

ACCOUNTING FOR LONG-TERM ASSETS, LONG-TERM DEBT AND LEASES

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INTRODUCTION

This chapter examines accounting for long-term assets, long-term debt, and leases from the perspective of lessees (the company that leases property, plant or equipment from another company called the lessor). The reason we are combining these topics is most of the accounting and business issues associated with leases are applications of related issues for long-term assets and long-term debt.

LONG-TERM ASSETS

Accounting for tangible property, plant and equipment (PP&E) and intangible long-term assets centers on four events:

- Acquiring or creating
- Depreciating, amortizing or depleting
- Impairing and revaluing (revaluations are only allowed under IFRS)
- Disposing

ACQUIRING OR CREATING

Accounting for the acquisition or creation of tangible and intangible long-term assets is similar in many respects, but there are enough differences that we will discuss them separately.

Tangible assets

We will focus our discussion of tangible assets on PP&E since other tangibles such as natural resources are only important in a few industries.

Companies can acquire ownership of PP&E by purchasing it separately with cash or third-party debt financing, acquiring it as part of a business acquisition, or constructing it internally. They can also acquire the right to use PP&E through leasing. When these leases are classified as capital leases, which we will discuss later, they are included in PP&E. Strictly speaking, the leased property is tangible, but the lease itself – the right to use the property – is an intangible asset. The only significance of this difference is some companies describe the usage of capital leases as depreciation (of a tangible asset) while others describe it as amortization (of an intangible).

We have already studied the entry for purchasing PP&E with cash: increase PP&E and decrease cash for the cost of the purchased asset. Delivery and installation costs are also included in the recognized cost. For purchasing PP&E financed with debt, the entry is similar except debt increases and possibly cash decreases if there's a down payment. For example, here is the entry if Berger Properties acquires a building for \$90 million with 100% debt financing (along with land, which is recorded separately):

Berger Properties acquires building with 100% debt financing		
	Debit	Credit
PP&E (historical cost)	\$90	
Long-term debt		\$90

When PP&E is acquired as part of a business acquisition, it is recorded at its fair value – the hypothetical price it could be sold for to a third party. When PP&E is constructed internally, it is recorded at the aggregate cost to complete the construction. This includes capitalized interest: a portion of the interest associated with debt that is deemed attributable to the construction (through a formula that is beyond the scope of this chapter).

Intangible assets

When intangible assets are purchased from third parties separately with cash or debt financing or as part of a business acquisition, the accounting is the same as PP&E purchases. This is not true for leasing or creating intangible assets and the related guidance can be quite different for US GAAP and IFRS.

Generally, US GAAP guidance for leases applies only to PP&E and, in particular, not to intangibles. This means that with one exception the future payments associated with leased intangibles (e.g., licensing arrangements) can't be capitalized: they are expensed as incurred during the term of the contract. The exception is software leased for internal use. The software can be capitalized if it meets criteria similar to those used to determine whether PP&E leases should be capitalized. In contrast, to US GAAP, IFRS guidance for leases can be applied to many intangibles.

When intangible assets are created through advertising (such as brands) or basic research, the “R” in R&D, (such as intellectual property) with one exception, these assets can't be recognized on balance sheets under US GAAP and IFRS. This is because standard setters have concluded they can't be measured reliably. Thus, costs associated with research are always expensed as incurred. However, the one exception under US GAAP is the costs to develop advertisements: costs can be capitalized until the advertisements are first used, at which time costs are expensed.

When intangible assets are created through development, the “D” in R&D, with a few exceptions, the costs associated with the development are also expensed as incurred under US GAAP. The exceptions that are most prevalent center on costs associated with software development. Software developed for internal use and software developed to be sold to customers can both be capitalized, but the criteria differ. By contrast, under IFRS costs associated with internally developing any intangible must be capitalized once the development process is far enough along so six criteria are met. These criteria establish that it is probable the intangible will meet its intended purpose; the company is committed to using or selling it; and the remaining development costs can be estimated reliably. This difference in accounting guidance under US GAAP and IFRS can significantly affect financial-statement comparisons of global competitors. For example, at year end December 31, 2012, Daimler reported 7.2 billion euros of capitalized development costs under IFRS. These costs would have been previously expensed if Daimler reported under US GAAP.

