

# The impact of AASB 16 on impairment

## What is the issue?

AASB 16 *Leases* brings most leases on balance sheet for lessees - generally, a lessee books a Right-of-Use Asset ("RoU Asset") and a Lease Liability.

AASB 136 *Impairment of Assets* requires lessees to determine whether there are indicators that a RoU Asset is impaired, consistent with the accounting principles applicable to other finite life non-financial assets. Even when there are no impairment indicators specific to a RoU Asset or a Cash-Generating Unit ("CGU") to which the RoU Asset belongs to, it is likely that the RoU Asset will influence impairment testing of indefinite life non-financial assets such as goodwill or R&D still in development.

This paper focuses on how adoption of AASB 16 impacts impairment testing of a lessee's financial statements, particularly a lessee's goodwill, where the Value in Use ("ViU") (AKA Discounted Cash Flow or "DCF") model is applied to determine the AASB 136 recoverable amount.

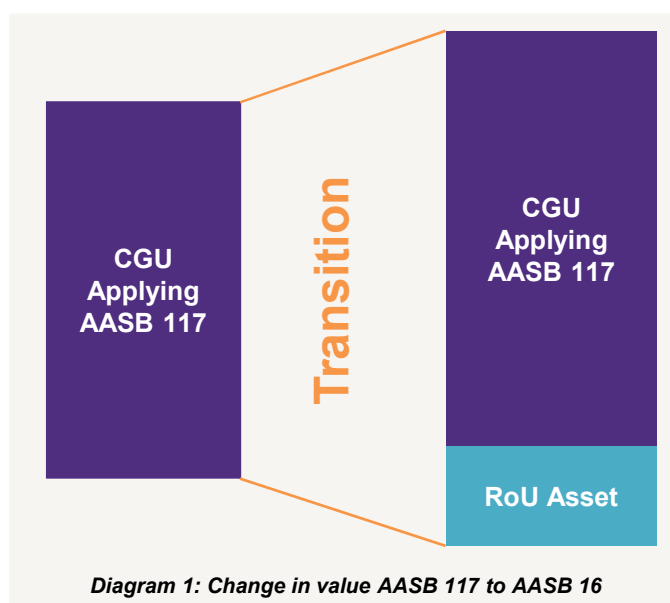
## Annual impairment testing utilising a ViU model

Similar to other finite life non-financial assets, a RoU Asset is only tested for impairment when impairment indicators exist (AASB 136.9). If impairment indicators exist, an entity must determine whether the RoU Asset needs be tested for impairment on a stand-alone basis or at a CGU level (AASB 136.66).

Even if there are no existing impairment indicators at the RoU Asset level or the CGU level, RoU Assets will impact annual goodwill impairment testing by increasing the carrying amounts of the CGU, the level at which indefinite life non-financial assets, including goodwill, are assessed for impairment annually (AASB 136.10). The adoption of AASB 16 materially increases the carrying value of a CGU for most entities.

AASB 136 requires that the carrying value of each CGU containing the assets and goodwill being tested be compared with its recoverable amount, being the higher of its ViU and Fair Value less Cost of Disposal ("FVLCD"). Typically, entities default to utilising a ViU model as the most simply prepared - if a ViU model indicates no impairment is required, a FVLCD model is considered unnecessary due to the "higher of" requirement in the standard.

Given the prevalence of reliance on the ViU model, this paper will focus on applying this approach to impairment.



In general, liabilities are excluded from the CGU when performing an impairment test (AASB 136.76(b)) unless “the recoverable amount of the CGU cannot be determined without consideration of this liability”, which is taken to mean working capital and similar liabilities as directly impacting cash flows when derived from EBITDA. By extension, this results in the exclusion of any finance-structuring related liabilities.

**It is therefore appropriate to exclude any Lease Liability related to a RoU Asset from the value of a CGU.**

**Why does AASB 16 increase assets but not increase liabilities when assessing impairment?**

Conceptually, AASB 16 assumes a theoretical purchase of a ‘right’ that is paid for by future cash outflows. This ‘right’ is recorded as an asset, with the outflows being a liability.

