

Options

Understanding options trading



ASX
AUSTRALIAN STOCK EXCHANGE

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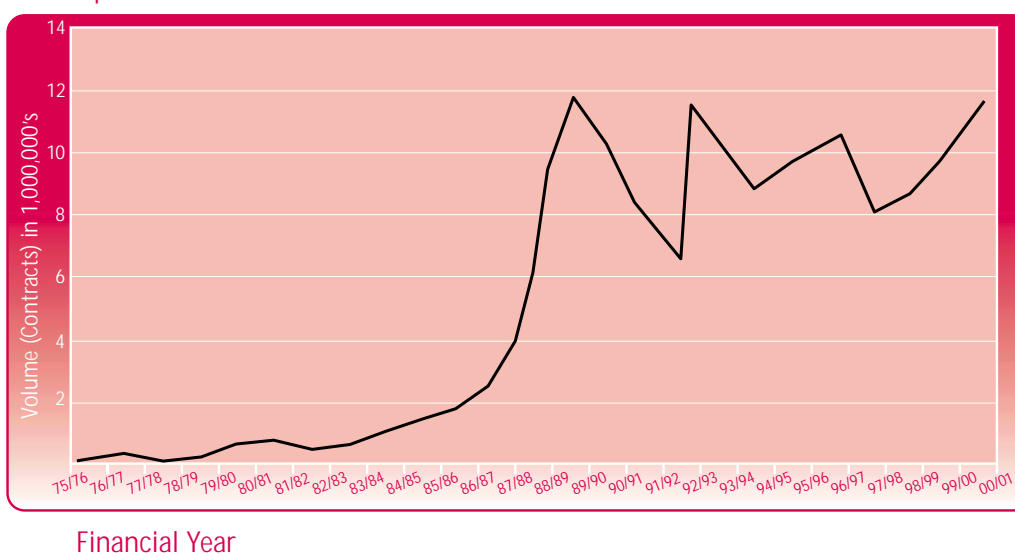
Contents

Before you begin	2	Margins	13
What is an option?	3	Dividends and voting	14
Call options	3	Tradeability	15
Put options	4	How can options work for you?	16
Advantages of option trading	5	Trading index options	18
Risk management	5	How are index options different?	18
Time to decide	5	Some key advantages of	
Speculation	5	trading index options	18
Leverage	5	Examples of how trading index	
Diversification	5	options can work for you	19
Income generation	5	Differences between equity	
Strategies	5	options and index options	21
Option features	6	Pay-off diagrams	22
The 5 components of an		Call option taker	22
option contract	6	Call option writer	22
1. Underlying securities/approved indices	6	Put option taker	23
2. Contract size	6	Put option writer	23
3. Expiry day	6	Summary	24
4. Exercise (or strike) price	7	You and your broker	25
5. Premium	7	Your relationship with your broker	25
Option pricing fundamentals	8	The paperwork – Client Agreement forms	25
Intrinsic value	8	Instructing a broker to trade options	26
Call options	8	Market maker's participation	27
Put options	8	Options Clearing House	28
Time value	9	Glossary of terms	29
Parties to an option contract	10	Option contract specifications	31
The option taker	10	Further information	32
The option writer	12		
Tracking positions,			
costs and margins	13		
How to track options positions	13		
Costs	13		

Before you begin

The exchange traded equity options market (ASX's Options Market) has been operating in Australia since 1976. Since the market started, volumes have increased significantly.

Options Volumes



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There are now over 55 different companies to choose from offering investors the opportunity to diversify. There are also options over indices. A list of companies and indices over which Exchange Traded Options (ETOs) are traded can be found on the ASX website, www.asx.com.au/options. This booklet explains ETOs. It outlines the concepts of ETOs, explaining how they work and what they can be used for. It should be noted that this booklet deals exclusively with ETOs over listed shares and indices and not company issued options. Information on other ASX products is available by calling 1800 028 585 or visiting www.asx.com.au/options. To assist in your understanding there is a glossary of terms on page 29.

Option sellers are referred to as 'writers' because they underwrite (or willingly accept) the obligation to deliver or accept the shares covered by an option. Similarly, buyers are referred to as 'takers' of an option as they take up the right to buy or sell a parcel of shares. Every option contract has both a taker and a writer. Throughout this booklet the more

technically correct terms of writer and taker of options are used in place of seller and buyer.

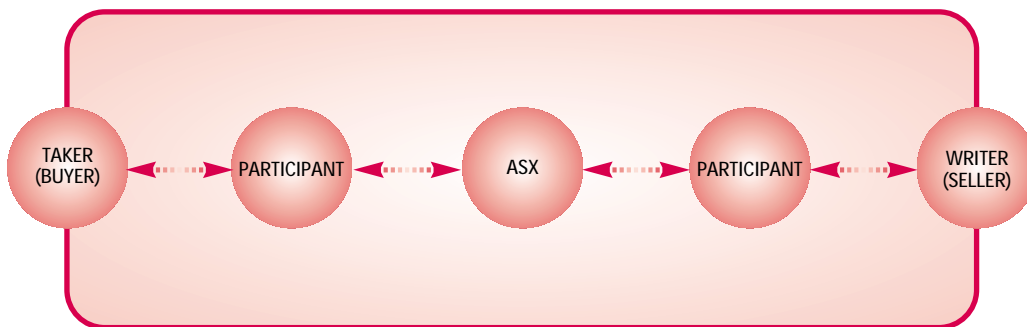
Options are a versatile investment alternative. They can provide investors with protection for their share portfolio, the opportunity for profit and are an additional source of income. However, both the purchase and sale of options involve risk. Transactions should only be entered into by investors who understand the nature and extent of their rights, obligations and risks.

What is an option?

An option is a contract between two parties giving the taker (buyer) the right, but not the obligation, to buy or sell a parcel of shares at a predetermined price possibly on, or before a predetermined date. To acquire this right the taker pays a premium to the writer (seller) of the contract.

Call options

Call options give the taker the right, but not the obligation, to buy the underlying shares at a predetermined price, on or before a predetermined date.



For illustrative purposes the term shares is used throughout this booklet when referring to the underlying securities. When considering options over an index, the same concepts generally apply. Investors should be aware that options may be available over other types of securities such as instalment receipts or preference shares.

The standard number of shares covered by one option contract on ASX's Options Market is 1,000. However, this may change due to adjustment events such as a new issue or a reorganisation of capital in the underlying share.

All of the examples in this booklet assume 1,000 shares per contract and ignore transaction and commission charges. However, investors will need to consider these charges when evaluating an option transaction. For options over an index, the contract value is based on a dollar value per point, and details can be checked in the contract specifications. There are two types of options available: call options and put options.

Call option example

Santos Ltd (STO) shares have a last sale price of around \$5.56. An available standard call option contract would be an STO August \$5.25. A taker of this contract has the right, but not the obligation, to buy 1,000 STO shares for \$5.25 per share at any time until the expiry day in August*. For this right, the taker pays a premium (or purchase price) to the writer of the option. In order to take up this right to buy the STO shares at the specified price, the taker must exercise the option on or before the expiry day in August*.

On the other hand, the writer of this call option is obliged to deliver 1,000 STO shares at \$5.25 per share if the taker exercises the option. For accepting this obligation the writer receives and keeps the option premium whether the option is exercised or not.

It is important to note that the taker is not obligated to exercise the option.

* The expiry day is usually the last Thursday before the last Friday in the expiry month unless the OCH determines another day. This may change for various reasons (eg. for public holidays) please check with your Clearing Participant. For index options, refer to the contract specifications.

Put options

Put options give the taker the right but not the obligation to sell the underlying shares at a predetermined price on or before a predetermined date. The taker of a put is only required to deliver the underlying shares if they exercise the option.

Put option example

An available put option contract for STO would be an STO August \$5.75. This gives the taker the right, but not the obligation, to sell 1,000 STO shares for \$5.75 per share at any time until the August expiry day. For this right, the taker pays a premium (or purchase price) to the writer of the put option. In order to take up this right to sell the STO shares at a specified price the taker must exercise the option on or before the expiry day in August. The writer of the put option is obliged to buy the STO shares for \$5.75 per share if the option is exercised. As with call options, the writer of a put option receives and keeps the option premium whether the option is exercised or not.

