CHAPTER 20: LEASES

1. Basics of Leases

A *lease* is a contractual agreement between the *lessor* and the *lessee*. The agreement gives the lessee the right to use a piece of property for a specific period of time. A lease is essentially a source of financing for the lessee. The property is owned by the lessor and the the lessee is required to make regular cash payments (i.e., rent) to the lessee in exchange for the right to use the leased asset.

Advantages of Leases

Leases provide lucrative returns to the lessor. As an example, the lessee is often required to pay "premium rents" to the lessor. One reason the lessee is willing to pay them is that it generally does not make a down-payment. Further the lessor often reacquires the asset from the lessee and reacquired assets often have significant residual values. Leases are also advantageous for the lessee. As noted, the lessee is often not required to make a down-payment, being as the lessor can reacquire the leased asset should the lessee fail to pay rent. Lease financing is also appealing to the lessee for the reason that future lease payments represent a fixed obligation; a fixed obligation insulates the lessee from things like fluctuating interest rates. (The same point applies to the lessor.) Lease financing is particularly attractive for companies seeking to secure assets, like computers, with a short life-span. The lessee is essentially protected from wearing the cost of obsolete equipment.[1]

Some advantages apply equally to both the lessee and the lessor. Lease contracts are flexible, which means the lessee and the lessor can structure them to achieve mutually acceptable objectives. Additionally, leases can have desirable tax implications. Lease financing is particularly appealing for smaller start-up companies that do not generate substantial profits. One reason they like to avoid acquiring capital assets is that there is little income from which they can deduct CCA. Consequently, they lose a valuable tax deduction. Given this context, it often makes a lot of sense for the lessor (a highly profitable venture) to retain ownership of the asset so that the CCA deduction is not lost. The lessor, in theory, can pass this benefit on to the lessee by way of reduced rents.

2. Classification Approach

The text analyzes three approaches for accounting for leases but the focus of the chapter is only on the *classification approach*.[2] The classification approach requires companies to distinguish between (1) *operating Leases* and (2) *capital leases* (ASPE)/*finance leases* (IFRS).

Operating Lease

An operating lease does not see the risks and benefits of ownership transfer from the lessor to the lessee. The following is true in the case of an operating lease: (a) the lessor does not remove the leased asset from the balance sheet; (b) the lessor depreciates the leased asset each fiscal period; (c) the lessor debits cash and credits lease rent revenue each time it receives a payment from the lessee; (d) the lessee does not capitalize the leased asset and it does not recognize an associated liability on the balance sheet; (e) the lessee does not depreciate the leased asset; (f) the lessee makes regular lease payments to the lessor, whereby it debits rent expense and credits cash.

Capital/Finance Lease

A capital/finance lease sees the risks and benefits of ownership transfer from the lessor to the lessee. "The benefits of ownership are the ability to use the asset to generate profits over its useful life, benefit from any appreciation in the asset's value, and realize its residual value at the end of its economic life" (p. 1274). "The risks of ownership are the exposure to uncertain returns (sic), loss from use or idle capacity, and technological obsolescence" (p. 1274).

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[1] The lessee may even have the contractual right to request the lessor to replace the obsolete equipment. Often the lease contract is terminated at this point.
[2] Although it is worth emphasizing that the accounting for leases is in a state of flux. You should expect fewer and fewer opportunities in practice to expense leases.

Consideration is now given to the manner in which an operating lease is distinguished from a capital/finance lease in terms of IFRS and ASPE, respectively.

Applying the Classification Approach

IFRS Criteria

IFRS provides criteria to be used by the lessee and the lessor for distinguishing between an operating lease and a finance lease.[3] IFRS are more principles based standards relative to Canadian GAAP. Consequently, there are fewer bright-line thresholds to make the distinction. Application of IFRS ultimately requires the lessee and the lessor to exercise professional judgement to determine whether one of the following criteria is satisfied; if one is satisfied, then the lease is treated as a finance lease by the both the lessee and the lessor.

1.) There is reasonable assurance the lessee will obtain ownership of the leased property as often indicated through a bargain purchase option in the lease contract.
2.) The lease term is for the major part of the asset's economic life.
3.) The lease allows the lessor to recover substantially all of its investment in the lease property and to generate a satisfactory rate of return on said investment.
4.) The leased asset is so specialized that, without major modification, it is only of use to the lessee.