It can be thought of as similar to buying control of an intangible – and then financing through debt. The investing outflow occurs at the date of the right / intangible being acquired; how the entity elects to finance purchase is a matter of capital allocation.

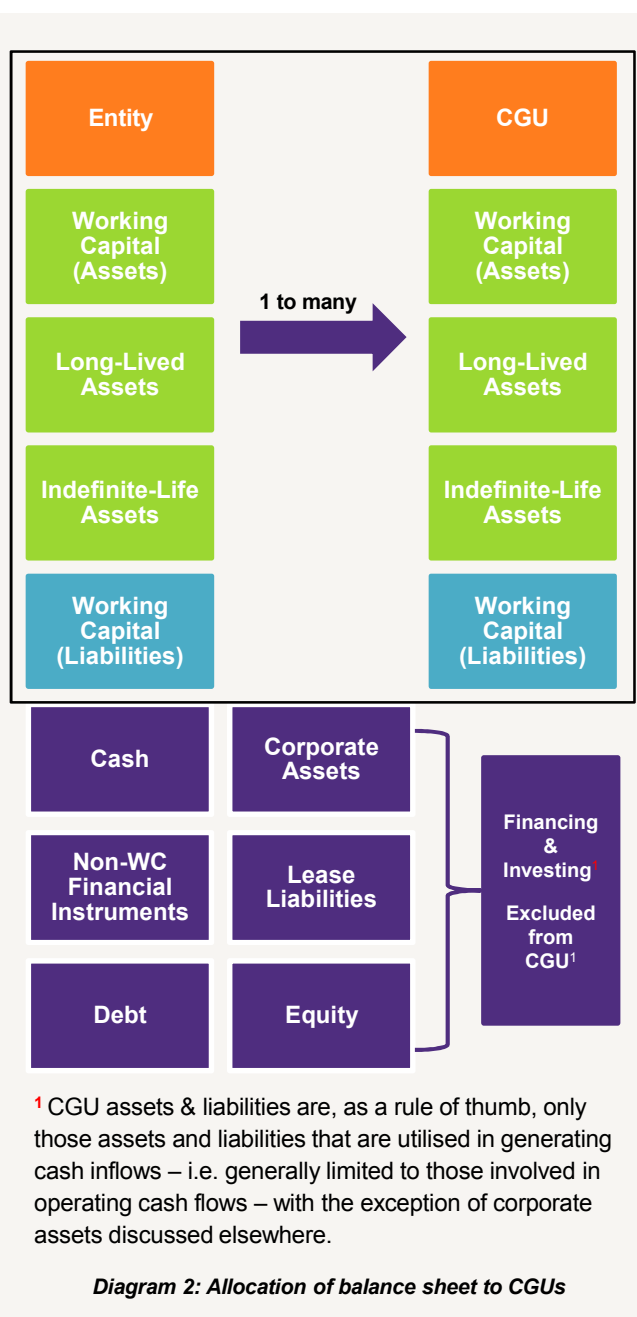
For a lease, no gross cash in/outflow occurs as the right is financed by the buyer of the right, so cash flows occur and are presented on a net basis.

**Note that the capital mix of the entity, and its theoretical optimal capital composition, is considered elsewhere in a ViU calculation – within the discount rate.**

In summary, the carrying value of the CGU includes the RoU Assets, excludes lease liabilities and thus excludes the associated principal payments from the estimate of future lease cash flows.

Consider the example to the right. An entity may be broken into multiple CGUs; in such a case, assets and liabilities are allocated and certain items are excluded. Indefinite life intangibles, such as goodwill or capitalised R&D that is not yet in use, must be allocated to a CGU.

If corporate assets are held and there is an indication that these may be impaired, recoverable amounts are determined for a CGU or group of CGUs to which the corporate assets belong. Where a single CGU exists, all assets (excluding cash) are included in the impairment analysis while certain liabilities are included.





