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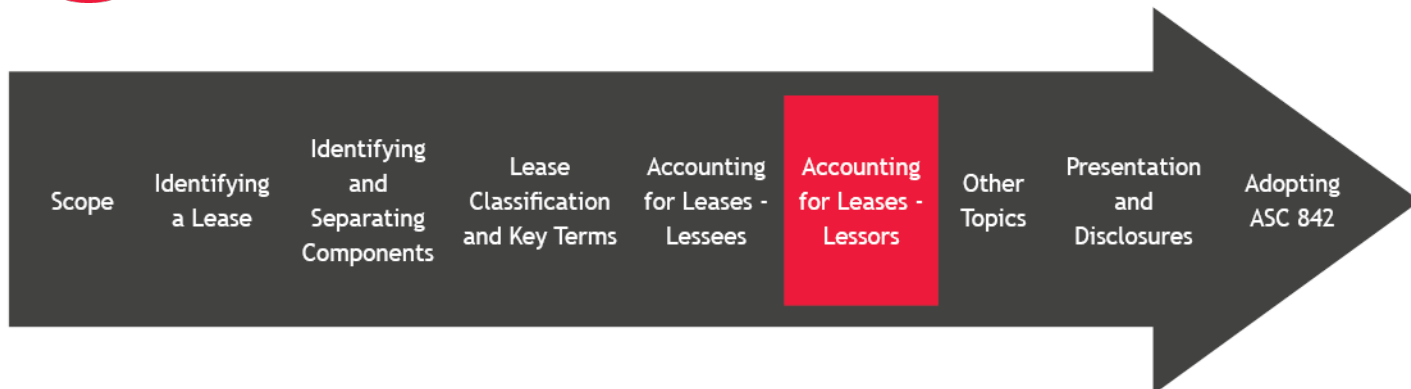
Accounting for Leases Under ASC 842

UPDATED SEPTEMBER 2021





BDO Knows Accounting for Leases - Lessors



OVERVIEW

This article addresses the accounting by lessors for leases classified as sales-type leases, direct financing leases, or operating leases as discussed in an earlier article from this series, [Lease Classification and Key Terms](#).

The primary objective of ASC 842 was to improve accounting for leases by lessees. Accordingly, the accounting for leases by lessors remains broadly consistent with previous GAAP and varies depending on lease classification. While ASC 842 did not significantly change the accounting for lessors, the previous accounting model was not retained in its entirety. For example, some aspects of the new leases guidance were aligned between lessees and lessors.

Since leasing is fundamentally a revenue-generating activity for lessors, some of the changes in ASC 842 were also required as a result of the issuance of ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which superseded all other previous GAAP on revenue recognition that formed the basis for some aspects of the previous lessor accounting model, such as the accounting for sales of real estate. The changes were intended to maintain cohesion between the revenue recognition (and related cost) guidance applicable to sellers of tangible goods under ASC 606 and the guidance applicable to lessors of those same assets under ASC 842.

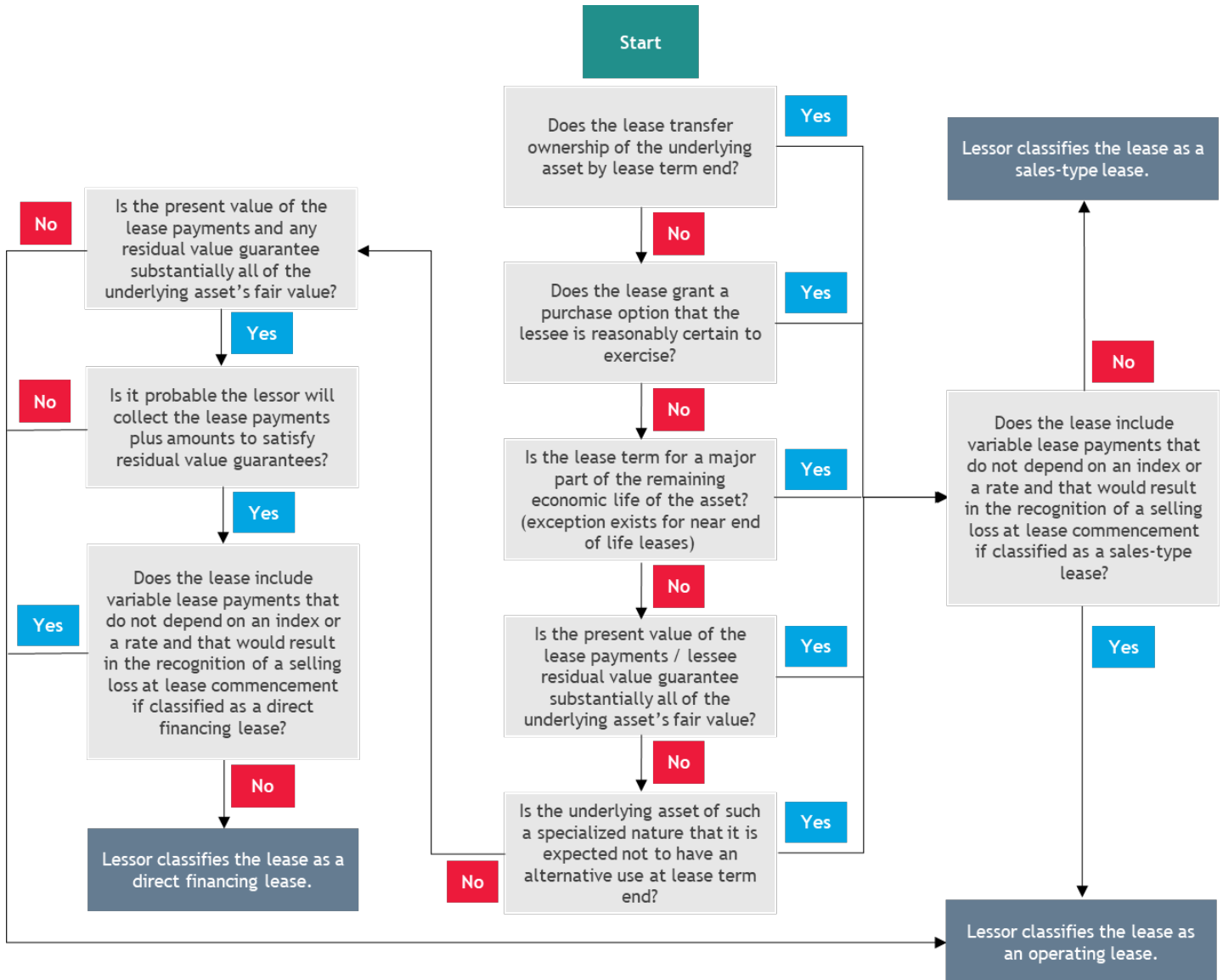
Some users of financial statements also criticized the level of information disclosed by lessors under previous GAAP and asked for additional information about a lessor's exposure to credit risk and residual-asset risk. Consequently, lessors are now required to provide enhanced disclosures on these areas, including providing the carrying amounts of the components in sales-type and direct financing leases (namely, the lease receivable, the unguaranteed residual asset, and for direct financing leases, deferred selling profit), along with information about how a lessor manages its risks associated with the residual value of underlying assets.

The accounting under ASC 842 for lessees and lessors is broadly symmetrical in the statement of comprehensive income but not in the statement of financial position. While lessees are required to record a lease liability for all leases at lease commencement (except for short-term leases if the election is made), lessors will not record a lease receivable for operating leases. Lessors will also recognize the economic benefits associated with the underlying asset and the lease in a single unit of account, namely a net investment in the lease for sales-type and direct financing leases. Lessors will continue to recognize the underlying asset for operating leases.

For discussion on a lessor's practical expedient to not separate lease and nonlease components in an operating lease, see article on [Identifying and Separating Components](#).

LEASE CLASSIFICATION BY LESSORS

Consistent with previous GAAP and as discussed further in an article 4 on [Lease Classification and Key Terms](#), the lessor accounting model distinguishes between sales-type, direct financing, and operating leases as follows:



Sales-type or direct financing leases with variable lease payments that resulted in a day-1 loss

Under ASC 842, a lessor excludes from the consideration in the contract, and therefore from lease payments, most variable payments related to the use of the asset (such as the volume of electricity generated by a solar farm). Depending on the magnitude of those variable payments, this may result in the recognition of a selling loss at the commencement date (a “day-one loss”) for a sales-type or direct financing lease if the amount of the net investment in the lease recognized is less than the carrying amount of the underlying asset derecognized. Those excluded variable payments are then recognized entirely as lease income when the changes in facts and circumstances on which those variable payments are based occur. However, in July 2021 the FASB issued ASU 2021-05 to address this day-one loss issue and which is reflected in the above flowchart. See [Adopting ASC 842](#) for the effective dates and transition requirements.

SUMMARY ACCOUNTING REQUIREMENTS BASED ON LEASE CLASSIFICATION

	Sales-Type Lease	Direct Financing Lease	Operating Lease
Balance Sheet	<ul style="list-style-type: none"> ▶ If collectibility is probable, derecognize the underlying asset and recognize a net investment in the lease at the commencement date. ▶ If collectibility is not probable, continue to recognize the underlying asset and record any payments received as a deposit liability. 	<ul style="list-style-type: none"> ▶ Derecognize the underlying asset and recognize a net investment in the lease at the commencement date. ▶ Selling profit, if any, is deferred and included in the net investment in the lease. 	<ul style="list-style-type: none"> ▶ Continue to recognize the underlying asset. ▶ Initial direct costs are deferred.
	<ul style="list-style-type: none"> ▶ If collectibility was probable initially, subsequently increase the net investment in the lease to reflect interest income and reduce it as lease payments are received. Also assess the net investment in the lease for impairment under ASC 310 (or ASC 326). ▶ If collectibility was not probable initially, monitor collectibility and certain other events (termination of contract or repossession of the underlying asset). 	<ul style="list-style-type: none"> ▶ Subsequently, increase the net investment in the lease to reflect interest income, and reduce it as payments are received. ▶ Assess the net investment in the lease for impairment under ASC 310 (or ASC 326). 	<ul style="list-style-type: none"> ▶ The underlying asset is subject to other GAAP (e.g., ASC 360 on PP&E, including for impairment) ▶ Initial direct costs are amortized over the lease term.
Income Statement	<ul style="list-style-type: none"> ▶ Recognize selling profit or loss at the commencement date of the lease. ▶ Initial direct costs - If the fair value of the underlying asset is different than its carrying amount, expense them. Otherwise, those are deferred and included in the net investment in the lease. 	<ul style="list-style-type: none"> ▶ Recognize selling profit over the lease term through interest income. If there is a selling loss, recognize at the commencement date. ▶ Initial direct costs are deferred and included in the net investment in the lease. 	<ul style="list-style-type: none"> ▶ If collectibility is probable, recognize lease payments in income over the lease term, usually on a straight-line basis. Otherwise, lease income is limited generally to lease payments collected. ▶ Expense initial direct costs on same basis as lease income over the lease term. ▶ Recognize variable lease payments in the period in which the changes in facts and circumstances on which they are based occur. ▶ Recognize any impairment charges of the underlying asset under ASC 360.
	<ul style="list-style-type: none"> ▶ Recognize variable lease payments not included in the net investment in the lease in the period when changes in facts and circumstances on which the payments are based occur. ▶ Recognize interest income using the rate implicit in the lease. ▶ Recognize any impairment charges (or credit losses). 		



