INTRODUCTION

OPTIONS

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CONTENT

UOB Kay Hian Pte Ltd. Co Reg No. 197000447W

PRODUCT DESCRIPTION

An **Option** is a contract between 2 parties to buy/sell an asset such as a stock at a predetermined price (known as the **strike price**), on or before a specified future date termed as **maturity**.

- The Option **buyer** pays a fee, commonly known as **premium**, to the Option seller for the choice to execute the contract at the **strike price**.
- The Option **seller** (receives premium), is obliged to buy or sell the underlying stock, if necessary.
- There are **2** types of Options, **CALL** and **PUT**.

OPTION SCENARIOS

CALL Option

Grandma's Fish Deal

PUT Option

Fisherman's Fish Sale

INVESTMENT OUTCOMES

Option's Investment Outcomes are determined by the following:

Buy CALL (bullish)

- **Outcome** – Exercise to buy stock at Strike Price.

Sell CALL (bearish)

- **Outcome** – Buyer does not exercise. Seller profits from premium.

Buy PUT (bearish)

- **Outcome** – Exercise to sell stock at Strike Price.

Sell PUT (bullish)

- **Outcome** – Buyer does not exercise. Seller profits from premium.

Maturity

The date at which the product's life ends.

Premium

The monetary value when buying/selling of an Option.

Strike Price

The predetermined price at which the investor may purchase or sell the stock, once the Option is exercised.

CALL

CALL Option provides the buyer the right, but not the obligation to purchase a stock at the strike price.

PUT

PUT Option provides the buyer the right, but not the obligation to sell a stock at the strike price.

BULLISH

Optimistic outlook on the market, expecting price of asset to rise.

Bearish

Pessimistic outlook on the market, expecting price of asset to fall.

CALL OPTION CASE SCENARIO

Context

OPTION BUYER

As Chinese New Year (February) is approaching, **Grandma** is looking to purchase 1 kg of Snapper fish to cook for her children when they visit for celebration.

OPTION SELLER

A **Fishmonger** at a nearby market currently (December) sells Snapper fish for $10 per kg.

Conversation between Grandma and Fishmonger

"Chinese New Year is approaching, the price of Snapper fish will definitely **increase**!"

"Auntie, if you pay a fee of **$1/kg**, I will sell the Snapper fish to you at $10/kg during Chinese New Year."

"Does that mean even if the Snapper fish is $12/kg during CNY, I can still only pay you at $10/kg?"

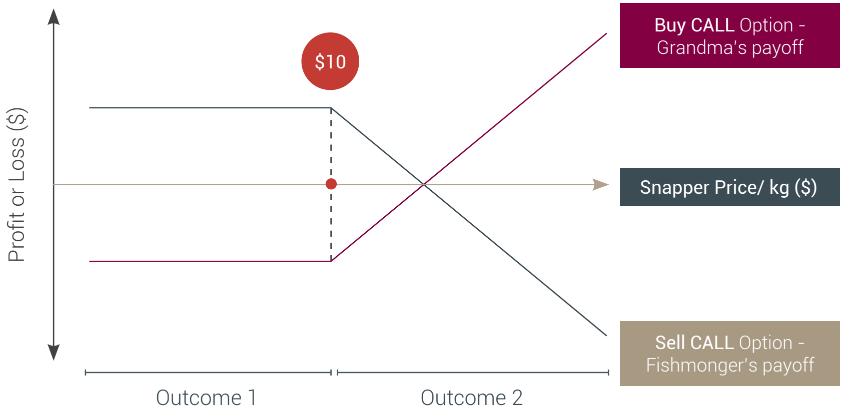
"Yes, as long as you pay me, the fee of **$1 for every kg** of Snapper fish you plan to buy now."

"Sounds good... Okay, I just want to buy 1kg, here's your $1 fee. But if market price drop below $10/kg in 2 months, I will not buy from you at $10/kg. I will buy from you at **market price** instead!"

"Okay, see you in two months, Auntie!"

CALL OPTION
CASE SCENARIO

Profit and Loss Chart for both parties



2 months later

Outcome 1

Snapper fish price fell to $8/kg

- Grandma does not go through with the deal (buying at $10/kg), and instead buys at market price ($8/kg).
  Total Price of Snapper: $8 + $1 (fee) = **$9**

- Fishmonger sells to Grandma at $8/kg and pockets the fee.
  Total Amount Received: $8 + $1 (fee) = **$9**

Outcome 2

Snapper fish price rose to $12/kg

- Grandma proceeds with the deal to buy 1kg of Snapper fish at the locked in price of $10/kg.
  Total Price of Snapper: $10 + $1 (fee) = **$11**

- Fishmonger is required to sell at $10/kg, despite market price being $12.
  Total Amount Received: $10 + $1 (fee) = **$11**

This scenario above shows the use of a **CALL Option**.