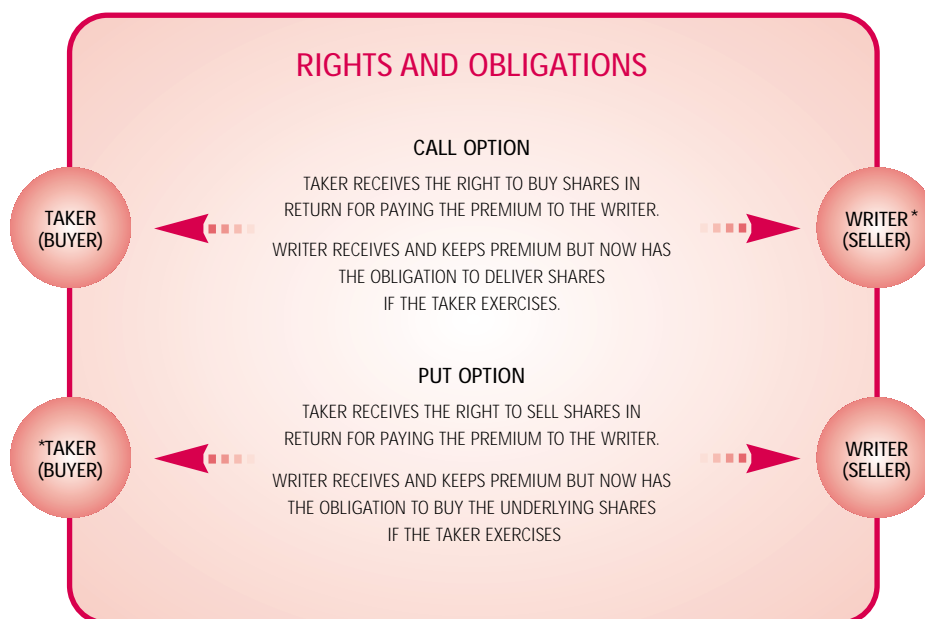
If the call or put option is exercised, the shares are traded at the specified price. This price is called the exercise or strike price. The last date when an option can be exercised is called the expiry day.

Once again it is important to note that the taker is not obliged to exercise the option.

There are two different exercise styles: american style, which means the option can be exercised at any time prior to expiry; and european style, which means the option can only be exercised on the expiry day. Most options traded on ASX are american style. All the examples in this booklet assume american style exercise.

For more information refer to the section 'Parties to an option contract' on page 10.

Options offer a range of investment opportunities that complement share market investing. Some of these advantages are outlined on the following page.



* The taker of a put and writer of a call option do not have to own the underlying shares.

Advantages of option trading

Risk management

Put options allow investors holding shares to hedge against a possible fall in their value. This can be considered similar to taking out insurance against a fall in the share price.

Time to decide

By taking a call option, the purchase price for the shares is locked in. This gives the call option holder until the expiry day to decide whether or not to exercise the option and buy the shares. Likewise the taker of a put option has time to decide whether or not to sell the shares.

Speculation

The ease of trading in and out of an option position makes it possible to trade options with no intention of ever exercising them. If an investor expects the market to rise, they may decide to buy call options. If expecting a fall, they may decide to buy put options. Either way the holder can sell the option prior to expiry to take a profit or limit a loss.

Leverage

Leverage provides the potential to make a higher return from a smaller initial outlay than investing directly. However, leverage usually involves more risks than a direct investment in the underlying shares. Trading in options can allow investors to benefit from a change in the price of the share without having to pay the full price of the share. The following example helps illustrate how leverage can work for an investor.

The table below compares the possible purchase of 1 call option and 1,000 shares. The higher percentage return from the option demonstrates how leverage can work.

	OPTION	STOCK
BOUGHT ON OCTOBER 15	\$380	\$4,000
SOLD ON DECEMBER 15	\$670	\$4,500
PROFIT	\$290	\$500
RETURN ON INVESTMENT (NOT ANNUALISED)	76.3%	12.5%

Diversification

Options can allow investors to build a diversified portfolio for the same or even lower initial outlay than purchasing shares directly.

Income generation

Shareholders can earn extra income over and above dividends by writing call options against their shares. By writing an option they receive the option premium upfront. While they get to keep the option premium, there is a possibility that they could be exercised against and have to deliver their shares to the taker at the exercise price. This strategy can also be done using stock bought on margin. Consult your broker, margin lender or the ASX website: www.asx.com.au/options

Strategies

By combining different options, investors can create a wide range of potential profit scenarios. To find out more about options strategies download the ASX booklet called Understanding Options Strategies from the ASX website, www.asx.com.au/options

Option features

The ease of trading in and out of options on the ASX Options Market is assisted by the standardisation of the following option contract components:

1. Underlying securities,
2. Contract size,
3. Expiry Day, and
4. Exercise prices

There is a fifth component, the option premium, which is not standardised but rather determined by market forces. Options Clearing House Pty Ltd (OCH) oversees the clearing and day to day operations of ASX's Options Market. Among its responsibilities is the setting of the standardised option components.

1 option contract usually represents 1,000 underlying shares.

The 5 components of an option contract

1. Underlying securities/approved indices

Options traded on ASX's Options Market are only available for certain securities and approved indices. These securities are referred to as underlying securities or underlying shares. They must be listed on ASX and are selected by OCH according to specific guidelines. The issuers of underlying securities do not participate in the selection of securities against which options may be listed.

Calls or puts over the same underlying security are termed classes of options. For example, all call and put options listed over Lend Lease Corporation Ltd (LLC) shares,

regardless of exercise price and expiry day, form one class of option. A list of all the classes of options trading on ASX's Options Market can be found on the ASX website www.asx.com.au/options

2. Contract size

On ASX's Options Market an option contract size is standardised at 1,000 underlying shares. That means, 1 option contract represents 1,000 underlying shares. As mentioned earlier, this may change if there is an adjustment such as a new issue or a reorganisation of capital in the underlying share. In the case of index options, contract value is fixed at a certain number of dollars per index point, (for example, \$10 per index point). So the size of the contract is equal to the index level x the dollar value per index point (for example, for an index at 3400 points, 1 contract would be $3400 \times \$10 = \$34,000$).

3. Expiry day

Options have a limited life span and expire on standard expiry days set by OCH. The expiry day is the day on which all unexercised options in a particular series expire and is the last day of trading for that particular series. For shares this is usually the Thursday before the last Friday in the month. For index options, expiry is usually the third Friday of the contract month. However, OCH has the right to change this date should the need arise. In general, all options for a particular class follow only one of the three quarterly cycles listed below.

January/April/July/October;

February/May/August/November; or

March/June/September/December.

Options are usually listed for the next three months in the quarterly expiry cycle.

April, July, October expiry cycle. There would be currently listed a July 2003, an October 2003 and a January 2004 series. When the July series expires, an April 2004 series will be listed. When the October 2003 series expires, a July 2004 series will be listed and so on.

For example, a November expiry means that the option expires on the expiry day in November. If Thursday is not a business day, the expiry day is brought forward. Expiry day information is available on the ASX website, www.asx.com.au/options

In addition to quarterly expiry cycles, a current or spot month is available for most classes of options. These are options that expire at the end of the current month and are used to trade short term price changes in the underlying shares.

The top ten shares by options volume also have a twelve month expiry cycle listed to provide a longer time frame for investors. There are also longer term option contracts listed over certain classes, some with terms of up to three years. For more information on these types of options please ask your broker.

exercise prices includes one exercise price close to the current price of the underlying share with two exercise prices above and two exercise prices below the current share price.

For example, if the underlying share is trading at \$3.50, it is likely that option contracts with the following strike prices would be listed: \$3.00, \$3.25, \$3.50, \$3.75 and \$4.00. A range of exercise prices allow investors to more effectively match their expectations of the price movement in the underlying share to their option position. Exercise prices may also be adjusted during the life of the option if there is a new issue or a reorganisation of capital in the underlying shares.

5. Premium

The premium is the price of the option which is arrived at by negotiation between the taker and the writer of the option. It is the only component of the five option components that is not set by OCH.

Option premiums are quoted on a cents per share basis. To calculate the full premium payable for a standard size option contract,

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Option information can be monitored on our website www.asx.com.au or in The Australian or The Australian Financial Review newspapers.

A list of brokers can be obtained from the ASX website, www.asx.com.au/options

4. Exercise (or strike) price

The exercise price is the predetermined buying or selling price for the underlying shares if the option is exercised.

OCH sets the exercise prices for all options listed on ASX's Options Market. Usually there is a range of exercise prices available for options with the same expiry day. New exercise prices are listed as the underlying share price moves. Typically, the range of

multiply the quoted premium by the number of shares per contract, usually 1,000.

For example, a quoted premium of 16 cents represents a total premium cost of \$160.00 ($\$0.16 \times 1,000$) per contract. To calculate the full premium payable for an index option, you simply multiply the premium by the index multiplier. For example, a premium of 30 points, with an index multiplier of \$10, represents a total premium cost of \$300 per contract.

Option pricing fundamentals

When considering an option it is important to understand how the premium is calculated. Option premiums change according to a range of factors including the price of the underlying security and the time left to expiry. An option premium can be separated into two parts - intrinsic value and time value. Different factors influence intrinsic and time value.

Intrinsic value

Intrinsic value is the difference between the exercise price of the option and the market price of the underlying shares at any given time. Here are some examples for call and put options.

Call options

For example, if National Australia Bank (NAB) June \$34.00 call options are trading at a premium of \$1.50 and NAB shares are trading at \$35.00 per share, the option has \$1.00 intrinsic value. This is because the option taker has the right to buy the shares for \$34.00, which is \$1.00 lower than the market price. Options that have intrinsic value are said to be 'in-the-money'.

