Project **Leases**

Topic **Lessor accounting: Finance leases – measurement**

Purpose

1. The purpose of this paper is to discuss initial and subsequent measurement of assets and liabilities recognised by a lessor for finance leases. This paper should be read in conjunction with IASB agenda paper 1K / FASB memo 165.

2. In IASB agenda paper 1K / FASB memo 165, we explained that there are two ways that a lessor could account for the underlying asset for *finance* leases:

   (a) **Approach A**: the lessor derecognises all of the carrying amount of the underlying asset and recognises:

      (i) a receivable from the lessee; and

      (ii) a residual asset.

      This approach is consistent with the approach applied by existing finance and capital lessors.

   (b) **Approach B**: the lessor derecognises a portion of the carrying amount of the underlying asset—the right-of-use portion that was transferred to the lessee. The lessor recognises a receivable from the lessee and reclassifies the remaining part of the underlying asset as a residual asset. This was proposed in the leases exposure draft (ED) as the derecognition approach.

3. In this paper we have analysed the different ways to measure the assets and liabilities that a lessor recognises from a finance lease.

4. This paper does not consider when there is a reassessment of discount rates, reassessment of lease terms (options to extend and terminate) and accounting for variable lease payments. It also does not analyse the effect of leases with embedded derivatives or analyse the implications for Shariah-compliant leases. At future meetings, the staff will bring an analysis of those issues.

Lease receivable

Proposals in the ED

5. In the ED, the boards proposed that, when applying the derecognition approach, the lessor should:

   (a) initially measure the lease receivable at the sum of the present value of the lease payments, discounted using the rate the lessor charges the lessee plus any initial direct costs incurred by the lessor.

   (b) subsequently measure the lease receivable at amortised cost using the effective interest method after the date of commencement rather than at fair value. The boards' reasons for not measuring the lease receivable at fair value after initial measurement were:

   > (a) … consistent with the subsequent measurement of many other non-financial assets and non-derivative financial liabilities, thus decreasing comparability. …
   >
   > (b) … more complex and costly for entities to apply than a cost-based approach because it requires the use of both current expected cash flows and current market interest rates.
   >
   > (c) … inconsistent with the proposal that initial measurement of assets and liabilities arising from a lease should not be at fair value. [Paragraph BC74]

6. The boards considered and rejected an approach to refer to the guidance in IFRSs and US GAAP on measuring financial assets, rather than provide specific guidance on measurement within the final *Leases* standard. They noted that although lease receivables meet the definition of financial assets, lease receivables often include amounts relating to options and variable lease

payments which may be recognised and measured on a basis that is unique to accounting for leases.

7. The boards also considered and rejected an approach to permit measurement of the lease receivable at fair value. This is because such an option would impair comparability between reporting entities with similar leases.

Staff analysis

8. The majority of the respondents to the ED and participants in outreach agreed with the boards' proposals in the ED with respect to the initial and subsequent measurement of the lessor's lease receivable.

9. However, a few respondents disagreed and thought that the lease receivable should follow the requirements in the financial instruments standard.

> … [we are] concerned that the measurement of the lease receivable by a lessor is not consistent with the measurement model of IAS 39/IFRS 9, as effectively the lease receivable is a loan and should be accounted for consistently with other financial assets. [CL783]

10. Some staff think that the suggestion has merit. Some lease receivables can and have been securitised (we note that many finance/capital lessors are financial institutions) and it may be appropriate for those lease receivables to be measured at fair value. This is consistent with the requirements in IFRS 9 *Financial Instruments* and the FASB's tentative decisions (made 25 January 2011) in developing their financial instruments standards that require entities to measure specified financial assets at fair value.

11. Thus, a minority of the staff recommend that if the entity's business model or business strategy is either (a) not to hold these assets to collect contractual cash flows or (b) to hold them for trading, those financial assets should be measured at fair value through profit or loss. These staff think that requiring those lease receivables to be measured at fair value through profit or loss would more faithfully reflects the economics of the transaction and is less cumbersome or costly for those lessors. The alternative would be to initially measure such lease receivables at amortised cost, then derecognise them (and recognise any gains or

losses) and then fair value the financial assets in accordance with applicable financial instruments requirements. Those staff also note that because unlike the proposals in the ED, lease receivables would now include fewer options and other forms of variable lease payments, the lease receivable should be measured consistently with other types of financial assets.