Grandma **bought a CALL Option** and Fishmonger **sold a CALL Option**. Grandma paid a **$1 premium** for the right to buy Snapper fish **(Asset)** at $10 per kg **(Strike Price)**.

PUT OPTION CASE SCENARIO

Context

OPTION BUYER

A **Fishmonger** is expecting a bountiful catch of Snapper fish and is looking to sell 1kg of Snapper fish, at the current price of $10 per kg.

OPTION SELLER

Grandma is expecting the price of Snapper fish to be around $10 per kg during Chinese New Year (in 2 months).

Conversation between Grandma and Fishmonger

"Looks like a bountiful catch this year, the price of Snapper fish will definitely **decrease**!"

Fishmonger, if you pay a fee of $1/kg, you can sell the Snapper fish to me at $10/kg during Chinese New Year.

"Does that mean even if the Snapper fish is $8/kg during CNY, I can still sell to you at $10/kg?"

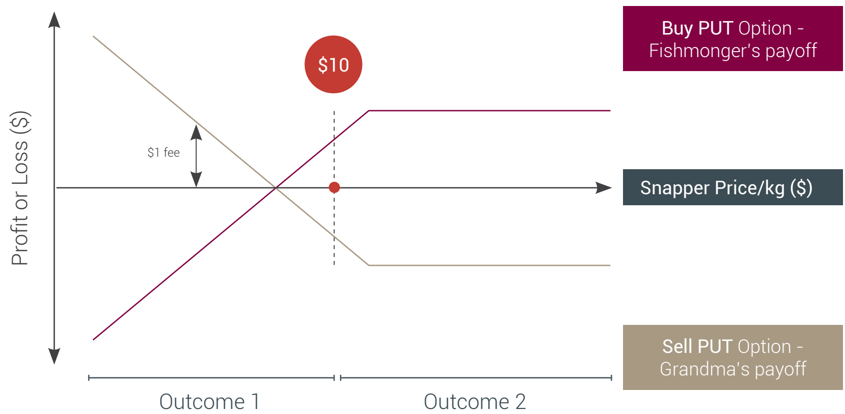
"Yes, as long as you pay me the fee of $1 for every kg of Snapper fish you plan to sell now."

"Sounds good... Okay, I just want to sell 1kg, here's your $1 fee. But if market price increase above $10 in 2 months' time, I will not sell to you at $10/kg. I will sell to you at the **market price** if you wish to buy!"

"Okay, see you in two months, Fishmonger!"

PUT OPTION
CASE SCENARIO

Profit and Loss Chart for both parties



2 months later

Outcome 1

Snapper fish price fell to $8/kg

- Fishmonger <u>proceeds</u> with the deal to sell 1 kg of Snapper fish at the locked in price of $10/kg.
  Total Amount Received: $10 - $1 (fee) = **$9**

- Grandma is required to buy at $10/kg, despite market price being $8/kg.
  Total Price of Snapper: $8 + $1 (fee) = **$9**

Outcome 2

Snapper fish price rose to $12/kg

- Fishmonger <u>does not</u> go through with the deal (selling at $10/kg) and instead sells at market price of $12/kg.
  Total Amount Received: $12 - $1 (fee) = **$11**

- Grandma pockets the fee and has no obligation to buy from Fishmonger.
  Profit = **$1** (fee)

This scenario above shows the use of a **PUT Option**.

Fishmonger **bought a PUT Option** and Grandma **sold a PUT Option**. Fishmonger paid a **$1 premium** for the right to sell Snapper fish **(Asset)** at $10 per kg **(Strike Price)**.

INVESTMENT OUTCOMES

CALL OPTION

Provides the buyer the right, but not the obligation to purchase a stock at the strike price

BUY Call 1

- When investor has a bullish outlook - expecting the price of an asset to increase.
- When underlying stock price closed above the strike price.
- Investor exercises Option to buy underlying stock at the predetermined strike price.
- Investor will make a profit.

SELL Call 2

- When investor has a mild bearish outlook - expecting the price of an asset to fall slightly.
- When underlying stock price closed below the strike price.
- Buyer will not exercise Option to buy underlying stock at the predetermined strike price.
- Investor will make a profit.