## Cash flow forecast considerations post adoption of AASB 16

In determining the recoverable amount of a CGU, AASB 136.50 requires that the estimated future cash flows not include:

- a. Cash inflows or outflows from financing activities; or
- b. Income tax receipts or payments.

Typically, entities derive their cash flow forecast by reference to their forecast income statement with adjustments for the investing activities required to maintain the forecast cash flows.

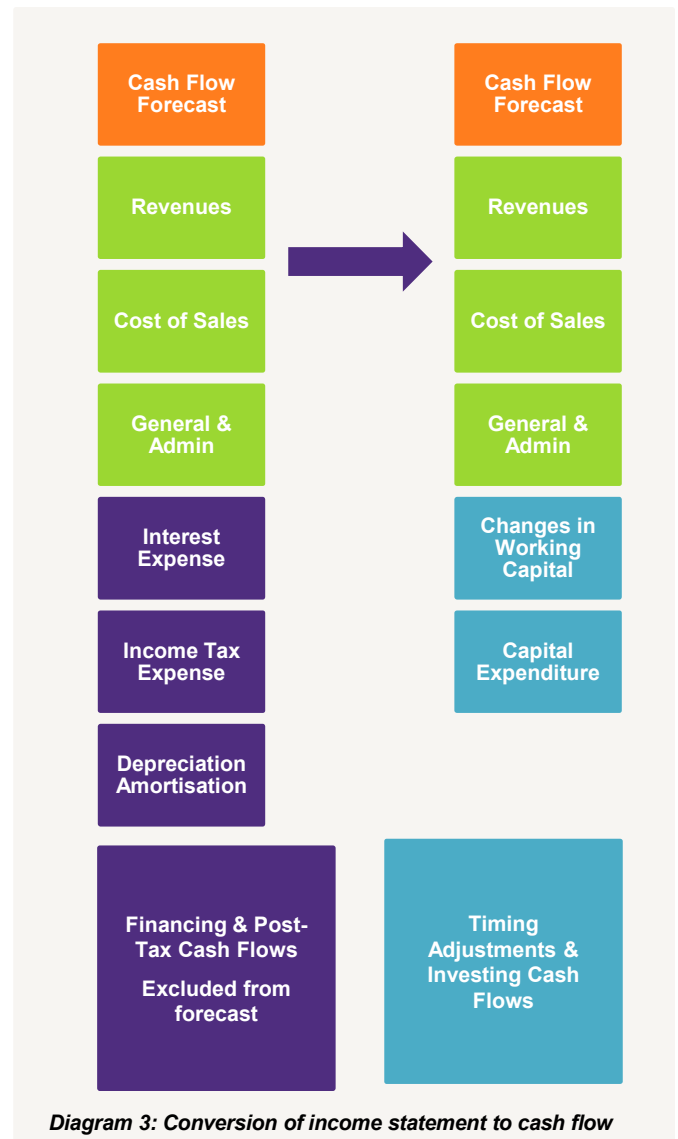
We note that cash flow forecasts typically assume that net cash flows are post-tax (i.e. adjusting for tax events occurring in relation to a period). This is due to the implementation of best-practice valuation theory which results in a more accurate and generally accepted outcome. We consider this best practice, notwithstanding AASB 136.50(b).

This forecast income statement is then adjusted to exclude finance & related costs as per paragraph 50, as noted above. As the forecast income statement is (typically) prepared on an accrual basis, it is subsequently adjusted for timing of expected cash inflows arising from changes in working capital and expected cash in/outflows from capital expenditure.

As noted above, AASB 16 requires that lease outflows that are principal in nature be included in financing cash flows – as a result, it is inappropriate to include them in the cash flow forecast model.

Other common exclusions include (but are not limited to):

- Interest expense (notwithstanding the policy choice as operating or financing cash flows in AASB 107);
- Acquisitions of businesses (as these give rise to their own goodwill); and
- Cash outflows and benefits expected to be received from future restructurings.



In Example 1, over page, we demonstrate the differences between a cash flow forecast prepared applying AASB 117 and AASB 16 to the same entity.

