



Staff
Paper

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Project	Leases
Topic	Lessor accounting: residual value guarantees

Purpose

1. This paper analyses how a lessor should account for residual value guarantees (RVGs) provided by a lessee, a related party or a third party.

Summary of the staff recommendation

2. The paper explores three approaches on how a lessor could account for RVGs.
3. All of the staff recommend that that the draft leases standard should provide guidance on accounting by lessors for all RVGs, irrespective of whether they are provided by a lessee, a related party or a third party.
4. Some staff prefer Approach A—the lessor would include RVGs from all parties (not only from the lessee) in the measurement of the lease receivable, initially measured at the amounts expected to be payable under the guarantee.
5. However, the majority of staff prefer Approach B—that the lessor should not recognise RVGs before they are due from the guarantor. However the lessor would take into account the existence of any RVGs when considering if the residual asset is impaired.

This paper has been prepared by the technical staff of the IFRS Foundation and the FASB for discussion at a public meeting of the FASB or the IASB.

The views expressed in this paper are those of the staff preparing the paper. They do not purport to represent the views of any individual members of the FASB or the IASB.

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Background

What is a residual value guarantee?

6. RVGs reduce a lessor's exposure to the residual asset. Under these guarantees, the lessor is compensated if the value of the leased asset is below a specified amount at the end of the lease.
7. RVGs are typically priced at market value.
8. RVGs can be provided by the lessee, as well as by a third party. In our research, we found that a majority of RVGs are normally (a) provided by third parties who are typically manufacturers of the underlying asset (typically equipment-type leases) and (b) relate to an underlying asset that is typically a new asset.
9. If the RVG is provided by a lessee, the lessee will usually pay lower lease payments than for a lease in which no guarantee is provided. The difference in the lease payments is the lessee's compensation for assuming the residual value risk. If the RVG is provided by a third party, the lessor might pay (a) an upfront fee to the guarantor, (b) a fee during the term of the guarantee, (c) a portion of the proceeds upon sale of the asset at the end of the lease, or (d) some combination of items (a)–(c).

Existing requirements

10. Under existing requirements, minimum lease payments are used to assess whether the lessee or lessor has obtained substantially all of the risks and rewards of ownership of the underlying asset. RVGs are included as part of the minimum lease payments in this assessment.
11. RVGs included within minimum lease payments could be from the lessee, from a party related to the lessee or from a third party that is financially capable of discharging the obligations that may arise from the guarantee.
12. For finance or capital lessors, the maximum amount that could be payable (as required by IFRSs) or the maximum stated amount (as required under

US GAAP)¹ under an RVG is included in the minimum lease payments. The lessor does not reassess its RVG, except for impairment, because the RVG is measured at the maximum amount. Lessors present all assets arising from a lease (guaranteed and unguaranteed residual assets and lease receivables) as a single line item called the gross investment in the lease.

13. For operating lessors, there is no explicit guidance in the existing IAS 17 or Topic 840 on how to account for RVGs. In our research, we note that RVGs in an arrangement that is accounted for by a lessor as an operating lease are rare and would not be significant to the lessor. (The RVGs that do exist in operating leases are typically from manufacturers and are provided as an incentive to the lessor to buy their products, or provided so they are priced to provide only a very low floor to the value of the residual asset.) We understand that in current practice, RVGs in arrangements that are accounted for by the lessor as an operating lease are normally accounted for as off balance guarantees but are considered when assessing the underlying asset for impairment (ie no impairment loss would be recognised on the residual asset if its expected value fell and the lessor held a guarantee from a creditworthy counterparty).

Proposals and feedback received

14. In developing the *Leases* discussion paper, the boards tentatively decided not to apply a components approach to account for complex lease contracts. Consequently, an entity would not separately recognise and measure options, variable lease payments or residual value guarantees but would incorporate them in the liability to make lease payments. The reasons for not adopting a components approach are as follows:
 - (a) It would be more costly and difficult to apply a standard that requires separate identification, recognition and measurement of each component of a lease contract;

¹ We note that this is only a difference in nomenclature. In practice, they are accounted for in the same way.