Fair value of the underlying asset for lessors

A lessor should apply the guidance in ASC 820 on fair value measurement when determining the fair value of an underlying asset. However, for lessors that are not manufacturers or dealers (i.e., generally financial institutions and captive finance companies), the fair value of the underlying asset at lease commencement is defined as its cost, reflecting any volume or trade discounts that apply. This exception applies only if there has not been a significant lapse of time between the acquisition of the underlying asset and lease commencement. If there has been a significant lapse of time, the lessor must apply the ASC 820 definition of fair value.

This fair value exception is consistent with the fair value exception that existed under ASC 840, which the FASB added to ASC 842 with the issuance of ASU 2019-01 following feedback from lessors previously qualifying for the exception in ASC 840.



A lessor may incur costs to ready the leased asset for its intended use, such as shipping, mobilization, and similar costs. Costs for such activities are not initial direct costs because those are not costs to *obtain* a lease contract. Therefore, a lessor cannot capitalize such costs by applying the guidance on initial direct costs. However, questions arose as to whether such costs should be expensed in all cases or could be capitalized by analogy to other GAAP.

The SEC staff addressed this question at the [2018 AICPA Conference on Current SEC and PCAOB Developments](#):

Andrew W. Pidgeon

Professional Accounting Fellow, Office of the Chief Accountant

“Certain lessee and lessor costs

[...] we have received application questions related to the new leases standard, including questions regarding lessee and lessor accounting for certain costs relating to a lease.

[...] The second lease cost consultation related to lessor accounting for costs incurred to fulfill its obligations under a lease. For example, a lessor may incur costs to transport a leased asset to the lessee. If the specific lessor costs are not within the scope of other GAAP, and to the extent the costs would qualify for deferral if the lease was within the scope of Topic 606,^[11] in lieu of recognizing those costs in current period earnings, the staff did not object to a lessor’s analogy to Subtopic 340-40 as an accounting policy election.

I encourage lessees and lessors that elect to apply either of those accounting policies to apply the policies consistently and include appropriate disclosure of those policies if material.”

[11] FASB ASC Topic No. 606, Revenue from Contracts with Customers (“Topic 606”).

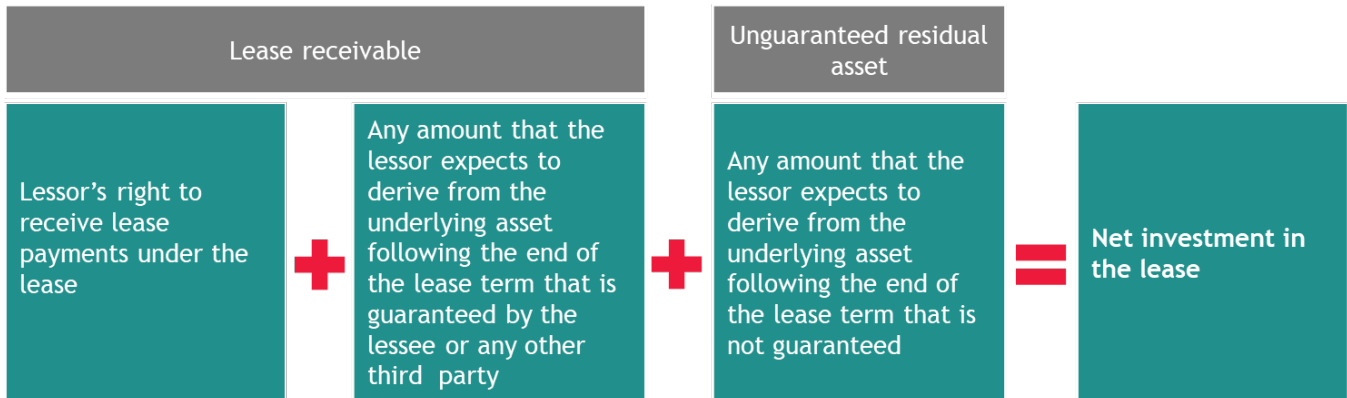
Accordingly, we believe that either of the following approaches is acceptable as an accounting policy election applied to all leases, and disclosed if material:

- Expense the costs as incurred, or
- Capitalize the costs by analogy to the guidance on contract fulfillment costs under ASC 340-40, *Other Assets and Deferred Costs - Contracts with Customers*, assuming the costs meet the criteria for capitalization.

SALES-TYPE LEASES - A DEEPER DIVE

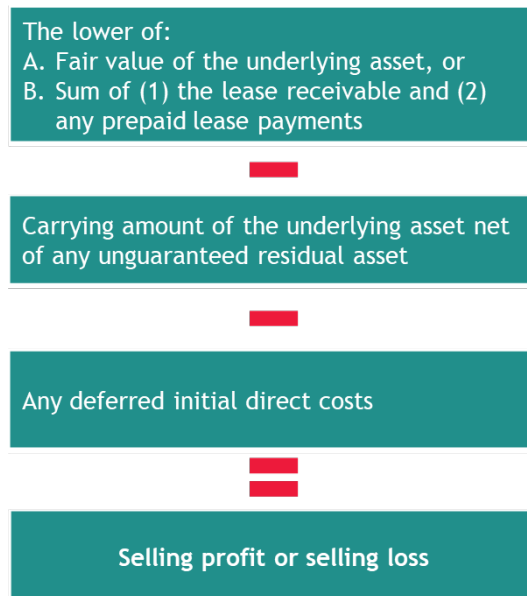
COLLECTIBILITY IS PROBABLE AT COMMENCEMENT DATE

In a sales-type lease, the lessor is considered to transfer control of the underlying asset to the lessee at the commencement date (See article on [Lease Classification and Key Terms](#)). Therefore, assuming collectibility of the lease payments, including any amount necessary to satisfy a lessee residual value guarantee is probable, a lessor recognizes a net investment in the lease and derecognizes the underlying asset at lease commencement, with any selling profit or loss arising from the lease recognized immediately. The net investment in a sales-type lease is the sum of the following, discounted using the rate implicit in the lease (See article on [Lease Classification and Key Terms](#)):



Because of the way the rate implicit in the lease is defined, the net investment in the lease recognized typically will equal the fair value of the underlying asset plus any deferred initial direct costs (less prepaid lease payments, if any).

At the commencement date, the selling profit or selling loss equals the following:



Initial direct costs are expensed if the fair value of the underlying asset at the commencement date is different than its carrying amount. Otherwise, initial direct costs are deferred and included in the measurement of the net investment in the lease and are reflected in the calculation of the rate implicit in the lease.

If a lessor concludes that collectibility is probable at commencement, it does not reassess that conclusion. Subsequent changes in the credit risk of the lessee are accounted for in accordance with the impairment (or credit loss) guidance applicable to the net investment in the lease. See Impairment Section in this article for additional discussion.

After the commencement date, a lessor measures the net investment in the lease by:

- ▶ Increasing the carrying amount to reflect interest income on the net investment in the lease, using the rate implicit in the lease.
- ▶ Reducing the carrying amount to reflect the lease payments collected during the period.

Also, the net investment in the lease is not remeasured after the commencement date except in a lease modification that is not accounted for as a separate contract. See Modification Section in this article for additional discussion.

A lessor also recognizes the following in the statement of operations:

- ▶ Interest income on the net investment in the lease using the rate implicit in the lease.
- ▶ Variable lease payments that are not included in the net investment in the lease as income in the period when the changes in facts and circumstances on which the variable lease payments are based occur.
- ▶ Impairment (or credit losses) on the net investment in the lease.

COLLECTIBILITY IS NOT PROBABLE AT COMMENCEMENT DATE

If collectibility of the lease payments, plus any amount necessary to satisfy a lessee residual value guarantee is not probable at lease commencement, a lessor does not derecognize the underlying asset. Instead, it recognizes any lease payments received, including variable lease payments, as a deposit liability. The lessor then continues to monitor collectibility for any changes in assessment. The deposit liability recorded for payments received is derecognized at the earlier of the following events:



Collectibility of the lease payments and any amounts required to satisfy a lessee residual value guarantee becomes probable.



The contract has been terminated, and the lease payments received from the lessee are nonrefundable.



The lessor has repossessed the underlying asset, has no further obligation under the contract to the lessee, and the lease payments received from the lessee are nonrefundable.

Also, the accounting for derecognizing the deposit liability depends on which event above occurred.



On the date that collectibility of the lease payments plus any amount necessary to satisfy a lessee residual value guarantee is assessed as probable, the lessor:

1. Derecognizes the carrying amount of the underlying asset,
2. Derecognizes the carrying amount of any deposit liability recognized,
3. Recognizes a net investment in the lease based on the remaining lease payments and remaining lease term, using the rate implicit in the lease determined at the commencement date, and
4. Recognizes selling profit or selling loss calculated as:
 - a) The lease receivable; plus
 - b) The carrying amount of the deposit liability; minus
 - c) The carrying amount of the underlying asset, net of the unguaranteed residual asset.



At the date the contract is terminated, or the asset is repossessed with no further obligation to the lessee, and assuming in both cases that the lease payments received are nonrefundable, the lessor derecognizes the carrying amount of any deposit liability with the corresponding amount recognized as lease income.



The above treatment for sales-type leases when collectibility is not probable is consistent with the guidance in ASC 606 related to contracts with customers for which collectibility of the consideration is not probable. However, it represents a change from prior guidance, which resulted in operating lease classification when collectibility was not probable.

In assessing collectibility, a lessor should consider all facts and circumstances regarding the lessee's ability and intent to pay, including the lessee's credit quality, other income or assets with which the lessee could make the lease payments if the business in which the asset is used is not successful, the economic climate of the business in which the asset will be used (level of competition and risk, lessee experience in the industry, etc.), the lessor's history of collections and repossessions with similar lessees, and the lessor's past practice of providing any concessions or waivers to its lessees.



The topic of collectibility assessment by a lessor for sales-type leases was discussed by the SEC staff at the [2019 AICPA Conference on Current SEC and PCAOB developments](#):

Erin Bennet

Professional Accounting Fellow, Office of the Chief Accountant

“ASC 842 and Collectibility

[...] OCA staff recently considered a fact pattern where the registrant enters into sales-type leases of equipment. The lessee is required to make a down payment and also make periodic lease payments, generally over a four-year contractual period. The registrant has historically experienced a high rate of payment delinquencies, leading to defaults that result in termination of the contract and, in most cases, repossession of the equipment. Based on historical experience, the registrant collects an average of 60% of the contractual lease payments. The registrant continues to expect a high rate of defaults and structures its leases to compensate for the high credit risk of its customers through a high rate implicit in the lease, a residual value guarantee, and the intent and ability to repossess the equipment if the customer defaults.

The registrant concluded collectibility of the lease payments was probable at lease inception. The registrant asserted that at the lease commencement date, the customer had the intent and ability to pay as evidenced by a credit evaluation and a substantive down payment, among other factors. *[Footnote omitted]* Further, the registrant asserted that the historical lessee defaults were generally due to a change in the lessee's circumstances subsequent to the lease inception.

The staff objected to the registrant's view and concluded that there was not a sufficient basis to assert that collectibility of the lease payments was probable at the lease commencement date. In reaching this conclusion, the staff considered all factors including the registrant's assessment of the lessee's credit quality and the registrant's history of collections with similar lessees.”