## Example 1: Comparison of the Application of AASB 117 Leases and AASB 16 Leases

Consider the following case which considers one entity's cash flow forecast prepared applying AASB 117 and then AASB 16 to the same cash flows. This example assumes:

- A lease is in place with a remaining life of 3 years, expiring end of year 20X3;
- The lease payments are \$30 per annum;
- Working capital absorption is 20% of revenue; and
- Capital expenditure will match depreciation (excluding depreciation of RoU Assets).

Applying AASB 117 Leases							Applying AASB 16 Leases						
Year	20X0	20X1	20X2	20X3	20X4	20X5	Year	20X0	20X1	20X2	20X3	20X4	20X5
<b>Revenue</b>	1,000	1,000	1,100	1,200	1,300	1,200	<b>Revenue</b>	1,000	1,000	1,100	1,200	1,300	1,200
<b>Cost of Sales</b>	(700)	(700)	(770)	(840)	(910)	(840)	<b>Cost of Sales</b>	(700)	(700)	(770)	(840)	(910)	(840)
<b>G&amp;A Expenses</b>	(180)	(180)	(190)	(210)	(240)	(220)	<b>G&amp;A Expenses</b>	(180)	(180)	(190)	(210)	(240)	(220)
<b>Lease Expense<sup>1</sup></b>	(30)	(30)	(30)	(30)	(30)	(30)	<b>Lease Expense<sup>1</sup></b>	-	-	-	-	(30)	(30)
<b>EBITDA</b>	90	90	110	120	120	110	<b>EBITDA</b>	120	120	140	150	120	110
<b>Depreciation<sup>2</sup></b>	(20)	(20)	(20)	(20)	(20)	(20)	<b>Depreciation<sup>2</sup></b>	(20)	(20)	(20)	(20)	(20)	(20)
<b>RoU Depreciation<sup>2</sup></b>	-	-	-	-	-	-	<b>RoU Depreciation<sup>2</sup></b>	(25)	(25)	(25)	(25)	-	-
<b>EBIT<sup>2</sup></b>	70	70	90	100	100	90	<b>EBIT<sup>2</sup></b>	75	75	95	105	100	90
<b>Depreciation<sup>2</sup></b>	20	20	20	20	20	20	<b>Depreciation<sup>2</sup></b>	20	20	20	20	20	20
<b>RoU Depreciation<sup>2</sup></b>	-	-	-	-	-	-	<b>RoU Depreciation<sup>2</sup></b>	25	25	25	25	-	-
<b>WC Adj.</b>	-	-	(20)	(20)	(20)	20	<b>WC Adj.</b>	-	(20)	(20)	(20)	(20)	20
<b>CAPEX</b>	(20)	(20)	(20)	(20)	(20)	(20)	<b>CAPEX</b>	(20)	(20)	(20)	(20)	(20)	(20)
<b>Cash Flow</b>	70	70	80	80	80	110	<b>Cash Flow</b>	100	100	110	80	80	110
Undiscounted 5 Year Cash Flows:						410	Undiscounted 5 Year Cash Flows:						500
Discounted Cash Flows:						996 <sup>3</sup>	Discounted Cash Flows:						1,073 <sup>3</sup>
Carrying Value of CGU:						820	Carrying Value of CGU:						901
Headroom:						176	Headroom:						172
<b>Reconciliation – CGU Value</b>							<b>Reconciliation – CGU Value</b>						
						Legacy CGU Value:							820
						Plus RoU Asset							81
						Adjusted CGU Value:							901

<sup>1</sup> Lease expense is incurred in perpetuity. By assuming perpetual 1 year renewal, cash flows are appropriately captured within the model. Refer Appendix A: FAQ for further discussion.

<sup>2</sup> The figures above have been included as they are commonly utilised in cash-flow models to derive post-tax cash flows, notwithstanding that they are non-cash items.

<sup>3</sup> Discounted at 10%, utilising a mid-year cash-flow convention. Includes a terminal value calculation assuming 0% growth and 10% discount. Note that the cost of access to the asset is required to be included in the terminal value.