- (b) The components of a lease contract are often interrelated. Recognising each component separately may not provide useful information.
 - (c) Unless all components are measured on the same basis, it may be possible to structure leases to reduce the amount recognised.
 - (d) The fair value of options to extend or terminate a lease is difficult to measure because such options are not normally priced separately from the lease.
15. This approach was carried forward in the *Leases* exposure draft (the ED). Respondents agreed with this approach.
16. The boards also proposed that, regardless of the lessor accounting model applied, the lessor would:
- (a) include RVGs provided by the lessee as part of the lease receivable.
 - (b) account for a third party RVGs separately under applicable requirements. This is because the boards considered that an RVG provided by a third party is unrelated to the lease arrangement between the lessor and the lessee. As a result, third-party RVGs were outside the scope of the ED.
 - (c) measure RVGs provided by the lessee consistently with other variable lease payments. The lessor would measure the RVG on an expected outcome basis (subject to a reliable measurement constraint), determined using all relevant information.
17. If the lessor were to apply the derecognition approach, all reassessment changes would be recognised in profit or loss or net income. The boards considered whether all changes relating to future periods should result in an adjustment to the allocation of the residual asset amount, but rejected that approach because it was more onerous, without giving additional benefit to users.
18. If the lessor were to apply the performance obligation approach and reassesses the receivable:
- (a) a lessor that had not satisfied the related lease liability (performance obligation) would recognise any changes as an adjustment to the lease

liability. Any changes that would reduce that liability below zero would be recognised in profit or loss or net income; or

- (b) a lessor that had satisfied the related lease liability would recognise any changes in profit or loss or net income.

19. Not many respondents specifically addressed the accounting for lessor RVGs. However, many of those respondents that provided comments on this issue stated that the leases standard should include guidance on guarantees provided by third parties to lessors rather than only providing guidance on guarantees provided by a lessee and its related party.

Lessors should also include payments to be made under RVGs by unrelated parties in their estimation of total lease receipts. From an accounting perspective, to lessors it is irrelevant if RVGs payments come from lessees or other entities. [X] is concerned that if RVGs are not included in the lessor's lease receivable there is scope for abuse. [CL121]

20. There were no specific comments on residual value guarantees by lessors from private entities.

Decisions made to date that may be relevant

21. This section discusses the tentative decisions made to date that may be relevant in deciding how a lessor should account for RVGs.
22. With regard to a lessee's RVGs, the boards have tentatively decided that:
- (a) the lessee's RVGs would be included in the initial measurement of the lessee's obligation to make lease payments measured at the amounts expected to be payable.
 - (b) the lessee's RVGs should be reassessed when events or circumstances indicate that there has been a significant change in the amounts expected to be payable under residual value guarantees. The lessee would be required to consider all relevant factors to determine whether events or circumstances indicate that there has been a significant change. Any changes in estimates that relate to:
 - (i) current or previous reporting periods, should be recognised as an adjustment to net income or profit or loss;

- (ii) future reporting periods, should be recognised by the lessee as an adjustment to the right-of-use asset.
- (c) The allocation of changes in estimates of RVGs should reflect the pattern in which the economic benefits of the right-of-use asset will be consumed or were consumed. If that pattern cannot be determined reliably, the lessee should allocate changes in estimates of RVGs to future periods.

Staff analysis

23. There are some guarantees whereby, for example, the lessee provides a RVG to the lessor but that guarantee not only exposes the lessee to the decrease in value of the underlying asset but the lessee will also benefit from any increase in the value of the underlying asset. In such cases, the lessor is in effect guaranteed to receive a fixed amount for the residual asset, which in substance is economically similar to a ‘balloon’ lease payment at the end of the lease. The boards previously decided that an entity would recognise lease payments that are in substance fixed lease payments even though they are structured as variable lease payments. We view such guarantees as, in substance, lease payments that would be included within the lease receivable. This paper does not address those types of guarantees.

Recognising RVGs only from a lessee or from any parties?

24. The boards could take the view that the leases standard should only provide guidance for RVGs that arise between a lessee and a lessor—the primary parties within a lease contract. This is consistent with the boards’ proposals in the ED and is consistent with the tentative decisions reached on the lessee’s accounting for RVGs.
25. However, we recommend that the leases standard should provide guidance for all RVGs that are related to the underlying asset, irrespective of whether the RVG is provided by the lessee, a related party or a third party. This is because:

- (a) Many lessors, in pricing the contract (ie setting the discount rate and lease payments) would consider all RVGs, irrespective of whether the guarantee is provided by the lessee, a related party or a third-party guarantee (typically from manufacturers). Limiting the unit of account of the lease contract to only guarantees by the lessee would not faithfully reflect the lessor's assets and liabilities arising from the lease contract—after all, the lessor has a guarantee relating to the underlying asset irrespective of the identity of the guarantor. We think that all such guarantees should be accounted for in a similar manner by the lessor.
- (b) RVGs in effect convert part of a lessor's asset risk to credit risk. Consequently, recognising only those RVGs that are provided by the lessee could overstate the lessor's residual asset risks. This is particularly true for equipment-type leases, because the lessor often obtains guarantees from third parties, rather than from the lessee.