ACCOUNTING AT THE END OF THE LEASE TERM

At the end of the lease term, a lessor reclassifies the net investment in the lease to the appropriate category of asset (for example, property, plant, and equipment) in accordance with other GAAP, measured at the carrying amount of the net investment in the lease. The lessor then accounts for the underlying asset in accordance with other Topics, such as ASC 360.

ACCOUNTING FOR LEASE TERMINATION

If a sales-type lease is terminated before the end of the lease term, a lessor:

- ▶ Tests the net investment in the lease for impairment or credit losses under ASC 310 or ASC 326-20, respectively,
- ▶ Reclassifies the net investment in the lease to the appropriate category of asset in accordance with other GAAP, measured as the sum of the carrying amounts of the lease receivable (less any amounts still expected to be received by the lessor) and the residual asset, and
- ▶ Accounts for the underlying asset that was the subject of the lease in accordance with other GAAP, such as ASC 360.

Examples 1A through 1C below illustrate the initial and subsequent measurement of a sales-type lease, under different scenarios.

Please note that for the illustrations throughout this article, the tables presented in each Example are consistent with how they would be displayed in a spreadsheet, with amounts shown with no decimals, and no rounding function used.

Example 1A - Sales-type lease with lessee residual value guarantee - collectibility is probable

FACTS

- ▶ J.R.E Inc. ("J.R.E") enters into a 6-year lease of non-specialized equipment with Lessee.
- ▶ Lease payments are \$25,000 per year, due at the end of each year. Lessee provides a residual value guarantee of \$35,000.
- ▶ At lease commencement, the equipment has a fair value of \$170,000 and a carrying value of \$150,000.
- ▶ The equipment has a remaining economic life of 10 years, and J.R.E expects the residual value of the equipment at the end of the 6-year lease term to be \$55,000.
- ▶ The lease does not transfer ownership of the equipment to Lessee nor grant it a purchase option.
- ▶ J.R.E incurs \$2,000 of initial direct costs.
- ▶ There are no nonlease components in the agreement.
- ▶ J.R.E concludes at the commencement date that it is probable it will collect the lease payments and the amount necessary to satisfy the residual value guarantee provided by Lessee.

ANALYSIS


Accounting on Day 1 (commencement date)

- ▶ In order to determine whether the lease is a sales-type lease, J.R.E. calculates the rate implicit in the lease as shown below. Since the fair value of the underlying asset is different than its carrying value, no initial direct costs are deferred and they are not reflected in the calculation. Also note that there are no investment tax credits. Accordingly, the rate implicit in the lease in this example is the rate that causes the aggregate present value of the lease payments and of J.R.E.'s expected residual value of the equipment at the end of the lease term to equal the fair value of the underlying asset at commencement.

	PMT	
Year 1	(170,000)	Beginning of year (commencement date)
Year 1	25,000	End of year payment
Year 2	25,000	
Year 3	25,000	
Year 4	25,000	
Year 5	25,000	
Year 6	80,000	(25,000 lease payment + 55,000 estimated residual value)
Undiscounted PMTs	205,000	
Rate implicit in the lease	4.68%	

- ▶ J.R.E calculates the present value of the lease payments and of the lessee residual value guarantee at the commencement date as follows, using the rate implicit in the lease determined above:

	PMT	
Year 1	25,000	
Year 2	25,000	
Year 3	25,000	
Year 4	25,000	
Year 5	25,000	
Year 6	60,000	(25,000 lease payment + 35,000 lessee guaranteed residual value)
Undiscounted PMTs	185,000	
PV (4.68%) =	154,800	

- ▶ J.R.E classifies the lease as a sales-type lease because (1) the present value of the lease payments and lessee residual value guarantee amounts to substantially all of the fair value of the equipment at the commencement date ($154,800/170,000 = 91\%$), and (2) ASC 842-10-25-3A on variable lease payments not based on an index or a rate does not apply.
- ▶ The net investment in the lease is initially measured at \$170,000 and represents the sum of the following:
- Lease receivable of \$154,800 (see calculation above), and
 - Unguaranteed residual asset of \$15,200 (present value of \$20,000 expected unguaranteed residual value, discounted at 4.68%).
-  The net investment in the lease equals the fair value of the underlying asset because there are no deferred initial direct costs nor prepaid lease payments.

- ▶ At the commencement date, J.R.E calculates the selling profit/loss as follows:

Lease receivable*, minus	154,800
Carrying value of the equipment, net of unguaranteed residual value**, minus	134,800
Deferred initial direct costs***	---
Selling profit	20,000

* J.R.E uses the lease receivable as it is lower than the fair value of the underlying asset (\$170,000)

** The unguaranteed residual value used for this calculation equals the PV of the difference between the amount the lessor expects to receive at the end of the lease term (\$55,000) and the lessee residual value guarantee (\$35,000).

*** The initial direct costs are not eligible for deferral because the fair value of the underlying asset is different than its carrying amount at the commencement date. Accordingly, these costs are expensed at the commencement date.

- ▶ At the commencement date, J.R.E records the following journal entry:

	\$	\$
Dr. Net investment in the lease	170,000	
Dr. Operating expenses*	2,000	
Cr. Cash*		2,000
Cr. Equipment - carrying value		150,000
Cr. Selling profit		20,000

* Assumes lease inception and lease commencement are at the same date.

To derecognize the underlying asset at its carrying value, and recognize the net investment in the lease and selling profit.

Subsequent measurement (assuming no modifications)

- ▶ J.R.E increases the carrying amount of the net investment in the lease for interest income using the rate implicit in the lease of 4.68% and reduces it to reflect the lease payments collected. For example, J.R.E records the following journal entry at the end of Year 1:

	\$	\$
Dr. Cash	25,000	
Cr. Net investment in the lease		17,044
Cr. Interest income*		7,956

* Net investment in the lease of \$170,000 at 4.68%

- ▶ In accordance with ASC 842-30-30-1, and for disclosure purposes, J.R.E calculates the components of the net investment in the lease, which include the lease receivable and the unguaranteed residual asset.

- ▶ The following summarizes the accounting for the lease receivable throughout the lease term:

	Beg. Balance [A]	Interest [B] = [A] × 4.68%	Payment [C]	End. Balance [D] = [A] + [B] + [C]
Year 1	154,800	7,245	(25,000)	137,045
Year 2	137,045	6,414	(25,000)	118,459
Year 3	118,459	5,544	(25,000)	99,003
Year 4	99,003	4,634	(25,000)	78,637
Year 5	78,637	3,680	(25,000)	57,317
Year 6	57,317	2,683	(25,000)	35,000

- ▶ The following summarizes the accounting for the unguaranteed residual asset throughout the lease term, along with the ending balance of each component and of the net investment in the lease:

	Unguaranteed Residual Asset Beg. Balance [A]	Interest [B] = [A] × 4.68%	Unguaranteed Residual Asset End. Balance [C] = [A] + [B]	Lease Receivable End. Balance [D] - see above	Net Investment in the Lease End. Balance [E] = [C] + [D]
Year 1	15,200	711	15,911	137,045	152,956
Year 2	15,911	745	16,656	118,459	135,115
Year 3	16,656	780	17,436	99,003	116,439
Year 4	17,436	816	18,252	78,637	96,889
Year 5	18,252	854	19,106	57,317	76,423
Year 6	19,106	894	20,000	35,000	55,000



At the end of the lease term, the net investment in the lease equals the estimated residual value of the asset of \$55,000, the lease receivable equals the Lessee residual value guarantee of \$35,000 and the unguaranteed residual asset is the difference between \$55,000 and \$35,000.

- ▶ The following summarizes interest income recognized in profit or loss throughout the lease term:

Year 1	7,956
Year 2	7,159
Year 3	6,324
Year 4	5,450
Year 5	4,535
Year 6	3,577
Total	35,000



Total interest income recognized is \$35,000, which represents the difference between (1) the undiscounted lease payments plus the expected residual value of the asset at the end of the lease term of \$205,000, and (2) the fair value of the underlying asset at the commencement date of \$170,000.

- ▶ At the end of Year 6, J.R.E reclassifies the net investment in the lease of \$55,000 to property, plant and equipment and then accounts for it under ASC 360.

Example 1B - Sales-type lease with no residual value guarantee - Collectibility is probable**FACTS**

- ▶ Heisenberg Co. enters into a 10-year lease with Lessee for a piece of non-specialized equipment.
- ▶ Lease payments are \$50,000 per year and due at the beginning of each year.
- ▶ The lease does not transfer ownership of the equipment to Lessee nor grant it a purchase option.
- ▶ At lease commencement, the equipment has a fair value of \$425,000 and a carrying value of \$395,400.
- ▶ The equipment has a remaining economic life of 12 years, and Heisenberg Co. expects the residual value of the equipment at the end of the lease term to be \$20,000.
- ▶ Heisenberg Co. incurs \$5,000 of initial direct costs.
- ▶ No residual value guarantees are provided by Lessee or any other third parties unrelated to Heisenberg Co.
- ▶ There are no nonlease components in the agreement.
- ▶ Heisenberg Co. concludes at the commencement date that it is probable it will collect the lease payments.
- ▶ Heisenberg Co. uses the lease of the equipment as an alternative means of realizing value from goods it otherwise sells in the ordinary course of business. See article on [Presentation and Disclosures](#) for further information on presentation of selling profit or loss.

ANALYSISAccounting on Day 1 (commencement date)

- ▶ Because the lease term is for a major part (in this case 83%) of the remaining economic life of the equipment, Heisenberg classifies the lease as a sales-type lease (note that in this example the lease payments also represent substantially all of the fair value of the equipment). ASC 842-10-25-3A on variable lease payments not based on an index or a rate does not apply.
- ▶ Heisenberg Co. calculates the rate implicit in the lease as shown below. Since the fair value of the underlying asset is different than its carrying value, no initial direct costs are deferred and they are not reflected in the calculation. Also note that there are no investment tax credits.

	PMT	
Year 1	(375,000)	(425,000 fair value - 50,000 first lease payment)
Year 2	50,000	
Year 3	50,000	
Year 4	50,000	
Year 5	50,000	
Year 6	50,000	
Year 7	50,000	
Year 8	50,000	
Year 9	50,000	
Year 10	50,000	Beginning of year - lease payment
Year 10	20,000	End of year - estimated residual value
Rate implicit in the lease	4.58%	

- ▶ Heisenberg Co. calculates the present value of lease payments during Years 2-10 at the commencement date discounted at 4.58% plus the lease payment received at lease commencement, which amounts to \$412,214 (or 97% of the fair value of the equipment).
- ▶ Heisenberg Co. recognizes a net investment in the lease of \$375,000 initially measured as the sum of the following:
 - Lease receivable of \$362,214 which is the present value of the remaining unpaid lease payments (or \$412,214 discussed above minus first payment of \$50,000 received). Note that there are no residual value guarantees provided by either the lessee or a third-party.
 - Unguaranteed residual asset of \$12,786 (present value of \$20,000 expected unguaranteed residual value, discounted at 4.58%).



The net investment in the lease equals the fair value of the underlying asset of \$425,000 less \$50,000 prepaid lease payment. There are no deferred initial direct costs.

- ▶ At the commencement date, Heisenberg Co. records the following entries:

	\$	\$
Dr. Cash (lease payment for Year 1)	50,000	
Dr. Cost of goods sold	382,614*	
Dr. Net investment in the lease	375,000	
Cr. Equipment - carrying value		395,400
Cr. Sales-type lease - revenue		412,214**

To derecognize the underlying asset at its carrying value, and recognize the net investment in the lease and selling profit.