Diagram 4: Comparison of AASB 117 to AASB 16



On adoption of AASB 16, the operating lease expenses are removed from EBITDA, increasing the value of the discounted cash flows. This increase in free cash flows is absorbed by the increase in the value of the assets allocated to the CGU (caused by the introduction of the RoU Asset). The expectation generally is that the increase in CGU carrying value caused by the RoU Asset will approximate the increase in the ViU.

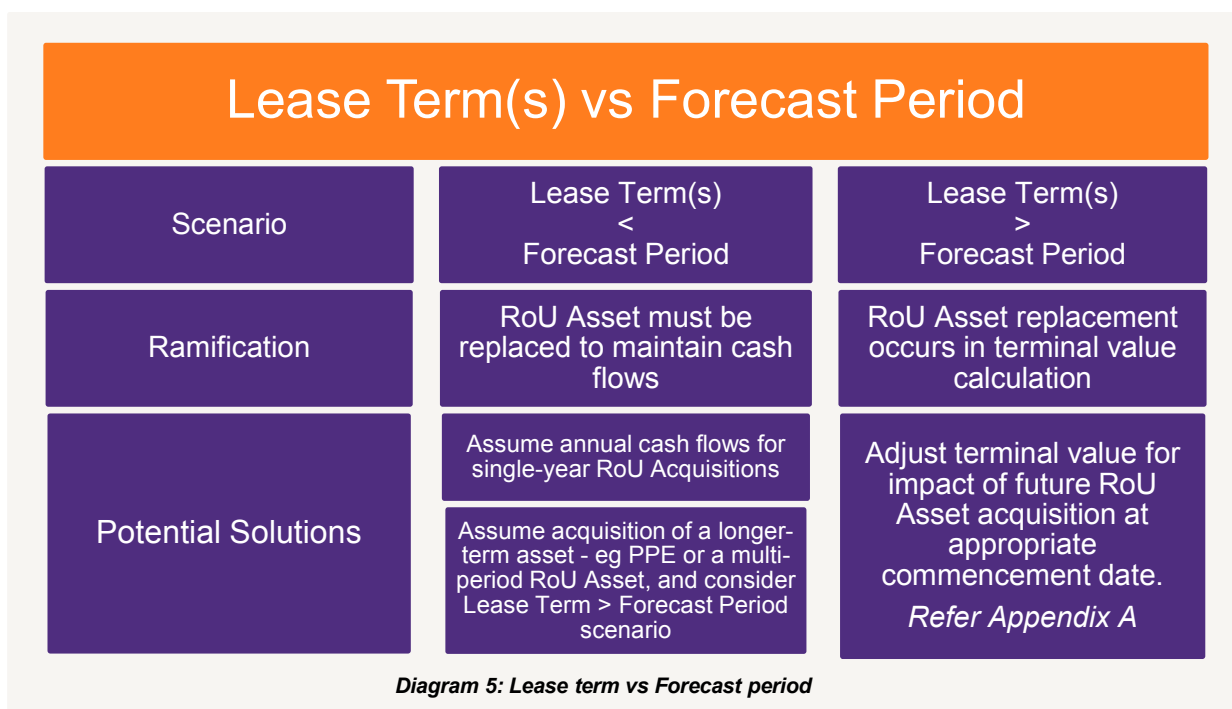
Note that the cash flow forecast above includes cash flows related to purchased access to the underlying leased asset from 20X4. This is included as an assumed single-year lease in the model above – on the basis that the entity could elect to finance with month-to-month or single year leases which AASB 16 requires (or allows) to be recorded as operating expenses. Refer to the Appendix A: FAQ for alternatives and explanation.

### Impact of lease terms on cash flow forecasts

The model prescribed by AASB 16 requires that the acquisition of a RoU Asset be treated in a manner similar to any other finite life non-financial asset and thus consideration of the replacement of the RoU Asset is required.

Since the RoU Asset will need to be replaced to continue the current expected cash flows, an expected replacement or perpetuation of the RoU Asset must be included to the extent required to maintain the CGU functioning in its current condition. Special attention is required when a terminal value calculation is included before the end of the lease term as this may result in either exclusion or duplication of the lease cash flows in the terminal value calculation.

