

# Perspective

This is one of a series of articles where experts in assurance, reporting and regulatory matters discuss recent technical and policy developments in these areas.



## Why the use of options as hedging instruments is more appealing under AASB 9

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IFRS 9 *Financial Instruments* (AASB 9 in Australia) was issued in November 2013 and is not mandatory until 1 January 2018. However, hedge accounting is far easier to achieve under AASB 9 than under the current standard, AASB 139 *Financial Instruments: Recognition and Measurement*, so many entities may want to reconsider their hedging policies and assess whether AASB 9 should be adopted early.

The use of options as hedging products under AASB 139 is not a viable option because, even if hedge accounting is achieved, it still leaves the entity exposed to profit and loss volatility from movements in the time value associated with the option.

AASB 9 introduces new rules that make it more attractive to use options for hedging because it allows much of the volatility to be recorded in equity (other comprehensive income (OCI)) rather than in the income statement. We anticipate much wider use of options, zero cost collars, swaptions, etc. as hedging products under AASB 9.

### Why options?

Options in their most basic form are similar to taking out insurance. They protect an entity from unfavourable market movements, while allowing the entity to participate in favourable (upside) market movements. The entity has a right, but not an obligation, to transact. Unlike a forward exchange contract, entities are not negatively impacted by any upside movements in the market price.

The fair value of an option contains an **intrinsic value** component and a **time value** component.

**Intrinsic value** is the difference between the option's exercise price and the spot price.

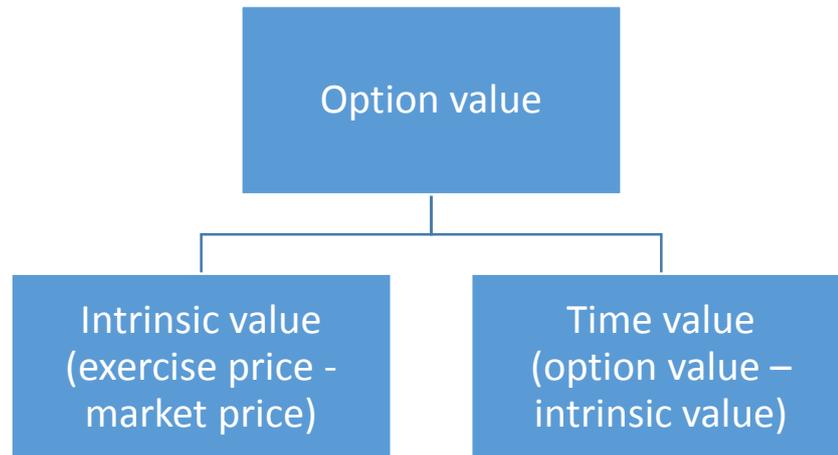
**Time value** is the residual difference between the option's total fair value less its intrinsic value, which represents the optionality value of options.

### Example:

An entity enters into a call option to buy gold at \$1,000, at which point the spot price is \$1,100. The option has an intrinsic value of \$100 ( $\$1,100 - \$1,000$ ). If the fair value of the option is \$150, then the time value of the option is \$50 ( $\$150 - \$100$ ).

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At expiry, options have no time value.



## Applying hedge accounting to options

The basic premise of AASB 139 and AASB 9 is that all derivatives, including options, must be recorded at fair value at each reporting date.

When hedge accounting is applied to options, AASB 139 only allows the movement in the intrinsic value component to be deferred in OCI for a cash flow hedge. The movement in the time value component is recorded in profit or loss, (in the same way as a derivative that is not designated in a hedging relationship) and this results in profit or loss volatility.