* In accordance with ASC 842-30-45-4a, cost of goods sold is the carrying amount of the equipment (\$395,400) minus the unguaranteed residual asset (\$12,786).

**In accordance with ASC 842-30-45-4a, revenue is recognized at the lesser of (1) the fair value of the underlying asset (\$425,000), and (2) the sum of the lease receivable and any lease payments prepaid by the lessee (\$412,214).

- ▶ Heisenberg Co. also expenses the initial direct costs as follows:

	\$	\$
Dr. Operating expenses*	5,000	
Cr. Cash*		5,000

* Assumes lease inception and lease commencement are at the same date.

To recognize the initial direct costs as an expense.

Subsequent measurement (assuming no modifications)

- ▶ Heisenberg Co. increases the carrying amount of the net investment in the lease for interest income using the rate implicit in the lease of 4.58% and reduces it to reflect the lease payments collected. For example, Heisenberg Co. records journal entry #1 at the end of Year 1 to recognize interest accrued and journal entry #2 at the beginning of Year 2 to reflect the second lease payment:

	\$	\$
Dr. Net investment in the lease	17,157	
Cr. Interest income*		17,157

* Net investment in the lease of \$375,000 multiplied by the rate implicit in the lease of 4.58%

To recognize interest income on net investment in the lease - Year 1

Dr. Cash	\$	50,000	\$	
Cr. Net investment in the lease				50,000

To recognize cash payment received beginning of Year 2

- ▶ In accordance with ASC 842-30-30-1, and for disclosure purposes, Heisenberg Co. calculates the components of the net investment in the lease, which include the lease receivable and the unguaranteed residual asset.
- ▶ The following summarizes the accounting for the lease receivable throughout the lease term:

	Beg. Balance	PMT	Interest	End. Balance
	[A]	[B]	[C] = [A + B] × 4.58%	[D] = [A] + [B] + [C]
Year 1	362,214	-	16,572	378,785
Year 2	378,785	(50,000)	15,042	343,827
Year 3	343,827	(50,000)	13,443	307,270
Year 4	307,270	(50,000)	11,770	269,040
Year 5	269,040	(50,000)	10,021	229,062
Year 6	229,062	(50,000)	8,192	187,254
Year 7	187,254	(50,000)	6,279	143,533
Year 8	143,533	(50,000)	4,279	97,813
Year 9	97,813	(50,000)	2,187	50,000
Year 10	50,000	(50,000)	0	0

- ▶ The following summarizes the accounting for the unguaranteed residual asset throughout the lease term, along with the ending balance of each component and of the net investment in the lease:

	Unguaranteed Residual Asset Beg. Balance	Interest Accretion	Unguaranteed Residual Asset End. Balance	Lease Receivable End. Balance	Net Investment in the Lease End. Balance
	[A]	[B] = [A] × 4.58%	[C] = [A] + [B]	[D] See above	[E] = [C] + [D]
Year 1	12,786	585	13,371	378,785	392,157
Year 2	13,371	612	13,983	343,827	357,810
Year 3	13,983	640	14,623	307,270	321,893
Year 4	14,623	669	15,292	269,040	284,332
Year 5	15,292	700	15,991	229,062	245,053
Year 6	15,991	732	16,723	187,254	203,977
Year 7	16,723	765	17,488	143,533	161,022
Year 8	17,488	800	18,288	97,813	116,101
Year 9	18,288	837	19,125	50,000	69,125
Year 10	19,125	875	20,000	0	20,000



At the end of the lease term, the net investment in the lease equals the estimated residual value of the asset of \$20,000.

- ▶ The following summarizes interest income recognized in profit or loss throughout the lease term:

Year 1	17,157
Year 2	15,654
Year 3	14,083
Year 4	12,439
Year 5	10,721
Year 6	8,924
Year 7	7,045
Year 8	5,079
Year 9	3,024
Year 10	875
Total	95,000



Total interest recognized is \$95,000 and represents the difference between (1) the undiscounted lease payments plus the expected residual value of the asset at the end of the lease term of \$520,000, and (2) the fair value of the underlying asset at the commencement date of \$425,000.

- ▶ At the end of Year 10, Heisenberg Co. reclassifies the net investment in the lease of \$20,000 to the appropriate category of asset in accordance with other GAAP.

Example 1C - Sales-type lease with lessee residual value guarantee - collectibility is not probable

FACTS

- ▶ Assume the same facts as in Example 1A above, except that at the commencement date, J.R.E Inc. concludes that collectibility of the lease payments plus the amount necessary to satisfy Lessee's residual value guarantee is not probable. In reaching this conclusion, J.R.E considers both Lessee's ability and intent to pay the required payments. Specifically, Lessee has limited credit history and no significant other income or assets with which to make the payments if its operations were unsuccessful.
- ▶ Also assume that at the end of Year 3, collectibility of the lease payments and the amount necessary to satisfy Lessee's residual value guarantee become probable, and that the contract has not been terminated and the underlying asset has not been repossessed.

ANALYSIS

Accounting while collectibility is not probable

- ▶ At the commencement date, because collectibility is not probable, J.R.E continues to recognize the equipment. That is, it does not recognize a net investment in the lease nor any selling profit or selling loss.
- ▶ Consistent with Example 1A, the initial direct costs are expensed at the commencement date.
- ▶ J.R.E continues to reassess collectibility to determine whether the lease payments and the amount necessary to satisfy Lessee's residual value guarantee are probable of collection. For years 1 and 2, collectibility is still not probable. Therefore, J.R.E accounts for the \$25,000 Year 1 and Year 2 lease payments received as a deposit liability.

- ▶ Also, since the underlying asset is not derecognized, J.R.E recognizes depreciation expense on the equipment. In this example, assume annual depreciation is \$15,800. The following journal entries are recorded in each year:

	\$	\$
Dr. Cash	25,000	
Cr. Deposit liability		25,000
	\$	\$
Dr. Depreciation expense	15,800	
Cr. Equipment		15,800

Accounting once collectibility becomes probable

- ▶ At the end of Year 3, Lessee makes the \$25,000 payment due under the lease, which J.R.E. records as a deposit liability. The updated balance of the deposit liability is therefore \$75,000.
- ▶ Depreciation expense of \$15,800 is recorded on the equipment. Therefore, the updated carrying amount of the equipment is \$102,600 [\$150,000 carrying value at the commencement date - (\$15,800 x3)].
- ▶ At the end of Year 3, J.R.E concludes that collectibility of the lease payments plus the amount necessary to satisfy Lessee's residual value guarantee is now probable based on Lessee's payment history under the lease (three lease payments made on time) and the fact that the business in which the leased asset is used has proven to be successful and has significantly improved since the commencement date.
- ▶ J.R.E does not reassess the classification of the lease. That is, it remains a sales-type lease.
- ▶ Once collectibility is probable at the end of Year 3, J.R.E:
 - Derecognizes the carrying amount of the equipment (i.e., \$102,600)
 - Derecognizes the carrying amount of the deposit liability (i.e., \$75,000)
 - Recognizes a net investment in the lease based on the remaining lease payments and remaining lease term, using the rate implicit in the lease determined at the commencement date (i.e., 4.68%).
 - Recognizes a selling profit or loss (see below for calculation).
- ▶ The net investment in the lease is calculated as follows:

	PMT	
Year 4	25,000	
Year 5	25,000	
Year 6	80,000	(25,000 lease payment + 55,000 estimated residual value)
Undiscounted PMTs	130,000	
PV (4.68%) =	116,439	(rate implicit in the lease determined at commencement date)

- ▶ The net investment in the lease of \$116,439 consists of the following:
 - Lease receivable of \$99,003 (present value of 3 lease payments of \$25,000 and the amount of Lessee's residual value guarantee of \$35,000 at the end of the lease term), and
 - Unguaranteed residual asset of \$17,436 [(\$55,000 estimated residual value - \$35,000 Lessee guaranteed amount) * (1.0468)⁻³].



The above balances are same as the ending balances in Example 1A at the end of Year 3 since none of the accounting assumptions (e.g., estimated residual value) have been updated.

- ▶ J.R.E calculates the selling profit/loss as follows:

Lease receivable (\$99,003) plus deposit liability balance (\$75,000), minus	174,003
Carrying value of equipment (\$102,600), net of unguaranteed residual asset (\$17,436)	<u>85,164</u>
Selling profit	88,839

- ▶ J.R.E records the following journal entry:

	\$	\$
Dr. Net investment in the lease	116,439	
Dr. Deposit liability	75,000	
Cr. Equipment - carrying value		102,600
Cr. Sales-type lease - selling profit		88,839

- ▶ J.R.E then accounts for the remaining three years of the lease as any other sales-type lease. The following summarizes the accounting for the net investment in the lease for the remaining three years:

	Beg. Balance	Interest	Payment	End. Balance
	[A]	[B] = [A] × 4.68%	[C]	[D] = [A] + [B] + [C]
Year 4	116,439	5,450	(25,000)	96,889
Year 5	96,889	4,535	(25,000)	76,423
Year 6	76,423	3,577	(25,000)	55,000

- ▶ At the end of the lease (Year 6), J.R.E reclassifies the net investment in the lease, then equal to the estimated residual value of the asset of \$55,000 to property, plant and equipment and accounts for it under ASC 360.

DIRECT FINANCING LEASES - A DEEPER DIVE

RECOGNITION AND INITIAL MEASUREMENT

A lessor classifies a lease as a direct financing lease if none of the criteria for sales-type lease classification are met and if both of the following criteria apply:

- ▶ The present value of the sum of the lease payments and any residual value guaranteed by the lessee and/or any other third party unrelated to the lessor equals or exceeds substantially all of the fair value of the underlying asset.
- ▶ It is probable that the lessor will collect the lease payments plus any amount necessary to satisfy a residual value guarantee.

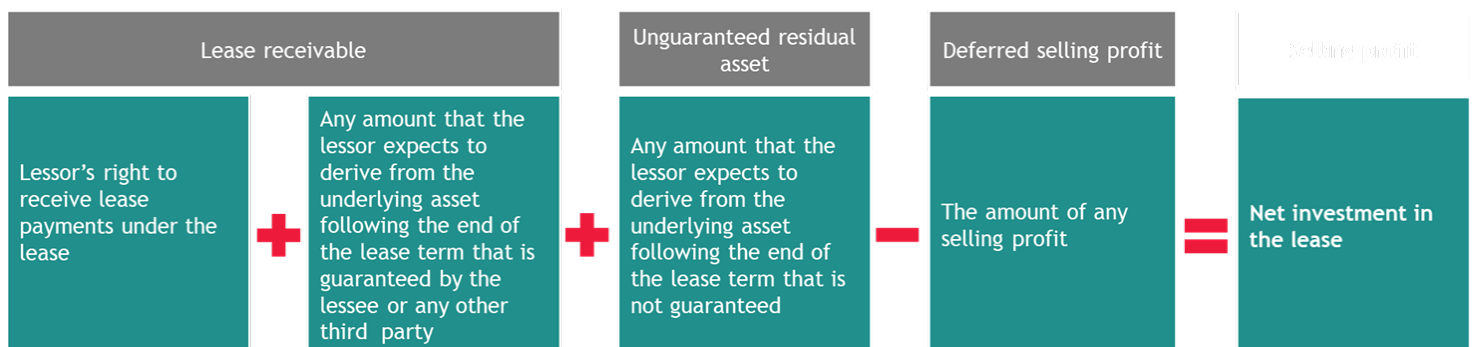
Even though the above two conditions may be met, a lessor will classify the lease as operating if the lease includes variable lease payments that do not depend on an index or a rate and that would result in the recognition of a selling loss at lease commencement if the lease were classified as a direct financing lease.

