the year ended December 31, Year 4?

- A. \$720,000
- B. \$500,000
- C. \$90,000
- D. \$0

Sale-Leaseback

A sale-leaseback takes place when the lessor sells the asset (e.g., equipment) and then leases all or some of it back. However, there is no physical transfer of the property. The seller is referred to as the seller-lessee, and the buyer is termed the buyer-lessor. Possible reasons for a sale-leaseback are to raise needed funds or to achieve a tax benefit. Sale-leaseback will be replaced as “sale and leaseback” under ASC 842.

A gain on the sale in a sale-leaseback transaction normally should be deferred and amortized in proportion to the amortization of the leased asset if the leaseback is classified as a capital lease. The amortization is in proportion to the gross rental payments expensed over the lease term if the leaseback is classified as an operating lease. The gain on the sale is normally not recognized at the time of the sale-leaseback.

The deferred gain is classified as a deferred credit if an operating lease or an asset valuation offset if a capital lease. However, if the fair value of the equipment at the date of the sale-leaseback is less than its book value, a loss is immediately recognized for that difference. Executory costs are excluded in computing the profit to be deferred on a sale-leaseback.

If the seller leases back just a minor part (discounted value of leaseback rentals is 10% or less of the fair market value of the property sold) of the remaining use of the property sold, the gain or loss is immediately recognized. However, part of the gain or loss must be deferred and amortized so as to adjust the rental to a reasonable figure if the rental amount differs from prevailing market conditions.

If the seller leases back more than a minor, but less than significantly all of the, use of the sold property, there is immediate recognition of part of the gain if it is more than the discounted value of the minimum lease payments, providing the leaseback is an operating lease or it is more than the amount capitalized when the leaseback is considered a capital lease. The excess amount in both cases is recognized immediately, with the balance being deferred and amortized.

The journal entries associated with a sale-leaseback arrangement are:

AT THE TIME OF SALE:

Cash (amount received)
 Asset (cost)
 Deferred gross profit (deferred profit)

AT YEAR-END, WHEN A RENTAL PAYMENT IS MADE ASSUMING AN OPERATING LEASE:

Rent expense (rental payment)
 Cash
Deferred gross profit (amortized profit for the period)
 Rent expense

EXAMPLE

On January 1, 20X3, an asset costing \$200,000 was sold for \$280,000. The property was then leased back under an operating lease. The deferred profit on the sale-leaseback is \$80,000 (\$280,000 - \$200,000). Rental expense in 20X3 was \$15,000 and total rentals are estimated at \$120,000. The journal entries are:

1/1/20X3

Cash	280,000	
Asset		200,000
Deferred gross profit		80,000

12/31/20X3

Rent expense	15,000	
Cash		15,000
Deferred gross profit	10,000	
Rent expense		10,000
$\$80,000 \times \$15,000/\$120,000 = \$10,000$		

Rental expense is adjusted as follows:

Rental expense	\$15,000
Less: amortization of deferred gross profit	10,000
Net rental expense	\$ 5,000

EXAMPLE

X Company sold property and then leased it back as a capital lease for 20 years. The selling price was \$1,000,000, the fair value of the property was \$1,150,000, and the book value was \$1,250,000. The transaction results in a loss of \$250,000 (selling price of \$1,000,000 less book value of \$1,250,000). The loss recognized immediately is \$100,000 (book value of \$1,250,000 less fair market value of \$1,150,000). The remaining loss of \$150,000 (\$250,000 less \$100,000) is deferred and amortized over the useful life of the property. The journal entry for the sale-leaseback transaction follows:

Cash	1,000,000	
Deferred loss	150,000	
Recognized loss (sale-leaseback)	100,000	
Property		1,250,000

EXAMPLE

Travis Company sells a building and then leases part of it for 10 years. The selling price was \$500,000 and the book value was \$400,000 (cost of \$450,000 less accumulated depreciation of \$50,000). The discounted value of the minimum leaseback rental is \$20,000.

The leaseback represents a minor part of the building because \$20,000 is less than \$50,000 ($\$500,000 \times 10\%$). As such, the sale is a separate transaction. The journal entry is:

Cash	500,000	
Accumulated depreciation	50,000	
Building		450,000
Gain		100,000

The buyer-lessor must classify the lease as either an operating or direct financing one. It cannot treat it as a sales-type lease.

A partial sale transaction may preclude the use of saleleaseback accounting if there is a continuing involvement of the seller-lessee in ownership of the property. Sale-leaseback accounting is also not appropriate when the seller-lessee requires a buyer-lessor to refinance the debt associated with the property and pass through any interest savings to the seller-lessee.

If a sale-leaseback arrangement does not qualify for sale-leaseback accounting and reporting, it should be handled under either the deposit method or the financing method, enumerated as follows:

- The deposit method involves crediting the down payment and collections on the note (principal and interest) to a deposit liability account. As rental payments are made, the liability is reduced.
- The financing method credits a liability for the down payment and collections on the note (principal and interest). Lease payments are allocated to interest expense and reducing the financing obligation. Interest expense is computed under the interest method, in which the effective interest rate is multiplied by the carrying value of the liability at the beginning of the period.

Even though the deposit method or financing method has been used, the seller-lessee should convert to sale-leaseback accounting when the conditions for sale-leaseback treatment are satisfied.

According to ASC 840-40-55-37 through 55-41, a sale-leaseback transaction is still recognized if a preexisting lease is modified in accordance with the terms of sale. An exercise of a renewal option or sublease clause in the preexisting lease does not affect the accounting for the transaction.

ASC 840-40-25-15, *Leases: Operating Leases*, deals with an unsecured guarantee by a parent of its subsidiary's lease payments in a sale-leaseback transaction. Sale-leaseback accounting may still be used even if there is an unsecured guarantee of one member of the consolidated group for the lease payments of another member of that group.

Footnote disclosure for a sale-leaseback includes the provisions of the agreement, such as the terms regarding future commitments, duties, and responsibilities of the parties.

ASC 840 sale-leaseback guidance, including guidance applicable to real estate, will be replaced with a new model applicable to both lessees and lessors under ASC 842. A sale-leaseback transaction will qualify as a sale only if 1) it meets the sale guidance in the new revenue recognition standard 2) the leaseback is not a finance lease or a sale-type lease, and 3) a repurchase option, if any, is priced at the asset's fair value at the time of exercise and the asset is not specialized. If the transaction fails sale treatment, the buyer and seller will reflect it as a financing arrangement rather than the acquisition of an asset and a lease. Existing failed sales will be re-evaluated upon adoption of ASC 842 and may qualify for sale-leaseback accounting.

Subleases and Similar Arrangements

A sublease occurs when the original lessee re-leases the leased property to a third party, called the *sublessee*. The original lessee is termed the *sublessor*. In most cases, the sublease contract does not impact the original lease agreement. The original lessee, who is now the sublessor, still has primary liability.

There are three kinds of subleases:

1. The new lease replaces and cancels the old one.
2. The new lease is substituted under the initial agreement. The original lessee may still be secondarily liable.
3. The original lessee rents the property to a third party. The lease contract of the original parties continues.

The original lessor continues its current accounting method if the initial lessee subleases or sells to a third party. If the original lease is substituted by a new arrangement with a new lessee, the lessor terminates the initial lease and accounts for the new lease in a separate transaction.

In accounting by the original lessee, if the original lessee is relieved of primary obligation by a transaction other than a sublease, the original lease should be terminated. The accounting procedure is as follows:

- If the original lease was a capital lease, remove the asset and liability and recognize a gain or loss for the difference, including any consideration paid or received. In addition, if a secondary liability exists, a loss contingency should be accrued.
- If the original lease was an operating lease and the initial lessee is secondarily responsible, a loss contingency should be accrued.

If the original lessee is not relieved of the primary obligation under a sublease, the initial lessee (now sublessor) accounts in the following way:

- If the original lease satisfied criterion 1 or 2 of a capital lease (see section titled “Capital Lease Method”), the new lease should be classified as per the lessor's normal classification criteria. If the sublease is a sales type or direct financing one, the unamortized asset balance becomes the cost of the leased property. Otherwise, it is an operating lease. The original lease obligation should continue to be accounted for as previously.
- If the original lease satisfied criterion 3 or 4 of a capital lease, the new lease should be classified using lessor criteria 1 and 2 (see section titled “Direct Financing Method”). It should be classified as a direct financing lease. The unamortized balance of the asset becomes the cost of the leased equipment. Otherwise, it is an operating lease. The original lease obligation should continue to be accounted for as previously.