DEPRECIATING, AMORTIZING AND DEPLETING

Depreciation, amortization, and depletion measure the portion of an asset's historical cost allocated to usage or the passage of time during the asset's useful life. Throughout the world, depletion refers to using up natural resources. In some countries, including the US, depreciation generally refers to using up tangible assets and amortization to using up intangible assets. In other countries, however, amortization is a synonym for depreciation.

Aside from these differences in terms, the entries for using up PP&E, intangible assets, or natural resources are structurally the same. For example, to record depreciation expense, we increase the expense and increase accumulated depreciation. To record amortization expense, we increase the expense and increase accumulated amortization. These are the only depreciation and amortization entries for companies that don't manufacture the products they sell.

Manufacturing companies have two types of long-term assets: (i) **production-related** long-term assets such as manufacturing equipment, factories and intellectual property associated with production and (ii) **non-production-related** long-term assets such as the corporate headquarters and administrative computers. The depreciation and amortization entries are quite different for non-production asset types. However, these differences can easily be understood using the four questions and [OEC Map](#) approach we have been using throughout the course to record entries.

We will first demonstrate this approach for depreciation associated with non-production-related PP&E. The resulting depreciation entry will be the one you have recorded often in earlier chapters: increase depreciation expense and increase accumulated depreciation. That is, all along we have been depreciating non-production-related assets. Recall our responses to the four questions:

1. Should an asset be recognized? Generally, we would expect future benefits to be created when a company uses non-production-related assets. For example, we would expect future benefits to be realized when sales staff use company cars to see customers or employees at the corporate headquarters use computers. However, these benefits can't be measured reliably and, in particular, determining when, if ever, the benefits are realized is problematic. Thus, the answer to this question is no: an asset is not recognized when non-production-related assets are depreciated.
2. Should an asset be de-recognized? Yes, benefits associated with the asset being depreciated have been used up so there are fewer future benefits than at the start of the current period. The ones used up this period need to be de-recognized.
3. Should a liability be recognized? No obligation is incurred when depreciating an asset.
4. Should a liability be de-recognized? No obligation is met when depreciating an asset.

The second question is the only one we answered affirmatively, which means net assets and thus owners' equity decreases when a non-production-related asset is depreciated. From the [OEC Map](#), we can easily determine that an expense is recognized.

What is different with production-related depreciation? The answers to all of the questions above except the first will be the same. Should we recognize an asset when production-related assets are depreciated? Yes: An asset should be recognized. Using the production-related asset helped produce inventory, whose future benefits will be realized when products are sold. So the distinguishing difference is we can now determine when the future benefits have been realized: when the product is sold. This was not true for non-production-related assets.

More generally, the cost of all resources used to produce products are recorded to inventory, including the costs of using up related PP&E — depreciation. These costs are assigned to individual products in inventory through a process called product costing that is beyond the scope of this chapter.

To summarize, when production-related PP&E is used up to help produce products, one asset, inventory, is recognized and another, PP&E, is derecognized (by increasing accumulated depreciation). These effects offset each other and so there is no change in net assets and thus no change in owners' equity and no expense. The depreciation assigned to inventory will ultimately be expensed through cost of sales when products are sold.

Here is an example that will help you understand the similarities and differences between depreciating production and non-production related long-term assets: Smart Manufacturing Company has two identical computers that are depreciated at the same rate, \$1,000 per year. One of these is used in Smart's factory to help produce products and the other at the corporate headquarters. Here are the entries to record the annual depreciation:

Smart Company's Depreciation		
Depreciating computer used at corporate headquarters		
	<u>Debit</u>	<u>Credit</u>
Depreciation expense	\$1,000	
Accumulated PP&E depreciation		\$1,000
Depreciating computer used at factory		
	<u>Debit</u>	<u>Credit</u>
Inventories	\$1,000	
Accumulated PP&E depreciation		\$1,000

Notice the credit is the same for the two computers, indicating a decrease in net PP&E for both production-related and non-production-related PP&E. However, the debits differ, indicating the cost associated with using the factory computer has been transferred to inventory and the cost associated with using the headquarters computer has been recognized in net income as an expense.