Also, if a lessor classifies a lease as an operating lease because collectibility is not probable, subsequent changes in collectibility do not change lease classification (i.e., the lease continues to be classified as operating). However, collectibility will affect the amount of lease income recognized in profit or loss. See Operating Leases Section in this article for additional discussion.

For a lease classified as a direct financing lease, the lessor converts its risk in the underlying asset (asset risk) into credit risk. Therefore, a lessor recognizes a net investment in the lease at the commencement date and derecognizes the underlying asset. The net investment in a direct financing lease is calculated the same way as for a sales-type lease, except that:

- ▶ Any selling profit arising from the lease (see calculation in the Sales-Type Leases section above) is deferred and recognized as part of the subsequent measurement of the net investment in the lease.
- ▶ Initial direct costs incurred are deferred and included in the measurement of the net investment in the lease, regardless of whether the fair value of the underlying asset at the commencement date equals its carrying amount or not. The rate implicit in the lease is defined in such a way that initial direct costs deferred are included automatically in the net investment in the lease.

The following summarizes the initial measurement of the net investment in a direct financing lease:



Because of the way the rate implicit in the lease is defined and because selling profit is deferred in a direct financing lease, the net investment in a direct financing lease recognized typically will equal the carrying value of the underlying asset plus any initial direct costs (less prepaid lease payments, if any).

Like sales-type leases, a lessor does not reassess whether collectibility is probable for leases that are classified as a direct financing lease after the commencement date. Subsequent changes in the credit risk of the lessee are accounted for in accordance with the impairment (or credit loss) guidance applicable to the net investment in the lease. See Impairment Section in this article for additional discussion.

SUBSEQUENT MEASUREMENT

After the commencement date, a lessor measures the net investment in the lease by:

- ▶ Increasing the carrying amount to reflect interest income on the net investment in the lease using the rate implicit in the lease (but unlike a sales-type lease, the rate implicit in the lease is determined using the carrying amount of the underlying asset rather than its fair value since selling profit is deferred and recognized over the lease term).
- ▶ Reducing the carrying amount to reflect the lease payments collected during the period.



Accounting for components of the net investment in a direct financing lease

As discussed above, total periodic interest income recognized on a direct financing lease is determined based on the carrying amount of the net investment in the lease multiplied by the rate implicit in the lease (which is determined using the carrying amount of the underlying asset). However, a lessor uses the rate implicit in the lease (using the fair value of the underlying asset at the commencement date) to accrete interest income on the lease receivable and unguaranteed residual asset. Therefore, the portion of the deferred selling profit that is amortized each period equals the difference between total periodic interest income recognized on the net investment in the lease less the periodic interest income earned on the lease receivable and unguaranteed residual asset. See Example 2 for illustration.

After the commencement date, a lessor recognizes the following in the statement of operations:

- ▶ Interest income on the net investment in the lease using the rate implicit in the lease (as discussed above).
- ▶ Variable lease payments that are not included in the net investment in the lease as income in the period when the changes in facts and circumstances on which the variable lease payments are based occur.
- ▶ Impairment (or credit losses) on the net investment in the lease.

The net investment in the lease is not remeasured after the commencement date except in a lease modification that is not accounted for as a separate contract. See Modification Section in this article for additional discussion.

ACCOUNTING AT THE END OF THE LEASE TERM

At the end of the lease term, a lessor reclassifies the net investment in the lease to the appropriate category of asset (for example, property, plant, and equipment) in accordance with other GAAP, measured at the carrying amount of the net investment in the lease. The lessor then accounts for the underlying asset that was the subject of a lease in accordance with other Topics, such as ASC 360.

ACCOUNTING FOR LEASE TERMINATION

If a direct financing lease is terminated before the end of the lease term, a lessor:

- ▶ Tests the net investment in the lease for impairment or credit losses under ASC 310 or ASC 326-20, as applicable.
- ▶ Reclassifies the net investment in the lease to the appropriate category of asset in accordance with other GAAP, measured at the sum of the carrying amounts of the lease receivable (less any amounts still expected to be received by the lessor) and the residual asset.
- ▶ Accounts for the underlying asset that was the subject of the lease in accordance with other GAAP, such as ASC 360.

Example 2 - Direct financing lease**FACTS**

- ▶ Assume the same facts as in Example 1A above, except that the \$35,000 residual value guarantee is provided by a third party, not by Lessee.
- ▶ Collectibility of the lease payments and any amount necessary to satisfy the third-party residual value guarantee are probable.

ANALYSISAccounting at the commencement date

- ▶ For this Example, the following interest rate information will be needed to (1) assess classification of the lease as a sales-type lease, (2) if not a sales-type lease, to assess classification as a direct financing lease, and (3) if classified as a direct financing lease, to account for the net investment in the direct financing lease:

	Step 1: Calculate rate implicit in the lease as defined	Step 2: Add initial direct costs to the fair value of the underlying asset	Step 3: Replace fair value of the underlying asset by its carrying amount
	PMT	PMT	PMT
Year 0	(170,000)	(172,000)	(152,000)
Year 1	25,000	25,000	25,000
Year 2	25,000	25,000	25,000
Year 3	25,000	25,000	25,000
Year 4	25,000	25,000	25,000
Year 5	25,000	25,000	25,000
Year 6	80,000	80,000	80,000
Undiscounted PMTs	205,000	205,000	205,000
Rate implicit in the lease	4.68% “Sales-Type Classification Rate”*	4.38% “DFL Classification Rate”**	7.68% “Direct Financing Rate”***

* The Sales-Type Classification Rate is the rate that is used to assess whether the lease qualifies as a sales-type lease under ASC 842-10-25-2(d). It is the same rate as calculated in Example 1A based on the fair value of the underlying asset at the commencement date, the lease payments to be received over the lease term, and the expected amount of the residual asset at the end of the lease term. Initial direct costs are excluded since the fair value of the underlying asset is different than its carrying value.

** The Direct Financing Lease (“DFL”) Classification Rate is the rate that is used to assess whether the lease qualifies as a direct financing lease under ASC 842-10-25-3(b)(1). It is calculated like the Sales-Type Rate, except that initial direct costs are deferred (i.e., added to the fair value of the underlying asset). This rate will also be used to initially and subsequently measure the lease receivable and the unguaranteed residual asset.

*** The Direct Financing Rate is the rate used for initial and subsequent measurement of the net investment in the lease. It is calculated like the DFL Classification Rate, except that the carrying amount of the asset is used, rather than fair value, since the selling profit is deferred and recognized as part of the subsequent measurement of the net investment in the lease.

- ▶ To determine if the lease qualifies as a sales-type lease, J.R.E calculates the present value of the lease payments at the commencement date using the Sales-Type Classification Rate. The lease payments include only the annual payments of \$25,000 made by Lessee. Because the residual value guarantee is provided by a third party, it is not considered in the sales-type lease classification test.

	PMT
Year 1	25,000
Year 2	25,000
Year 3	25,000
Year 4	25,000
Year 5	25,000
Year 6	25,000
Undiscounted PMTs	150,000
PV (4.68%) =	128,200

- ▶ J.R.E concludes that none of the criteria for classifying the lease as a sales-type lease are met because:
- The lease does not transfer ownership of the equipment to Lessee nor grant it a purchase option.
 - The lease term is not for the major part of the remaining economic life of the underlying asset (6/10 = 60%).
 - The present value of the lease payments does not amount to substantially all of the fair value of the equipment (128,200/170,000 = 75%). Note: this calculation does not consider the residual value guarantee provided by the *third party*.
 - The underlying asset is not of a specialized nature and it will have alternative uses to the lessor at the end of the lease term.
- ▶ J.R.E then assesses classification of the lease as a direct financing lease, using the DFL Classification Rate:

	PMT	
Year 1	25,000	
Year 2	25,000	
Year 3	25,000	
Year 4	25,000	
Year 5	25,000	
Year 6	60,000	(25,000 lease payment + 35,000 3 rd party residual value guarantee)
Undiscounted PMTs	185,000	
PV (4.38%) =	156,532	

- ▶ J.R.E classifies the lease as a direct financing lease because:
- The sum of the present value of the lease payments and the present value of the third-party residual value guarantee amounts to substantially all of the fair value of the equipment (156,532/170,000 = 92%).
 - It is probable J.R.E will collect the lease payments and any amount necessary to satisfy the third-party residual value guarantee.
 - ASC 842-10-25-3A on variable lease payments not based on an index or a rate does not apply.

- Therefore, at the commencement date, J.R.E derecognizes the equipment for \$150,000 and recognizes a net investment in the lease of \$152,000 measured using the Direct Financing Rate:

	PMT	
Year 1	25,000	
Year 2	25,000	
Year 3	25,000	
Year 4	25,000	
Year 5	25,000	
Year 6	80,000	(25,000 lease payment + 55,000 estimated residual value)
Undiscounted PMTs	205,000	
PV (7.68%) =	152,000	



The net investment in the lease equals the carrying value of the underlying asset of \$150,000 plus the initial direct costs of \$2,000. There are no prepaid lease payments.

- The net investment in the lease includes the following components:
- Lease receivable of \$156,532 (which is the present value of the lease payments and the third-party residual value guarantee, discounted using the *DFL Classification Rate of 4.38%*),
 - Unguaranteed residual asset of \$15,468 (which is the difference between the estimated residual value of \$55,000 and the third-party residual value guarantee of \$35,000, also discounted at 4.38%)
 - Deferred selling profit of \$20,000, which is calculated as follows:

Lease receivable, minus	156,532
Carrying value of the equipment, net of unguaranteed residual value, minus	(134,532)
Deferred initial direct costs	<u>(2,000)</u>
Deferred selling profit	20,000



The sum of the lease receivable, unguaranteed residual asset, and deferred selling profit equals the carrying amount of the net investment in the lease of \$152,000.

- J.R.E records the following journal entry at the commencement date:

	\$	\$
Dr. Net investment in the lease	152,000	
Cr. Equipment - carrying value		150,000
Cr. Cash (or prepaid asset)		2,000

To derecognize the underlying asset and recognize a net investment in the direct financing lease.