Staff recommendation—lease receivables

Initial measurement

12. Some staff recommend that all lease receivables are initially measured at the present value of the lease payments, discounted using the rate the lessor charges the lessee plus any initial direct costs incurred by the lessor.

13. Other staff recommend that lease receivables are initially measured at fair value if the lessor's business model or business strategy is either (a) not to hold these assets to collect contractual cash flows or (b) to hold them for trading. Otherwise, lease receivables should be initially measured at the present value of the lease payment, discounted using the rate the lessor charges the lessee plus any initial direct costs incurred by the lessor.

Subsequent measurement

14. Some staff recommend that all lease receivables should be subsequently measured at amortised cost using the effective interest method.

15. Other staff recommend that lease receivables should be subsequently measured at fair value if the lessor's business model or business strategy is either (a) not to hold these assets to collect contractual cash flows or (b) to hold them for trading. Otherwise, lease receivables should be subsequently measured at amortised cost using the effective interest method.

Residual asset

16. In measuring its residual asset, the lessor must consider the following factors:

(a) The condition of the underlying asset will have changed by the end of the lease. The asset will be older; it may even be obsolete. Consequently, it is likely to have a lower value at the end on the lease. However other assets, such as land, could be worth more at the end of the lease than at the start of the lease.

(b) The lessor will be unable to access the benefits associated with the residual asset until the end of the lease. Therefore, the measurement of the residual asset should reflect the fact that the lessor may not be able to obtain cash flows from the residual asset until some point in the future (ie the valuation of the residual asset should reflect the time value of money).

(c) The residual asset could comprise a guaranteed amount given by a third party and an unguaranteed amount.

Proposals in the Leases exposure draft (ED)

17. In the ED, the boards proposed that under the derecognition approach the residual asset is initially measured by allocating a portion of the carrying amount of the underlying asset at the date of inception of the lease. A lessor would determine the amount derecognised and the initial carrying amount of the residual asset by allocating the carrying amount of the underlying asset at the date of inception of the lease in proportion to the fair value of the rights that have been retained by the lessor. Therefore, the amount derecognised by the lessor is the carrying amount of the underlying asset multiplied by the fair value of the right to receive lease payments divided by the fair value of the underlying asset

$$\frac{\text{Fair value of receivable} \times \text{Carrying amount of the underlying asset at inception}}{\text{Fair value of the underlying asset}}$$

18. The residual asset would be presented separately but within property, plant and equipment.

19. The boards also proposed that the residual asset:

    (a) should not be remeasured unless it is impaired or if there is a change in the lease term. The boards rejected an approach to accrete the residual asset during the lease term for the time value of money even though it would reduce the number of situations in which a lessor recognises large gains on re-leasing or selling the underlying asset at the end of the initial lease term. This was because it would be inconsistent with the cost-based approach to initial measurement.

    (b) should not be remeasured at fair value because it would be costly for entities and could result in the recognition of unrealised gains.

Response from the ED, workshops and outreach

20. The majority of respondents that expressed support for the derecognition approach to lessor accounting were concerned with the proposal to 'freeze', rather than accrete, the residual asset. Those respondents noted that:

    (a) lessors attribute significant importance to the residual asset and that the fair value of the residual interest is of significant interest to users. Moreover, they thought that the residual asset is not an item of property, plant and equipment because it is not an asset the lessor uses or intends to use in its business; it is more like a financial asset.

    > … we disagree with the prohibition on remeasuring the residual asset. We support the alternative view; the initial amount recognised should be accreted to reflect the time value of money. Failing to do so understates the profitability of the lessor during the lease term and creates an artificial one-off gain when the asset is sold at the end of the lease term. We acknowledge that the residual asset is not a monetary asset, but believe that the nature of the asset changes over time. For example, a residual asset at the inception of a five year lease represents a right to obtain property in five years' time. One year later, it is a right to obtain property in four years' time, which is arguably a different asset, but is certainly an asset with a different value. In view of this direct linkage to the passage of time, we believe the time value of money ought to be reflected, as it currently is implicitly in the measurement of the net investment in a lease under IAS 17. [CL451]