Drill deeper — beyond the scope of this chapter. Here we have skipped over several intermediate entries within inventories: the depreciation is first recorded to an overhead inventory account, along with other overhead costs; these overhead costs are then transferred to work-in-process inventory accounts along the costs associated with materials and labor; when production is completed, costs associated with the completed products are transferred from work in process inventory to finished goods inventory. Ultimately when products are sold, costs are transferred from finished goods inventory to cost of sales.

IMPAIRING AND REVALUING

A long-term asset becomes impaired under IFRS and US GAAP when its carrying value (book value) is overstated relative to its recoverable amount — the amount that will be recovered in the future. However, the recoverable amount is defined differently under IFRS and US GAAP, which means an asset can be impaired under one system but not the other. However, even when an asset is deemed impaired under the two systems, there can be differences in the way the impairment is measured: the amount the asset's carrying value is decreased when the impairment is recognized.



Drill deeper — beyond the scope of this chapter. A deeper discussion of the differences in accounting for impairments under US GAAP and IFRS is beyond the scope of this chapter and introductory courses. To learn more, watch the *Navigating Accounting* video: “Measurement Decisions” menu items “*Adjusted historical cost: impairment losses*” and “*US GAAP*”:

<http://www.navigatingaccounting.com/video/scenic-measurement-decisions>

While the amounts recognized as impairments can differ under IFRS and US GAAP, the entries to recognize impairments are structurally the same. Here are the entries Smart Company records to recognize a \$500 impairment to PP&E and a \$300 impairment to identifiable intangible assets:

Smart Company's Impairments		
Recognizing an impairment to PP&E		
	<u>Debit</u>	<u>Credit</u>
Impairment losses	\$500	
Accumulated PP&E impairments		\$500
Recognizing an impairment to identifiable intangible assets		
	<u>Debit</u>	<u>Credit</u>
Impairment losses	\$300	
Accumulated amortization of Identifiable intangible assets		\$300

Under US GAAP, impairments of long-term assets can't be reversed if a previously impaired asset's fair value increases above its carrying value at a future date. By contrast, under IFRS, except for goodwill impairments, reversals are generally permitted (up to the accumulated impairments previously recognized).

Under US GAAP, long-term assets (other than financial instruments) can't be revalued upwards when their fair values increase above their carrying values. Instead, long-term assets are recognized at their **adjusted historical cost**: historical cost less accumulated depreciation and accumulated impairments.

By contrast, under IFRS, companies have the option to report most long-term assets at adjusted historical cost or revalued to fair value. If they elect the fair value option, the assets must be revalued regularly enough to ensure their carrying values at the balance sheet date don't differ significantly from their fair values.

You might be thinking companies would jump at the opportunity to revalue their assets upward, especially because they are frequently required to recognize impairment losses when assets' fair values decrease. Yet, very few companies elect the revaluation option under IFRS. Why not? The answer illustrates how reporting incentives can affect accounting decisions and why you need to understand the financial-statement consequences of accounting choices available to companies to understand their choices:

- When a company revalues an asset upward, it increases the asset, or more precisely a companion adjunct account that increases the carrying value, and increases a reserve account to recognize a gain in other comprehensive income (OCI). Thus, while the gain increases comprehensive income, it doesn't affect net income, which is the measure compensation performance targets are typically based on.

- However, thereafter depreciation is based on the higher, revalued asset value, which means net income decreases relative to what it would have been.
- When the revalued asset is disposed of, the gain previously recognized as an OCI reserve can be transferred directly to retained earnings or left in the accumulated OCI reserve account. However, it can't be recognized in net income.
- Thus, electing the revaluation option doesn't increase net income when carrying values are revised upwards but lowers future net income. As a result, managers who are rewarded for achieving targets based on net income have an incentive to elect the adjusted historical cost option and not revalue assets based on fair values.
- This said, there can be other considerations that outweigh this incentive. In particular, the revaluation method decreases financial leverage (because assets and owners' equity both increase and liabilities are not affected).

DISPOSING

While the account names differ, the entries to record PP&E and intangible disposals are conceptually the same. We recorded the entry for a PP&E disposal in an earlier chapter, assuming at the time that the asset was accounted for under the adjusted historical cost option rather than the revaluation option.