Subsequent measurement (assuming no modification)

- ▶ J.R.E increases the carrying amount of the net investment in the lease for interest income using the Direct Financing Rate of 7.68% and reduces it to reflect the lease payments collected. For example, J.R.E records the following journal entry at the end of Year 1:

	\$	\$
Dr. Cash	25,000	
Cr. Net investment in the lease		13,331
Cr. Interest income*		11,669

* Net investment in the lease of \$152,000 multiplied by the Direct Financing Rate of 7.68%

- ▶ J.R.E subsequently measures the net investment in the lease using the Direct Financing Rate of 7.68%, assuming no modifications throughout the lease term:

	Beg. Balance	Interest (7.68%)	PMT	Ending Balance
Year 1	152,000	11,669	(25,000)	138,669
Year 2	138,669	10,646	(25,000)	124,315
Year 3	124,315	9,544	(25,000)	108,859
Year 4	108,859	8,357	(25,000)	92,217
Year 5	92,217	7,080	(25,000)	74,296
Year 6	74,296	5,704	(25,000)	55,000

- ▶ In accordance with ASC 842-30-30-1, and for disclosure purposes, J.R.E calculates the separate components of the net investment in the lease as follows:

Lease receivable (using the DFL Classification Rate):

	Beg. Balance	Interest (4.38%)	PMT	Ending Balance
Year 1	156,532	6,850	(25,000)	138,382
Year 2	138,382	6,056	(25,000)	119,438
Year 3	119,438	5,227	(25,000)	99,665
Year 4	99,665	4,361	(25,000)	79,026
Year 5	79,026	3,458	(25,000)	57,484
Year 6	57,484	2,516	(25,000)	35,000

Unguaranteed residual value (using the DFL Classification Rate):

	Beg. Balance	Interest (4.38%)	Ending Balance
Year 1	15,468	677	16,145
Year 2	16,145	706	16,851
Year 3	16,851	737	17,588
Year 4	17,588	770	18,358
Year 5	18,358	803	19,161
Year 6	19,161	839	20,000

Deferred selling profit:

	Beg. Balance	Profit Earned*	Ending Balance
Year 1	(20,000)	4,142	(15,858)
Year 2	(15,858)	3,884	(11,974)
Year 3	(11,974)	3,580	(8,394)
Year 4	(8,394)	3,226	(5,168)
Year 5	(5,168)	2,818	(2,350)
Year 6	(2,350)	2,350	0

* The portion of the deferred selling profit recognized in the income statement each period equals the difference between the interest income recognized on the net investment in the lease during the period and the sum of the interest income earned on the lease receivable and the unguaranteed residual asset during that same period.

For example, in Year 1:

- ▶ Interest income on the net investment in the lease is \$11,669 (initial net investment in the lease of \$152,000 x Direct Financing Rate of 7.68%)
- ▶ Amortization of deferred selling profit is \$4,142 and is equal to interest income of \$11,669 minus interest recognized on the lease receivable of \$6,850 minus interest recognized on the unguaranteed residual asset of \$677.



At the end of the lease term, the net investment in the lease equals the estimated residual value of the asset of \$55,000, the lease receivable equals the third party residual value guarantee of \$35,000, the unguaranteed residual asset is the difference between \$55,000 and \$35,000, and the deferred selling profit balance is zero (i.e., all selling profit has been recognized over the lease term).

- ▶ The following summarizes interest income recognized in profit or loss throughout the lease term:

Year 1	11,669
Year 2	10,646
Year 3	9,544
Year 4	8,357
Year 5	7,080
Year 6	5,704
Total	53,000



Total interest income recognized is \$53,000 and represents the difference between (1) the undiscounted lease payments plus the expected residual value of the asset at the end of the lease term of \$205,000, and (2) the carrying value of the underlying asset at the commencement date of \$150,000 plus initial direct costs of \$2,000.

At the end of the lease term, J.R.E reclassifies the net investment in the lease of \$55,000 to property, plant and equipment and then accounts for it under ASC 360.

OPERATING LEASES

RECOGNITION AND INITIAL MEASUREMENT

The accounting by a lessor for operating leases under ASC 842 is the same as the accounting under ASC 840. A lessor does not derecognize the underlying asset at the commencement date, and it defers any initial direct costs as a separate asset.

SUBSEQUENT MEASUREMENT

After the commencement date, a lessor continues to measure the underlying asset subject to an operating lease, including testing it for impairment, in accordance with other Topics, such as ASC 360 on property, plant and equipment.

A lessor recognizes the following lease income in profit or loss, depending on whether collectibility of the lease payments plus any amount necessary to satisfy a residual value guarantee provided by either the lessee or a third party is probable:

Collectibility is probable	Collectibility is <u>not</u> probable
<p>Recognize the following:</p> <ul style="list-style-type: none"> ▶ The lease payments as income over the lease term typically on a straight-line basis, unless another systematic and rational basis is more representative of the pattern in which benefit is expected to be derived from the use of the underlying asset (see below for additional discussion). ▶ Variable lease payments in the period in which the changes in facts and circumstances on which these payments are based occur. 	<p>Lease income is limited to the lesser of:</p> <ul style="list-style-type: none"> ▶ The amounts described in the left column, and ▶ The lease payments, including variable lease payments, that have been collected from the lessee (i.e., a cash basis).

Initial direct costs are recognized as an expense over the lease term on the same basis as the lease income.



Pattern of benefits expected from use of the underlying asset

ASC 842 considers the right to control the use of the underlying asset as the equivalent of physical use. That is, if the lessee controls the use of the underlying asset, recognition of lease income is not affected by the extent of the lessee's use of the underlying asset.

The lessor should also reassess changes in collectibility after the commencement date. If collectibility of the remaining lease payments plus amounts necessary to satisfy a residual value guarantee becomes probable, then, any difference between the cumulative lease income that would have been recognized on an accrual basis and cumulative lease income that has been recognized on a cash basis is recognized as a current-period adjustment to lease income.

See Example 1, Case D at ASC 842-30-55-40 through 55-42 for an illustration of a lease classified as an operating lease when collectibility of the lease payments and amounts to satisfy a residual value guarantee is not probable at the commencement date.

See also Impairment Section in this article for additional discussion on collectibility and impairment considerations for operating leases.

Example 3 - Operating lease**FACTS**

- ▶ Assume the same facts as in Example 1A above, except that no residual value guarantee is provided either by Lessee or an unrelated third party.
- ▶ Collectibility of the lease payments is considered probable at the commencement date and throughout the lease term.

ANALYSIS

- ▶ In order to determine whether to classify the lease as a sales-type lease, J.R.E calculates the present value of the lease payments at the commencement date, using the rate implicit in the lease of 4.68% (see Example 1A for calculation):

	PMT
Year 1	25,000
Year 2	25,000
Year 3	25,000
Year 4	25,000
Year 5	25,000
Year 6	25,000
Undiscounted PMTs	150,000
PV (4.68%) =	128,200

- ▶ J.R.E concludes that none of the criteria for classifying the lease as a sales-type lease are met because:
 - The lease does not transfer ownership of the equipment to Lessee nor grant it a purchase option.
 - The lease term is not for a major part of the remaining economic life of the underlying asset (6/10 = 60%).
 - The present value of the lease payments does not amount to substantially all of the fair value of the equipment (128,200/170,000 = 75%).
 - The underlying asset is not of a specialized nature and will have alternative uses to the lessor at the end of the lease term.
- ▶ In addition, the lease does not qualify as a direct financing lease since there is no third-party residual value guarantee. Accordingly, the lease is classified as an operating lease.
- ▶ J.R.E initially recognizes the amount of initial direct costs (\$2,000) as a separate asset.
- ▶ J.R.E continues to measure the equipment in accordance with ASC 360, *Property, Plant and Equipment*.
- ▶ At the end of Years 1-6, J.R.E records the following entries (assuming the lease is not modified or terminated and the assessment of collectibility as probable does not change) to reflect the periodic lease income and amortization of the deferred initial direct costs:

	\$	\$
Dr. Cash	25,000	
Cr. Lease income		25,000
Dr. Operating expenses	333	
Cr. Other assets - initial direct costs		333

MODIFICATIONS

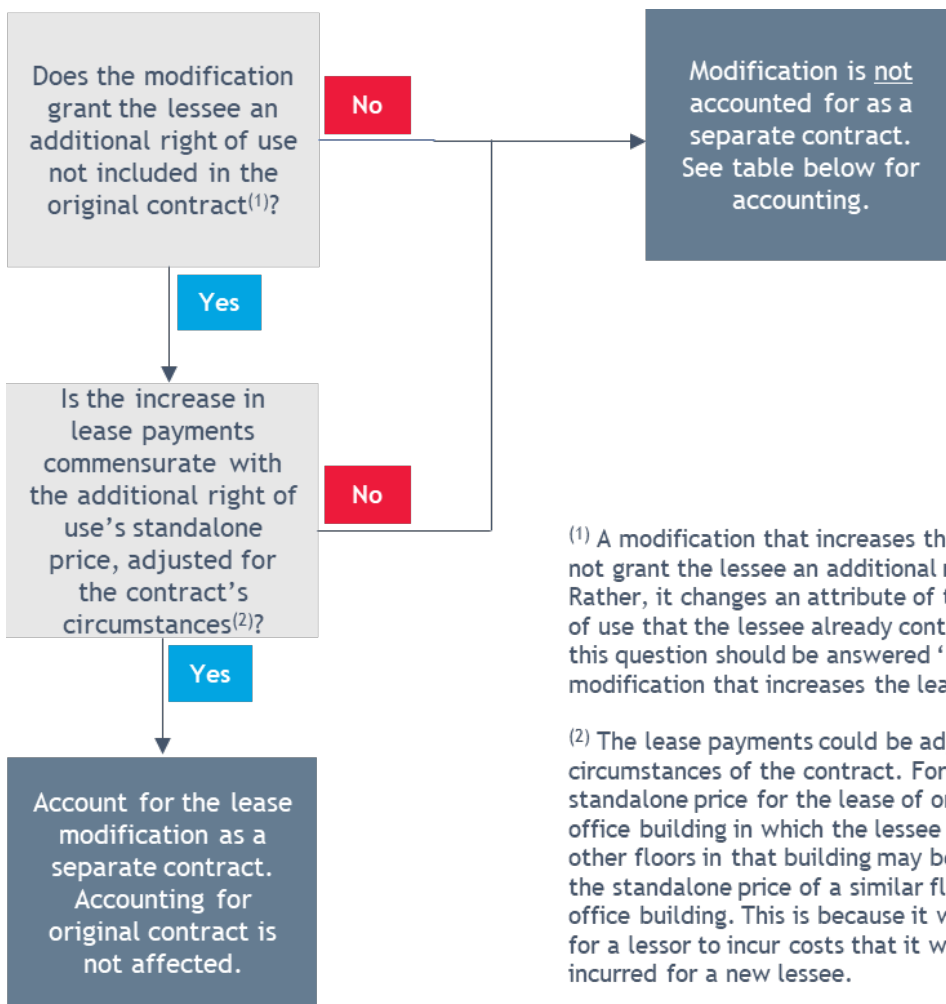
A lease modification is a change to the terms and conditions of the contract that results in a change in the scope of, or the consideration for, the lease. For example, a lease could be modified to add or terminate the right to use one or more underlying assets, it could be modified to extend or shorten the contractual lease term, and so forth.

A lessor is required to account for the modification at the date that the lease modification is approved by both the lessee and the lessor (the effective date of the modification under ASC 842).

A lessor also accounts for the following events as modifications:

- ▶ When the lessee exercises a renewal or purchase option included in the original contract that the lessor previously determined was not reasonably certain of exercise,
- ▶ When the lessee exercises a termination option included in the original contract that the lessor had determined the lessee was not reasonably certain to exercise,
- ▶ When the lessee takes control over the use of an additional underlying asset under a master lease agreement that permits (i.e., does not require) the lessee to gain control over the use of additional underlying assets during the term of the agreement.