When preparing cash-flow forecasts, the period of the forecast, including terminal value, will not coincide with the term(s) of the relevant lease(s) and the model must, therefore, be adjusted to account for this.





## Impact of AASB 16 on discount rates

The discount rate utilised when preparing a ViU calculation is that of a hypothetical market participant. This market participant may have a similar capital structure to the entity; it may be financed differently – that is, the market participant may be financed by differing proportions of capital (being certain liabilities and equity). These, coupled with a differing risk profile between the entity and the hypothetical market participant, will result in a mismatch between the increase in value of the entity's assets and the increase in value indicated by the ViU due to differences in relative weighting of the inputs.

Given the complexity of the calculations and the expertise required, we broadly note the following:

- It may be reasonable to assume that the discount rate applied will decrease from legacy reporting periods to periods applying AASB 16. This is an assumption, and is not guaranteed;
- There will be a mismatch between the increase in the value of a CGU and the increase in its ViU; and
- For certain entities where the ViU is negative or indicates impairment, there is potential that additional impairment will be incurred applying AASB 16 than would have been the case under legacy standards

## Key Takeaways

- It has been observed that, ultimately, the business / CGU being valued has not changed from the adoption of AASB 16 and, therefore, conclusions reached should remain consistent. While it is true that we consider it unlikely that impairment will be indicated where, historically, significant headroom exists, it is possible that impairment will occur that historically was not required.
- Robust consideration of timing of replacement of leases, etc must be considered as these materially impact conclusions reached in performing a ViU calculation;
- It is likely that valuation experts will be required to assist in determining an appropriate WACC while practice evolves; and
- The examples above have been prepared on a pre-tax basis, as required by AASB 136. We note that such pre-tax cash flows are often tax adjusted to account for tax outflows.

## Conclusion

Post adoption of AASB 16, the RoU Assets will have consequences on the impairment test applying AASB 136. It is important to ensure lease liabilities and associated cash flows are treated consistently in determination of the carrying value and the recoverable amount of the CGU.

The determination of the appropriate discount rate will require expertise, however, in most cases we do not expect significant changes in the conclusions reached by ViU calculations upon adoption of AASB 16.

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## Appendix A: Frequently Asked Questions

### Why is lease expense included in future periods in the model? Are there other options?

One of the key concepts underlying a ViU calculation is that the cash outflows included must be those that are required to maintain the cash inflows within the forecast. If the forecast includes a terminal value, the forecast is assuming that the cash flows will continue in perpetuity; therefore, the ViU must include all cash outflows that will be required in perpetuity.

Where the CGU requires access to an asset to generate the cash inflows in perpetuity, the cost of accessing this asset must therefore be included in the cash outflows in perpetuity.

This asset could be included by, for example:

1. Assuming a new RoU Asset is acquired;
2. Assuming a quasi-perpetual asset is acquired (e.g. by buying a building); or
3. Assuming a month-to-month lease.

The approaches above have strengths and weaknesses:

1. Assuming a new RoU Asset is acquired may most accurately reflect expectations of reality, but will require a significant outflow in the form of capital expenditure. It will also require an adjustment to the terminal value to consider the periodic replacement of this RoU Asset – for example, every five years. This introduces complexity;

### What about variable lease payments?

Lease payments which are not included in the Lease Liability calculations such as variable lease payments that do not depend on index or rate and are not in-substance fixed and/or the lease payments for low-value and short-term leases (AASB 16 exemptions) are treated as operating expenses. These should be included in the cash-flow forecast.

2. The purchase of the underlying asset may be outside of plans for the CGU. The forecast is required to be based on approved management budgets and forecasts. The purchase of the underlying asset may also be detrimental to the forecast cash flows due to the significant capital outlay required. Complexity is also introduced as it relates to accurately forecasting the expected cash outflow, and may reflect a strategic shift in the business which should be excluded from the forecasts.
3. A month-to-month lease allows cash flows to be included in perpetuity in a simple manner. It does not most accurately reflect expectations (i.e. entry into a new long-term contract) but minimises complexity. It is considered the most balanced method

### Leases expiring part way through a period

Leases that expire part-way through the period should be included in the service replacement calculations for the relevant period. For example, a lease expiring at the end of month 9 of a year will require service cost replacement included in the year of expiry for months 10-12.