ASPE Criteria

ASPE essentially provides the same criteria to the lessee and the lessor as the ones highlighted above but the criteria are more rules-based.[4] In the event one of the following conditions is satisfied, then the lease is treated like a capital lease by the lessee.

1.) There is reasonable assurance the lessee will obtain ownership of the leased property as often indicated through a bargain purchase option in the lease contract.
2.) The lease term is greater than or equal to 75% of the leased property's economic life.
3.) The present value of the minimum lease payments is greater than or equal to 90% of the fair value of the leased asset.
4.) The leased asset is so specialized that, without major modification, it is only of use to the lessee

In order for the lease to be treated like a capital lease by the lessor, though, one of the above conditions must be satisfied and both of these tests must be passed:

1.) Is the credit risk associated with the lease normal when compared with the risk of collection of similar receivables?
2.) Can the amounts of any unreimbursable costs that are likely to be incurred by the lessor under the lease be reasonably estimated?

Classification Approach: Capital/Finance Leases (Lessor Only)

ASPE mandates the lessor to recognize a non-operating lease as either one of these two types of capital leases: (1) Sales-Type Lease vs. (2) Direct-Financing Lease. Conversely IFRS mandates the lessor to recognizes a non-operating lease as either one of these two types of finance leases: (1) Manufacturer or dealer lease vs. (2) Direct Financing Lease. (See: Table #1.) It can be understood now that the lessee only recognizes one type of non-operating lease (i.e., capital/finance lease), whereas the lessor must distinguish between the two types of non-operating leases depicted in Table #1.

[3] Please refer to IAS 17 ("Leases").
[4] Please refer to Section 3065 of the CPA handbook for further information.

Table #1: Specialized Types of Capital/Finance Leases

	ASPE Terminology	IFRS Terminology
(1) Sales-type Lease	Sales-type Lease	Manufacturer or dealer lease
(2) Financing-type Lease	Direct financing lease	Direct Financing Lease

How does the lessor (and only the lessor!) distinguish between a sales-type lease from a financing-type lease?[5] A sales-type lease sees both the lessor's profits and the leased asset's cost factor into the regular rental payments. This type of lease is apparent whenever this relationship is true: The lessor's Net Investment in the Lease > The Lessor's Cost of Leased Asset Being Sold. The lessor treats a lease as a financing-type lease whenever this relationship does not hold.

The lessor's net investment in the lease is the difference between (a) its gross investment in the lease (i.e., initial lease receivable) and (b) unearned interest revenue. Its gross investment in the lease is the sum total of the undiscounted lease payments + any Guaranteed Residual Value (GRV) or Unguaranteed Residual Value (URV) – any executory costs. The GRV is the amount at which the lessor has the right to require the lessee to purchase the asset, or the amount the lessee or the third-party guarantor guarantees the lessor will realize. In contrast, the URV is any portion of the residual value that is not guaranteed, or is guaranteed solely by a party related to the lessor. Unearned interest income, in this context, represents the difference between (a) the lessor's gross investment in the lease (defined above), and (b) the fair value of the asset. The fair value of the asset is the lower of (a) the present value of the lease payments[6], and (b) the fair value of the asset; that is, the fair value of the asset today less any discounted GRV or URV. The lessor's cost of the leased asset being sold (i.e., COGS) represents the cost incurred today by the lessor to purchase the asset (not to be confused with the fair value of the asset) less any discounted URV.[7] The analysis now turns to the manner in which the lessee accounts for a capital/finance lease, which is virtually identical as per ASPE and IFRS.

3. Accounting for Capital/Finance Leases (Lessee)

Present Value of Minimum Lease Payments (Lessee)

Once the lessee determines that a particular lease constitutes a capital/finance lease, then it proceeds by capitalizing the asset and recognizing the associated liability on the balance sheet. The value of the asset/liability is equal to the lower of the present value of the minimum lease payments and the asset's current fair value, whereby fair value can be taken to mean the asset's fair value today less any discounted GRV or URV.[8] Generally, you will be required to determine the value of the asset by calculating the present value of the minimum lease payments. Sometimes the amount of the fixed payment is specified. In other cases, you calculate it. (Refer to Sections 4 and 5 for pertinent details.)