In accounting for lease modifications, ASC 842 differentiates between modifications that result in a separate contract and which therefore do not affect the accounting for the original contract, and other modifications that should be accounted for as part of the original contract. That determination can be made by using the following steps:





Modifications of contracts with LIBOR based rates

ASU 2020-04 provides optional expedients and exceptions for applying U.S. GAAP to contracts and transactions affected by the reference rate reform (i.e., discontinuation of LIBOR as a reference rate or other reference rate expected to be discontinued as a result of reference rate reform).

Accordingly, modifications to contracts within the scope of ASC 842 that change the reference rate may be accounted for as a continuation of the existing contract with no reassessment of lease classification and discount rate, and no remeasurement of lease payments that otherwise would be required for modifications not accounted for as separate contracts. Instead, the change in reference rate is treated as variable lease payments that were based on the reference rate in the original lease.

However, to qualify for the optional expedient, other terms being concurrently modified, if any, must be related to the replacement of a reference rate because of reference rate reform. For example, the following changes are not eligible for the expedient because they are deemed unrelated to the replacement of a reference rate:

- Changes to the contractual term of the lease,
- Additions or terminations of right-to-use underlying assets,
- Changes to renewal, termination, or purchase options.

See ASC 848-20-15-2 through 15-6 for additional information about scope of the expedient, and ASC 848-20-35-11 and 35-12 for application of the expedient to leases by lessors.

If a modification is not accounted for as a separate contract, a lessor:

- ▶ Reassesses the lease term and any purchase option. See article on [Lease Classification and Key Terms](#) for additional details on assessing whether renewal options, purchase options and termination options are reasonably certain to be exercised.
- ▶ Remeasures and reallocates the remaining consideration in the contract. See article on [Lease Classification and Key Terms](#) for additional details on measuring lease payments, and article on [Identifying and Separating Components](#) for additional details on allocating consideration.
- ▶ Reassesses lease classification based on the facts and circumstances (and the modified terms and conditions) as of the effective date of the modification (for example, using the fair value and remaining economic life of the underlying asset at that date). See article on [Lease Classification and Key Terms](#) for additional details on determining lease classification.

Also, initial direct costs, lease incentives, and any other payments made to or by the entity in connection with a modification to a lease should be accounted for in the same manner as those items would be accounted for in connection with a new lease.

The accounting for modifications that are not accounted for as a separate contract is summarized in the following table depending on how classification changes (and assuming there continues to be a lease after the modification):

Type of Modification	Accounting Considerations
Operating lease to operating lease	<ul style="list-style-type: none"> ▶ Account for the modification as a termination of the existing lease and creation of a new lease that commences on the effective date of the modification. ▶ Consider any prepaid or accrued lease rentals related to the original lease as part of the lease payments for the modified lease. ▶ See Example 20 at ASC 842-10-55-190 through 55-193 for illustration.
Operating lease to sales-type or direct financing lease	<ul style="list-style-type: none"> ▶ Account for the modification as a termination of the existing lease and creation of a new lease that commences on the effective date of the modification. ▶ Recognize a net investment in the modified lease and derecognize both the underlying asset and any deferred rent liability or accrued rent asset (which adjusts the selling profit or loss). <ul style="list-style-type: none"> • If the modified lease is classified as a sales-type lease, the selling profit or loss is recognized in profit or loss at the effective date of the modification. See Example 21, Case A at ASC 842-10-55-194 through 55-197 for an illustration. • If the modified lease is classified as a direct financing lease, any selling loss is recognized in profit or loss at the effective date of the modification. However, any selling profit is deferred and included in the measurement of the net investment in the lease. See Example 21, Case B at ASC 842-10-55-198 through 55-200 for an illustration. ▶ After the effective date of the modification, a lessor accounts for the modified lease in the same manner as any other sales-type or direct financing lease.
Direct financing lease to direct financing lease Sales-type lease to sales-type or direct financing lease	<ul style="list-style-type: none"> ▶ Adjust the discount rate for the modified lease so that the initial net investment in the modified lease equals the carrying amount of the net investment in the original lease immediately before the effective date of the modification. ▶ See Example 22, Case A at ASC 842-10-55-201 through 55-205 for an illustration.
Direct financing lease to sales-type lease	<ul style="list-style-type: none"> ▶ Account for the modified lease under the guidance for sales-type leases. The effective date of the modification is the commencement date of the modified lease. ▶ Calculate the selling profit or selling loss on the lease as the difference between the fair value of the underlying asset at the effective date of the modification and the carrying amount of the net investment in the original lease immediately before that date. ▶ See Example 22, Case B at ASC 842-10-55-206 and 55-207 for an illustration. See also Example 4 below.
Direct financing or sales-type lease to operating lease	<ul style="list-style-type: none"> ▶ The carrying amount of the underlying asset equals the net investment in the original lease immediately before the effective date of the modification. ▶ See Example 22, Case C at ASC 842-10-55-208 and 55-209 for an illustration. See also Example 5 below.

Example 4 - Modification of a direct financing lease to a sales-type lease**FACTS**

- ▶ Assume the same facts as in Example 2 apply, in which J.R.E entered into a lease of non-specialized equipment with Lessee for 6 years, with annual lease payments of \$25,000 payable at the end of each year, and with a third-party residual value guarantee of \$35,000. The lease was classified as a direct financing lease at the commencement date. Also assume the following:
- ▶ At the end of Year 1 of the lease, J.R.E and Lessee agree to extend the lease term by two years.
- ▶ The annual lease payments in each of Years 7-8 are \$30,000.
- ▶ The fair value of the equipment at the effective date of the modification is \$162,000.
- ▶ The carrying amount of the net investment in the lease immediately before the modification is \$138,669.
- ▶ The estimated residual value of the equipment at the end of the modified lease is \$20,000, of which \$8,000 is guaranteed by a third-party unrelated to Lessee or J.R.E.
- ▶ At the effective date of the modification, the remaining economic life of the equipment is 9 years.
- ▶ There are no initial direct costs related to the modification.

ANALYSIS

- ▶ The modification does not grant Lessee an additional right of use but rather alters Lessee's already obtained right to use the equipment. Therefore, the modification is not accounted for as a separate contract.
- ▶ Because the lease term is for a major part (in this case 78%) of the remaining economic life of the equipment at the effective date of the modification, J.R.E classifies the lease as a sales-type lease (note that in this example the lease payments are also substantially all of the fair value of the equipment). ASC 842-10-25-3A on variable lease payments not based on an index or a rate does not apply.
- ▶ The rate implicit in the modified lease is calculated as shown below:

End of	PMT	
Year 1	(162,000)	
Year 2	25,000	
Year 3	25,000	
Year 4	25,000	
Year 5	25,000	
Year 6	25,000	
Year 7	30,000	
Year 8	50,000	(30,000 lease payment + 20,000 estimated residual value)
Rate implicit in the lease	5.64%	

- ▶ At the effective date of the modification, J.R.E recognizes a net investment in the sales-type lease of \$162,000 (the fair value of the underlying equipment at that date). In addition, it derecognizes the outstanding balance of the net investment in the direct financing lease of \$138,669. The difference is recognized as a selling profit.

	\$	\$
Dr. Net investment in sales-type lease	162,000	
Cr. Net investment in direct financing lease		138,669
Cr. Selling profit		23,331

- ▶ The net investment in the lease consists of a lease receivable of \$153,826 (present value of lease payments and third-party residual value guarantee) and unguaranteed residual asset of \$8,174, all discounted at 5.64%.
- ▶ Following the modification, J.R.E accounts for the sales-type lease in the same manner as any other sales-type lease, as illustrated in Examples 1A and 1B.

Example 5 - Modification of a sales-type lease to an operating lease**FACTS**

- ▶ Assume the same facts as in Example 1A apply, in which J.R.E entered into a lease of non-specialized equipment with Lessee for 6 years, with annual lease payments of \$25,000 payable at the end of each year, and in which Lessee provided a residual value guarantee of \$35,000. The lease was classified as a sale-type lease at the commencement date. Also assume the following:
- ▶ At the end of Year 1 of the lease, J.R.E and Lessee agree to shorten the lease term by two years.
- ▶ The annual lease payments in each of Years 2-4 increase to \$30,000 due at the end of each year.
- ▶ The fair value of the equipment at the effective date of the modification is \$162,000.
- ▶ The carrying amount of the net investment in the lease immediately before the modification is \$152,956.
- ▶ J.R.E expects that the residual value of the equipment at the end of the remaining 3-year lease term will be \$90,000, of which \$25,000 is guaranteed by Lessee.
- ▶ At the effective date of the modification, the remaining economic life of the equipment is 9 years.
- ▶ There are no initial direct costs related to the modification.

ANALYSIS

- ▶ As the modification does not grant Lessee an additional right-of-use, it is not accounted for as a separate contract.
- ▶ The rate implicit in the modified lease is calculated as shown below:

End of	PMT	
Year 1	(162,000)	
Year 2	30,000	
Year 3	30,000	
Year 4	120,000	(30,000 lease payment + 90,000 estimated residual value)
Rate Implicit in the lease	4.33%	

- ▶ J.R.E concludes that none of the criteria for classifying the lease as a sales-type lease are met because:
 - The lease does not transfer ownership of the equipment to Lessee nor grant it a purchase option.
 - The lease term is not for a major part of the remaining economic life of the underlying asset ($3/9 = 33\%$).
 - The present value of the lease payments plus Lessee's residual value guarantee, discounted at 4.33%, does not amount to substantially all of the fair value of the equipment at the effective date of the modification ($104,756/162,000 = 65\%$).
 - The underlying asset is not of a specialized nature and will have alternative uses to the lessor at the end of the lease term.
- ▶ As there is no residual value guarantee provided by a third-party, J.R.E classifies the modified lease as an operating lease in accordance with ASC 842-10-25-3(b).

- ▶ J.R.E therefore recognizes the equipment at the carrying amount of the net investment in the lease immediately before the modification:

	\$	\$
Dr. Equipment	152,956	
Cr. Net investment in sales-type lease		152,956

- ▶ If collectibility of the lease payments plus Lessee's residual value guarantee is considered probable, J.R.E will recognize the lease payments of \$90,000 ($\$30,000 \times 3$ years) on a straight-line basis over the 3-year modified lease term, as well as depreciation on the equipment over its remaining useful life.

IMPAIRMENT

NET INVESTMENT IN SALES-TYPE AND DIRECT FINANCING LEASES

A lessor determines the impairment (or loss allowance) related to net investment in sales-type and direct financing leases and records any impairment (or loss allowance) in accordance with ASC 310 on receivables (as described in paragraphs 310-10-35-16 through 35-30), or ASC 326-20 on financial instruments measured at amortized cost when adopted. In determining the loss allowance for a net investment in the lease, a lessor considers the collateral relating to the net investment in the lease, which represents the cash flows that the lessor would expect to receive (or derive) from the lease receivable and the unguaranteed residual asset during and following the end of the remaining lease term.

In some cases, the contractual term over which the expected credit losses are measured in accordance with ASC 326-20-30-6 may differ from the lease term determined in accordance with ASC 842-10-30-1, due to certain requirements in both standards that may shorten or extend the contractual term. For example, consideration of lease extension options under ASC 842 may not be reflected in the contractual term used for purposes of ASC 326 unless certain conditions are met. In order to address any potential differences between the lease term and the contractual term under both standards, the FASB issued ASU 2020-03, *Codification Improvements to Financial Instruments* to clarify that lessors should use the lease term determined under ASC 842 as the contractual term for the net investment in leases for purposes of measuring credit losses under ASC 326.