If the original lease was an operating lease, the old and new leases should be accounted for as operating leases.

Losses on subleases should be immediately recognized. The amount of loss is the excess of costs to be incurred over the expected revenue to be received over the term of the sublease.

If a lessee is secondarily liable for a lease, disclosure should be made of that contingency and any associated risks.

Modifications and Terminations

If the terms of a lease are changed and the revisions thereto would have caused a different classification if they existed when the lease was originally signed, the revised lease should be considered as a new agreement over its remaining life and classified accordingly. Accounts may need adjustment to what they would have been, assuming the revised terms had been in effect at the inception date of the lease.

With regard to the lessee, the revised terms are assumed to apply to what was accounted for as a capital lease. If the revised lease would have been an operating one rather than a capital lease, the asset and liability should be eliminated, with a gain or loss recorded for the difference. The modified lease would be accounted for as an operating one in future years. On the other hand, if the modification changes the remaining minimum lease payments but remains intact, the capital lease classification, the asset, and the lease liability should be revised to the discounted value of the remaining minimum lease payments. No gain or loss is recognized. If the modified provisions in an operating lease would have resulted in it being a capital lease at inception, the revised lease is considered a new contract. An asset and liability is recorded for the discounted value of the future minimum lease payments.

With regard to the lessor, if there is a revision to the terms of a direct financing lease or sales-type lease that would have resulted in it being considered an operating lease at inception, the following accounting adjustments are necessary: (1) writing off the net investment in the lease; (2) showing the leased asset at the lower of initial cost, current fair value, or current carrying value; (3) recognizing a loss for the difference

between the net investment in the lease and the amount the asset is recorded at on the lessor's books (a gain will not occur since the asset cannot be presented at more than the net investment); and (4) accounting for the lease in later years as an operating one. If the modified terms to a direct financing lease or sales-type lease change only the remaining minimum lease payments and not the classification, the following adjustments are needed: (1) adjusting the gross investment in the lease to conform to the new minimum lease payments receivable and the revised salvage value (however, the residual value estimate cannot be more than the amount originally estimated), and (2) decreasing or increasing unearned income for the net adjustment. If modifications to an operating lease would have resulted in it being considered as a sales-type or direct financing one at inception, the revised lease should be considered as a new agreement.

ASC 840-20-25-4, *Leases: Operating Leases*, states that if a modification is made to future rental payments, the increase should be amortized over the remaining period of the revised lease. However, if the modification is considered a termination penalty, it should be recognized in the year of revision. The termination penalty is the amount by which the revised rentals exceed the original rentals that would have been made over the shortened lease period.

According to ASC 840-10-25-5, *Leases: Overall*, when a capital lease is terminated because the lessee buys the property from the lessor, the lessee eliminates the lease liability. The lessee records the difference between the acquisition cost and the obligation as an adjustment to the carrying value of the asset. The asset is then presented in the balance sheet and accounted for in a way similar to that of other owned assets. If a capital lease is terminated for a reason other than the lessee buying the property, the lessee must eliminate from its books the leased asset and related liability recognizing the difference as a gain or loss. The lessee should accrue a loss contingency if it is secondarily liable on the lease.

There is no accounting adjustment required by the lessee when an operating lease is terminated. However, the lessee should accrue a loss contingency if it is secondarily liable on the lease.

The lessor recognizes the effect on income of a termination of a lease in the period it occurs. The lessor eliminates the carrying value of the net investment in lease. The leased property is recorded as an asset based on the lower of its initial cost, current fair value, or current carrying amount. The difference between the net investment and the amount the asset is recorded on the lessor's records represents a loss in the year of termination.

ASC 840-30-40-1, *Leases: Capital Leases*, covers the situation when a lessee contracts for a new lease for replacement property before the end of a preexisting lease. If the preexisting lease is ended, costs related to that preexisting lease must be expensed if the leased property no longer benefits the lessee. Examples of such costs are moving costs, write-off of abandoned leasehold improvements, and termination charges. If the lease is not terminated and is not used by the lessee, the amount expensed, including any remaining costs and future rental payments, is reduced by any sublease income. If the preexisting lease is assumed by the new lessor, lessor incentives to the lessee are treated as incentives for accounting purposes. The incentives are amortized on a straight-line basis to rent expense or rent revenue over the life of the new lease. Moving costs are typically expensed.

Lease modification under ASC 840 can be very complex and difficult to differentiate from a termination of a lease contract. A renewal or extension is considered a new lease. All other changes are subject to a two-step evaluation of the lease. Per ASC 842, a lease modification is a change to the contractual terms and conditions of a lease that was not part of the original lease and which results in a change in scope or consideration. A modification that grants the lessee an additional right of use priced at market is a separate lease that is then classified at the lease modification date.

Renewals and Extensions

A renewal or extension to an existing lease contract impacts the accounting by both the lessor and lessee. A renewal or extension of a sales-type or direct financing lease shall be treated as a sales-type lease only if it satisfies the criteria for a sales-type lease and takes place at or near the end of the lease term (within the last few months). If a renewal or extension does not take place at or near the end of the lease period, such lease must be treated as a direct financing lease. When a renewal or extension is classified as a direct financing lease, the balances in the lease receivable and the estimated residual value accounts must be modified in accordance with the revised agreement. However, the estimated residual value may not be increased. The net adjustment increases or reduces an unearned income account. If the renewal or extension is treated as an operating lease, the balance in the new investment under the current direct financing or sales-type lease must be eliminated. The leased asset will be recorded at the lower of its original cost, current fair value, or current carrying amount. Any difference between the net investment and the amount of the leased asset is charged against income. The renewal or extension is then treated as an operating lease.

An occurrence that extends the lease term except to cancel a residual guarantee or a penalty for failing to renew the lease results in a new lease agreement that may need to be classified by different criteria.

If a penalty or guarantee no longer applies owing to a renewal or extension of the lease period, or if a new lease arises involving the rental of the same property by the lessee, the asset and liability from a capital lease must be adjusted for the difference in amount between the discounted values of future minimum lease payments between the original and revised lease contracts. The present value determinations for the original and revised lease agreements must be based on the original interest rate.

If a renewal or extension is classified as an operating lease, the current capital lease continues to be treated by the lessee as a capital lease until the expiration of its lease period. At the end of the lease term, the balances in the asset and liability accounts are eliminated, with any resulting gain or loss recognized for the difference. The renewal or extension is considered an operating lease.

If leased property accounted for as a capital lease is bought by the lessee, it is treated as a renewal or extension of a capital lease. The difference between the book value of the property and the acquisition price adjusts the property's carrying value.

A renewal or extension of an operating lease is accounted for as a new agreement.

Leveraged Leases

A leveraged lease occurs when the lessor (equity participant) finances a minimal amount of the purchase but has total equity ownership. A third party (debt participant) finances the remainder. The property is leased to a lessee. Rental receivable is reduced by the difference between the amounts received from the lessee and payments made to the third-party creditor. The lessor maximizes its leveraged return by recognizing lease revenue and an income tax shelter (e.g., interest deduction, accelerated depreciation). A leveraged lease is structured so as to generate tax savings to the lessor without it being entirely at risk for lack of performance on the part of the lessee.

A leveraged lease must satisfy *all* of the following conditions:

- There are three participants: lessee, lessor, and long-term creditor. The creditor provides nonrecourse financing, with the lessor having substantial leverage (usually 60% or more of the lessor's cost of the property).
- The lessor's net receivable (investment) decreases in the early years of lease and then increases in later years.
- The lease meets the test for being a direct financing lease. A sales-type lease is not a leveraged lease. Note: Used assets of the lessor rarely qualify as direct financing leases and thus cannot be treated as leveraged leases.

ASC 840-10-25-43c, *Leases: Overall*, stipulates that the book value of an asset must be the same as its fair market value for the lease to qualify as a leveraged lease.

A lessee classifies and accounts for a leveraged lease in the same way as a nonleveraged lease. The lessee follows its normal leasing policy.