Here is an example of a similar entry for an intangible asset disposal. Smart Company records the following entry when it sells a trademark for \$100 cash that had a carrying value of \$110: \$200 historical cost less \$70 of accumulated amortization and \$20 of accumulated impairments:

Smart Company's disposal of an identifiable intangible asset		
	Debit	Credit
Cash and cash equivalents	\$100	
Accumulated amortization of Identifiable intangible assets	\$70	
Accumulated impairment of Identifiable intangible assets	\$20	
Gain/loss on identifiable intangible asset disposals	\$10	
Identifiable intangible assets (historical cost)		\$200

As indicated earlier, if the asset had been accounted for under the revaluation method, the company would have the option to record another entry that transfers the related balance in the accumulated OCI reserve account to retained earnings.

LONG-TERM DEBT

Accounting for long-term debt centers on six events or circumstances:

- Issuing
- Accruing interest
- Reclassifying principal
- Paying principal and interest
- Restructuring debt
- Early extinguishment



Drill deeper — beyond the scope of this chapter. Debt restructurings and early extinguishments occur infrequently and are beyond the scope of this chapter, as are redeemable and convertible debt.

We will also only be discussing bonds briefly here. They are explained in considerable detail in a *Navigating Accounting* video: “Bonds”

<http://www.navigatingaccounting.com/video/scenic-bonds>

Similarly, while we will be discussing entries related to interest and principal payments, we won't be discussing the way interest and principal payments are derived from contractual features in debt agreements. These computations are explained in another *Navigating Accounting* video: “Debt Basics”

<http://www.navigatingaccounting.com/video/scenic-debt-basics>

ISSUING

When companies issue debt they receive cash or other proceeds. We studied the entry for issuing debt for cash in the balance sheet chapter: increase cash and increase long-term debt. Earlier in this chapter we discussed the entry for acquiring PPE with 100% debt financing. Another way to describe this entry is issuing debt in exchange for PP&E proceeds: increase PP&E and increase long-term debt. When recording these entries, we ignored debt issuance costs and assumed we weren't issuing bonds. The issuance entries are slightly different in these situations.

As explained in the “Bonds” video cited above, when bonds are issued, the increase to long-term debt is split into two accounts. All you need to know about these accounts now is they arise because bonds are issued to a market and during the time it takes to build demand for the bonds in this market, interest rates usually change in ways that result in the two accounts.

By contrast, debt besides bonds, is typically issued to a bank, insurance company, pension fund or other financial institution rather than to a market. These issuances are called **private placements** and the debt is referred to as short-term or long-term notes. These placements also include syndicated debt issuances where a lead bank arranges for a limited number of other financial institutions to contribute part of the proceeds.

The debt issuance entries we recorded in earlier chapters were all private placements, rather than bonds. Similarly, the remainder of this chapter focuses exclusively on private placements.

When debt is issued there are issuance costs. These include commissions, legal fees, and other costs incurred to issue debt. Issuance costs are accounted for differently under US GAAP and IFRS. For example, suppose Smart Company pays \$5 million to a lead bank to raise \$100 million through a private placement to a few pension funds and insurance companies. Thus, Smart Company nets \$95 million cash after paying the debt issuance costs.

As indicated below, under IFRS, the debt issuance costs are expensed immediately as financing costs. By contrast, under US GAAP, they are capitalized at issuance and subsequently expensed over the term of the debt:

Smart Company's Debt Issuance under US GAAP AND IFRS		
US GAAP		
	<u>Debit</u>	<u>Credit</u>
Cash and cash equivalents	\$95	
Deferred issuance cost (asset)	\$5	
Long-term debt		\$100
IFRS		
	<u>Debit</u>	<u>Credit</u>
Cash and cash equivalents	\$95	
Financing costs (includes interest expense)	\$5	
Long-term debt		\$100

ACCRUING INTEREST

Interest is the amount lenders charge borrowers for the use of money during a specified period, usually expressed as a percentage of the amount owed the lender at the beginning of a period. The percentage applied is called the **interest rate** for the period. Interest computations are explained in the “Debt Basics” video cited earlier.

In this chapter, we assume interest expense is accrued as an end-of-period adjusting entry before it is paid the next period. (If the payment is made by the last day of the reporting period, there is no need for an accrual.)