Under AASB 9, the movement in time value is recorded in OCI instead of profit or loss, meaning that profit or loss volatility is reduced. The option premium (which usually equals initial time value if the option is transacted at market rates) is viewed as a hedging cost with the following accounting being applied:

- If the entity is hedging a forecast purchase or sale (i.e. the hedged item is transaction related) the initial time value is capitalised into the cost of the forecast purchase or sale

### Time value of options - transaction related hedged item



**Note:** The following examples assume all the hedge effectiveness criteria have been met and the hedge is 100% effective under both AASB 139 and AASB 9. For simplicity, the effects of time value of money and any credit/debit value adjustments have been ignored.

## *Example 1 – Importer hedging using foreign currency options*

### **1 October 2014**

Entity A enters into a contract to purchase inventories from an overseas supplier. The inventories will be delivered in six months' time and USD 500,000 is payable on delivery.

Entity A wishes to seek protection from adverse movements in the AUD/USD exchange rate. On 1 October 2014, it takes out an option contract to purchase USD 500,000 in six months' time at AUD/USD 0.75. Entity A paid an option premium of AUD 10,000 for the option.

The spot rate on 1 October 2014 is AUD/USD 0.75. The option's intrinsic value is \$0, and the time value is AUD 10,000 (Fair value – Intrinsic value = AUD 10,000 – AUD 0 = AUD 10,000).

If the spot exchange rate in six months' time is less than AUD/USD 0.75, Entity A would exercise the option and pay AUD 666,667 (USD 500,000/0.75).

If the spot exchange rate in six months' time is more than AUD/USD 0.75, Entity A will transact at the market rate and pay less than AUD 666,667. The option effectively allows Entity A to cap the purchase price at AUD 666,667.

Journal entry on 1 October 2014

	DR	CR
DR Option	AUD 10,000	
CR Cash		AUD 10,000

*Being the fair value of the option and cash paid*

### **31 December 2014**

The spot rate is AUD/USD 0.70. Assume the option's fair value is now AUD 60,000.

The option's intrinsic value is AUD 47,619  $([(USD\ 500,000/0.70)-(USD\ 500,000/0.75)])$  representing the gain the holder of the option will make by buying US dollars at AUD/USD 0.75, compared with the spot rate of AUD/USD 0.70.

The option's time value is AUD 12,381 (AUD 60,000-AUD 47,619).

*Journal entry under AASB 139:*

	DR	CR
DR Option	AUD 50,000	
CR Equity (OCI) – cash flow hedge reserve		AUD 47,619
<b>CR Profit or loss</b>		<b>AUD 2,381</b>

*Being the changes in fair value of the option (AUD 60,000-AUD 10,000), the associated changes in intrinsic value (AUD 47,619- AUD 0) in OCI and changes in time value in profit or loss (AUD 12,381 – AUD 10,000)*

Under AASB 139, this results in a gain in profit or loss of the time value movements, giving rise to 'profit and loss volatility'.

### 31 March 2015

Assume that the USD/AUD exchange rate remains at AUD/USD 0.70. Fair value of the option is AUD 47,619. There is no change to the intrinsic value of the option because the USD/AUD exchange rate remains the same. However the option now no longer has any time value because the option has expired.

*Journal entries under AASB 139*

	DR	CR
DR Inventory	AUD 714,286	
CR Cash (USD 500,000/0.70)		AUD 714,286

*Being inventory and cash paid at the spot rate at 31 March 2015*

	DR	CR
DR Profit or loss	AUD 12,381	
CR Option		AUD 12,381

*Being the changes in fair value of the option (AUD 60,000-AUD 47,619), the associated changes in intrinsic value (0) in OCI and changes in time value in profit or loss (AUD 12,381-AUD 0)*

	DR	CR
DR Cash	AUD 47,619	
CR Option		AUD 47,619

*Being the exercise of the option*

	DR	CR
DR Equity (OCI) – cash flow hedge reserve	AUD 47,619	
CR Inventory		AUD 47,619

*Reclassify the gain in OCI to inventory*

### Impact on the income statement under AASB 139 hedge accounting

	2014	2015
Gain/loss from derivatives	AUD 2,381	AUD (12,381)
Cost of goods sold	-	AUD (666,667)



<b>Equity (OCI)</b>	AUD 47,619	-
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Note that inventory has subsequently been expensed as cost of goods sold.