OPERATING LEASES

Because lessors do not derecognize the underlying asset associated with an operating lease, there is no net investment in the lease to be assessed for impairment. Instead, the underlying asset continues to be assessed for impairment in accordance with the guidance in ASC 360-10-35.

Also, ASC 842-30-25-12 and 25-13 provide guidance for lessors on the impairment of operating lease receivables. That guidance establishes a collectibility constraint whereby lease income for operating leases is recognized on a straight-line basis (or other systematic basis) only when collectibility of the lease payments and any amounts due under residual value guarantees is probable. ASC 842-30 is silent as to whether a lessor can (or should) apply other GAAP for the impairment of its operating lease receivables. Before adoption of ASC 842, many lessors applied the guidance in ASC 310 on receivables and in ASC 450-20 on loss contingencies and recognized reserves on operating lease receivables. Operating lease receivables are outside the scope of ASC 326-20 on credit losses, but ASC 326-20 superseded the guidance in ASC 310.

Accordingly, questions arose as to whether the guidance in ASC 842-30 on lessor accounting is the complete set of accounting guidance that should be applied to operating lease receivables, or whether a lessor can (or should) continue to recognize reserves on operating lease receivables under other GAAP.

At a FASB meeting in July 2019, the FASB staff clarified that the following two approaches are acceptable and that lessors should provide appropriate disclosures to the extent material:

Approach 1: Apply ASC 842-30 only

Under this approach, a lessor applies ASC 842-30-25-12 and 25-13 only. At the lease commencement date and throughout the lease term, a lessor evaluates its operating leases for collectibility on an individual lease basis. The accounting under this approach is summarized in the following table.

Collectibility of lease payments plus any amount necessary to satisfy a residual value guarantee is:	Lessor recognizes lease income:
Probable	On a straight-line basis (or other systematic basis), plus variable lease payments in the period in which the changes in facts and circumstances on which these payments are based occur (i.e., on an accrual basis)
Not probable	At the lesser of: <ul style="list-style-type: none"> ▶ Straight-line lease income (or other systematic basis), plus variable lease payments (i.e., the accrual basis described above) ▶ Lease payments, including variable lease payments, collected (i.e., a cash basis)

When the assessment of collectibility changes during the lease term, a lessor recognizes on a cumulative basis as a current period adjustment to lease income the difference between (1) the accrual basis and (2) the cash basis, typically as either a credit to lease income (if collectibility becomes probable) or as a debit to lease income (if collectibility becomes not probable). The lessor would continue to assess collectibility throughout the remainder of the lease term and make further adjustments when the assessment of collectibility subsequently changes, also on a cumulative basis as a current period adjustment to lease income.

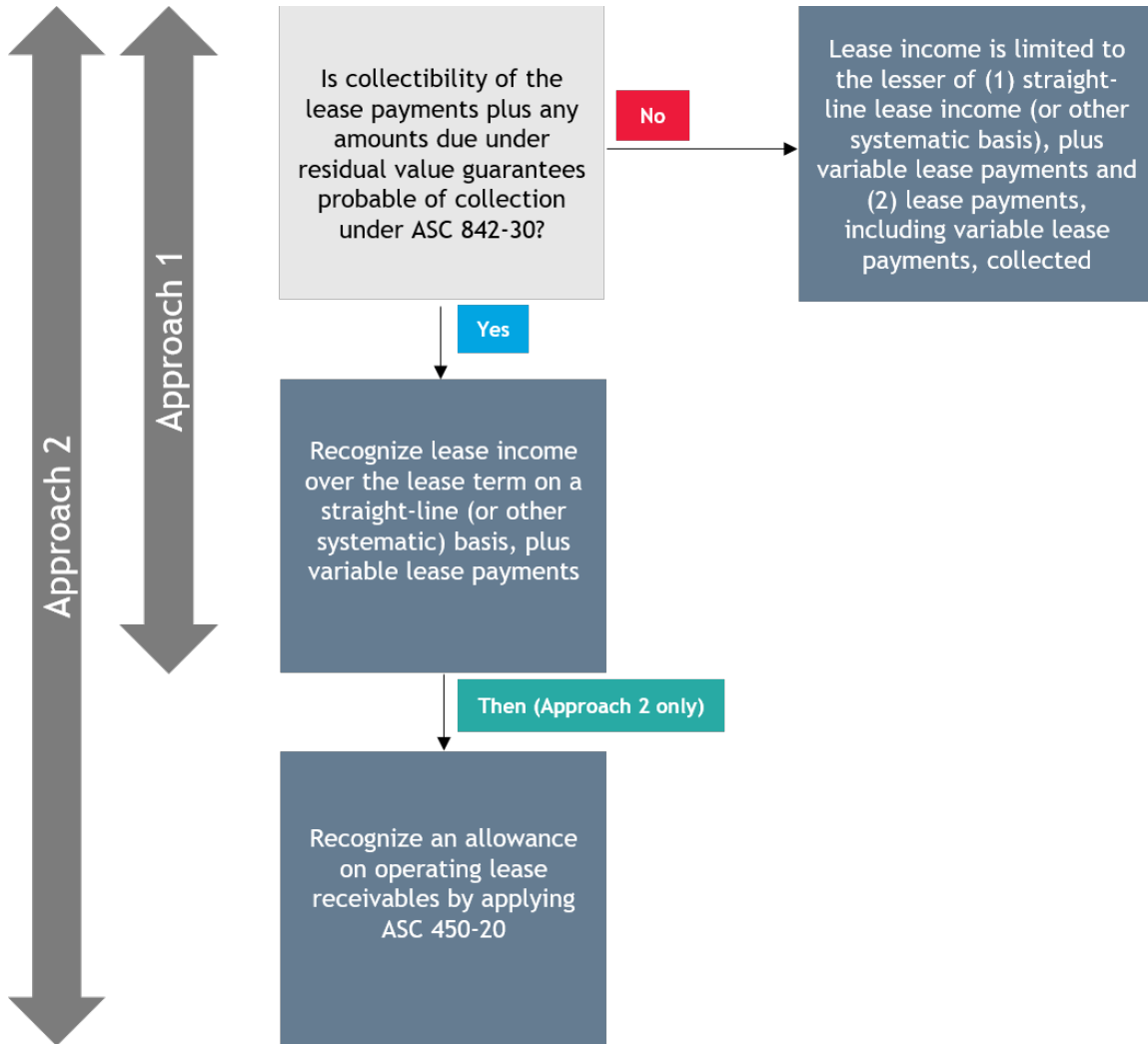
When collectibility is not probable, the lessor recognizes lease income subject to the constraint described above, which means that any lease receivable, if recognized, is fully reserved.

Approach 2: Apply ASC 842-30 first, then apply ASC 450-20

Under this method (like Method 1 above), a lessor assesses its operating lease receivables at the individual lease level under ASC 842-30 to determine whether collectibility of the lease payments (plus any amount necessary to satisfy a residual value guarantee) is probable. If collectibility is not probable, the lessor recognizes revenue subject to the cash basis constraint described in Method 1, which means that any lease receivable, if recognized, is fully reserved.

Once the collectibility assessment under ASC 842-30 is performed, a lessor then applies ASC 450-20. For operating leases that were considered probable of collection under ASC 842-30 and for which receivables are recognized, the lessor establishes and maintains a general allowance (reserve) in accordance with ASC 450-20, reflecting the lessor's expectation that a portion of the operating lease receivables will be uncollectible.

The following flowchart summarizes the initial considerations when applying Method 1 and Method 2 (note that the flowchart does not address changes in the assessment of collectibility):



The application of ASC 450-20 in addition to ASC 842-30 (i.e., Approach 2) has also resulted in additional practice issues, which are summarized in the following table.

Issue	Considerations
<p>Should reserves recognized under ASC 450-20 be established through a reduction of lease income or through bad debt expense?</p>	<p>Based on discussions with the FASB staff, either approach is acceptable.</p>
<p>If reserves under ASC 450-20 are established through bad debt expense, how should a lessor account for a change in assessment of collectibility going from probable to not probable?</p>	<p>Broadly speaking, the FASB staff noted at a July 2019 FASB meeting that it is acceptable for the reserve accounting for operating lease receivables to be consistent with that currently applied for trade receivables (before ASC 326-20 becomes effective), as long as the lessor ceases recognizing lease income on a straight-line basis for an individual lease when collectibility no longer is probable for that lease.</p> <p>Specifically, we believe multiple approaches may be acceptable depending on the lessor’s methodology for establishing and maintaining reserves under ASC 450-20, including:</p> <ul style="list-style-type: none"> ▶ Writing off the gross receivable for the individual lease as an adjustment to lease income and separately adjusting the ASC 450-20 reserve as a bad debt expense adjustment (i.e., adjustments are made on a gross basis), ▶ Writing off the portion of the ASC 450-20 reserve attributable to the individual lease against the gross receivable for that lease and writing off the remaining balance of the lease receivable as an adjustment to lease income (i.e., adjustments are made on a net basis). This approach assumes that a lessor can identify on a systematic and rational basis the portion of the ASC 450-20 reserve attributable to individual leases. <p>Other approaches may be acceptable depending on the reserve methodology the lessor applied. In those circumstances, entities are encouraged to discuss with their accounting advisor or auditor the appropriateness of their methodology for recapturing amounts from the general reserve.</p>

OTHER TRANSACTIONS

SALES OF LEASE RECEIVABLES

Transfers of lease receivables from sales-type and direct financing leases (which include the lease payments and amounts under residual value guarantees provided by either the lessee or a third-party) are subject to the requirements of ASC 860 on transfers and servicing. Unguaranteed residual assets however do not meet the definition of financial assets. If a lessor sells substantially all of the lease receivable associated with a sales-type lease or a direct financing lease and retains an interest in the unguaranteed residual asset, it no longer accretes the unguaranteed residual asset to its estimated value over the remaining lease term. Instead, any remaining unguaranteed residual asset is reported at its carrying amount at the date of the sale and is subsequently evaluated for impairment using the guidance in ASC 360.

Future lease payments in an operating lease are executory in nature and do not qualify as a recognized financial asset in the balance sheet, unlike lease receivables stemming from sales-type or direct-financing leases discussed above. Accordingly, these lease payments are in the scope of ASC 860 *only* when they are due. A lessor's sale or assignment of future lease payments under an operating lease is accounted for as a secured borrowing under ASC 470 because the lessor's economic interest in an operating lease represents the sale of future revenues in an executory contract rather than a receivable. Therefore, the lessor continues to record lease income on the operating lease in addition to recognizing interest expense on the borrowing. As the lessee makes payments under the lease, the lessor reduces the amount of borrowing based on the portion of the lease payments that represent principal reductions rather than interest expense. Lessors should not offset the lease income and the interest expense on the borrowing (i.e., gross presentation in the income statement is required) since the secured borrowing transaction is separate from the operating lease.

SALE AND LEASEBACK TRANSACTIONS

For guidance on sale and leaseback transactions refer to article 7 on [Other Topics](#).



OTHER TRANSACTIONS

There are other transactions which we have not addressed in this article. Those include:

- ▶ Sale of equipment with guaranteed minimum resale amount: see ASC 842-30-55-1 through 55-15,
- ▶ Guarantee payments received: see ASC 842-30-55-16.

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