Three approaches on how to account for RVGs

26. We have analysed three approaches on how to account for RVGs:
- (a) Approach A: the lessor would include RVGs from all parties in the initial measurement of the lease receivable measured at the amounts expected to be payable by the guarantor. The initial measurement is typically zero if the RVG is set at the expected value of the underlying asset at the end of the lease. Any changes in measurement would be recognised in profit or loss or net income.
 - (b) Approach B: the lessor does not recognise any RVGs but takes them into account when assessing impairment of the residual asset. The accounting for RVGs is considered to be reflected in the recognition and measurement of the residual asset when applying the proposed lessor accounting model. An RVG would be implicitly recognised in the financial statements when the related residual asset is impaired.
 - (c) Approach C: the lessor treats RVGs consistently with other variable lease payments. Based on the boards' decisions, the lessor would

only recognise a RVG if it impairs the residual asset and when it can reliably measure the guarantee. This would typically be when payments are due from the guarantor and would happen at the end of the contract. The accounting under Approach C, as illustrated below, would be very similar to the accounting outcome for Approach B. However, if the boards changed their decisions regarding variable lease payments, the outcome for Approach C may differ.

27. The simple example below illustrates the profit/loss or net income effect when these three approaches are applied. We have ignored the time value of money in this example.

Example 1:

Company A (lessee) leases a new aircraft for 10 years. Company B (lessor) estimates that it would be able to sell the aircraft for CU100 at the end of the lease. The contract also includes an RVG from the aircraft manufacturer of CU100 at the end of the lease. The useful economic life of the aircraft is 25 years.

In Year 7, the expected value of the aircraft at the end of the lease (ie its residual asset) changes. (In this example, the expected value of the residual asset has either (a) increased to CU150 or (b) decreased to CU40.)

In Year 10, Company A sells the aircraft on behalf of the lessor. The value of the aircraft has not changed since Year 7.

	Approach A	Approach B	Approach C
Initial measurement	0	0	0
During the lease			
If the FV increased to CU150	No effect	No effect	No effect
If the FV decreased to CU40			
Impairment of residual asset	-60	0	0
Gain from RVG	60	0	0
Profit/Loss (net income)	0	0	0
* For Approaches B and C: there is no impairment because lessor would take into account the RVGs to determine whether the asset is impaired.			
# The boards may consider whether any impairment that is offset by a RVG or a loss on sale of the residual asset that is offset by a RVG should be presented as a single line item.			
End of contract (lessor sells the plane)			
If the FV of residual asset is:			
CU150			
Gain from RVG	0	0	0
Gain on sale	50	50	50
Profit/(Loss)	50	50	50
CU40 (for Approach A, assume that lessor had previously reassessed)			
Loss on sale	0	-60	-60
Gain from RVG	0	60	60
Profit/(Loss)	0	0	0

Approach A

28. Under Approach A, the lessor would include RVGs from all parties in the initial measurement of the lease receivable measured at the amounts expected to be payable by the guarantor. Approach A was proposed in the ED (but only for guarantees from the lessee).
29. Approach A:
- provides more transparency about the lessor's investment in the lease because if the residual asset is impaired, then any 'offsetting' gain arising from the RVG and receivable from the guarantor would be recognised.
 - recognises the impact of the RVG at the time in which the gain economically occurs.

- (c) is consistent with the boards' decision on how a lessee should account for RVGs.
30. However, in the context of the proposed lessor accounting model in which the residual asset is measured on an allocated basis, the lessor could recognise a larger gain on remeasuring the RVG than the amount of loss recognised on the impairment of the residual asset. This is because the residual asset is measured using an allocation method and 'day 1 profit' is limited to how much ROU asset has been transferred to the lessee.

$$\begin{aligned} & \text{Residual asset} \\ & = \text{Carrying amount} - \left(\frac{\text{Lease receivable} \times \text{Carrying amount}}{\text{Fair value of underlying asset}} \right) \end{aligned}$$

31. This is shown in the example in Appendix A (please refer to paragraph A3), where the RVG is CU300. If the fair value of the residual asset decreases to CU150, the lessor would recognise a gain from the RVG receivable of CU150 even though the impairment of the residual asset is only CU120 (because the allocated cost of the residual asset on initial measurement is CU270). This results in a profit/loss or net income effect of CU30.