NAB SHARE PRICE	OPTION PREMIUM	INTRINSIC VALUE <small>(SHARE PRICE - EXERCISE PRICE)</small>	TIME VALUE <small>(OPTION PREMIUM - INTRINSIC VALUE)</small>
\$35.00	\$1.50	= \$1.00	+ \$0.50

In this example, the remaining 50 cents of the premium is time value.

However, if the shares were trading at \$33.00, there would be no intrinsic value because the \$34.00 call option contract would only enable the taker to buy the shares for \$34.00 per share which is \$1.00 higher than the market price. When the share price is less than the exercise price of the call option, the option is said to be 'out-of-the-money'.

Remember, call options convey to the taker the right but not the obligation to buy the underlying shares. If the share price is below the exercise price it is better to buy the shares on the share market and let the option lapse.

Put options

Put options work the opposite way to calls. If the exercise price is greater than the market price of the share the put option is in-the-money and has intrinsic value. Exercising the in-the-money put option allows the taker to sell the shares for a higher price than the current market price.

For example, a NAB June \$36.00 put option allows the holder to sell NAB shares for \$36.00 when the current market price for NAB is \$35.00. This option has a premium of \$1.20 which is made up of \$1.00 cents intrinsic value and 20 cents time value.

A put option is out-of-the-money when the share price is above the exercise price, as a taker will not exercise the put to sell the shares below the current share price.

NAB SHARE PRICE	OPTION PREMIUM	INTRINSIC VALUE <small>(SHARE PRICE - EXERCISE PRICE)</small>	TIME VALUE <small>(OPTION PREMIUM - INTRINSIC VALUE)</small>
\$35.00	\$1.20	= \$1.00	+ \$0.20

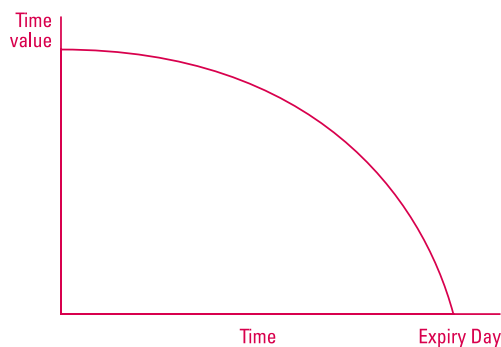
Once again, remember put options convey the right but not the obligation to sell the underlying shares. If the share price is above the exercise price it is better to sell the shares on the share market and let the option lapse.

When the share price equals the exercise price, the call and the put options are said to be 'at-the-money'.

Time value

Time value represents the amount an investor is prepared to pay for the possibility that the market might move in their favour during the life of the option. It represents an extra payment to the writer of the option to offset the risk that the underlying share will move, and result in a loss to the writer. Time value will vary with in-the-money, at-the-money and out-of-the-money options and is greatest for at-the-money options.

As time draws closer to expiry and the opportunities for the option to become profitable decline, the time value declines. This erosion of option value is called time decay. Time value does not decay at a constant rate, but becomes more rapid towards expiry.



Time value

The amount investors are willing to pay for the possibility that they could make a profit from the option transaction. It is influenced by the following factors:

- Time to expiry
- Market volatility
- Interest rates
- Dividend payments
- Market expectations

As a general guide, an option will lose 1/3 of its time value during the first half of its life and 2/3 during the second half.

The key factors which affect the time value of an option are:

Time to expiry	The longer the time to expiry, the greater the time value of the option.
Market volatility	In general, the more volatile the market, the higher the premium will be. This is due to the fact that the writer is exposed to a greater probability of incurring a loss. Writers are compensated for this added risk by receiving higher premium income.
Interest rates	A rise in interest rates will push call option premiums up and put option premiums down.
Dividend payments	The payment of dividends tends to lower call option premiums and raise put option premiums because shares fall in price once they are no longer eligible for a dividend. Holders of option contracts who do not own the underlying securities are not eligible for dividends payable on those shares.
Market expectations	Ultimately supply and demand determine the market value of all options. During times of strong demand, premiums will be higher.

Parties to an option contract

The option taker

An option taker is an investor or trader anticipating a significant move in a particular share price. Taking an option offers the opportunity to earn a leveraged profit with a known and limited risk.

Taking a call option gives an investor the right to buy the shares covered by the option at the exercise price at any time until expiry. In general, call option premiums rise as the underlying share price rises. For this reason the taker of a call option expects the underlying share price will rise.

Taking a put option gives the right, but not the obligation, to sell the underlying shares. Put option premiums usually rise as the underlying share price falls. For this reason the taker of a put option expects the underlying share price to fall.

In taking this right to buy or sell shares, the taker pays the premium. This premium represents the maximum possible loss on the option for the taker.

It is important to remember that it is not necessary for the taker of a put option to own the underlying shares at the time of taking the put. Certainly, if the taker chooses to exercise the put option they will be required to deliver the underlying shares, at the exercise price, to a randomly selected writer of put options in that series. However, the taker also has the choice of closing out the position on ASX's Options Market prior to expiry. A full explanation of closing out can be found on page 15.

If the taker chooses to close out the option, a loss will be incurred if the premium that the investor receives on writing a contract to close out is lower than the premium paid by the investor for the original taken contract. A profit will occur if the reverse is true. Any time value in the premium for the option will be lost if the option is exercised.

On average, less than 15% of all taken options are exercised. The remaining 85% or so either expire unexercised or are closed out. This figure represents the average over recent times and varies depending on current volatility and other factors.

Call buying example

Assume Coles Myer Ltd (CML) shares are trading at \$8.49. The investor, anticipating an increase in the share price, takes a CML August \$8.50 call for 45 cents, or \$450 total premium (\$0.45 x 1,000 shares per contract).

Close to the expiry day, CML shares are trading at \$9.50 and the option premium is now \$1.02 per share. The option taker can exercise the option and buy 1,000 CML shares at \$8.50, which is \$1.00 below the current market price, realising a gain of 55 cents per share: $\$1.00 - \$0.45 = 55$ cents (excluding fees and commissions).

Alternatively the option taker can close out the call on ASX's Options Market by writing a CML August \$8.50 call for \$1.02 (the current premium) and realise a gain of 57 cents per share (excluding fees and commissions).

On average less than 15% of all taken options are exercised.

The 2 cent profit difference between exercising and closing out the call is due to the option having some remaining time value (as explained on page 9).

If CML shares had declined over this period, the call premium would also have declined. Depending on the timing and magnitude of the share price decline, the option may have retained some value prior to expiry, allowing the taker to recoup a portion of the original premium by liquidating the position. The first table below summarises the two alternatives.

The option taker can exercise the option and sell 1,000 CSR shares at \$6.25 which is 25 cents above the current market price, realising a gain of 10 cents per share (excluding fees and commissions). Alternatively, the option taker can close out the option by writing a CSR August \$6.25 put at 30 cents (the current market premium) and realise a gain of 15 cents per share (excluding fees and commissions). The 5 cent difference represents time value remaining in the option premium. If CSR shares had risen in price over this

CML SHARE \$8.49 BUY ONE CML AUG \$8.50 CALL FOR A COST OF 45 CENTS PER SHARE	
EXERCISE	CLOSEOUT
BUY 1,000 CML SHARES FOR \$8.50*	SELL ONE CML AUG \$8.50 CALL FOR \$1.02**
SELL 1,000 CML SHARES AT MARKET PRICE OF \$9.50*	
TOTAL PROFIT \$9.50 - \$8.50 = \$1.00 PER SHARE (\$1,000)	LESS INITIAL COST \$1.02 - \$0.45 = \$0.57 CENTS PROFIT PER SHARE (\$570)
LESS INITIAL COST \$1.00 - \$0.45 = \$0.55 CENTS PROFIT PER SHARE (\$550)	
*NOTE: FEES AND COMMISSION ARE PAYABLE ON EACH OF THESE STEPS	**NOTE: FEES AND COMMISSION ARE PAID ON THE SALE OF THE OPTION TO CLOSE

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11

Put buying example

Say CSR shares are trading at \$6.48. The investor, anticipating a fall in the share price, takes a CSR August \$6.25 put option for 15 cents per share.

Close to the expiry day, CSR shares are trading at \$6.00 and the option premium is now 25 cents per share.

period, the option premium would have declined. As with the call option, the put option may have retained some value and the taker may have been able to close out the option to recover some of the initial premium. The second table summarises the two alternatives.