The lessor presents the investment in the leveraged lease net of the nonrecourse obligation. The net of the following balances constitutes the initial and continuing investment:

- Rentals receivable net of principal and interest associated with nonrecourse debt.
- Estimated salvage value.
- Unearned income.

The initial entry to record the leveraged lease follows:

Lease receivable
Salvage value of the asset
 Cash invested in asset
 Unearned income

The lessor's net investment in the leveraged lease for deriving net income is the investment in the leveraged lease less deferred income taxes.

Net income is computed as follows using the net investment in the leveraged lease:

Compute annual cash flow equal to the following:

Gross lease rental (add salvage value)
Less: interest payments on debt
Less: income tax charges
Add: income tax credits
Less: principal reduction
Annual cash flow

The return rate on the net investment in the leveraged lease should be determined. It is the rate that when applied to the net investment will distribute cash flow.

The net investment will be:

- Positive in the early years but decline because of accelerated depreciation and interest expense.
- Negative in the middle years.
- Again positive in the later years owing to a declining tax shelter.

In the event that at any time expected net cash receipts over the remaining lease period are less than the lessor's investment in the lease, a loss must be recorded immediately.

ASC 840-30-55-14, *Leases: Capital Leases*, provides that recourse debt arising from a delayed equity investment may be treated as a leveraged lease if all other criteria except for the nonrecourse condition are met. The lessor's liability should be based on the discounted value of future payments.

ASC 840-30-35-41 requires the effect on a leveraged lease of a change in tax rate to be recognized as a gain or loss in the year in which the tax rate changes.

ASC 840-30-599-2 also discusses the effect of a change in income tax law or rate on the accounting for leveraged leases.

A company must recompute its leveraged lease if there is an actual or projected change in the timing of cash flows related to income taxes generated by the lease. In the event that the projected timing of income tax cash flows is revised, the return rate and the allocation of income to positive investment years should be recomputed from the beginning of the lease.

The lessor must review the expected timing of income tax cash flows each year. There should be an update to any assumptions used to compute total periodic income. However, any interest or penalties assessed by a taxing authority should not be included in any recalculation of cash flows from a leveraged lease. Further,

any actual cash flows of a leveraged lease should not include advance payments and deposits made to a taxing body. Instead those amounts should be included in the anticipated settlement amount. Accounts that comprise the net investment balance should be adjusted to conform to recomputed balances with the change in the net investment recorded as a gain or loss in the year that the assumption was modified.

If there is an investment tax credit retained by the lessor, it should be deferred and amortized to income over the lease term.

Disclosure for leveraged leases should be made of:

- Assumptions related to estimating the net income associated with the lease.
- Components of the net investment.
- Deferred taxes.

Leveraged leases are those leases that meet the criteria in ASC 840-10-25-43(c). The guidance on leveraged leases has not been carried forward into ASC 842 as leveraged leasing is eliminated under the leasing standard. Instead, ASC 842-10-65-1(z) grandfathers the accounting for leveraged leases entered into before the effective date of ASC 842. Accordingly, a lessor should continue to apply the guidance in ASC 840 to leveraged leases that commenced prior to the effective date of ASC 842. Because ASC 842 does not allow a new lease to be accounted for as leveraged lease, any new leases should be accounted for as either operating, sale-type, or direct financing, as required under ASC 842. Note that leveraged lease classification applies only to the lessor. The grandfathering of leveraged leases does not affect lessees.

According to **Accounting Standards Update (ASU) No. 2009-07** (September 2009) (ASC 845, *Nonmonetary Transactions*), *Accounting for Various Topics—Technical Corrections to SEC Paragraphs* (SEC Update), the amount of noninterest-bearing deposits and interest-bearing deposits should be disclosed separately. All components of a leveraged lease should be recalculated from lease inception based on revised after-tax cash flows arising from change in tax law, including revised tax rates. The difference between the amounts originally recorded and the recalculated amounts must be included in income of the year the tax law was enacted. (ASC 840-30-35 and 30-45)

Related Parties

A related party is one whom has substantial influence in financial or operating terms over another in a leasing arrangement, such as an owner, parent company, investor, creditor, or officer or director of the company. Substantial influence may be exercised through extending credit, owning debt or equity securities, or the guaranteeing indebtedness. In a related-party lease where significant influence is involved, the lease should be accounted for according to its economic substance, not its legal form. If substantial influence does not exist, the related-party lease should be classified and accounted for as if the participants were unrelated.

A parent is required to consolidate a subsidiary whose major business activity is leasing property from a parent or other affiliates.

According to ASC 958-840-55, *Not-for-Profit Entities: Leases*, a related-party lease arrangement involving substantial influence may require consolidation accounting for the lessor and lessee if all of the following criteria exist:

- Most of the lessor's activities relate to leasing assets to one particular lessee.
- The lessee incurs the risks and rewards associated with the rented property along with any related debt. This may arise if the lease contract gives the lessee control and management over the leased property, the lessee guarantees the lessor's debt or residual value of the leased item, and the lessee has the right to buy the property at a lower than fair value price.
- The lessor's owners do not have a significant residual equity capital investment that is at risk.

If the consolidation criteria are not satisfied, combined financial statements rather than consolidated financial statements may be appropriate.

ASC 850-10-05-3, *Related Party Disclosures: Overall*, requires disclosure of the nature and extent of leasing transactions between related parties.

Third Parties

If a direct financing or sales-type lease is sold or assigned by a lessor to a third party, the original accounting policies are still retained; they should not be reversed. When the sale or assignment occurs, the profit or loss is recorded by the lessor except if the seller retains substantial risks. If the transfer qualifies as a sale, the transferor (seller) must record the proceeds received at fair value, credit the asset sold, and book the ensuing gain or loss. In the case where the seller is assuming significant risk of ownership (e.g., seller guarantees the buyer's investment, seller promises to repurchase the leased property if the lessee defaults), the transaction is accounted for as a secured borrowing rather than a sale.

If the lessor has an operating lease, the lessor (seller) records rental receipts as income even if the lessee pays the rentals to a third party. The rental payment includes imputed interest (charged to interest expense) and a reduction of the obligation. A sale or assignment of rentals received from lessees under an operating lease is treated for accounting purposes as a borrowing if the seller retains substantial risks of ownership in the leased property. The seller records the sales proceeds as an obligation on its books. The lessor (seller) records rent receipts as revenue and continues to keep the leased asset on its balance sheet. However, the asset is depreciated over a period not exceeding the period of the obligation.

If the lessee defaults or the rental terminates, the seller may buy the property or lease, substitute an existing lease, get a substitute lessee, or enter into a remarketing arrangement.

The accounting treatment just specified also applies even if the leased property is sold to a third party that intends to lease the property to another party.

Wrap Leases

ASC 840, *Leases*, states that a wrap lease arrangement should be accounted for as a sale-leaseback transaction when: (1) the company buys an asset, (2) it leases the property to a lessee, (3) the company (now the lessor) receives nonrecourse financing in which the asset and rentals derived therefrom are used as collateral, (4) the lessor sells the asset and related nonrecourse debt to a third party (e.g., financial institution), and (5) the company leases the asset back while still being the principal (substantive) lessor under the initial lease (continuing to service the leased property). (Nonrecourse financing is a borrowing transaction in which the lender does not have general recourse against the borrower directly but instead has recourse against the collateralized property.) The company cannot offset the subleased asset and the related nonrecourse debt unless a legal right of offset exists.

In a wrap lease transaction, the lessor may or may not be responsible for leaseback payments in the case of lessee default or receive a fee to service the lease. The leaseback payments do not necessarily have to coincide with the collections under the note. Further, the leaseback provisions do not necessarily have to agree with the provisions of the initial lease.

In a sale-leaseback transaction, the sale portion is recognized by the seller-lessee as a sale. The seller-lessee eliminates from its balance sheet the asset sold and its associated liabilities. The lease portion of the sale-leaseback transaction is either treated as an operating or capital lease depending on the criteria met.

ASC 840-40-55-17, *Leases: Sale-Leaseback Transactions*, states that an original lessor should defer recognizing the revenue associated with future remarketing rights until such services are conducted. Further, the original lessor should present any retained interest in the salvage value of a leased asset in its balance sheet as an asset.