OUTCOME 1

Investor **BUYS CALL OPTION** at **$200 / CONTRACT**

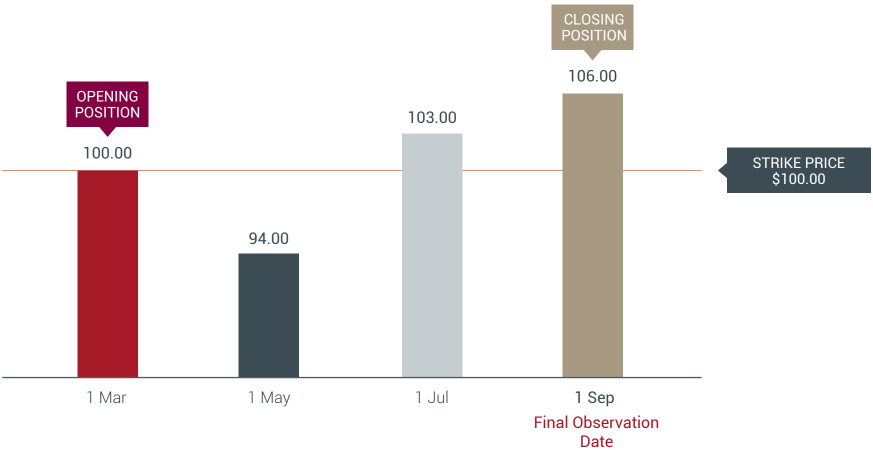
1 Contract = 100 Options

100% Strike level

Maturity in **6 Months**

$200 per contract at cost price

STOCK A



Underlying	Stock Performance [Closing Position ÷ Opening Position] -1	Closing Position above or at Strike Price?
Stock A	[$106 ÷ $100] -1 = 6%	Yes

On the ***Final Observation Date***, Stock A's closing price is **above** the strike price.
Initial Investment **(Premium Paid)** = $200.

What does the investor receive at the end of the investment?

Investor **exercises** the CALL Option to buy shares at $100, instead of the market price of $106.

Profit = 100 x ($106-$100) = **$600**
Net Profit = $600 (profit) - $200 (premium paid) = **$400**
Investor's Gain/Loss (%) = $600 / $200 - 100% = **200%**

OUTCOME 2

Investor **SELLS CALL OPTION** at **$200 / CONTRACT**

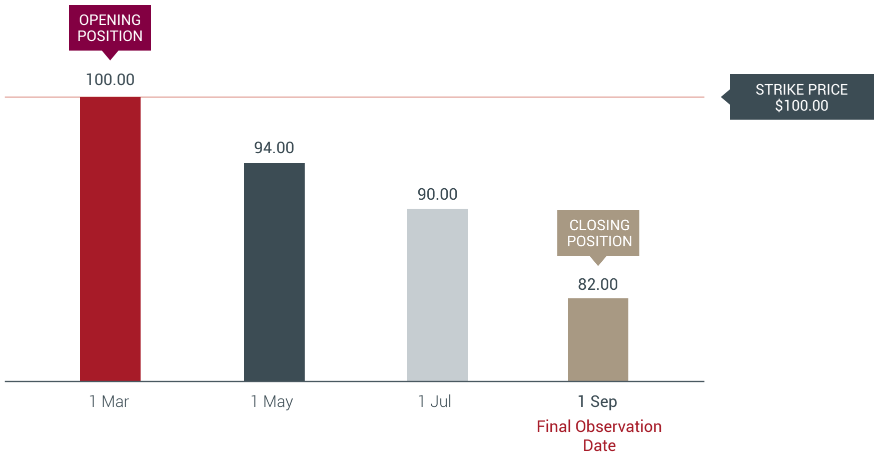
1 Contract = 100 Options

100% Strike level

Maturity in **6 Months**

$200 per contract at cost price

STOCK A



Underlying	Stock Performance [Closing Position ÷ Opening Position] -1	Closing Position above or at Strike Price?
Stock A	[$82 ÷ $100] -1 = **-18%**	No

On the ***Final Observation Date***, Stock A's closing price is **below** the strike price.
Initial Investment **(Premium Paid)** = $200.

What does the investor receive at the end of the investment?

CALL Option buyer **does not exercise** the Option, investor pockets the value of the premium [$200].

Option Seller's Profit (Premium) = **$200**

INVESTMENT OUTCOMES

PUT OPTION

Provides the buyer the right, but not the obligation to sell a stock at the strike price

BUY PUT

- When investor has a bearish outlook - expecting the price of an asset to decrease.
- When underlying stock price closed below the strike price.
- Investor exercises Option to sell underlying stock at the predetermined strike price.
- Investor will make a profit.

SELL PUT

- When investor has a bullish outlook - expecting the price of an asset to increase.
- When underlying stock price closed at or above the strike price.
- Buyer is not obliged to sell the underlying stock at the predetermined strike price.
- Investor will make a profit.