CSR SHARE \$6.48 BUY ONE CSR AUG \$6.25 PUT FOR A TOTAL COST OF 15 CENTS PER SHARE	
EXERCISE	CLOSEOUT
BUY 1,000 CSR SHARES AT MARKET PRICE OF \$6.00*	SELL ONE CSR AUG \$6.25 PUT FOR \$0.35 CENTS**
SELL 1,000 CSR SHARES FOR \$6.25*	
TOTAL PROFIT \$6.25 - \$6.00 = \$0.25 PER SHARE (\$250)	LESS INITIAL COST \$0.30 - \$0.15 = \$0.15 CENTS PROFIT PER SHARE (\$150)
LESS INITIAL COST \$0.25 - \$0.15 = \$0.10 CENTS PROFIT PER SHARE (\$100)	
*NOTE: FEES AND COMMISSION ARE PAYABLE ON EACH OF THESE STEPS	**NOTE: FEES AND COMMISSION ARE PAID ON THE SALE OF THE OPTION TO CLOSE

The option writer

The writing of an option offers investors the opportunity to earn premium income. However if their market view proves incorrect they will lose money. The put option writer's market view would be for prices to remain steady or to rise, whereas the call option writer expects the underlying share to remain steady or to fall.

Call writing example

Suppose an investor owns 1,000 BHP Billiton Limited (BHP) shares and writes one BHP February \$11.00 call option. If the investor is exercised against, they must sell 1,000 BHP shares to the taker for \$11.00 per share. If the investor does not already own BHP shares they will be obliged to buy 1,000 BHP at the current market price in order to fulfil their obligations to the taker. This will result in a loss if the market has risen above \$11.00.

The writer of a call option who does not own the underlying shares has an unlimited loss potential as the stock price could keep rising and the writer would be forced to buy the shares at the current market price in order to deliver them at the exercise price.

Put writing example

The writer of a WMC Ltd December \$9.50 put option is obliged to buy 1,000 WMC shares at \$9.50 for the period of the contract but only if called upon by the taker to do so. If WMC shares fall to \$9.00 and the taker of the put option exercises the option, the writer is obliged to buy the shares at \$9.50. On the other hand if the WMC shares rise to \$10.00 it is unlikely that the taker of the put option will exercise, and accordingly, the put writer will make a net gain of the premium received.

As the above example shows, the writer of a put option has a loss potential if the underlying share price falls. The writer may be forced to buy the shares from the taker at a price which is well above the current market price. This loss is unknown but limited as the shares can only fall to zero. When deciding whether to trade options, there are a number of factors to be aware of:

- you will need to understand the costs of trading options.
- you need to know how to track the value of your option position.
- if you have written an option and have not lodged collateral, you will be required to pay margins and you may be eligible to receive refunds of margin.

The decision to exercise the option rests entirely with the option taker. In most instances an option writer may be exercised against at any time prior to expiry. However, this is most likely to occur when the option is in-the-money and close to expiry, or when the underlying share is about to pay a dividend. Call option takers may exercise in order to receive the dividend.

OCH will require payment of margins to ensure the obligations of the option writer to the market are met. To find out more about margins and the margining process download the ASX booklet called Margins, asx.com.au/options>download booklets.

Tracking positions costs and margins

How to track options via the internet and in the newspapers

Option codes and prices are available in the options section of the ASX internet site. To access this go to www.asx.com.au/options. Details of the previous day's trading are published in summary form in the Australian Financial Review and more comprehensively in The Australian. Current option prices are also available from your broker.

Margins

If you have written an option and have not lodged the underlying shares or sufficient collateral then margins may be payable throughout the life of the option. Refer to the Margins booklet for more details.

STOCK	STRIKE PRICE	FAIR VALUE	LAST SALE	VOL 000'S	OPEN INT	IMPLIED VOLATILITY BUYER	IMPLIED VOLATILITY SELLER	DELTA	ANNUAL % RETURN
CALL OPTIONS									
TELSTRA CORPORATION LIMITED LAST SALE PRICE \$5.43									
2002									
SEP	5.00	.63	.55	-	705	8.83	-	1.00	5.62
SEP	5.25	.48	.50	5	142	14.44	12.75	.79	8.50
SEP	5.50	.35	.38	10	588	16.04	14.99	.63	10.09
SEP	5.75	.25	.28	8	111	17.08	16.27	.49	7.21
SEP	6.00	.17	.20	-	2503	17.85	17.20	.37	5.04
DEC	5.00	.70	.80	-	205	-	-	.79	5.49
DEC	5.25	.55	.55	-	187	12.71	11.13	.84	7.57
DEC	5.50	.43	.45	4	1693	15.06	14.09	.67	8.91
DEC	5.75	.33	.35	30	83	16.12	15.35	.54	5.74
DEC	6.00	.23	.34	-	187	16.09	15.48	.42	4.66

EXPIRY MONTHS STRIKE PRICES FAIR VALUE* FOR EACH SERIES LAST SALE PRICE VOLUME OF CONTRACTS TRADED NUMBER OF CONTRACTS CURRENTLY OPEN IMPLIED VOLATILITY* FOR EACH SERIES DELTA* FOR EACH SERIES ANNUALISED RETURN* FOR EACH SERIES

*A DEFINITION OF EACH OF THESE TERMS IS CONTAINED IN THE GLOSSARY ON PAGE 29.
Source - Australian Financial Review. Monday 4th February 2002 - p35.

Costs

Brokerage is payable at a flat rate or as a percentage based on the full premium. OCH will also charge a small transaction fee. For more information contact your broker, or visit the ASX website, www.asx.com.au/options

What are margins?

Margins are the cash or securities required to be deposited by an option writer with his broker as collateral for the writer's obligation to buy or sell the underlying security, or in the case of cash-settled options to pay the cash settled amount, if assigned an exercise notice.

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Minimum margin requirements are set by the OCH and higher margin requirements may be imposed by your broker.

When are they payable?

Uncovered writers may have to meet calls for substantial additional margin in the event of adverse market movements. Even if a writer has enough equity in his account to avoid a margin call, increased margin requirements on his option position will make that equity unavailable for other purposes.

Margin requirements are complex and not the same for writers of options on different types of underlying interests. Margin requirements are subject to change, and may vary from broker to broker.

Before considering writing options (whether alone or part of options combination, such as spreads or straddles) one should determine the applicable margin requirements from

their broker, or online. A margin estimating tool is available on the ASX website, www.asx.com.au/options

Acceptable collateral to cover margins includes, shares, some instalment warrants and stock bought on margin. You can find out more information from your broker, margin lender or ASX website, www.asx.com.au/options

Dividends and voting

The taker of the call option or the writer of a put option does not receive dividends on the underlying shares until the shares are transferred after exercise. Nor do they obtain any voting rights in relation to the shares until such time.

Tradeability

As explained previously, an option is a contract between two parties – the taker and the writer. An option contract comes into existence when a writer and a taker agree on the details and the contract is registered with OCH. The establishment of a contract is referred to as opening a position.

Once the taker has an open position they have 3 alternatives:

1. The taker can exercise the option and trade the underlying shares. In the case of index options it is impractical to take delivery of the many shares contained in the index, so index options are only exercisable at expiry into a cash payment. Index options are further explained on page 18.

2. The taker can hold the option to expiry and allow it to lapse.

3. The taker can close out their position by writing an option in the same series as originally taken and instructing their broker to 'close out' the position.

For example, if an investor takes a call option as an opening transaction, they may liquidate or close out their right to exercise by writing an identical call option to another party.

The writer of an option has two alternatives:

1. Let the option go to the expiry day and either be exercised or let the option expire worthless; or

2. Close out the option prior to exercise. For example, if an investor writes a put option as an opening transaction, they may liquidate or close out their obligations by taking an identical put option contract with another party.

It is important to note that once the taker exercises an option it is too late for the writer of that option to close out their position.

An investor would close out when:

- there is a risk of unwanted early exercise*
- to take a profit
- to limit a loss

Closing out effectively cancels your open positions.

The opening and closing of option positions is not the same as trading shares. Whereas there is a secondary market for shares, and investors who own shares can sell them to someone else in the market, this is not the case for options. With options, positions are opened and closed. There is no transfer of rights or obligations between parties.

*note that with index options, exercise can only occur on expiry day, so this risk does not exist for index options.

How can options work for you?

There are a number of different reasons why investors trade in options. Some of these are outlined below.

1. Earning extra income

Writing options against shares you already own or plan to purchase can be one of the simplest and most rewarding strategies. Below are three scenarios when this strategy may be appropriate. In each of these scenarios below, your risk is that you will have to sell your shares at the exercise price but you still keep the option premium. This is most likely to happen if the market rises strongly.

Scenario 1 Writing options against shares you already own

Assume you own 1,000 Commonwealth Bank of Australia (CBA) shares. The current price is \$31.00 and you would be happy to sell your shares if the price reached \$32.50. You look in the newspaper and see the June \$32.50 call option is worth around 70 cents so you call your broker and instruct him to write 1 CBA June \$32.50 call option which he does for 72 cents (\$720 in total). You now have the obligation to sell your CBA shares for \$32.50 at anytime between now and the end of June if the taker exercises their right. For undertaking this obligation you have received \$720 (less fees and commissions). Calls can also be written against stock bought on margins. Find out more from your margin lender, broker or ASX.