Wrap lease transaction is being removed from ASC 842.

Business Combinations

Assets acquired and liabilities assumed in a business combination are required to be measured at fair value (see ASC 805-10, *Business Combinations: Overall*) regardless of whether those assets and liabilities are applicable to leases.

ASC 805-10-35-5, *Business Combinations: Overall*, states that a business combination by itself has no bearing on the classification of a lease.

The terms of a business combination may affect the classification, accounting, and reporting of a lease. A lease should be treated and accounted for as a new one if its provisions are modified and such revisions would have resulted in another classification at the inception date. In a transaction accounted for under the acquisition method, the acquirer may assign a new value to a capitalized lease because of the allocation of acquisition price to the net assets of the acquired company. However, as long as the lease terms are not revised, the lease should be accounted for using the initial terms and classification.

In the case of a leveraged lease when the purchase method is used in a business combination, the following guidelines are followed:

- The classification continues as a leveraged lease.
- The net investment in the leveraged lease should be recorded at fair market value, including tax effects. Fair market value is usually based on the discounted value of future cash flows.
- The three elements of the net investment are net rentals receivable (investment), expected salvage value, and unearned interest income.
- The usual accounting for a leveraged lease should be practiced.

Disposal of a Business Segment

ASC 840-10-40, *Leases: Overall*, states that expected costs and expenses directly tied to a disposal of a business segment decision should include future rental payments less amounts to be received from subleases on those properties. The difference between the unamortized cost of the leased property and the discounted value of the minimum lease payments to be received from the sublease is recognized as a gain or loss. This gain or loss is includable in the overall gain or loss on disposing of the business segment.

Real Estate Leases

A lessee will classify the lease as a capital lease if any of the following factors are present at the inception of the lease:

- *Ownership*. At the end of the lease term, the ownership of the property is transferred to the lessee.
- *Bargain*. The lease contains a bargain purchase option.
- *Life*. The lease term is for 75% or more of the estimated economic life of the property. This does not apply, however, to leases that begin in the last 25% of the original estimated economic life of the property.
- *Value*. The present value of minimum lease payments is equal to 90% or more of the fair value of the property. To determine the present value of minimum lease payments, one needs to consider the minimum lease payment, executory costs, and discount rate. Executory costs, such as insurance,

maintenance, and taxes, should be excluded if they are to be paid by the lessor. This does not apply, however, to leases that begin in the last 25% of the original estimated economic life of the property.

Real estate leases are of four types:

- Land only.
- Land and building.
- Land, building, and equipment.
- Portion of a building.

ASC 842 eliminates the real estate-specific provisions included in ASC 840.

Land Only

Lessee

Leases involving land only are classified by the lessee as a capital lease only if either the ownership or bargain criterion is met. The lease should be accounted for as an operating lease if both of these conditions are not met.

Lessor

The lessor classifies a lease involving land only as a sales-type lease if the transaction yields manufacturer's or dealer's profit or loss and the ownership criterion is met. Such a transaction is accounted for according to the provisions of ASC 976-10-15, *Real Estate—Retail Land: Overall*.

If the transaction does not yield manufacturer's or dealer's profit and the ownership criterion is met, the lease is classified as a direct financing lease or leveraged lease, as appropriate, as long as both the collectibility and no material uncertainties criteria are met.

If a lease satisfies both the collectibility and no material uncertainties criteria, and it contains a bargain purchase option, it should be accounted for as a direct financing, leveraged, or operating lease, as applicable. All other leases should be accounted for as operating leases.

Land and Building

There are three main categories of leases involving land and building:

1. Leases that satisfy the ownership or bargain criterion.
2. Leases in which the land is valued at less than 25%.
3. Leases in which the land is valued at 25% or more.

Lessee

If the lease agreement transfers the title (ownership) or the agreement contains a bargain purchase option, the lessee should separate the land and building components and capitalize each. The present value of the minimum lease payments (less executory costs to be paid by the lessor and any profits) should be allocated to the land and building components according to their fair values. The building component should be depreciated.

When a lease does not satisfy the ownership or bargain criterion, the fair value of the land must be determined.

- If the fair value of the land component is less than 25% of the total land and building lease, the land is considered immaterial. Thus, the lease should be accounted for as a single unit. The lease should be capitalized and depreciated over the economic life if either the life or value criterion is met.
- The land is considered material if the fair value of the land component is 25% or more of the total fair value of the lease, and each component should be accounted for separately. The minimum lease payment attributable to the land should be determined using the lessee's incremental borrowing rate and the fair value of the land. The remaining balance of the lease payment is attributable to the building component. The land component should always be accounted for as an operating lease. The building component of the lease should be capitalized and depreciated over the economic life if either the life or value criterion is met.

Under ASC 840, land is separately classified when the fair value of the land is 25% or more of the combined fair value of the lease. Per ASU 842, a lessee may choose not to separate non-lease component from their related lease components. If this election is made, all cash flows associated with the non-lease component would be allocated to the related lease component

Lessor

If the lease satisfies the ownership criterion and results in dealer's profit or loss, the lessor is required to classify the lease as a sales-type lease. Such a lease should be accounted for as a single unit in a manner similar to a seller of the property.

If the lease satisfies the bargain criterion and results in dealer's/manufacture's profit or loss, it should be classified as a sales-type lease. If the lease satisfies the bargain criterion but does *not* result in dealer's/manufacture's profit or loss, it should be classified as direct financing or a leveraged lease, as appropriate. In both cases, if the lease does not satisfy either the ownership or the bargain criterion, the lessor should follow the same rules as the lessee in accounting for leases:

- If the fair value of the land is less than 25% of the total fair value of the leased property at the inception of the lease, and either the life or value criterion is met, and the lease gives rise to a dealer's or manufacturer's profit/loss, then the lease should be classified as a sales-type lease. Failing both criteria, it should be classified as an operating lease.

- If the fair value of the land is less than 25% of the total fair value of the leased property at the inception of the lease, and either the life or value criterion is met, but the lease does not give rise to a dealer's or manufacturer's profit/loss, then the lease should be classified as a direct financing or a leveraged lease, as appropriate, provided that the collection and no material uncertainties criteria are satisfied. Otherwise, the lease should be classified as an operating lease.
- If the fair value of the land is 25% or more of the total fair value of the leased property at the inception of the lease, and either the life or value criterion is met, and the lease gives rise to a dealer's or manufacturer's profit/loss, then the building portion of the lease should be classified as a sales-type lease. Otherwise, the building element should be classified as an operating lease. The land portion of the lease should always be accounted for as an operating lease.
- If the fair value of the land is 25% or more of the total fair value of the leased property at the inception of the lease, and either the life or value criterion is met, but the lease does not give rise to a dealer's or manufacturer's profit/loss, then the building portion of the lease should be classified as a direct financing or a leveraged lease, as appropriate, provided that the collection and no material uncertainties criteria are satisfied. Otherwise, the building portion of the lease should be classified as an operating lease. The land portion of the lease should always be accounted for as an operating lease.

Land, Building, and Equipment

When a lease involves land, building, and equipment, the equipment component, **if material, should be estimated and accounted for separately.** The capitalization requirements for equipment should be considered separately from the land and building components for both the lessee and lessor.

Portion of a Building

Frequently, a lease involves only a portion of a building. The classification of such leases depends on the ability of lessee and lessor to determine objectively the cost or fair value of the leased property.

Lessee

If the lessee can objectively determine the fair value of the property, the lease should be classified according to the criteria discussed for land and building leases in the previous sections. If the lessee cannot objectively determine the fair value of the property, only the life criterion should be used to determine the lease classification. If the lease is for a period greater than 75% of the economic life of the building, the lease is classified as a capital lease. In all other instances, it should be treated as an operating lease.

Lessor

If the lessor can objectively determine *both* the cost and fair value of the property, the lease should be classified according to the criteria discussed for land and building leases in the previous sections. If the lessor cannot objectively determine both the cost and fair value of the property, the lessor should classify the lease as an operating lease.

Sale-Leaseback Involving Real Estate

In a sale-leaseback, the seller-lessee sells property and then leases back from the purchaser-lessor all or part of the same property. Real estate is classified as a sales-type lease only if the title to the leased property is transferred to the lessee at or shortly after the end of the lease term.