Here is an example. Assume Smart Company borrowed \$100 on January 1, 2013 and that Smart is obligated to repay the lender the \$100 borrowed plus \$5 interest on January 1, 2014. The interest is the amount charged by the lender for the use of the \$100 during 2013. Thus, on December 31, 2013, which is the end of Smart’s fiscal year, Smart is legally obligated to pay the lender \$5 of interest the next day. Thus, Smart must recognize a liability associated with the interest obligation. However, the passage of time that gave rise to this obligation didn’t result in an asset being recognized; an asset being de-recognized; or a liability being derecognized. Accordingly, net assets and thus owners’ equity decreased. Following the OEC Map, we see that Smart must recognize an expense, which is typically called interest expense by companies following US GAAP and financing costs by IFRS companies. Here is the December 31, 2013 entry to accrue interest expense:

Smart Company's adjusting entry to accrue interest expense

	<u>Debit</u>	<u>Credit</u>
Financing costs (includes interest expense)	\$5	
Accrued interest		\$5

Typically, accrued interest is classified as current and does not need to be reclassified to a current liability, unlike the principal portion of the debt obligation, as we will see next.

RECLASSIFYING PRINCIPAL

We have seen in earlier chapters that investors analyze working capital and current ratios at the end of reporting periods, along with other information, to assess the likelihood companies can meet their near-term obligations. To facilitate these assessments, companies are required to classify any debt obligations that must be met within the next year as current liabilities. Thus, the portion of the principal that is scheduled to be repaid during the next year must be reclassified as a current liability, which is usually called the current portion of long-term debt.

For the Smart Company example, on December 31, 2013 Smart reclassifies the \$100 of principal that will be paid on January 1, 2014 from long-term debt to the current portion of long-term debt. Here is the entry:

Smart Company's adjusting entry to reclassify principal

	<u>Debit</u>	<u>Credit</u>
Long-term debt	\$100	
Current portion of long-term debt		\$100

PAYING INTEREST AND PRINCIPAL

The entries to pay previously accrued interest and principal are straightforward. Here are the entries Smart Company records on January 1, 2014:

Smart Company's debt payments**Pay interest**

	<u>Debit</u>	<u>Credit</u>
Accrued interest	\$5	
Cash and cash equivalents		\$5

Pay principal

	<u>Debit</u>	<u>Credit</u>
Current portion of long-term debt	\$100	
Cash and cash equivalents		\$100



- The principal payment, also referred to as repayment of borrowings, is classified as a financing activity on the cash flow statement under both US GAAP and IFRS. The interest payment must be classified as an operating cash flow under US GAAP, but may be classified as either an operating or financing cash flow under IFRS.

LEASES

Leases are contracts between lessees and lessors. Lessees acquire the right to use property owned by lessors in exchange for lease/rent payments or other consideration. If you are not familiar with the concept of a lease, it is best to get a brief background before studying the accounting for leases. Watch just the first six minutes of the *Navigating Accounting* video: “Capitalizing Operating Leases”

<http://www.navigatingaccounting.com/video/capitalizing-operating-leases>

When PP&E is leased and the lease is classified as a capital lease (called a finance lease under IFRS), the entry to record the lease is very similar to the entry we presented earlier to record a purchase with 100% debt financing. An asset is recognized, representing the right to use the leased property during the lease term and a liability is recognized, representing the lessee’s obligation to make lease payments during the lease term.

The primary difference between purchasing PP&E with debt financing versus leasing is the amount recorded as PP&E for a capital lease is generally less than what would have been recorded if the same PP&E had been purchased with debt. There are two reasons there are fewer future benefits and therefore a lower asset value for leased PP&E: First, purchasing the asset conveys all of the rights and benefits of ownership. Second, leasing the asset limits the future benefits to the lease term, which is generally shorter than the asset’s economic life associated with ownership.

The amount recorded for a capital lease is generally more difficult to determine than the amount recorded for a purchase of the same asset. With a purchase, the cash paid or the amount that would have been paid in cash is recorded. For a capital lease, the present value of the future lease payments must be determined. The present value concept is explained in a *Navigating Accounting* video cited later in the chapter. For now, you can think of it as the amount the company would have to put in an interest bearing bank account at the start of the lease to ensure this deposit plus interest would exactly cover the future lease payments during the lease term. The present value of the payments would be less than the sum of the payments, providing the bank account earns interest.