Scenario 2 Writing options at the same time as buying the shares

Assume you are interested in purchasing 1,000 CBA shares but would like to reduce the cost of doing so. You could establish a buy and write over CBA shares. This means you would buy 1,000 CBA shares at around \$31.00 and at the same time write 1 CBA June \$32.50 call for say 72 cents. The extra income of \$720 (less fees and commissions) can either reduce the cost of buying the shares if the buy and write is established in sufficient volume, or at least offset some of the fees and commission costs. You now have the obligation to sell your CBA shares for

\$32.50 at anytime between now and the end of June if the taker exercises their right.

Scenario 3 Writing options to sell your shares above the current market price

Assume you own 1,000 CBA shares and you have sold a June \$32.50 call for 72 cents. At expiry, if CBA shares are over \$ 32.50 then the taker will exercise their option. You will receive \$32,500 from the exercise of the option. You have already received \$720 from writing the option, so you have effectively sold your shares for \$33,220 or \$33.22 per share.

2. Protecting the value of your shares

This strategy can be useful if you are a shareholder in a particular company and are concerned about a short term fall in the value of the shares. Without using options you can either watch the value of your shares fall, or you could sell them. Using options could give you some protection from this decline as outlined below.

Scenario 1 Writing call options to give you downside protection

Earlier examples show how you can generate extra income from your shares by writing an option contract. Writing call options can also generate extra income to offset all or some of any decline in the price of the underlying share. In this example, the CBA shares are at \$31.00, and writing the June \$32.50 call option gave you 72 cents of downside protection. Therefore the shares could fall by 72 cents to \$30.28 before you begin to incur losses. The risks in this scenario are that if you are wrong, and the market rises above \$32.50 per share, your options would be exercised and you will have to sell your shares for \$32.50, and if the share price falls below \$30.28, then you will incur a loss on your share holding.

Scenario 2 Take put options

Assume you own 1,000 CBA shares and you think the price will fall. Writing call options will offset some of the loss, but you would like to be able to sell your shares at a higher price if the market does fall. You could take 1 CBA

June \$31.00 put option for 90 cents (\$900 plus fees and commissions). If the price falls, you have until the end of June to exercise your put option and sell your shares for \$31.00. If you are wrong and the market rises you could let the option lapse or alternatively close out before the expiry day.

3. Capitalising on share price movements without having to purchase shares

You can profit from a movement, either up or down, in the underlying shares without having to trade the underlying shares themselves. Some examples are outlined below.

Scenario 1 Take calls when expecting the market to rise

Buying call options allows you to profit from an increase in the price of the underlying shares. Suppose you believe WMC Ltd (WMC) shares will rise in price over the next few months. You don't want to pay the full \$9,570 to buy 1,000 shares so you decide to take a September \$9.50 call for 40 cents (\$400 plus fees and commissions). If you are correct and the price of WMC shares rises then the value of your option will also rise. You can then write an equivalent call option to close out at any time prior to the expiry day and take your profit. You will not have to buy the WMC shares if you don't want to.

If the market doesn't move as expected, you can either close out the option and recoup some of your initial investment, or you can simply let the option expire worthless in September. When you take a call option, the most you can lose is the premium you have paid in the first place.

Scenario 2 Take puts when expecting the market to fall

Assume you believe WMC shares will fall in value. You don't like the idea of short selling the shares as you believe this is too risky so you decide to take a WMC September \$10.00 put option for 60 cents (\$600 plus fees and commissions). If you are correct and the price of WMC falls, the value of your put will rise. You can then write a put to close out any time prior to the expiry day in September to take your profit. If the market does not fall, then you can close out the option and recoup some of your initial investment, or you can simply let the option expire worthless in September.

When you take a put option you don't have to own the underlying shares and, as with call options, the most you can lose is the premium you have paid in the first place.

4. Using options gives you time to decide

Taking a call option can give you time to decide if you want to buy the shares. You pay the premium which is only a fraction of the price of the underlying shares. The option then locks in a buying price for the shares if you decide to exercise. You then have until the expiry day of the option to decide if you want to buy the underlying shares.

Put options can work in a similar manner. By taking a put option you can lock in a selling price for shares that you already own and then wait until the expiry day of the option to see if it is worthwhile exercising the option and selling your shares. Or you can let the option lapse if the price does not fall as expected.

In both cases the most you can lose is the premium you have paid for the option in the first place.

5. Index options let you trade all the stocks in an index with just one trade

By using call and put options over an index, you can trade a view on the general direction of the market, or hedge a portfolio with just one trade. If you are bullish on the market but don't know what stock to buy or which sector of the market will rise, you can buy a call option over the whole index. This means you don't have to choose a particular stock to invest in, you can just take a view on the direction of the broad stockmarket. If the level of the index rises the value of the call options will rise, just as for call options over individual shares. All the concepts about call and put options explained in this booklet apply to index options, which are explained in detail on page 18.

6. Other strategies

Stock bought on margin is an increasingly popular way to write covered calls. Options can allow you to construct strategies that allow you to take advantage of many market situations. These can be quite complex and involve varying levels of risk. You can attend ASX's 'Advancing in Options Trading Strategies' course to learn about some of these strategies. See the contact details on page 32 to find out more.

Trading index options

How are index options different?

Except where specific reference has been made to index options, up to this point the options we have been discussing have been over securities in individual companies. Individual stock options enable investors to trade a view on a particular company. ASX also offers options which are traded over a stock index (that is, a group of listed securities).

As the name suggests, index options give investors exposure to a sharemarket index. They offer investors similar benefits and flexibility to that of options traded over individual stocks, with the added advantage of offering exposure to a broad range of securities comprising an index rather than being limited to one particular company. Investors can use index options to trade a view on the market as a whole, or on the sector of the market that is covered by the particular index.

There are some important differences between index options and options over individual securities:

- index options are usually cash settled, rather than deliverable, because it is not practical to deliver all the securities which make up the index. An investor will receive a cash payment on exercising an in-the-money index option.
- index options are usually european in exercise style. This means the holder can only exercise on the expiry day.
- The strike price and premium of an index option are usually expressed in points. A multiplier is then applied to give a dollar figure. For example, the multiplier may be \$10 per point, meaning that to buy an index option with a premium of 50 points, an investor would pay \$500 (plus fees and commissions).

Some key advantages of trading index options

1. Exposure to the broader market

Investing in index options approximates trading a share portfolio that tracks a particular index. It provides exposure to the broader market which the index represents, with no specific company risk. Often index options are over benchmark indices traded by professional investors. Investors are less dependent on having to 'pick individual winners'.

2. Greater leverage

Like options over a single company, index options provide leveraged profit opportunities. When the market rises (or falls), percentage gains (or losses) are far greater for the option than rises (or falls) in the underlying index.

3. Protection for a share portfolio

By purchasing index put options, an investor can lock in the value of a share portfolio, without having to sell all the stocks in the index. An investor may fear a market downturn, but have good reasons for not wanting to sell stocks. By purchasing index put options, the investor can make profits if the index falls when the bearish market view proves correct. Profits on put options compensate the investor for the loss of value in the stocks in the portfolio. This outcome effectively insures the portfolio at the level of the put options less the cost of the put.

For example, with the index at 3400 points an investor buys a March 3400 put option for 60 points (or \$600). At expiry the index has fallen to 3100 points. The investor receives a cash payment equal to the difference between 3400 points (the insured value) and the level of the index at expiry, in this case 3100 points.

DATE	INDEX	OPTION TRADE	PREMIUM VALUE
LATE FEBRUARY	3400 POINTS	BUY MARCH 3400 PUT @ 60 POINTS	\$600
MARCH EXPIRY	3100 POINTS	EXERCISE OPTION, RECEIVE 300 POINTS x \$10	\$3000
			PROFIT = \$2400

In other words, the investor receives a cash payment of \$3000 (300 points x \$10 a point). If the investor's share portfolio has moved in line with the underlying index, then the profits on the put option purchase will largely offset the fall in value of the portfolio.

Examples of how trading index options can work for you

Example 1: using an index put option to protect a share portfolio

When you decide to buy shares in the stock market you are considering two types of risks:

1. Company risk – the risk that the specific company you have bought into will underperform.

2. Market risk – the risk that the whole market underperforms, including your shares.

There are a number of ways to protect your shares against market risk using index options. You can, for example, buy the shares you believe in and buy an index put option to protect yourself against a fall in the whole market. Depending on the amount of risk you wish to remain exposed to, you can choose to hedge all or only part of your portfolio. Let's assume that it is January, and the broad market index is at 3,400. You have a share portfolio worth \$68,000 which approximately

tracks this index. You believe that there may be a downturn in the market over the next three months. As an alternative to selling shares directly, you decide to buy index put options to protect your portfolio. As the March 3400 index put option has a contract value of \$34,000 (3400 point x \$10 per point), you are able to protect your \$68,000 portfolio by buying two contracts, for 80 points each. The total cost is \$1600 (ignoring transaction costs).