Whenever the amount of the payment is specified, make sure you deduct any executory costs that have been lumped into the value of the lease payment. Also significant: Whenever a bargain purchase option is available to the lessee, then, it is necessary to take into consideration the value of the bargain purchase option when calculating the present value of the minimum lease payments (shown next). A bargain purchase option enables the lessee to purchase the leased asset for an amount less than the asset's fair value at the end of the lease-term. It is always assumed that the lessee exercises a bargain purchase option. This is how to use a financial calculator[9] to determine the present value of the minimum lease payments:

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[5] ASPE and IFRS criteria are virtually identical once a lease is classified as a non-operating lease by the lessor.
[6] Executory costs are never included within these payments.
[7] Note: do not deduct the value of any bargain purchase option from the cost incurred today by the lessor to purchase the asset.
[8] If only one figure is provided to you (or you can only calculate one figure) then use this figure.
[9] As an alternative, you are more than welcome to calculate the present value of the minimum lease payments vis-à-vis application of the appropriate present value table or applicable formulas. Show your work in all cases.

- N = Number of lease payments (i.e., term of lease)
- PMT = Value of regular payment made by lessee to the lessor[10]
- FV = Value of any bargain purchase option[11]
- I = Applicable discount rate (see section directly below)
- Compute present value

Please note: Many lease contracts see payments made at the beginning of the periods. Ensure the BGN function is activated on your calculator when this happens to be the case.

Discount Rate (Lessee)

IFRS requires application of the *interest rate implicit in the lease*[12] unless this rate is not reasonably determinable, in which case the *incremental borrowing rate*[13] is applied to determine the present value of the lease payments. ASPE requires application of the lower of the interest rate implicit in the lease and the incremental borrowing rate to calculate the present value of the minimum lease payments. Sometimes only one rate is specified, in which case, this rate is used to calculate the present value of the minimum lease payments.

Amortization Schedule (Lessee)

An amortization schedule is constructed to prepare the lessee's journal entries. Table #2 provides an example of an amortization schedule in the context of a five-year-annual-lease, whereby there is a bargain purchase option available on January 1, Year #6 and payments are due at the beginning of each period.

Table #2: Lessee's Amortization Schedule

Date	Lease Payment	Interest	Reduction: Lease Obligation	Balance: Lease Obligation
January 1, Year #1				y
January 1, Year #1	x	w	z	y
January 1, Year #2	x	w	z	y
January 1, Year #3	x	w	z	y
January 1, Year #4	x	w	z	y
January 1, Year #5	x	w	z	y
January 1, Year #6[14]	q	w	z	r
Total	**Σ**	**Σ**	**Σ_1**	**0**

let:

y = Initially equal to the lower of the present value of the minimum lease payments or the leased asset's fair value. Thereafter y decrease by the principal component of each lease payment (z; see below);
x = Value of regular lease payments (i.e., value of payment calculated above);
w = Value derived by multiplying y by the appropriate discount rate;
z = $x - y$;
q = Value of bargain purchase option;
r = $q - w$.

[10] Whenever the problem specifies the amount of the payment AND executory costs are included within said payment, then be sure to deduct them from the amount of the payment.
[11] No value is entered as a future value whenever there is no bargain purchase option.
[12] The lessor's internal rate of return at the beginning of the lease that makes the present value of the minimum lease payments plus any unguaranteed residual values equal to the fair value of the asset.
[13] The interest rate the lessee would incur to borrow monies at the beginning of the lease in order to purchase the leased asset.
[14] Please note: This row would not appear in the amortization schedule in the absence of a bargain purchase option.