Here is the entry Berger Properties would record if it leased, rather than purchased, the building discussed earlier and the present value of the future lease payments was determined to be \$30 million:

Berger Properties leases a building under a capital lease		
	<u>Debit</u>	<u>Credit</u>
PPE: capital lease asset	\$30	
LTD: capital lease obligation		\$30



- Because PP&E and long-term debt are recorded at the commencement of a capital lease, the accounting entries thereafter are structurally identical (but with smaller numbers) to those that would have been recorded if the company had purchased the PP&E with debt financing.
- This means that if you understand how to account for PP&E and long-term debt, you know how to account for capital leases.

In this section, we will: (i) briefly discuss the criteria for classifying leases as capital versus operating; (ii) explain how the amount recognized as an asset and liability is determined when a lease is classified as a capital lease; (iii) explain the entries for capital leases and operating leases; and (iv) briefly describe the most prominent features of the changes proposed by standard setters.

CLASSIFYING LEASES

Under IFRS, a lease is classified as a finance lease (referred to as a capital lease under US GAAP) if the lease transfers substantially all of the risks and rewards of ownership to the lessee, otherwise it is classified as an operating lease. Determining whether this criterion is met can require significant judgment in some contexts, meaning experts might reasonably disagree on the classification.

Similar to IFRS, the US GAAP classification criteria center on the extent to which the risks and rewards of ownership are transferred to the lessee, but they are much more prescriptive, leaving very little room for judgment. Leases are classified as capital leases under US GAAP if one of the following conditions are satisfied:

1. The lease transfers ownership to the lessee at the end of the lease term.
2. The transfer seems likely even if it is not stated explicitly because the lessee has a bargain purchase option.
3. The lease extends for at least 75% of the asset's life.
4. The present value of the contractual lease payments equals or exceeds 90% of the fair market value of the asset at the time the lease is signed. Present values will be discussed later.

These criteria try to ensure that most of the risks of ownership have been transferred to the lessee when a lease is capitalized. The problem with this objective is that considerable risk can be transferred when longer leases are classified as operating because they barely fall short of the criteria thresholds. Also, because companies would generally prefer not recognize the lease liabilities, they have an incentive to design lease contract to be classified as operating leases.

MEASURING INITIAL VALUE OF A CAPITAL LEASE

When a lease is classified as a capital lease, the lessee must determine the amount that will be recognized as an asset and liability. Under US GAAP, the lessee recognizes the present value of the minimum payments specified in the lease contract (excluding insurance, maintenance, and taxes paid by the lessor), discounted at the lessee's borrowing rate (or the lessor's implicit rate when it is available to the lessee and less than the implicit rate.)

Present value is one of the most important concepts in finance. If you are not familiar with present value computations, here's a *Navigating Accounting* video that explains them: "Present Values and Future Values"

<http://www.navigatingaccounting.com/video/scenic-present-values>

Next, we introduce an example that we will refer to during the remainder of the leases discussion.

Example facts

- On January 1, 2013, Smart Company commences a five-year non-cancellable lease with a \$100 payment due each January 1, 2014-2018.
- Smart has yet to determine how the lease should be classified.
- Smart intends to use the leased asset at the same rate over the lease term.
- It is not practical for Smart to determine the implicit rate computed by the lessor and so Smart uses its incremental borrowing rate, 5% per year, to determine the present value of the lease at its commencement date: \$432.95.

RECORDING ENTRIES FOR LEASES

For a capital lease, the entries are structurally the same as those for purchasing the leased asset with 100% debt financing. However, the numbers are smaller in the lease entries because the lessee doesn't get all of the rights of ownership and the lease term is usually shorter than the economic life of the leased property.

For an operating lease, the lessee simply recognizes an expense and payment each year, perhaps at different dates. If the leased asset is expected to be used the same amount each year and the payments are constant, as they are in the Smart example, the expense each year is one payment. More generally, the expense is determined by multiplying the total payments for the entire lease term by the portion of the total usage consumed during the year.

If Smart classifies the lease as capital, at the commencement of the lease, January 1, 2013, Smart recognizes a lease asset and liability of \$432.95, which is the present value of the minimum annual payments.