The March 3400 put gives you the right, but not the obligation, to "sell" the index at a level of 3400 at expiry in March. Ignoring fees and commissions, your break-even point at the end of March is $3400 - 80 = 3320$.

At expiry in March, the index has fallen to 3100 points, and your options have the following value:

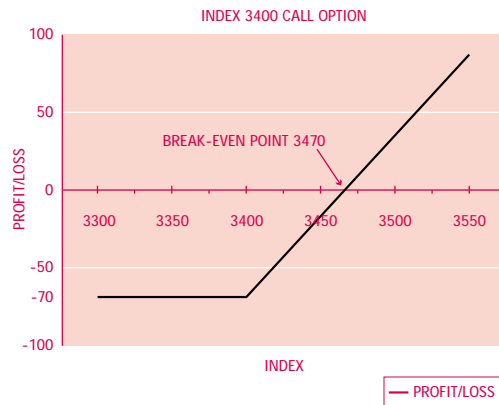
DATE	INDEX	SHARE PORTFOLIO	3000 PUT	PREMIUM VALUE
EARLY JAN	3400	\$68,000	80 POINTS	2 CONTRACTS x \$800 = \$1,600
MARCH EXPIRY	3100	\$62,000	300 POINTS	2 CONTRACTS x \$3,000 = \$6,000
PROFIT/LOSS		(\$6,000)		2 CONTRACTS x \$2,200 = \$4,400

Your net position is a loss of \$1,600. The loss of \$6,000 in the value of your shares has been largely offset by the profit of \$4,400 on the option trade. The overall loss of \$1,600 is the premium value, or cost of the insurance. Alternatively, you could buy index put options with an exercise price greater than the value of the share portfolio you want to protect. This will provide you with a larger profit on the option trade if the index falls as expected. However, you will be paying a higher amount in premium, an amount which will be lost if the expected market decline does not take place.

Example 2: Using an index call option to trade a bullish view of the market

Assume it is January and you are expecting the broad stockmarket to rise over the next three months. The index is at 3400. As an alternative to buying a portfolio of shares directly, you decide to buy a March 3400 index call option for 70 points, or \$700. That gives you the right, but not the obligation, to “buy” the index at a level of 3400 at expiry in March. Ignoring your transaction fees and commissions, your break-even point at the end of March is $3400 + 70 = 3470$.

The profit/loss profile (or pay-off diagram) for this position at the end of March looks like this:



The chart above is called a pay off diagram. To learn more about these, check page 22.

The most you are risking in this trade is \$700, the cost of the option. You have potentially unlimited profits. At the option's expiry in March, for every point that the index is above your breakeven point of 3470 points, you will make a profit of \$10. By late February it turns out that you were right in your prediction. The index is now 3630 and the value of your call has increased as follows:

DATE	INDEX	3000 CALL	PREMIUM VALUE
EARLY JAN	3400 POINTS	70 POINTS	\$700
LATE FEB	3630 (+6%)	180 POINTS	\$1,800
PROFIT / LOSS			+\$1,100 (+157%)

As you can see the option has more than doubled in value from a relatively small (+6%) increase in the index. This is the advantage of the leverage which an index call option provides. Since the option has not yet expired your choices now are to :

1. Sell the option and realise the profit
2. Keep the option and hope for more upside (but remember that time decay is working against you).

These are just two of many strategies that are possible using index options. The range of expiry dates and exercises prices available makes it possible to structure a strategy to reflect any view an investor may have on the direction of the broad market.

Differences between equity options and index options

The following table summarises the main differences between exchange traded options over individual securities and index options.

	EXCHANGE TRADED OPTIONS	INDEX OPTIONS
EXERCISE STYLE	AMERICAN	EUROPEAN
SETTLEMENT	DELIVERABLE	CASH SETTLED
LAST TRADING AND EXPIRY DAY	THE THURSDAY BEFORE THE LAST FRIDAY IN THE EXPIRY MONTH	THE LAST TRADING DAY BEFORE EXPIRY THE THIRD FRIDAY OF THE MONTH
UNDERLYING ASSET	ASX APPROVED SECURITIES	ASX APPROVED INDICES
PREMIUM	EXPRESSED IN DOLLARS AND CENTS	EXPRESSED IN POINTS
EXERCISE PRICE	EXPRESSED IN DOLLARS AND CENTS	EXPRESSED IN POINTS
CONTRACT SIZE	1,000 SHARES	THE EXERCISE PRICE OF THE OPTION MULTIPLIED BY \$ VALUE

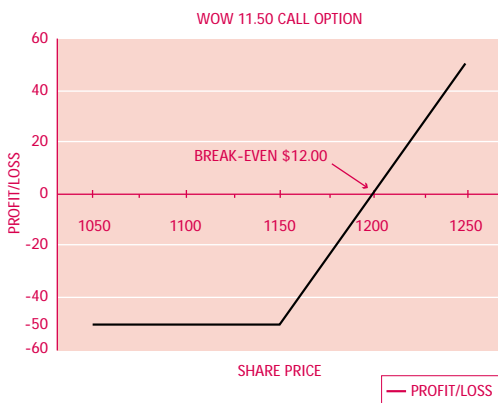
Pay-off diagrams

A payoff or break-even diagram shows the potential profit or loss on the strategy at different stock prices at expiry. These diagrams help show when a particular option position will make a profit and when it will make a loss upon exercise at expiry. Payoff diagrams can be drawn for any option or combination of options in the one class.

Visit the ASX website, www.asx.com.au/options to download any of the calculators and tools that will plot options profiles.

Call option taker

Using the example of taking 1 Woolworths Ltd (WOW) Sep \$11.50 call for 50 cents.

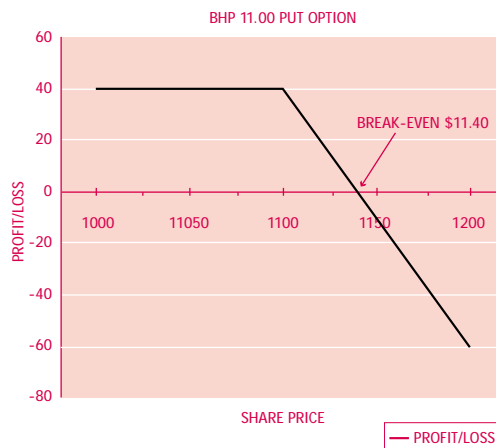


The break-even point for the call option taker is the exercise price of the option plus the premium paid. In this example it is \$12.00 (\$11.50 exercise price + 50 cent premium).

The diagram shows that while WOW is below \$12.00 the call option taker has an unrealised loss. The most the call option taker can lose is the premium paid (50 cents). As the WOW share price rises above \$12.00 the call option taker begins to profit. The maximum profit is unlimited as the higher the share price goes, the larger the taker's profit.

Call option writer

Using the example of writing 1 BHP Feb \$11.00 call for 40 cents.



The diagram shows that the call option writer has potential profit limited to the premium received (\$400). If the option writer does not own the underlying shares the potential loss is unlimited. In this case, as the share price rises the writer will have to pay more to buy the shares at the market price if the option is exercised.

The break-even point for the call option writer is the exercise price of the option plus the premium received. This is the same as for the call option taker.

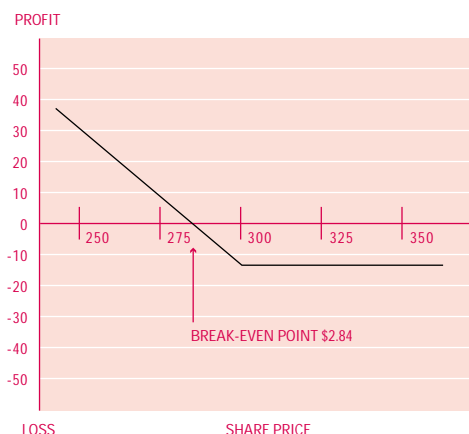
For call options the break-even point is the exercise price plus the premium paid.

For put option writers the break-even point is the exercise price less the premium paid.

Put option taker

Using the example of taking 1 Boral Ltd (BLD) Aug \$3.00 put for 16 cents.

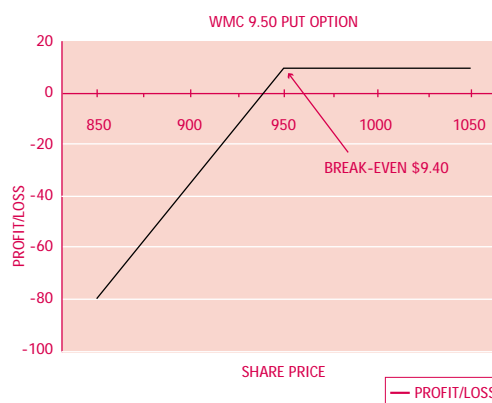
The diagram shows that the most the put option taker can lose is the premium paid. The further the share price falls below the break-even point of \$2.84, the larger the investor's potential profit. The break-even point for put option takers is the exercise price less the premium paid. The maximum profit is unlimited although the share can only fall to zero.