Journal Entries (Lessee)

The lessee capitalizes the leased asset and concurrently recognizes the associated liability on the balance sheet at the outset of the lease. The lessee prepares this journal entry:

Equipment Under Lease	Σ_1	
Lease Obligation		Σ_1

The lessee also recognizes the payment it makes to the lessor on January 1, Year #1[15] via this journal entry:

Lease Obligation	$\approx$	
Cash		x

It can be noted that that no interest expense is recognized in the above journal entry, given that no time has elapsed. This is not the case when subsequent payments are made, as depicted in the following journal entry, whereby the lessee is paying rent in successive periods:

Lease Obligation	$\approx$	
Interest Expense	w	
Cash		x

When the lessee is responsible for covering *executory costs*, then it expenses them in the appropriate periods. Executory costs[16] include things like insurance, maintenance, and property tax expenses. The lessee prepares a journal entry like this one to expense executory costs:

Insurance Expense	*xxx*	
Property Tax Expense	*xxx*	
Cash		*xxx*

The lessee always depreciates the leased asset. This formula is used to calculate depreciation expense whenever the lessee retains the leased asset at the end of the lease-term:

Depreciation Expense = Full Capitalized Asset Cost/Asset's Economic Life

This formula is used to calculate depreciation expense whenever the leased asset reverts back to the lessor:

Depreciation Expense = Full Capitalized Asset Cost/Lease Term

The lessee prepares this journal entry to record depreciation expense:

Depreciation Expense	*xxx*	
Accumulated Depreciation		*xxx*

As a final significant point, it is worth emphasizing the lease-term will rarely align perfectly with the lessee's fiscal year. Consequently, the lessee will record adjusting entries at the end of the fiscal year, like these ones:

Interest Expense	*xxx*	
Interest Payable		*xxx*

Depreciation Expense	*xxx*	
Accumulated Depreciation		*xxx*

[15] Naturally this is not the case when lease payments are due at the end of the period.
[16] It is worth noting that the value of executory costs is not derived from the amortization schedule.

The applicable fraction of the year is always taken into consideration to accrue pertinent expense. The lessee subsequently removes any amounts, like interest payable, when rent is eventually paid to the lessor.

4. Accounting for a Financing-Type Lease (Lessor)

As noted above, the lessor classifies a non-operating lease as either a (1) Sales-Type Lease or (2) Financing-Type Lease. The lessor treats all non-operating leases as Sales-Type Leases when this relationship is true: The lessor's Net Investment in the Lease > The Lessor's Cost of Leased Asset Being Sold. The lessor treats a lease as a financing-type lease whenever this relationship does not hold. The lessor's accounting for a financing-type lease mirrors the lessee's accounting for a capital/finance lease in many respects and the analysis now provides more specific details on how the lessor accounts for this type of non-operating lease.

Lease Payment (Lessor)

The amount of the lease payment must be determined if it is not specified. "In most cases, the rent is set at an amount that enables the lessor to recover the asset's cost plus a fair return over the life of the lease" (p.1270). The lessor's desired return is the basis for determining the lease payment. This is how to use a financial calculator[17] to determine the magnitude of the lease payment:

- N = Number of lease payments (i.e., term of the lease)
- PV = Asset's current fair value
- FV = Value of any GRV or URV
- I = Lessor's desired rate of return
- Compute payment

Please note: Many lease contracts see payments made at the beginning of the periods. Ensure the BGN function is activated on your calculator when this happens to be the case. Further the payment is a fixed/reoccurring amount, and it is included in the lease-payment column in the amortization schedule depicted in Table #3.

Amortization Schedule (Lessor)

Often an amortization schedule is constructed to prepare the lessor's journal entries in relation to a sales-type lease. One important note here: Table #3 provides an example of the lessor's amortization schedule in relation to a five-year-annual-lease, whereby there is a bargain purchase option[18] available on January 1, Year #6 and payments are due at the beginning of each period.

Table #3 Lessor's Amortization Schedule

Date	Lease Receivable (Payments)	Interest on Net Investment	Net Investment Recovery	Balance: Net Investment
January 1, Year #1				y
January 1, Year #1	x	w	$\approx$	y
January 1, Year #2	x	w	$\approx$	y
January 1, Year #3	x	w	$\approx$	y
January 1, Year #4	x	w	$\approx$	y
January 1, Year #5	x	w	$\approx$	y
January 1, Year #6	q	w	$\approx$	r
Total	$\mathbf{\Sigma_1}$	$\mathbf{\Sigma_2}$	$\mathbf{\Sigma_3}$	**0**

[17] As an alternative, you are more than welcome to calculate the value of the lease payment vis-à-vis application of the appropriate present value table or applicable of applicable formulas. Show your work in all cases.