Approach B

32. Applying Approach B means that the lessor does not recognise RVGs until the end of the lease. However, the RVG is considered when determining whether the residual asset is impaired. This approach is similar to how some operating lessors assess leased assets for impairment.
33. As noted in the simple example above, the lessor would not recognise any impairment on the residual asset, because there is a guarantee on the value of the residual asset. Consequently, the lessor would only recognise any gains arising from the value of the residual asset at the end of the lease.
34. Supporters of Approach B question whether there is any additional informational value to separately recognising the RVG. This is because any impairment to the residual asset would be offset by a RVG and, in that

scenario, there is no change to the overall cash flows that the lessor will receive for the residual asset.

35. Supporters of Approach B also note that:
- (a) providing separate accounting guidance for RVGs could lead to an outcome in which the lessor could recognise higher profits during the lease term even though the lessor has not sold the residual asset, as illustrated in Approach A above (see paragraphs 30 and 31). This would not complement the boards' recent decision that a residual asset should be measured on an allocated cost basis where the lessor only recognises profit on the portion of the asset that it has transferred to the lessee (ie the right-of-use asset).
 - (b) Approach B is simpler to apply.

Approach C

36. Approach C treats RVGs in the same way as other types of variable lease payments, which is consistent with the proposals in the ED. Consequently, unless the RVG is linked with an index or rate, the lessor would not recognise any RVGs until payments are due from the guarantor, which would typically be at the end of the contract.
37. One minor difference between other types of variable lease payments and RVGs is that the effect of variable lease payments is recognised in profit or loss throughout the lease contract. However, the effect of the RVG would only be recognised in profit or loss or net income at the end of the lease.
38. The outcome for Approaches B and C are broadly similar, but the rationale is different.

Staff recommendation

39. We recommend that the draft leases standard should provide guidance on accounting for all RVGs that are related to the underlying asset, irrespective of whether the RVG is provided by the lessee, a related party or a third party.

40. Some staff prefer Approach A because even though the residual asset is covered by a guarantee, it provides better information by reflecting changes in the value of the RVG and the residual asset separately because they are different in nature and should be accounted for separately.
41. However, the majority of staff prefer Approach B because they think that:
- (a) the accounting for RVGs is already reflected in the recognition and measurement of the residual asset in the proposed lessor accounting model,
 - (b) the approach better aligns with the boards' decision that a residual asset is measured on an allocated cost basis, and
 - (c) any additional informational value in separately recognising changes in the value of the RVG and the residual asset would not outweigh the additional costs associated with applying Approach A.
42. All staff agree that, irrespective of which approach the boards agree on, disclosures of RVGs are important to users. This will be discussed in a separate staff paper.

Question 1

We recommend that that the draft leases standard should provide guidance on accounting for all RVGs, irrespective whether they are provided by a lessee, a related party or a third party. Do you agree?

Question 2

Which approach should be applied to RVGs?

Appendix A: Example if the carrying amount is less than the fair value

A1. Appendix A illustrates a scenario in which the carrying amount of the underlying asset is less than the fair value. We have ignored the time value of money in this example.

Manufacturer leases a new machine out to Lessee for 8 years. The useful economic life of the machine is 10 years. The carrying amount of the machine is CU900. The fair value of the new machine is CU1000.

The lease receivable is CU700. The lessor obtains an RVG that is not less than CU300 for the residual asset. The guarantee is also the same as the fair market value of the residual asset.

In Year 6, the value of the residual asset decreases to CU150.

At the end of the lease, Lessee sells the machine on behalf of Manufacturer. The value of the machine had not changed since Year 6.

What is the value of the residual asset on initial measurement?

A2. Applying the lessor model, the residual asset is measured using an allocated cost method.

Residual asset

$$= \text{Carrying amount} - \left(\frac{\text{Lease receivable} \times \text{Carrying amount}}{\text{Fair value of underlying asset}} \right)$$

$$= \text{CU900} - \left(\frac{700 \times 900}{1,000} \right)$$

$$= \text{CU270}$$

Accounting entries are as follows:

DR	Lease receivable	700	
DR	COGS	630	
DR	Residual asset	270	
CR	Underlying asset	900	
CR	Revenue	700	

Profit = 700 - 630
= CU70

(Lessor recognises a lease for a machine. Lessor recognises a profit of CU70.)

A3. The table below compares the profit/loss or net income effect when applying all three approaches, but when the value of the residual asset decreases.

	Approach A	Approach B	Approach C
Initial measurement			
Gain on initial lease contract	70	70	70
Subsequent measurement (residual asset decreased to CU150)			
Impairment of residual asset	-120	0	0
Gain from receivable from guarantor	150	0	0
	30	0	0
End of contract (asset is sold at CU150)			
Loss on sale	0	-120	-120
Gain on receivable from guarantor	0	150	150
	0	30	30
Total Profit/Loss arising from the contract	100	100	100