Put option writer

Using the example of writing 1 WMC Dec \$9.50 put for 10 cents.

The diagram shows that the put option writer has profit potential limited to the premium received (\$100). Once the share price falls below \$9.50 the put writer's profits begin to erode. This becomes a loss after the share price falls below \$9.40. The break even price of \$9.40 is the exercise price less the premium received, and the potential loss is unlimited.



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These four pay-off diagrams are the basis for more advanced option strategies. By combining these positions, more elaborate and complex strategies can also be created. You can attend ASX's "Advanced Options Trading Strategies" course to learn more about these strategies. (See contact details on page 32.)

Summary

CALL OPTION TAKER

CHARACTERISTICS

PAYS PREMIUM
RIGHT TO EXERCISE
AND BUY THE SHARES
TRADES VOLATILITY
PROFITS FROM
PRICE RISING
LIMITED LOSSES,
POTENTIALLY UNLIMITED GAIN
CAN WRITE BEFORE
EXPIRY TO CLOSE OUT

CALL OPTION WRITER

CHARACTERISTICS

RECEIVES PREMIUM
OBLIGATION TO SELL SHARES
IF EXERCISED
TRADES TIME DECAY
PROFITS FROM PRICE FALLING
OR REMAINING NEUTRAL
POTENTIALLY UNLIMITED LOSSES,
LIMITED GAIN
CAN BUY BACK BEFORE EXPIRY
OR BEFORE ASSIGNMENT
TO CLOSE OUT

PUT OPTION TAKER

CHARACTERISTICS

PAYS PREMIUM
RIGHT TO EXERCISE
AND SELL SHARES
TRADES VOLATILITY
PROFITS FROM
PRICE FALLING
LIMITED LOSSES,
POTENTIALLY UNLIMITED GAIN
CAN WRITE BEFORE
EXPIRY TO CLOSE OUT

PUT OPTION WRITER

CHARACTERISTICS

RECEIVES PREMIUM
OBLIGATION TO BUY SHARES
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LIMITED GAIN
CAN BUY BACK BEFORE EXPIRY
OR BEFORE ASSIGNMENT
TO CLOSE OUT

You and your broker

This information relates to the relationship between you and your broker (or as they are officially called, ASX Participating Organisations) when trading and settling exchange traded options.

1. Your relationship with your broker

Brokers offer both trading and clearing services for options or they can specialise; with some parts of the trading and settlement process contracted to other brokers.

The different services a broker may offer in trading and settling options are as follows:

- Offer both trading and clearing services, called a “full service” broker.
- Offer only trading services. If so, the broker will execute transactions through the Derivatives Trading Facility but will not provide clearing services.
- Offer only clearing services. If so, the broker will settle transactions but will not offer trading services.
- Offer purely advisory services. If so, the broker will not offer clearing or trading services but will only provide advice to clients. They will use another broker to perform these functions.

2. The paperwork:

Client Agreement forms

If you are trading through a ‘full service’ broker (i.e. one which offers both trading and clearing services) you will only have to sign one Client Agreement form with that broker. If the broker does not offer both trading and clearing services then you may have to sign more than one Agreement.

A trading broker (which is not also a clearing broker) uses a clearing broker to clear its option trades. You don’t have to use the trading broker’s clearing broker.

The Client Agreement is a legal contract setting out the terms on which the broker(s) will act for you.

If you use an advice only broker, you must still sign a Client Agreement with a trading broker and a clearing broker.

It is important that you read the Client Agreement carefully before signing it.

The Exchange does not prescribe a set Client Agreement but requires minimum terms which the Client Agreement must contain. Brokers may have other terms provided they are not inconsistent with the minimum terms.

The involvement of Options Clearing House (OCH)

It is important to understand that options registered with Options Clearing House (OCH) are contracts between clearing brokers and OCH (on a principal to principal basis). OCH does not have any contractual relationship with you.

More about the role of OCH is detailed below.

Fees and commissions

ASX does not prescribe the rate of fees and commissions which brokers may charge clients.

Clients should discuss these rates and how they will be administered directly with their broker(s) prior to signing the Client Agreement(s). ASX and OCH have standard fees (e.g. for trading and exercise), which can be checked by calling the exchange or your broker.

Contract notes and monthly reports

The trading broker is under a legal obligation to provide you with a contract note. In practice, the trading broker may arrange for the clearing broker to provide a contract note to you on behalf of the trading broker.

A contract note must contain information about the trade and the client including (but not limited to):

- the client's details
- the option series traded
- the trade details
- any fees or commissions payable
- which broker traded
- which broker cleared the trade

(if the trading broker is not also the clearer)

You should ensure the details contained in each contract note are correct and immediately discuss any inaccuracies with your broker.

At the end of each month clients who have traded must receive a statement listing that month's trading activity. In addition, if you have open positions at month's end you should also receive a statement listing these positions. Again, it is important that you carefully check these documents and immediately raise any inaccuracies with your broker.

Failing to pay your broker

One of the significant terms required in every Client Agreement with a clearing broker is their right to close out open contracts opened for you, without further notice to you, if you fail to pay as agreed in the Client Agreement. Accordingly, it is important that you understand the settlement and margin requirements set out in the Client Agreement(s) before commencing trading.

3. Instructing a broker to trade options

Your investment objectives

Trading brokers are required to understand their client's financial situation in order to

assess whether a particular investment (such as options) is suitable for that particular client's situation. The trading broker's adviser will ask you certain questions relating to your financial position and your investment objectives when dealing with you for the first time.

The adviser will rely on the information you provide when advising you.

ASX Accredited Derivatives Advisers

If receiving investment or trading advice about options, you should ensure that the individual from whom you are receiving such advice is accredited.

You can place an order through any adviser, however under ASX Business Rules, only those individuals who are ASX Accredited Derivatives Advisers can give you advice about what orders to place.

What does “Opening” and “Closing” a transaction mean?

When you first buy (or sell) options it is called an opening transaction. If you then sell (or buy) options in the opposite position (to cancel existing bought (or sold) open positions), it is called a closing transaction.

For example, if you have just opened an account with ABC Stockbroking Limited and instruct ABC Stockbroking to sell 10 call options over shares in AMP Limited (AMP) expiring in November with a strike price of \$19.00. This is called an opening transaction. If, after one month, you decide you do not wish to remain exposed to having to sell 10,000 AMP underlying shares in the event that the call options are exercised, you would instruct ABC Stockbroking to buy 10 November \$19.00 call options in AMP as a closing transaction.

It is very important that you tell your broker whether you are entering into an options transaction to open or to close. Once the transaction has been registered, and it is entered to close, it cancels the initial open contract and you have no further rights or obligations arising from these AMP call option contracts (on either the buy or sell sides).

Exercising options

If you wish to exercise rather than close out taken (bought) open contracts you will need to notify your broker of exactly which open contract(s) you want to exercise. The broker will advise you of the latest time it will accept an exercise in order for it to be exercised that same day (T).

Where an exercise instruction is given, OCH will randomly select a writer (seller) in that series of options and on the following day will notify that writer that their written (sold) position has been exercised (i.e. T+1).

Settlement of underlying securities on exercise

Payment for, and the delivery of underlying securities, on exercise of an open contract are undertaken by the clearing broker. The clearing broker has the legal obligation to provide the contract note for the settlement of the underlying securities following an exercise.

Cash or collateral to cover margins

Each broker will have their own requirements when it comes to the settlement of margin obligations. For example, a broker may offer to take money from a cash management account (either one operated by that broker or with another deposit taking institution which the broker can access directly) or a broker may agree to accept a cheque payment. You will need to understand the method and timing for the settlement of margin obligations with your broker(s) before commencing trading.

The clearing broker has the ability to require a client to provide cash or other collateral (such as shares, bank guarantees or certain Austraclear securities) which it regards as appropriate to cover any margin obligations which arise from the relevant open contracts. The broker will advise you what sort of cover it will require and when it must be provided.

4. Market maker's participation

Market makers provide buy and sell orders (i.e. buy and sell prices at a maximum spread and for a minimum number of contracts) most of the time and can respond to individual series price quotes on request. There may be times, however, when there is very low or no liquidity in some option series, depending for instance on the level of activity in the underlying securities.

There are also some option classes which do not carry market making obligations.

5. Options Clearing House Pty Ltd (OCH)

OCH is a wholly owned subsidiary of ASX. It undertakes the registration and clearing of all options traded on ASX's option market. The points below are some of the key aspects of OCH.

Novation

Through a process called "novation" OCH becomes the counter-party to both the buying and selling brokers of an option contract. That is, OCH becomes the buyer for each sold option and the seller for each bought option.