### The RoU Asset fluctuates in value - won't this materially change our headroom each period??

Due to depreciation of the RoU Asset, its carrying value (typically) decreases over time. As a result, future periods prior to a new lease being entered into will have a lower carrying amount as compared to the current period while the operating cash flows will remain consistent, implying that a greater headroom will exist.

This is compensated for by the inclusion of an assumed replacement of the RoU Asset – in the simple example below, the passing of 12 months reduces the RoU Asset by \$30, but includes \$30 of additional cash outflows for the assumed replacement, resulting an approximate neutral impact.

Year	Forecast as of Year 20X0					Forecast as of Year 20X1				
	20X1	20X2	20X3	20X4	20X5	20X2	20X3	20X4	20X5	20X6
EBITDA	90	90	90	90	90	90	90	90	90	90
Lease Pmts <sup>1</sup>	0	0	(30)	(30)	(30)	0	(30)	(30)	(30)	(30)
Cash Flow	90	90	60	60	60	90	60	60	60	60
Total Cash Flows					360					330
CGU Value					340					310 <sup>2</sup>
Headroom					20					20

<sup>1</sup> Included below EBITDA for illustrative purposes.

<sup>2</sup> Reduced by one year's depreciation of the RoU Asset, assumed to be \$30pa

**Diagram 6: Roll-forward of forecasts**

### Can additional impairment be incurred when applying AASB 16:

There is potential or additional impairment to be incurred when applying AASB 16 when compared to the legacy accounting standard. For example, consider the below. A ViU has been completed with a value of negative \$100; the result applying the legacy standard was negative \$95. The legacy standard calculated the value of the assets subject to impairment within the CGU as \$100; AASB 16 requires that the value these assets be measured as \$150.

- Reduce the carrying value of the asset being acquired; or
- Be recognised as deferred income and systematically amortised over a period matching the useful life of the acquired asset.

- The first provides simpler accounting, while the second clearly demonstrates the relative benefit received and historical cost of the acquired asset. Either presentation is appropriate, but approach b is generally preferred.

Standard	AASB 117	AASB 16
ViU	(95)	(100)
Assets subject to impairment	100	150
Impairment	100	150

**Diagram 7: Excessive impairment of assets**



## Appendix B: Leases expiring in the post-forecast period

It is likely that many entities will have acquired Right of Use Assets which expire in periods subsequent to those included in the cash flow forecast used to prepare their Value in Use calculation – AASB 136.33(b) sets a maximum five year period for such a forecast (unless a longer period can be justified). Where the lease expires in years 6 or onwards, without appropriate adjustment to terminal value calculations, the cost of maintaining the service capacity of these assets will include costs associated with periods where the RoU Asset remains available.

In the example, leases 1 & 2 expire in the forecast period; leases 3 & 4 expire in the post-forecast period. The RoU Asset included in the carrying value of the CGU thus includes value associated to those periods.

In Exhibit A, the availability of the RoU Asset for leases 3 & 4 extend into the post-forecast period. To ensure accuracy of perpetual cash flows, the terminal value calculation must include an estimate of the costs required to replace the service capacity of the RoU Asset. Where the RoU Asset life overlaps with the post-forecast period (which generates the perpetual cash flows included in the terminal value), the terminal value cash flows must be increased to adjust for those lease cash flows that are not required to be expended because the RoU Asset exists.

In Exhibit B, we have included leases 3 & 4 from above, assuming a WACC of 10%.

The outcome – 24.22 – should be included in the ViU of the CGU.