> We disagree with the treatment of the residual asset. The residual asset under the derecognition approach is not PP&E, since it is not an asset the lessor uses or intends to use in its business. Rather it is more akin to a financial asset, the present value of the lessor's right to receive a residual payment measured at the inception of the lease. This right should be included in the receivable and unwound by crediting interest income over time as the end of the lease approaches. This right is the expected cash flow from sale or scrapping of the asset at lease expiry. [CL99]

A user respondent stated:

> The lease residual should be accreted to expected value: Under the Proposed ASU, the lease residual is accounted for as a nonearning asset and periodically assessed for impairment. Accordingly, the subsequent measurement of the residual asset is analogous to an indefinite lived intangible asset. However, we do not believe this proposed treatment is consistent with the economic substance of the leasing transaction. The lease residual represents the right to the cash flows the lessor expects to receive at the end of the ROU period that will ultimately be realized through sale, residual value guarantee or release of the leased asset. Accordingly, the value of the lease residual is inextricably linked to the lease receivable and the value of the leased asset at the end of the ROU period. We encourage the FASB to permit accretion of the residual asset to its expected value at the end of the ROU period. [CL242]

(b) delaying the recognition of changes in the value of the residual asset until the end of the lease term is inconsistent with how lessors negotiate lease contracts.

> The implication of this treatment is the Residual Asset earns no income over the lease term, therefore there would be a mismatch between income and funding over the lease term followed by an exaggerated gain or reduced loss on sale when the asset is disposed. our preference would be to earn interest income on the Residual Asset throughout the lease term. The remeasured Residual Asset should still be subject to impairment. [CL297]

(c) the proposals are inconsistent with the proposed transitional requirement in the ED to measure the residual asset at fair value.

(d) lessors (specifically those in IFRS jurisdictions) should be required or allowed to measure the residual asset at fair value, either through profit or loss or other comprehensive income (eg if the lessor applies the revaluation model to the class of property, plant and equipment to which the underlying asset belongs).

> Moreover, we would also include an option to fair value the residual asset through other comprehensive income where an entity adopts such a policy for similar items of property, plant and equipment. This would allow lessors to apply a consistent approach for assets that they hold to use within their business and those which they lease to others. Although we do not believe that many entities would take up this option, we believe that it should be made available for those who wish to do so, such as UK government bodies that are currently required to revalue in this way. [CL451]

21. Some respondents proposed alternative approaches on how to measure the residual asset:

> We recommend that the Boards reconsider the residual value methodology as outlined in paragraph 50 [of the ED]. In our opinion the expected use of the asset and the manner of expected recovery at the end of a lease should be the primary factors considered in the calculation of the residual value. Stated differently, the residual value should be established consistent with the lessor's business model. If the business model considers the residual value to be a financing asset to be recovered by continued leasing or remarketing activity after the initial lease term, then a fair value method similar to current methodology in ASC 840 would generally be appropriate. Alternatively, if the leased asset is expected to be returned to the lessor and is considered the equivalent of inventory for consumption in manufacturing operations or internal operations, then a residual based on an allocation of original cost would be appropriate in most circumstances. Lastly, if there is no intended use or other forms of expected recovery of the leased asset at the end of the lease, then the entire asset value should be expensed upon commencement of the original lease. We believe that measurement of the residual value consistent with a lessor's business model is the most faithful representation of the economic effects of the residual asset and also provides the most predictive value of future operational results. Finally, we believe reference to the lessor's business model is consistent with Statement 157's principle of measuring fair values consistent with highest and best use. [CL219]

Initial measurement

22. There are two options to consider for initial measurement of the residual asset:

    (a) retain the proposals in the ED – allocate a portion of the carrying amount of the underlying asset to the residual asset.

    (b) measure the residual asset at fair value.

Retain the proposals in the ED

23. Most respondents to the ED agreed with the proposals in the ED that would initially measure the residual value as an allocation of the carrying amount of the underlying asset.

24. This approach may provide the most faithful depiction of the value of the residual asset if a lessor derecognises the entire underlying asset. This is because the lessor would only be able to recognise a gain on a proportion of the historical cost, thus understating its gains on initial measurement. The example below illustrates this approach.