For example: ABC Stockbroking places an order to sell 10 AMP November \$19.00 call options and XYZ Stockbroking agrees to buy them. On registration of the trade with OCH the original buy and sell trade (called a market contract) is "novated" and replaced by two new contracts (called open contracts) whereby OCH becomes the counterparty buyer against the selling broker and correspondingly, becomes the counterparty seller against the buying broker. This means that the buying and the selling brokers only deal with OCH in the settlement of the open contract and neither broker has to rely on the other to perform under the original market contract.

Fees

OCH charges a fee for the registration of open contracts and for the exercise of options. Further details can be obtained from your broker or ASX website, www.asx.com.au/options

Adjustments to options series

In certain circumstances where the capital structure or value of the underlying securities over which options exist is changed, ASX may make adjustments to the contract

specifications of a class of options.

Adjustments are made to preserve, as far as possible, the exercise value of the open contracts held by both the buyer and seller.

If ASX determines an adjustment is necessary, ASX may adjust one or more of the type or number of underlying securities, the contract size, the exercise price or the expiry date of a series. Information is available on the ASX website, www.asx.com.au/options

Position and exercise limits

ASX reserves the right to limit the number of options in a series or class which may be registered with OCH and may also restrict the exercise of open contracts in a class. Both of these limits may be applied in relation to one or more accounts or accounts generally.

National Guarantee Fund

The National Guarantee Fund provides a level of protection to clients who trade on the ASX Derivatives' options market.

The National Guarantee Fund Client Information Booklet available from brokers provides further details on these matters.

Glossary of terms

Adjustment to options contracts

adjustments are made when certain events occur that may affect the value of the underlying securities. Examples of adjustments include changing the number of shares per contract and/or the exercise price of options in the event of a new issue or a reorganisation of capital by the issuer of the underlying securities.

American style

type of option contract which allows the holder to exercise at any time up to and including the expiry day.

Annualised return

the return or profit, expressed on an annual basis, the writer of the option contract receives for buying the shares and writing that particular option.

Assignment

the random allocation of an exercise obligation to a writer. This is carried out by OCH.

At-the-money

when the price of the underlying security equals the exercise price of the option.

Buy and write

the simultaneous purchase of shares and sale of an equivalent number of option contracts.

Call option

an option contract that entitles the taker (buyer) to buy a fixed number of the underlying securities (usually 1,000) at a stated price on or before a fixed expiry day.

CHESS

stands for Clearing House Electronic Subregister System and means the system established and operated by SCH for the clearing and settlement of CHESS approved securities, the transfer of securities and the registration of transfers.

Class of options

option contracts of the same type – either calls or puts – covering the same underlying security.

Clearing participant

means a Participating Organisation of ASX that has been admitted as an ASX Derivatives

Clearing Participant in accordance with the Business Rules of ASX.

Closing purchase

a transaction in which a party who has previously written (sold) an option liquidates the position as a writer by “taking” an option in the same series as the option previously written.

Closing out

a transaction in which a party who had previously taken (purchased) an option, liquidates the position as a taker by “writing” an option in the same series as the option previously taken or vice versa for a sold position.

Delta

the rate in change of option premium due to a change in price of the underlying securities.

Derivative

an instrument which derives its value from the value of an underlying instrument (such as shares, share price indices, fixed interest securities, commodities, currencies, etc.). Warrants and options are types of derivative.

Designated Trading Representative

the person authorised to execute options transactions on behalf of a Clearing Participant.

D.T.F.

Derivative Trading Facility – The screen trading mechanism for options.

European style

type of option contract which allows the holder to exercise only on the expiry day.

Exercise price

the amount of money which must be paid by the taker (in the case of a call option) or the writer (in the case of a put option) for the transfer of each of the underlying securities upon exercise of the option.

Expiry day

the date on which all unexercised options in a particular series expire.

Fair value

the theoretical value generated using a standard binomial model, using the implied volatility level last traded for that series (or implied by others around it).

Hedge

a transaction which reduces or offsets the risk of a current holding. For example, a put option may act as a hedge for a current holding in the underlying instrument.

Implied volatility

a measure of volatility assigned to a series by the current market price.

In-the-money

an option with intrinsic value.

Intrinsic value

the difference between the market value of the underlying securities and the exercise price of the option. Usually it is not less than zero. It represents the advantage the taker has over the current market price if the option is exercised.

Long term option

an option with a term to expiry of two or three years from the date the series was first listed.

Margin

an amount calculated by OCH to cover the obligations arising from option contracts.

Market maker

a trader who offers buy and sell quotes for a quantity of contracts in a particular class of option.

Multiplier

is used when considering index options. The strike price and premium of an index option are usually expressed in points. A multiplier is then applied to give a figure in dollars and cents. For example, the multiplier may be \$10 per point, meaning that to buy an index option with a premium of 100 points, an investor would pay \$1,000.

Open interest

the number of outstanding contracts in a particular class or series existing in the option market. Also called the "open position".

Opening purchase

a transaction in which a party becomes the taker of an option.

Opening sale

a transaction in which a party becomes the writer of an option.

Options Clearing House

Options Clearing House Pty Limited (OCH), a subsidiary of ASX.

Out-of-the-money

a call option is out-of-the-money if the market price of the underlying securities is below the exercise price of the option; a put option is out-of-the-money if the market price of the underlying securities is above the exercise price of the options.

Premium

the amount payable by the taker to the writer for entering the option. It is determined through the trading process and represents current market value.

Put option

an option contract that entitles the taker (buyer) to sell a fixed number of underlying securities (usually 1,000) at a stated price on or before a fixed expiry day.

Random selection

the method by which an exercise of an option is allocated to a writer in that series of options.

Series of options

all contracts of the same class having the same expiry day and the same exercise price.

Spot month option

an option with a term to expiry of around six weeks from the date the series was first listed.

Taker

the buyer of an option contract.

Time value

the amount investors are willing to pay for the possibility that they could make a profit from their option position. It is influenced by time to expiry, dividends, interest rates, volatility and market expectations.

Underlying securities

the shares or other securities subject to purchase or sale upon exercise of the option.

Volatility

a measure of the expected amount of fluctuation in the price of the particular securities.

Writer

the seller of an option contract.

Option contract specifications

Name	Exchange traded equity options
Underlying security	Any share approved by ASX under Guidelines for Listing Equity Options
Security code	The first three characters will be the ASX code eg. BHP, the fourth and fifth character will designate the expiry month and series
Contract size	Usually 1,000 shares per contract. This may be adjusted for rights, bonus issues and other capital adjustment events.
Tick size	\$0.001 per share = \$1.00 (contract size 1000 shares)
Exercise style	Usually american, ie. exercisable on or before the expiry date
Exercise price	Varies for each stock
Type	Call and put options
Contract months	As detailed in the ASX expiry calendars
Expiry date	Thursday before last Friday of the settlement month. This may change due to public holidays
Trading hours	Normal trading 10.00am to 12.30pm and 2.00pm to 4.15pm (Sydney time). Late trading 4.15pm to 5.00pm and overseas trading in accordance with the ASX Business Rules
Settlement	Physical delivery of underlying security

Contract name	Index options
Underlying index	Various indices
Security code	The first three characters will be the ASX code , XJO, the fourth and fifth character will designate the expiry month and series
Index multiplier	\$10. Each index point is equal to \$10.
Tick size	Quoted as 1 index point
Exercise style	European, ie. exercisable only on expiry day
Exercise intervals	25 Index points
Type	Call and put options
Contract months	March, June, September, December
Last trading	Trading day prior to expiry day
Expiry day	At 4.30pm on the third Friday of the contract month
Trading hours	9.50am to 4.30pm (Sydney time)
Settlement	Cash settled against the Opening Index Price Calculation (OPIC) as calculated on expiry day

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Further information

ASX has explanatory booklets on options, warrants and futures. Phone 1800 028 585 for details, or download the booklets from the ASX website www.asx.com.au/options

Courses

'An Introduction to Options' is a practical 4-hour course where audience participation is encouraged, with an interactive question and answer format. No prior knowledge of ASX's Options Market is necessary. However it is assumed that those attending have a working knowledge of the sharemarket. The course is designed to provide participants with a practical knowledge of how to formulate and analyse different trading strategies and the different risk management techniques.

'Advancing in Options: Trading Strategies' is a 4-hour course which builds on knowledge gained from the Introduction to Options course and demonstrates how the basic buying and selling of puts and calls can be used as building blocks for more advanced strategies.

Online and Self-Learning Courses

You may prefer to complete these courses in your own time at a pace that suits you. Both options courses are available online, and they

include interactive exercises that will aid your learning and a quiz at the end of each section will show your progress. Self-learning kits for both the 'Introduction to Options' and 'Advancing in Options' courses are also available.

'An Introduction to Warrants'

ASX also offers two Warrants lectures: 'An Introduction to Investment Warrants' and 'An Introduction to Trading Warrants'. No prior knowledge of the warrants market is necessary however an understanding of the share market is desirable. On completion of both these lectures, you will be able to evaluate the use of warrants in your investment portfolio and assess the suitability of particular warrants to your investment objectives.

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