We have included Example 2, based on Example 1, to demonstrate a full example of the presentation of a simple ViU calculation, with appropriate adjustments, assuming similar facts to Exhibit A & B, above

### Exhibit A: Cash flows of leases extending into post-forecast periods

Lease #	Year 0-3	Year 4-5	Year 6	Year 7
1	15	-	-	-
2	15	-	-	-
3	15	15	15	-
4	15	15	15	12

### Exhibit B: Value of leases extending into post-forecast periods

Lease #	Year 6	Year 7
3	15	-
4	15	12
<b>Total</b>	<b>30</b>	<b>12</b>
<b>Disc period</b>	5.5yrs	6.5yrs
<b>Disc rate</b>	10%	10%
<b>Disc factor</b>	59.2%	53.82%
<b>Disc cash flow</b>	17.760	6.458
<b>Total adjustment</b>		24.22

*Diagram 8: Leases expiring post forecast period*





**Example 2: ViU calculation where leases extend into post-forecast periods:**

Year	Year 1	Year 2	Year 3	Year 4	Year 5	TV Adj.	TV Basis
<b>Revenue</b>	1,000	1,100	1,200	1,300	1,200	-	1,200
<b>Cost of Sales</b>	(700)	(770)	(840)	(910)	(840)	-	(840)
<b>G&amp;A Expenses</b>	(180)	(190)	(210)	(240)	(220)	-	(220)
<b>Lease Expense<sup>1</sup></b>	-	-	-	(30)	(30)	(30)	(60)
<b>EBITDA</b>	120	140	150	120	110	(30)	80
<b>Depreciation<sup>2</sup></b>	(20)	(20)	(20)	(20)	(20)		(20)
<b>RoU Depreciation<sup>2</sup></b>	(45)	(45)	(45)	(30)	(30)	30	-
<b>EBIT<sup>2</sup></b>	55	75	85	70	60	-	60
<b>Tax</b>	(16.5)	(22.5)	(25.5)	(21)	(18)	-	(18)
<b>Depreciation<sup>2</sup></b>	20	20	20	20	20		20
<b>RoU Depreciation<sup>2</sup></b>	45	45	45	30	30	(30)	-
<b>WC Adj.</b>	0	(20)	(20)	(20)	20	(20)	-
<b>CAPEX</b>	(20)	(20)	(20)	(20)	(20)	-	(20)
<b>Cash Flow</b>	<b>84</b>	<b>78</b>	<b>85</b>	<b>59</b>	<b>92</b>	<b>(50)</b>	<b>42</b>
<b>Discount Power</b>	0.5	1.5	2.5	3.5	4.5		4.5
<b>Discount Rate</b>	10%	10%	10%	10%	10%		8% <sup>4</sup>
<b>Discount Factor<sup>3</sup></b>	0.9535	0.8668	0.7880	0.7164	0.6512		0.6512
<b>PV Cash Flows</b>	<b>80</b>	<b>67</b>	<b>67</b>	<b>42</b>	<b>60</b>		<b>342<sup>4</sup></b>
<b>Plus: Terminal Value of Lease Adjustment (Exhibit B, Diagram 8)</b>							<b>24</b>
<b>Sum of Cash Flows – Value in Use</b>							<b>682</b>

<sup>1</sup> Lease expense is incurred in perpetuity. By assuming perpetual 1 year renewal, cash flows are appropriately captured within the model. Refer Appendix A: FAQ for further discussion.

<sup>2</sup> The figures above have been included as they are commonly utilised in cash-flow models to derive post-tax cash flows, notwithstanding that they are non-cash items.

<sup>3</sup> Discounted at 10%, utilising a mid-year cash-flow convention. Calculated as: "1/(1+Discount Rate)<sup>(Discount Power)</sup>". Note that the cost of access to the asset is required to be included in the terminal value.

<sup>4</sup> Terminal value is calculated by discounting adjusted final year discounted cash flows (based on year 5), divided by the discount rate adjusted for future perpetual growth. That is:

Terminal Value = (Terminal Value Cash Flows \* Discount Factor) / (Discount Rate – Growth Rate)

Terminal Value = (42 \* 0.6512) / (10% - 2%)

Terminal Value = 341,88

**Diagram 9: Value in Use where leases expire post-forecast period**