> Example 1:
>
> Entity A produced a machine that has a carrying amount of CU80 with a useful life of ten years. The fair value of the machine is CU100. The present value of the expected residual in 9 years is CU20.
>
> Entity A leases the machine for nine years for lease payments with a present value of CU80.
>
> Assuming Entity A derecognises all of the machine at the date of commencement of the lease, the entries are:
>
> | | | |
> |---|---|---|
> | DR Receivable | 80 | |
> | CR Underlying asset | | 80 |
> | DR Residual asset | 16 (80 – (80 x 80/100)) | |
> | CR Gain | | 16 |
>
> In this example, the residual asset is measured at an allocation of the carrying amount of the asset of CU80, which is less than the asset's fair value. Hence, the carrying amount of the residual asset (CU16) is less than the present value of the expected value of the residual (CU20).

Fair value of the residual asset

25. Some respondents to the ED preferred initially measuring the residual asset at fair value. The fair value is assumed to equal the present value of the expected value of the underlying asset at the end of the lease.

> This method of allocation seems arbitrary and lacks connection to underlying economic value. The computation does not result in a residual value of the asset but rather an apportionment of the asset's original cost. If upon transition as per the transition provisions in

> the ED the fair value of the residual asset can be determined, so to can the fair value be determined when applying the provisions of the ED on new lessor arrangements. We support a fair value approach to determining the value of the residual asset at lease inception because it reflects the economics of what the lessor is retaining. [CL780]

26. Initial measurement of the residual asset at fair value would be consistent with how many other assets are initially measured.

27. If the residual asset is initially measured at fair value:

    (a) the lessor would recognise a higher gain on initial measurement.

    (b) it would also not be difficult for many lessors to initially measure the residual asset at fair value In pricing their leases, most lessors will have made assumptions about the expected value of the underlying asset at the end of the lease. Consequently, it should be possible to determine the fair value of the residual asset.

Staff recommendation

28. Some staff recommend that the residual asset is initially measured at fair value, ie its expected value at the end of the lease discounted using the rate the lessor is charging the lessee.

29. Other staff recommendations depend on the boards’ decision on derecognition of the underlying asset as follows:

    (a) If the boards decide that a finance lessor should derecognise a portion of the carrying amount of the underlying asset, those staff recommend that the residual asset is initially measured as an allocation of the carrying amount of the underlying asset. This would better reflect that the lessor has ‘sold’ the portion of the asset that it no longer controls and retains what it still controls.

    (b) If the boards decide that a finance lessor should derecognise all of the carrying amount of the underlying asset, those staff recommend that the residual asset is initially measured at fair value. This reflects that the entity has purchased a new asset and is consistent with how many assets are initially measured (before including initial direct costs).

Subsequent measurement

30. The residual asset could be subsequently measured in any of the following ways:
    (a) Option A: retain the proposals in the ED – 'freeze' the value of the residual asset except for impairment.
    (b) Option B: accrete or unwind the carrying amount of the residual asset over the lease term.
    (c) Option C: remeasure the residual asset at fair value.

Option A – retain the proposals in the ED

31. Under the boards' proposals, the residual asset is an allocation of the previous carrying amount of the underlying asset. For manufacturer/dealer type of leases or underlying assets that have been re-leased, the carrying amount of the underlying asset will normally be less than the fair value of the underlying asset at initial measurement. However for other types of leases, the underlying assets would normally be at fair value, because they have been recently purchased.

32. Under option A, when the residual asset is re-leased or sold at the end of the lease, the lessor would recognise a larger gain that may be more appropriately reflected over the lease term, rather than at the end of the lease term. Appendix B reproduces a previous staff paper that illustrates the effect of 'freezing' the residual asset.

33. Retaining the proposals in the ED may be simpler for preparers.

34. Some think the proposals in the ED are a consistent application of the historical cost-based approach for property, plant and equipment. However we note that the lessor's *residual asset* is different from the concept of a *residual value* as defined under existing guidance:
    (a) IFRSs – IAS 16 *Property, Plant and Equipment* defines residual value as follows:

        The estimated amount that an entity would currently obtain from disposal of an asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life. (IAS 16.6)

(b) The glossary in *FASB Accounting Standards Codification*™ defines a residual value as:

> The estimated fair value of the leased property at the end of the lease term.