Under AASB 139, even though hedge accounting has been applied, significant profit or loss volatility still results when entities use option strategies because the movements in the time value component are recorded in profit or loss.

### Hedge accounting under AASB 9

Under AASB 9, movements in time value are recorded in OCI instead of profit or loss and the initial time value is capitalised into the cost of inventory.

#### 31 October 2014

*Journal entry under AASB 9*

	<b>DR</b>	<b>CR</b>
DR Option	AUD 10,000	
CR Cash		AUD 10,000

*Being the fair value of the option and cash paid*

#### 31 December 2014

*Journal entry under AASB 9*

	<b>DR</b>	<b>CR</b>
DR Option	AUD 50,000	
CR Equity (OCI) – cash flow hedge reserve		AUD 47,619
CR Equity (OCI) – option time value reserve		AUD 2,381

*Being the changes in fair value of the option, the associated changes in intrinsic value and time value in OCI.*

#### 31 March 2015

*Journal entries under AASB 9*

	<b>DR</b>	<b>CR</b>
DR Inventory	AUD 714,286	
CR Cash (USD 500,000/0.70)		AUD 714,286

*Being inventory and cash paid at the spot rate at 31 March 2015*

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	DR	CR
DR Equity (OCI) – option time value reserve	AUD 12,381	
CR Option		AUD 12,381

*Being the changes in fair value of the option the associated changes in intrinsic value and time value in OCI*

	DR	CR
DR Cash	AUD 47,619	
CR Option		AUD 47,619

*Being the exercise of the option*

	DR	CR
DR Equity (OCI) – cash flow hedge reserve	AUD 47,619	
CR Inventory		AUD 47,619

*To capitalise the initial time value (premium paid) into the cost of inventory*

	DR	CR
DR Inventory	AUD 10,000	
CR Equity (OCI) – option time value reserve		AUD 10,000

*To capitalise the initial time value (premium paid) into the cost of inventory*

## Impact on the income statement under AASB 9

	2014	2015
Gain/loss from derivatives	-	-
Cost of goods sold	-	AUD (676,667)
Cash flow hedge reserve	AUD 47,619	-
Option time value reserve	<u>AUD 2,381</u>	-
Equity (OCI)	<b>AUD 50,000</b>	-

Under AASB 9, both the changes in intrinsic value and time value component of the options are recorded in OCI until the purchase transaction occurs. When the purchase transaction occurs, the amount in the cash flow hedge reserve (being the cumulative changes in the intrinsic value) is reclassified to inventory, which is subsequently expensed to cost of goods sold, reflecting the hedge



objective to cap the purchase price at AUD 666,667. The option premium \$10,000, being viewed as a hedging cost, is also capitalised into the cost of inventory and subsequently expensed to cost of goods sold.

## ***Example 2***

Entity X enters into a 5 year interest rate option to cap the interest rate on its 5 year floating rate loan at 6%. Entity X paid \$5,000 for the interest rate cap (assume the interest rate cap is at the money and therefore has a zero intrinsic value at initial recognition).

Under AASB 9, the initial time value of \$5,000 is amortised over 5 years to profit or loss while both movements in time value and intrinsic value are recognised in OCI. Under AASB 139, only the intrinsic value element is deferred in OCI while the movements in time value are recognised in profit or loss.

## **Structured option products**

Options are commonly being used in the market as building blocks for different structured products. Some of the more 'simple' type of structured products, such as zero cost collars and participating forwards, are likely to qualify for hedge accounting under AASB 9.

Zero cost collars consist of a combination of a purchased and written (sold) option. The accounting for the changes in the time value component for zero cost collars is the same as the basic option i.e. recorded in OCI rather than profit or loss, resulting in a reduction in profit or loss volatility.

Further analysis will be required for other more complex option based structured products.