Three conditions must exist for the seller-lessee to use sale-leaseback accounting. First, the leaseback should be a “normal leaseback.” A lease-back is considered normal when the seller-lessee actively uses the leased-back property in a trade or business (up to 10% of the property may be subleased). Second, the buyer-lessor's initial and continuing investment in the property should be adequate. ASC 976-10-15, *Real Estate—Retail Land: Overall*, is used to determine the adequacy of the initial investment. Third, risk and reward are transferred to the buyer, the sale is complete, and the seller-lessee has no continuing involvement. The following factors indicate continuing involvement by the seller-lessee and preclude the use of sale-leaseback accounting:

- A specific residual value is guaranteed by the seller-lessee, whereby the seller-lessee will pay the buyer-lessor for a decline in fair value below estimated residual value, as long as the decline is not associated with excess wear and tear.
- Nonrecourse financing is provided by the seller-lessee to the buyer-lessor for any portion of the sales proceeds.
- Recourse financing is provided by the seller-lessee to the buyer-lessor where the only recourse is the leased property.
- Collateral, other than the property involved in the sale-leaseback transaction, is provided by the seller-lessee on behalf of the buyer-lessor.
- The seller-lessee is not relieved of the obligation under any existing debt related to the property, including secondary liability.
- The buyer-lessor's debt is guaranteed by the seller-lessee or a party related to the seller-lessee.
- Any appreciation on the property will be shared by the seller-lessee.

Under ASC 840, to achieve sales-type lease accounting in real estate, title must automatically transfer to the lessee by the end of the lease term. This condition has been removed from ASC 842 since ASC 842 does not provide specialized guidance for sale-leasebacks of real estate. Therefore, the same guidance applies to all sale-leaseback transactions regardless of the type of underlying asset.

Subleases

Subleasing involves the original lessee leasing the property to a third party during the time period in which the original lease is in force. Sometimes a new lessee is substituted for the original lessee and the new lessee becomes primarily obligated. The original lease may be canceled and substituted with a new lessee. The

accounting for such transactions depends on whether the original lessee is or is not relieved of primary liability.

ASC, FASB, and Difference between GAAP and IFRS

Topic	FASB Accounting Standards Codification (ASC)	Original FASB Standard	Corresponding IASB Standard*	Differences between U.S. GAAP and IFRS
<i>Lease classification criteria</i>	ASC 840-10-25 par. 1	FAS No. 13 par. 7	IAS 17 par. 8-10	In substance, the standards are the same. IFRS provides less detail.
<i>Lease discount rate (for lessees)</i>	ASC 840-10-25 par. 31	FAS No. 13 par. 7	IAS 17 par. 20	In IFRS, no explicit mention is made of using the lower of the implicit rate or the incremental borrowing rate. Instead, the implicit rate is to be used if known.
<i>Revenue recognition criteria (for lessor)</i>	ASC 840-10-25 par. 42	FAS No. 13 par. 8	IAS 17 par. 42	Substantially the same. Rather than the two explicit criteria, IFRS merely says that a sale in a sales-type lease is recognized "in accordance with the policy followed by the entity for outright sales."
<i>Initial direct costs (for lessor)</i>	ASC 840-20-35 par. 2 ASC 840-30-35 par. 23 ASC 840-30-25 par. 6	FAS No. 13 par. 19 FAS No. 13 par. 18 FAS No. 13 par. 17	IAS 17 Par. 38, 42	No substantial differences
<i>Sale-leaseback accounting</i>	ASC 840-40-25 par. 3 ASC 840-40-35 par. 1	FAS No. 13 Par. 7	IAS 17 Par. 58-63	No substantial differences

* IFRS does not specifically address a number of leasing transactions that are covered by U.S. GAAP. Examples include lease agreements for natural resources, sale-leasebacks, real estate leases, and leveraged leases. U.S. GAAP for leases is much more "rule-based" with specific bright-line criteria to determine if a lease arrangement transfers the risks and rewards of ownership; IFRS is more general in its provisions.

A Snapshot of Key Differences between ASC 842 and IFRS 16

Topic	Difference
Lessee accounting	<ul style="list-style-type: none"> • ASC 842 requires a lessee to classify a lease as either a finance or operating lease. Interest and amortization expense are recognized for finance leases while only a single lease expense is recognized for operating leases, typically on a straight-line basis. • Under IFRS 16, lessees will account for all leases in a manner similar to finance leases.
Lessor accounting	<ul style="list-style-type: none"> • Under ASC 842, a sale and profit are recognized upon the commencement of a lease only when the arrangement transfers control of the underlying asset to the lessee. • Under IFRS 16, selling profit is recognized on direct financing leases when performance obligations in IFRS 15, Revenue from Contracts with Customers, have been met.
Statement of cash flows	<ul style="list-style-type: none"> • ASC 842 requires lessees to report the single expense associated with an operating lease as an operating activity. • Under IFRS 16, lessees account for all leases similar to a financed purchase, with payments reported as a financing or operating activity in the statement of cash flows, in accordance with IAS 7, Statement of Cash Flows.
Remeasurement of variable lease payments	<ul style="list-style-type: none"> • The initial measurement of lease-related assets and liabilities is similar under ASC 842 and IFRS 16; however, subsequent changes in lease payments that vary with a rate or index (e.g., rents that increase for changes in an inflation index) are accounted for differently. • Under ASC 842, such changes are recognized when incurred, unless the lessee is otherwise required to remeasure the lease liability (e.g., as a result of reassessing the lease term). • Under IFRS 16, lease assets and liabilities are remeasured whenever the cash flow changes.
Sale and leaseback accounting	<ul style="list-style-type: none"> • Under ASC 842, a seller-lessee would recognize the full gain from a sale and leaseback transaction that qualifies as a sale. • IFRS 16 limits the recognition of gains from sale and leaseback transactions.
Transition	<ul style="list-style-type: none"> • ASC 842 requires a modified retrospective approach to each lease that existed at the beginning of the earliest comparative period presented in the financial statements, as well as leases entered into after that date. • IFRS 16 allows a reporting entity to elect a full retrospective approach.
Other	<ul style="list-style-type: none"> • IFRS 16 has guidance excluding certain leases of low value assets from its recognition and measurement guidance • IFRS 16 has similar but not identical disclosure requirements • The accounting for subleases differs in some respects

Source: PwC Guide Library - Leases 2016

Review Questions - Section 4

13. Which of the following is excluded in determining minimum lease payments?

- A. Any amount stated to make up any deficiency from a specified minimum
- B. A guarantee by the lessee to pay the lessor's debt on a leased property
- C. The minimum rent called for during the lease term
- D. Any amount stated to purchase the leased property

14. Beal, Inc. intends to lease a machine from Paul Corp. Beal's incremental borrowing rate is 7%. The prime rate of interest is 4%. Paul's implicit rate in the lease is 5%, which is known to Beal. What value should Beal use to compute the present value of the minimum lease payments?

- A. 4%
- B. 5%
- C. 6%
- D. 7%

15. At the inception of a capital lease, how should the guaranteed salvage value be handled?

- A. Included as part of minimum lease payments at present value
- B. Included as part of minimum lease payments at future value
- C. Included as part of minimum lease payments only to the extent that guaranteed salvage value is expected to exceed estimated salvage value
- D. Excluded from minimum lease payments

16. Neal Corp. entered into a 9-year capital lease on a warehouse on December 31, 20X2. The land and building are capitalized as a single unit. Lease payments of \$52,000, which include real estate taxes of \$2,000, are due annually, beginning on December 31, 20X3 and every December 31 thereafter. Neal does not know the interest rate implicit in the lease; Neal's incremental borrowing rate is 9%. The rounded present value of an *ordinary annuity* for 9 years at 9% is 5.6. What amount should Neal report as capitalized lease liability at December 31, 20X2?

- A. \$280,000
- B. \$291,200
- C. \$450,000
- D. \$468,000

17. A lessee had a 10-year capital lease requiring equal annual payments. What should the reduction of the lease liability in year 2 equal?