35. Both definitions of residual value and the historical-cost based measurement of property, plant and equipment typically ignore the time value of money effect and the extent to which the residual value is guaranteed. However, the residual asset as measured at lease commencement in the leases ED reflects the time value of money of the underlying asset—the initial measurement of the residual asset under the leases ED is the present value of the residual asset, which is not the value of the residual asset at the end of the lease[1]. Therefore, analogising to how property, plant and equipment is measured is not appropriate.

Option B – accreting the residual asset over the lease term

36. For option B, the lessor would unwind or accrete the residual asset over the lease term to reflect the time value of money on the amount initially recognised for the residual asset. The accretion would not be changed subsequently, unless the lessor determines that the residual asset is impaired.

37. The entries to unwind or accrete the value of the residual asset are:

DR	Residual asset
CR	Profit/loss

38. Appendix A illustrates how a lessor could accrete the residual asset.

39. Some could view that a lessor should accrete the residual asset only to the amount that is guaranteed at the end of the lease. This would treat the guaranteed amount as akin to a financial asset and accreting it would be consistent with how a financial asset is normally accounted for. However, we

1. However, it should be noted that under both IFRSs and US GAAP, the residual value of the leased asset for finance/capital leases is discounted in arriving at the lessor's net investment in the lease that includes the value of the residual asset at the end of the lease.

think that the residual asset at the end of the lease should equal the residual value as defined in IFRSs and US GAAP (see paragraph 34 for the definition of residual value). Consequently, we recommend that the lessor accretes the entire (guaranteed and unguaranteed) amount until the end of the lease.

40. The advantages to unwinding/accreting the residual asset are:

(a) The residual asset continues to be on a historical-cost based measurement. This ensures comparability with other long-term physical assets that are measured on a cost basis.

(b) Less onerous compared to option C where the residual asset is remeasured at fair value.

(c) It is consistent with the existing practice in US GAAP that is applied to residual assets that are guaranteed.

(d) It avoids recognising potentially large gains when the asset is re-leased which arises only due the time value of money.

41. The disadvantages of unwinding/accreting the residual asset are:

(a) Arguably provides less useful information than fair valuing the residual asset (option C).

(b) More complex when there is a change of lease term and as a result of variable lease payments.

Option C – fair value the residual asset

42. Under option C, the lessor would remeasure the residual asset at fair value and recognise any gains and losses in profit or loss. The entries would be:

DR/CR Residual asset

Dr/CR Gains/losses on remeasurement

43. The advantages to remeasuring the residual asset at fair value are that:

(a) it provides more relevant information to users of financial statements (the lessor's residual asset reflects current expectations about the residual asset). This is because the fair value would not only take into account the time value of money of the residual asset, it would also consider other sources of changes in the value of the residual asset.

(b) the lessor does not have to consider impairment.

(c) many lessors are financial institutions or manufacturer/dealers and would already be monitoring the expected value of their residual assets particularly in situations where their interest in the residual is significant or guaranteed. Consequently, it would not be as burdensome as considered by some.

44. The disadvantages are that:

(a) it is inconsistent with the accounting for property, plant and equipment that is on a historical cost-based measurement basis, thus decreases comparability with such assets. (It is consistent for IFRSs if the property, plant and equipment is revalued.)

(b) fair value may be difficult to determine in some jurisdictions.

Staff recommendation

45. Some staff recommend subsequent measurement of the residual asset by accreting the residual asset over the lease term.

46. Other staff recommendations depend on whether the carrying amount of the underlying asset is fully derecognised or partially derecognised as follows:

(a) If the boards decide that a finance lessor should derecognise a portion of the carrying amount of the underlying asset, those staff recommend option B – that the residual asset should be accreted over the lease term because it:

(i) ensures that the residual asset continues to be on a historical-cost based measurement basis. This means that the residual asset at the end of the lease term is equal to the asset's residual value as defined under existing requirements (see paragraph 34 for the definitions). This ensures comparability with other long-term tangible assets that are measured on a cost basis.

(ii) is less complex and onerous for preparers of simple leases.