If Smart classifies the lease as operating, at the commencement of the lease, January 1, 2013, no entry is recorded (but one would be recorded if a lease payment was required at the start of the lease):

Smart Company's January 1, 2013 entry		
If lease classified capital		
<i>Recognize lease asset and liability</i>		
	<u>Debit</u>	<u>Credit</u>
PPE: capital lease asset	\$432.95	
LTD: capital lease obligation		\$432.95
If lease classified operating		
<i>No entry</i>		

Smart could have classified some of the obligation as current portion when the lease was recognized at the commencement date. Instead, we are going to transfer part of the long-term obligation to the current portion at the end of 2013, which is an acceptable alternative if this is the first reporting date after the commencement of the lease.

While the first payment is not due until January 1, 2014, adjusting entries are required on December 31, 2013, the fiscal year-end. If the lease is classified as capital, there are three entries on this date:

- Recognize amortization expense related to the using up part of the lease asset. Because the leased asset is expected to be used constantly over the five-year lease term, the amortization expense is 1/5 of the \$432.95 capitalized at the commencement date: \$86.59.
- Recognize interest expense associated with the lease obligation, which is determined by multiplying the outstanding balance of the lease obligation at the start of the year, \$432.95, by the discount rate, 5%, which equals \$21.65.
- Transfer part of the long-term obligation to the current portion. This will be the principle portion of the payment that will be made January 1, 2014, which is determined by subtracting the \$21.65 interest portion from the \$100 total: \$78.35.

If the lease is classified as operating, \$100 of expense is accrued. Here are the entries:

Smart Company's December 31, 2013 entries		
If lease classified capital		
<i>Accrue interest on lease obligation</i>		
	<u>Debit</u>	<u>Credit</u>
Financing costs (includes interest expense)	\$21.65	
Accrued interest		\$21.65
<i>Recognize amortization on lease asset</i>		
	<u>Debit</u>	<u>Credit</u>
Amortization expense	\$86.59	
Accumulated capital lease amortization		\$86.59
<i>Transfer part of long-term obligation to current portion</i>		
	<u>Debit</u>	<u>Credit</u>
LTD: capital lease obligation	\$78.35	
Current portion of capital lease obligation		\$78.35
If lease classified operating		
<i>Recognize operating lease (rental) expense</i>		
	<u>Debit</u>	<u>Credit</u>
Operating lease expense	\$100	
Other accrued liabilities		\$100

The payments are recorded the next day, January 1, 2014:

Smart Company's January 1, 2014 entries		
If lease classified capital		
<i>Interest portion of lease payment</i>		
	<u>Debit</u>	<u>Credit</u>
Accrued interest	\$21.65	
Cash and cash equivalents		\$21.65
<i>Principal portion of lease payment</i>		
	<u>Debit</u>	<u>Credit</u>
Current portion of long-term debt	\$78.35	
Cash and cash equivalents		\$78.35
If lease classified operating		
<i>Lease payment</i>		
	<u>Debit</u>	<u>Credit</u>
Other accrued liabilities	\$100	
Cash and cash equivalents		\$100

If the lease is classified as capital, the interest portion of the payment will decrease each year and the principal portion increase, as illustrated in the following amortization schedule:

Year	Beginning long-term capital lease obligation	Interest expense accrued during current year	Payment due first day of the next year	Principal portion of payment transferred to current portion of capital lease obligation	Ending long-term capital lease obligation
2013	\$432.95	\$21.65	\$100.00	\$78.35	\$354.60
2014	\$354.60	\$17.73	\$100.00	\$82.27	\$272.32
2015	\$272.32	\$13.62	\$100.00	\$86.38	\$185.94
2016	\$185.94	\$9.30	\$100.00	\$90.70	\$95.24
2017	\$95.24	\$4.76	\$100.00	\$95.24	\$0.00

As illustrated in the table below, two expenses are associated with capital leases: interest and amortization. For the capital and operating lease alternatives, the total amount expensed over the lease term is the same as the total payments, \$500. However, the pattern of the expenses differs, with the capital lease expense decreasing as its interest component decreases.