- A. The current liability shown for the lease at the end of year 1
- B. The current liability shown for the lease at the end of year 2
- C. The reduction of the lease obligation in year 1
- D. One-tenth of the original lease liability

18. Under existing ASC 840, *Leases* (FAS-13), which of the following is an example of an initial direct cost?

- A. Cost related to soliciting potential lessees
- B. Ancillary activities related to establishing and monitoring credit policies, supervision and administration
- C. Negotiating, preparing, and processing lease documents
- D. Activities performed by the lessor for advertising

19. On January 1, Year 4, Hook Oil Co. sold equipment with a carrying amount of \$100,000 and a remaining useful life of 10 years to Maco Drilling for \$150,000. Hook immediately leased the equipment back under a 10-year capital lease with a present value of \$150,000. It will depreciate the equipment using the straight-line method. Hook made the first annual lease payment of \$24,412 in December Year 4. In Hook's December 31, Year 4, balance sheet, what should the unearned gain on the equipment sale be?

- A. \$50,000
- B. \$45,000
- C. \$25,588
- D. \$0

Glossary

Bargain purchase option. A provision allowing the lessee to purchase the leased property for a price that is significantly lower than the property's expected fair value at the date the option becomes exercisable.

Bargain renewal option. A provision allowing the lessee to renew the lease for a rental that is lower than the expected fair rental at the date the option becomes exercisable.

Capital lease. A lease that is treated as if the lessor has transferred ownership of the property to the lessee and the rental payments made by the lessee to the lessor constitute a financing arrangement.

Cost of goods sold (sale-type lease). The cost of the asset to the lessor, less the present value of an unguaranteed residual value.

Direct financing lease. Leases that are in substance the financing of an asset purchase by the lessee.

Discount rate. The interest rate used by the lessee to compute the present value of the minimum lease payments: which is the lesser of (1) lessee's incremental borrowing rate or (2) the known implicit rate computed by the lessor.

Executory costs. The costs incurred during the economic life of leased tangible assets, such as insurance, maintenance and tax expenses.

Guaranteed residual value. The certain or determinable amount at which the lessor has the right to require the lessee to purchase the asset or the amount the lessee or a third-party guarantor guarantees the lessor will realize.

Implicit interest rate The interest rate implicit in the lease that when applied to the minimum lease payments and any unguaranteed residual value accruing to the lessor, which causes the aggregate present value to be equal to the fair value of the leased property to the lessor.

Incremental borrowing rate. The rate that, at the inception of the lease, the lessee would have incurred to borrow the funds necessary to buy the leased asset on a secured loan with repayment terms similar to the payment schedule called for in the lease.

Incremental direct costs. The costs paid to independent third parties incurred in originating a lease arrangement, such as the cost of independent appraisal of collateral used to secure a lease, the cost of an outside credit check of the lessee, or a broker's fee for finding the lessee.

Initial direct costs. Incremental direct costs and internal direct costs.

Internal direct costs. The costs directly related to specified activities performed by the lessor on a given lease, such as evaluating the prospective lessee's financial condition and evaluating and recording guarantees, collateral, and other security arrangements.

Internal indirect costs. The cost indirectly related to specified activities performed by the lessor on a given lease, such as advertising, servicing existing leases, and establishing and monitoring credit policies.

Lease. A contractual agreement between a lessor and a lessee that gives the lessee the right to use specific property, owned by the lessor, for a specific period of time in return for stipulated, and generally periodic, cash payments (rents).

Lease receivable. The present value of the minimum lease payments plus the present value of any unguaranteed residual value; also called NET INVESTMENT. The lease receivable therefore includes the present value of the residual value, whether guaranteed or not.

Lessor. The party that gives the lessee the right to use specific property, owned by the lessor, for a specific period of time under the terms of a lease.

Minimum lease payments (MLP). Minimum rental payments adjusted for any guaranteed residual value, and penalty for failure to renew, and a bargain purchase option.

Minimum rental payments (MRP). Minimum payments the lessee is obligated to make to the lessor under the lease agreement.

Minor leaseback. A leaseback in which the present value of the rental payments are 10% or less of the fair value of the asset.

Noncancelable. The lease contract is cancelable only upon the outcome of some remote contingency or that the cancellation provisions and penalties of the contract are so costly to the lessee that cancellation probably will not occur.

Net investment. See LEASE RECEIVABLE.

Off-balance-sheet financing. The result when a lease does not add debt on a balance sheet or affect financial ratios.

Operating lease. Leases that are not classified as capitalized leases.

Operating method. The method of accounting for an operating lease whereby rent expense (and a compensating liability) accrues day by day to the lessee as the property is used.

Residual value. The estimated fair (market) value of the leased property at the end of the lease term.

Sale-leaseback. A transaction in which the owner of property (seller-lessee) sells the property to another and simultaneously leases it back from the new owner.

Sale price of the asset (sales-type lease). Under a sales-type lease, it is the present value of the minimum lease payments.

Sales-type lease. A direct financing lease which also accounts for the manufacturer's or dealer's gross profit (or loss).

Third-party guarantor. A separate party which acts like an insurer by guaranteeing the residual value of leased assets.

Unguaranteed residual value. The amount of residual value which is not guaranteed.

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Appendix: Present Value Tables

TABLE 1
PRESENT VALUE OF AN *ORDINARY ANNUITY* OF \$1

Periods	2%	4%	5%	6%	8%	10%	12%
1	0.9804	0.9615	0.9524	0.9434	0.9259	0.9091	0.8929
2	1.9416	1.8861	1.8594	1.8334	1.7833	1.7355	1.6901
3	2.8839	2.7751	2.7232	2.6730	2.5771	2.4869	2.4018
4	3.8077	3.6299	3.5460	3.4651	3.3121	3.1699	3.0373
5	4.7135	4.4518	4.3295	4.2124	3.9927	3.7908	3.6048
6	5.6014	5.2421	5.0757	4.9173	4.6229	4.3553	4.1114
7	6.4720	6.0021	5.7864	5.5824	5.2064	4.8684	4.5638
8	7.3255	6.7327	6.4632	6.2098	5.7466	5.3349	4.9676
9	8.1622	7.4353	7.1078	6.8017	6.2469	5.7590	5.3282
10	8.9826	8.1109	7.7217	7.3601	6.7101	6.1446	5.6502
11	9.7868	8.7605	8.3064	7.8869	7.1390	6.4951	5.9377
12	10.5753	9.3851	8.8633	8.3838	7.5361	6.8137	6.1944

TABLE 2
PRESENT VALUE OF AN *ANNUITY DUE* OF \$1

Periods	2%	4%	6%	8%	10%	12%	14%
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.9804	1.9615	1.9434	1.9259	1.9091	1.8929	1.8772
3	2.9416	2.8861	2.8334	2.7833	2.7355	2.6901	2.6467
4	3.8839	3.7751	3.6730	3.5771	3.4869	3.4018	3.3216
5	4.8077	4.6299	4.4651	4.3121	4.1699	4.0373	3.9137
6	5.7135	5.4518	5.2124	4.9927	4.7908	4.6048	4.4331
7	6.6014	6.2421	5.9173	5.6229	5.3553	5.1114	4.8887
8	7.4720	7.0021	6.5824	6.2064	5.8684	5.5638	5.2883
9	8.3255	7.7327	7.2098	6.7466	6.3349	5.9676	5.6389
10	9.1622	8.4353	7.8017	7.2469	6.7590	6.3282	5.9464
11	9.9826	9.1109	8.3601	7.7101	7.1446	6.6502	6.2161
12	10.7868	9.7605	8.8869	8.1390	7.4951	6.9377	6.4527

Review Question Answers

SECTION 1

1. Current GAAP requires that certain lease agreements be accounted for as purchases. Current GAAP requires that certain lease agreements be accounted for as purchases. What is the theoretical basis for this treatment?

- A. **Correct.** The provisions of ASC 840 derive from the view that a lease transferring substantially all of the benefits and risks incident to the ownership of property should be accounted for as the acquisition of an asset and the incurrence of an obligation by the lessee. The lessor should account for the transaction as a sale and/or financing.
- B. Incorrect. A lease is not a purchase in form, although transfer of substantially all of the benefits and risks of ownership make it similar to a purchase in substance.
- C. Incorrect. Although a lease is a contractual agreement covering the use of property for a specified time period, other aspects of the lease justify the capitalization treatment.
- D. Incorrect. The concept of cause and effect is not relevant to accounting for leases.