(iii) will not understate the lessor's income or profitability during the period of the lease. In addition, it will not overstate an entity's gains when the underlying asset is sold or reused in subsequent periods.

(b) If the boards decide that a finance lessor should derecognise all of the carrying amount of the underlying asset, those staff recommend option C, subsequently measuring the residual asset at fair value. This is more relevant to users and better reflects that the asset is a type of investment to the lessor rather than an item of property, plant and equipment.

47. The staff do not recommend option A, carrying forward the proposals in the ED, because it does not reflect the underlying economics of the residual asset.

48. Some staff also do not recommend option C, to remeasure the residual asset at fair value, because it is more costly without providing sufficient additional benefit to users.

Appendix A How to *accrete the residual asset*

This appendix illustrates how a lessor could accrete the residual asset. In addition, it illustrates what would happen if the carrying amount of the residual asset does not change after initial measurement, other than for impairment, when the lessor sells the underlying asset or retains the underlying asset for its own use at the end of the lease term.

A manufacturer manufactures a car. The car's normal selling price is CU26,000. The car's manufacturing cost is CU20,000. Estimated value at the end of lease is CU2,000 Estimated useful life of the car is 10 years. The car is leased for a fixed term of 5 years. Interest rate the lessor is charging the lessee is 8% The receivable, the present value of the lease payments is CU24,639 Interest component of the lease payments is CU6,216 Present value of estimated value at the end of the lease is CU1,361

A1. If the residual asset was not initially measured at fair value

(a) The portion of the car transferred in the lease = 20,000 x 24,639/26,000 = CU18,953. Therefore, the carrying amount of the residual asset = 20,000 – 18,953 = CU1,047.

(b) The interest rate used to accrete the residual asset would be the rate that equates the carrying amount of the residual asset to its estimated value at the end of the lease. In this example, the interest rate that equates the carrying value of CU1,047 to the estimated value of CU2,000 is 13.8%. (This rate is not the same as the rate the lessor is charging in the lease because of the unrecognised manufacturer's profit inherent in the residual asset.)

Residual asset	**Year**				
	1	**2**	**3**	**4**	**5**
Opening carrying amount	1,047	1,191	1,356	1,543	1,757
Interest income (at 13.8%)	144	165	187	214	243
Closing carrying amount	1,191	1,356	1,543	1,757	2,000

(c) Entries to accrete the asset in years 1 – 5 are:

	Year 1	Year 2	Year 3	Year 4	Year 5
DR Residual asset	144	165	187	214	243
CR Income on unwinding	144	165	187	214	243
To increase the residual asset					

A2. If the residual asset was initially measured at fair value

(a) The fair value of the residual asset on initial measurement = CU1,361

(b) In this situation, the rate used is the rate the lessor is charging in the lease because the manufacturer's profit inherent in the residual asset has been recognised.

Residual asset	**Year**				
	1	**2**	**3**	**4**	**5**
Opening carrying amount	1,361	1,470	1,587	1,714	1,851
Interest income (at 8%)	109	117	127	137	149
Closing carrying amount	1,470	1,587	1,714	1,851	2,000

(c) Entries to accrete the asset in years 1 – 5 are:

	Year 1	Year 2	Year 3	Year 4	Year 5
DR Residual asset	109	117	127	137	149
CR Income on unwinding	109	117	127	137	149
To increase the residual asset					

(d) The lessor could unwind/accrete the residual asset on a straight-line basis. This is simpler, more straight-forward and would provide a more consistent revenue stream for users to see. However, we question the usefulness of this information and think that the straight-line method would not necessarily reflect the value of the economic benefits to the entity.

If the lessor did not accrete the residual asset

Sell

A3. If the lessor sells the car for proceeds equal to its expected fair value of CU2,000 as soon as it is returned by the lessee to a separate third party, the lessor will recognise a gain on disposal. The gain is CU953 = CU2,000 (proceeds) – CU1,047 (carrying amount of residual asset, assuming it is measured at the allocated historical amount).

A4. There would not be any gains/losses if the lessor accreted the residual asset.

Retain for its own use (or to re-lease the car)

A5. If the lessor retains the car for its own use, the carrying amount of the car will be CU1,047. This will be the new ‘cost’ of the asset for depreciation purposes going forward.