[18] Although a GRV or URV would be treated the same way in Table #3.

let:

y = Full cost of asset today; thereafter decreased by z;
x = Value of fixed lease payments lessee makes to lessor (value of payment just calculated);
w = Rate of return multiplied by y;
z = $x - w$;
q = Value of of any GRV or URV;
r = $q - w$.
Σ_1 = Initial value of lease receivable reported on lessor's SFP;
Σ_2 = Initial value of unearned interest income reported on lessor's SFP;
Σ_3 = Initial value of equipment removed from lessor's SFP.

Applicable Journal Entries (Lessor)

The lessor removes the leased asset from its balance sheet. Simultaneously it debits lease receivable and credits unearned interest when it prepares this entry on January 1, Year #1:

Lease Receivable	Σ_1	
Equipment	Σ_3	
Unearned Interest Income		Σ_2

The lessor also records receipt of the initial rental payment in this journal entry:

Cash	x	
Lease Receivable		x

The above entry is made when the lease payment occurs at the beginning of the lease period, which means that none of the unearned interest income is recognized as earned income yet. As time elapses, though, unearned interest income is recognized as earned income. The following entry is entered on December 31, Year #1:

Unearned Interest Income	w	
Interest Income		w

5. Accounting for a Sales-Type Lease (Lessor)

As noted, the lessor treats all non-operating leases as Sales-Type Leases whenever the lessor's Net Investment in the Lease > The Lessor's Cost of Leased Asset Being Sold. Consideration is now given to the lessor's accounting for this specific type of non-operating lease.

Lease Payment (Lessor)

Again, the amount of the lease payment must be determined if it is not specified. This is how to use a financial calculator[19] to determine the magnitude of the lease payment:

- PV = Amount of asset's fair value – any discounted residual value (guaranteed or not)
- FV = Amount of any residual value (guaranteed or not)
- I = Lessor's desired interest rate (provided)
- N = Length of the lease term
- Compute payment

[19] As an alternative, you are more than welcome to calculate the value of the lease payment vis-à-vis application of the appropriate present value table or applicable of applicable formulas. Show your work in all cases.

Ensure the BGN function is activated on your calculator whenever the lease payment occurs at the beginning of the period.

Lease-Date (Journal Entry) (Lessor)

The lessor prepares this journal entry when the lease is signed:

Lease Receivable	*xxx*	
COGS	*xxx*	
Sales Revenue		*xxx*
Inventory		*xxx*
Unearned Interest Income		*xxx*

Here is how you calculate each of the amounts in the above entry:

- Lease Receivable = Gross Investment in Lease = Σ Undiscounted Rental Lease Payments + Undiscounted Residual Value
- COGS = Cost of Asset Today[20] – Discounted Residual Value
- Sales Revenue = Fair Value of Asset – Discounted Residual Value (GRV or URV)
- Inventory = Cost of Asset Today[21]
- Unearned Interest Income = Lease Receivable – Sales Revenue

Amortization Schedule (Lessor)

The above figures can then be used to populate the lessor's amortization schedule, whereby:

- The value of the lease payment is entered down the column entitled Lease Receivable (Payments) and any residual value appears in the final row of this column.
- Sales Revenue is the opening balance of the Net Investment column.
- Interest on the Net Investment is the lessor's desired rate of return multiplied by the outstanding balance of its Net Investment.
- Net Investment Recovery is calculated as the difference between the Lease Payment and the corresponding amount of Interest on Net Investment.
- The balance of the Lessor's Net Investment is always reduced by the amount of the period's Net Investment Recovery.

Additional Journal Entries (Lessor)

The lessor records the same entries depicted above to record (1) Cash payments received (i.e., Dr. Cash; Cr. Lease Receivable) and (2) Interest Income Earned (Dr. Unearned Interest Income; Cr. Interest Income).

[20] Not to be confused with the asset's current fair value.
[21] Not to be confused with the asset's current fair value.