2. Leases should be classified by the lessee as either operating leases or capital leases. Which of the following statements best characterizes operating leases under existing ASC 840, *Leases* (FAS-13)?

- A. Incorrect. When the benefits and risks of ownership are transferred from the lessor to the lessee, the transaction is a capital lease.
- B. Incorrect. The lessee records an asset and a liability for the present value of the lease payments if the transaction is accounted for as a capital lease. However, this amount may not exceed the fair value of the leased property.
- C. Incorrect. Satisfaction of any one of these four criteria requires the lease to be treated as a capital lease.
- D. **Correct.** Operating leases are transactions whereby lessees rent the right to use lessor assets without acquiring a substantial portion of the benefits and risks of ownership of those assets.

3. Rental payments based on future sales volume, future prime interest rates, or future machine hours are examples of

- A. Incorrect. "Accelerated" implies a speeding up of a process, but it is not the correct term for this type of rental payment.

- B. Incorrect. This type of rental payment is not avoidable. Although it can't be quantified until a future event occurs, it does represent an obligation to the firm.
- C. Incorrect. "Deferred" is a term that is normally associated with revenue. It is not a rental payment that is based on future sales volume, interest rates, or machine hours.
- D. **Correct.** Rental payments based on future sales volume, future machine hours, future interest rates, and future price indexes are examples of contingent rentals. Contingent rentals can either increase or decrease lease payments.

SECTION 2

4. On January 1, 20X3, Cutlip Co. signed a 7-year lease for equipment having a 10-year economic life. The present value of the monthly lease payments equals 80% of the equipment's fair value. The lease agreement provides for neither a transfer of title to Cutlip nor a bargain purchase option. In its 20X3 income statement, which of the following should Cutlip report?

- A. **Correct.** A lease is either a capital lease or an operating lease. A lease must be classified as a capital lease by a lessee if, at its inception, any one of four criteria is satisfied. Each of these criteria indicates that a substantial transfer of the benefits and risks of ownership has occurred. The following are the four criteria: (1) The lease provides for the transfer of ownership of the leased property, (2) the lease contains a bargain purchase option, (3) the lease term is 75% or more of the estimated economic life of the leased property, or (4) the present value of the minimum lease payments (excluding executory costs) is at least 90% of the fair value of the leased property to the lessor at the inception of the lease minus any related investment tax credit. (The last two criteria do not apply if the lease term begins within the last 25% of the total estimated economic life.) Because none of these criteria are satisfied, the lease must be treated as an operating lease. Under an operating lease, the lessee recognizes periodic rental expense but records neither an asset nor a liability (except for accrued rental expense at the end of a period).
- B. Incorrect. Cutlip should not recognize interest on an operating lease.
- C. Incorrect. A capital lease requires amortization.
- D. Incorrect. Lease amortization is required in a capital lease.

5. Crane Mfg. leases a machine from Frank Leasing. Ownership of the machine returns to Frank after the 15-year lease expires. The machine is expected to have an economic life of 17 years. At this time, Frank is unable to predict the collectibility of the lease payments to be received from Crane. The present value of the minimum lease payments exceeds 90% of the fair value of the machine. What is the appropriate classification of this lease for Crane under existing ASC 840, Leases (FAS-13)?

- A. Incorrect. The lease is for 75% or more of the estimated economic life of the leased property. It must be capitalized.
- B. Incorrect. A lessee accounts for leveraged and nonleveraged leases in the same manner. Furthermore, a leveraged lease involves at least three parties (lessee, long-term creditor, and lessor), financing provided by the creditor that is nonrecourse with respect to the general credit of the lessor, and a substantial degree of leverage. Absent a third party, this transaction cannot be recorded as a leveraged lease even by the lessor.
- C. **Correct.** A lease is classified as a capital lease by the lessee if, at its inception, any one of the following four criteria is satisfied: (1) The lease provides for the transfer of ownership of the leased property, (2) the lease contains a bargain purchase option, (3) the lease term is 75% or more of the estimated economic life of the leased property, and (4) the present value of the minimum lease payments is at least 90% of the fair value of the leased property to the lessor. Because the lease is for 75% or more of the estimated economic life of the leased property, Crane must capitalize the lease. Note that payment collectibility is an issue only for the lessor.
- D. Incorrect. An installment lease is a lease contract that authorizes or requires the delivery of goods in separate lots to be separately accepted.

6. On January 1, Year 4, Harrow Co. as lessee signed a 5-year noncancelable equipment lease with annual payments of \$100,000 beginning December 31, Year 4. Harrow treated this transaction as a capital lease. The five lease payments have a present value of \$379,000 at January 1, Year 4, based on interest of 10%. What amount should Harrow report as interest expense for the year ended December 31, Year 4?

- A. **Correct.** The lease liability at the inception of the lease is \$379,000. Under the effective-interest method, the lease liability balance (the carrying amount) at the beginning of each year should be multiplied by the implicit interest rate to determine interest for that year. Accordingly, the interest expense for the first year is \$37,900 ($\$379,000 \times 10\%$).
- B. Incorrect. The amount of \$27,900 assumes the initial payment was made immediately.
- C. Incorrect. The amount of \$24,200 is one-fifth of the total interest ($\$500,000 - \$379,000 \text{ PV}$).
- D. Incorrect. Interest must be accrued.

7. Under existing ASC 840, *Leases* (FAS-13), in order for a lease to qualify as a capital lease, which one of the following conditions must be satisfied?

- A. Incorrect. In order for a lease to qualify as a capital lease, the present value of the minimum lease payments must be equal to or exceed 90 percent (and not 10 percent) of the fair value of the asset.
- B. Incorrect. In order for a lease to qualify as a capital lease, the lease term must be at least 75 percent of the remaining useful life of the leased asset.
- C. **Correct.** If there is a bargain purchase at the end of the lease, the lease is a capital lease.
- D. Incorrect. If there is a transfer of ownership, the lease qualifies as a capital lease.

8. Under existing ASC 840, *Leases* (FAS-13), which of the following is NOT one of the criteria for a capital lease?

- A. **Correct.** This is not the correct percentage. The actual percentage is 90%.
- B. Incorrect. Containing a bargain purchase option is indeed one of the criteria for a capital lease.
- C. Incorrect. As a lease being substantially equal (75% or more) to the estimated useful life of the property is indeed one of the criteria for a capital lease.
- D. Incorrect. Transfer of ownership to the lessee by the end of the lease term is indeed one of the criteria for a capital lease.

SECTION 3

9. Which of the following is true?

- A. Incorrect. Direct financing is a form of capital leases.
- B. **Correct.** Direct financing leases do not create a manufacturer's or dealer's profit or loss.
- C. Incorrect. Sales-type leases are indeed a form of capital leases.
- D. Incorrect. The occurrence of a manufacturer's or dealer's profit or loss is indeed generally present in a sales-type lease.

10. Which of the following statements is false regarding review of residual values?

- A. **Correct.** Upward annual adjustments are not allowed.
- B. Incorrect. These values should be reviewed at least annually.
- C. Incorrect. The accounting for the transaction should be revised using the new estimate if a decline in estimated value is not temporary.
- D. Incorrect. Under these conditions, the resulting loss should be recognized in the period that the change is made.