Year	Interest expense related to capital lease obligation	Amortization expense related to capital lease asset	Total expense if capital lease	Total expense if operating lease
2013	\$21.65	\$86.59	\$108.24	\$100.00
2014	\$17.73	\$86.59	\$104.32	\$100.00
2015	\$13.62	\$86.59	\$100.21	\$100.00
2016	\$9.30	\$86.59	\$95.89	\$100.00
2017	\$4.76	\$86.59	\$91.35	\$100.00
Total	\$67.05	\$432.95	\$500.00	\$500.00

PROPOSED UPDATES TO LEASING STANDARDS

We close this chapter with a brief discussion of proposed changes in accounting for leases.

Accounting for leases from the perspectives of both the lessor and lessee has been extremely controversial for years and will change significantly in the near future if proposed changes to US GAAP and IFRS are enacted.

By far the biggest concern about the current models for lease accounting under US GAAP and IFRS is that the vast majority of non-cancellable leases are not recognized on lessees' balance sheets because they are classified as operating leases rather than capital leases (referred to as finance leases under IFRS). This is true even though for operating leases the lessee's right to use the related PP&E meets the definition of an asset; the lessee's obligation to make lease payments meets the definition of a liability and both the asset and liability can be measured reliably. For years, standard setters, with strong support from financial analysts and academics, have been trying unsuccessfully to do away with operating leases. They have faced great resistance from the business community, especially from industries where leasing is extensive, because bringing operating leases onto the balance sheet can increase financial leverage dramatically. This said, there seems to be a reasonably good chance new standards will be enacted in the next few years.

Under both US GAAP and IFRS, the proposed updates are similar and will significantly affect many companies' financial statements if enacted. The biggest proposed change is that lease assets and lease liabilities equal to the present value of the lease payments will be recognized at the commencement date for all leases longer than twelve months.

The lease payments will differ slightly from the minimum payments currently used for present value computations for capital leases. However, ignoring these differences, Smart Company would recognize an asset and liability for \$432.95 under the proposed standard, regardless of how the lease would be classified. For many companies, especially airlines and retailers, this will increase the recognized liabilities by more than 50%.

Under the proposed updates, there will still be two types of leases: Type A and Type B:

- If the underlying asset is NOT property (e.g., not land or buildings), the lease is classified Type A, unless one of the following criteria is met: (i) the lease term is an insignificant part of the underlying asset's economic life or (ii) the present value of the lease payments is insignificant relative to the fair value of the underlying asset at the commencement of the lease. If either of these criteria is met, the lease is classified as Type B. This means most plant and equipment will be classified Type A.
- If the underlying asset is property, the lease is classified as Type B, unless one of the following criteria is met: (i) the lease term is for the major part of the economic life of the underlying asset or (ii) the present value of the lease payments accounts for substantially all of the fair value of the underlying asset at the commencement date. This means most property (e.g. land and buildings) will be classified a Type B.

Although some of the measures will change slightly, the proposed accounting for Type A leases is conceptually the same as the current accounting for capital leases. In particular, the entries will be structurally the same and their financial-statement effects will be the same, meaning the same line items will be affected in the same direction.

The assets and liabilities recognized at the commencement of the lease will be the same regardless of whether a lease is classified as Type A or Type B. And the liability will be the same for both types at all subsequent reporting dates. However, the assets will differ for the two types after the commencement date. As indicated above, for Type A leases the asset will be depreciated at the same rate it would be currently as a capital lease.

By contrast, for Type B, the depreciation will be the amount needed to ensure the lessee would amortize the total lease cost on a straight-line basis over the lease term. For example, if Smart's lease is classified as Type B, the expense recognized each year would be \$100. It would be recognized as a single expense on the income statement, but have separate balance-sheet effects for the lease asset and liability. Here are the proposed Type-B expense entries for the first two years of Smart's lease. Notice the interest component is the same as the interest expense recognized earlier for the capital lease, but the depreciation differs:

Smart Company's first two expense entries if lease is Type B		
2013		
	Debit	Credit
Lease expense	\$100.00	
Accrued interest		\$21.65
Accumulated lease amortization		\$78.35
2014		
	Debit	Credit
Lease expense	\$100.00	
Accrued interest		\$17.73
Accumulated lease amortization		\$82.27

In closing, although accounting for leases is expected to change in the near future, understanding the current accounting will provide you a solid foundation for interpreting the financial implications when the updates to the accounting standards become effective.