11. On January 1, Year 4, Day Corp. entered into a 10-year lease agreement with Ward, Inc. for industrial equipment. Annual lease payments of \$10,000 are payable at the end of each year. Day knows that the lessor expects a 10% return on the lease. Day has a 12% incremental borrowing rate. The equipment is expected to have an estimated useful life of 10 years. In addition, a third party has guaranteed to pay Ward a salvage value of \$5,000 at the end of the lease. (Note: The present value of an *ordinary annuity* of \$1 at 12% for 10 years is 5.6502, and at 10% for 10 years is 6.1446. The present value of \$1 at 12% for 10 years is .3220, and

at 10% for 10 years is .3855.) In Day's October 31, Year 4, balance sheet, the principal amount of the lease obligation was

- A. Incorrect. The amount of \$63,374 includes the PV of \$1 calculated at 10% for 10 years of the salvage value guaranteed by a third party.
- B. **Correct.** This lease qualifies as a capital lease because the 10-year lease term is greater than 75% of the 10-year estimated useful life of the equipment. The lessee should record the present value of the minimum lease payments at the *lower* of the lessee's incremental borrowing rate or the lessor's implicit rate if known to the lessee. Because the 10% implicit rate (the lessor's expected return on the lease) is less than the 12% incremental borrowing rate, the lease obligation should be recorded on 1/1/Year 4 at \$61,446 ($\$10,000 \text{ periodic payment} \times 6.1446$). The end of the fiscal year (10/31/Year 4) is 10 months after the inception of the lease, but the annual lease payments are payable at the end of the calendar year. Hence, the lease obligation recorded at the inception of the lease has not yet been reduced by the first payment. Moreover, given that the salvage value of \$5,000 is guaranteed by a third party, it is not included in the minimum lease payments by the lessee.
- C. Incorrect. The amount of \$58,112 is based on the interest factor for the PV of an ordinary annuity of \$1 at 12% for 10 years. It also includes the PV of \$1 calculated at 12% for 10 years of the salvage value guaranteed by a third party.
- D. Incorrect. The amount of \$56,502 is based on the interest factor for the PV of an ordinary annuity of \$1 at 12% for 10 years.

12. Howe Co. leased equipment to Kew Corp. on January 2, Year 4, for an 8-year period expiring December 31, Year 11. Equal payments under the lease are \$600,000 and are due on January 2 of each year. The first payment was made on January 2, Year 4. The list selling price of the equipment is \$3,520,000, and its carrying cost on Howe's books is \$2.8 million. The lease is appropriately accounted for as a sales-type lease. The present value of the lease payments at an imputed interest rate of 12% (Howe's incremental borrowing rate) is \$3.3 million. What amount of profit on the sale should Howe report for the year ended December 31, Year 4?

- A. Incorrect. The amount of \$720,000 is the result of using the list selling price instead of the present value of the lease payments.
- B. **Correct.** Howe Co., the lessor, should report a profit from a sales-type lease. The gross profit equals the difference between the sales price (present value of the minimum lease payments) and the cost. The cost for a sales-type lease is not the same as the fair value. Consequently, the profit on the sale equals \$500,000 ($\$3,300,000 - \$2,800,000$).
- C. Incorrect. The amount of \$90,000 is one-eighth of the difference between the list price and the cost.
- D. Incorrect. A profit of \$500,000 should be reported.

SECTION 4

13. Which of the following is excluded in determining minimum lease payments?

- A. Incorrect. Such amounts are included in the normal minimum lease payments.
- B. **Correct.** Such a guarantee is indeed excluded in determining minimum lease payments. Besides executory costs, minimum lease payments exclude the lessee's guarantee of the lessor's debt and any contingent rentals.
- C. Incorrect. The minimum rent called for during the lease term is included in the normal minimum lease payments.
- D. Incorrect. Amounts stated to purchase the leased property are included in the normal minimum lease payments.

14. Beal, Inc. intends to lease a machine from Paul Corp. Beal's incremental borrowing rate is 7%. The prime rate of interest is 4%. Paul's implicit rate in the lease is 5%, which is known to Beal. What value should Beal use to compute the present value of the minimum lease payments?

- A. Incorrect. The prime rate (4%) is irrelevant.
- B. **Correct.** A lessee should compute the present value of the minimum lease payments using its incremental borrowing rate unless: 1) The lessee knows the lessor's implicit rate; 2) The implicit rate is less than the lessee's incremental borrowing rate. If both conditions are met, the lessee must use the implicit rate. The 5% implicit rate is less than Beal's 7% incremental borrowing rate, and Beal has this information, so the rate to be used is 5%.
- C. Incorrect. 6% is merely the average of the implicit rate and the incremental rate.
- D. Incorrect. The implicit rate is known and is lower than the incremental rate (7%).

15. At the inception of a capital lease, how should the guaranteed salvage value be handled??

- A. **Correct.** A capital lease is recorded at the present value of the minimum lease payments. Minimum lease payments include the minimum rental payments (excluding executory costs) required during the lease term and the amount of a bargain purchase option. If no such option exists, the minimum lease payments equal the sum of the minimum rental payments, the amount of salvage value guaranteed by the lessee, and any nonrenewal penalty imposed. From the lessor's standpoint, minimum lease payments also include salvage value guaranteed by a financially capable third party unrelated to the lessee or lessor.
- B. Incorrect. Minimum lease payments are recorded at present value.
- C. Incorrect. The full guaranteed salvage value is included in the minimum lease payments. At the end of the lease, any difference between the guaranteed salvage value and the fair value is recognized as a gain or loss.
- D. Incorrect. Minimum lease payments include guaranteed salvage value.

16. Neal Corp. entered into a 9-year capital lease on a warehouse on December 31, 20X2. The land and building are capitalized as a single unit. Lease payments of \$52,000, which include real estate taxes of \$2,000, are due annually, beginning on December 31, 20X3 and every December 31 thereafter. Neal does not know the interest rate implicit in the lease; Neal's incremental borrowing rate is 9%. The rounded present value of an *ordinary annuity* for 9 years at 9% is 5.6. What amount should Neal report as capitalized lease liability at December 31, 20X2?

- A. **Correct.** For a capital lease, the present value of the minimum lease payments should be recorded at the inception date. The minimum lease payments exclude executory costs such as insurance, maintenance, and taxes. The capitalized lease liability is therefore \$280,000 $[(\$52,000 - \$2,000) \times 5.6]$.
- B. Incorrect. \$291,200 is based on a \$52,000 annual payment.
- C. Incorrect. \$450,000 is the total undiscounted amount of the minimum lease payments.
- D. Incorrect. \$468,000 is the total undiscounted amount of the minimum lease payments plus real estate taxes.

17. A lessee had a 10-year capital lease requiring equal annual payments. What should the reduction of the lease liability in year 2 equal?

- A. **Correct.** At the inception of a capital lease, a lessee should record a fixed asset and a lease obligation equal to the present value of the minimum lease payments. In a classified balance sheet, the lease liability must be allocated between the current and noncurrent portions. The current portion at a balance sheet date is the reduction of the lease liability (periodic payment - interest component) in the forthcoming year as determined in accordance with the interest method.
- B. Incorrect. The current liability at the end of year 2 is equal to the reduction that will be recorded in year 3.
- C. Incorrect. The reduction of the lease liability will increase in each subsequent year.
- D. Incorrect. The reduction of the lease liability should go up in each subsequent year.

18. Under existing ASC 840, *Leases* (FAS-13), which of the following is an example of an initial direct cost?

- A. Incorrect. These costs do not qualify as initial direct costs.
- B. Incorrect. Ancillary activities such as establishing and monitoring credit policies, supervision and administration are not classified as initial direct costs.
- C. **Correct.** Initial direct costs are paid or accrued by the lessor to negotiate and finalize a lease. Examples are finders' commissions, attorney fees, credit appraisal, negotiating and processing fees, and an allocated portion of salesperson and employee compensation..
- D. Incorrect. Activities performed by the lessor for advertising do not qualify as initial indirect costs.

19. On January 1, Year 4, Hook Oil Co. sold equipment with a carrying amount of \$100,000 and a remaining useful life of 10 years to Maco Drilling for \$150,000. Hook immediately leased the equipment back under a 10-year capital lease with a present value of \$150,000. It will depreciate the equipment using the straight-line method. Hook made the first annual lease payment of \$24,412 in December Year 4. In Hook's December 31, Year 4, balance sheet, what should the unearned gain on the equipment sale be?

- A. Incorrect. The amount of \$50,000 is the total deferred gain at the inception of the lease.
- B. **Correct.** A profit or loss on the sale in a sale-leaseback transaction is ordinarily deferred and amortized in proportion to the amortization of the leased asset if the leaseback is classified as a capital lease. At 12/31/Year 4, a gain proportionate to the lease amortization will be recognized $[(\$150,000 - \$100,000) \div 10 \text{ years} = \$5,000]$. Hence, the deferred gain will be \$45,000 $(\$50,000 - \$5,000)$.
- C. Incorrect. The amount of \$25,588 is the difference between the total deferred gain and the periodic lease payment.
- D. Incorrect. The seller-lessee has retained substantially all of the use of the property and should therefore defer gain