OUTCOME 1

Investor **BUYS PUT OPTION** at **$200 / CONTRACT**

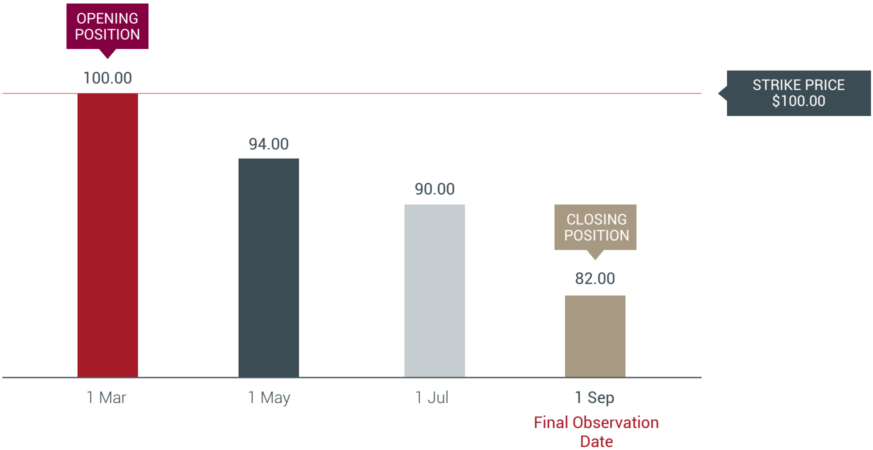
1 Contract = 100 Options

Maturity in **6 Months**

100% Strike level

$200 per contract at cost price

STOCK A



Underlying	Stock Performance [Closing Position ÷ Opening Position] -1	Closing Position above or at Strike Price?
Stock A	[$82 ÷ $100] -1 = -18%	No

On the ***Final Observation Date***, Stock A's closing price is **below** the strike price.
Initial Investment **(Premium Paid)** = $200

What does the investor receive at the end of the investment?

Investor **exercises** the PUT Option to sell shares at $100, instead of the market price of $82.

Profit = 100 x ($100-$82) = **$1,800**
Net Profit = $1800 (profit) - $200 (premium paid) = **$1,600**
Investor's Gain/Loss (%) = $1,800 / $200 - 100% = **800%**

OUTCOME 2

Investor **SELLS PUT OPTION** at **$200 / CONTRACT**

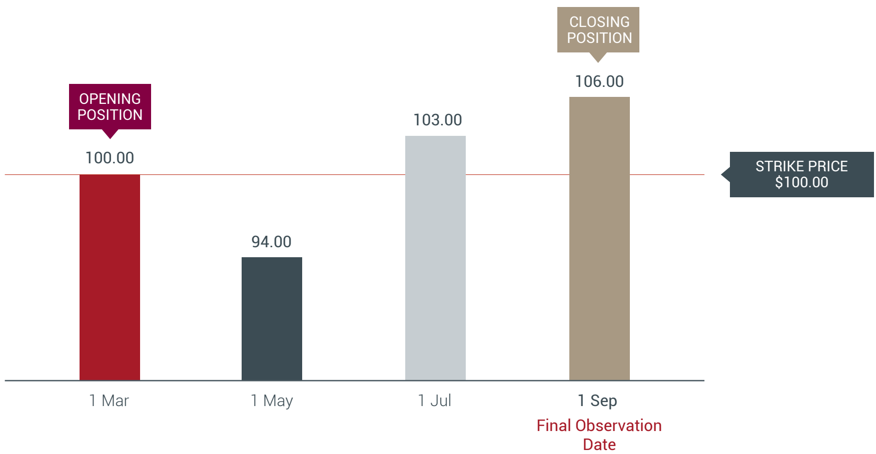
1 Contract = 100 Options

100% Strike level

Maturity in **6 Months**

$200 per contract at cost price

STOCK A



Underlying	Stock Performance [Closing Position ÷ Opening Position] -1	Closing Position above or at Strike Price?
Stock A	[$106 ÷ $100] -1 = 6%	Yes

On the ***Final Observation Date***, Stock A's closing price is **above** the strike price.
Initial Investment **(Premium Paid)** = $200.

What does the investor receive at the end of the investment?

Put Option buyer **does not exercise** the Option, investor pockets the value of the premium [$200].

Option Seller's Profit (Premium) = **$200**

ACCUMU-LATOR (BASIC, NON-LEVERAGED)

Accumulator is a type of investment product that allows investor to gradually build up their exposure to a specific underlying (Stock) over time. It typically involves regular purchases at predetermined price level which is at a discount to then market price on the trade date. All investments are risky and one should understand the potential risks, before investing.

For more information on this product, kindly contact your Trading Representative or UOB Kay Hian's hotline to request for a brochure.

FIXED COUPON NOTE

Fixed Coupon Note (FCN) is an equity-based structured note which offers a fixed coupon rate, predictable income, and return of the principal amount at maturity.

Its stability and fixed income characteristics make it an attractive choice for risk-averse investors, but it is important to consider the creditworthiness of the issuer and the potential impact of changing interest rates on the note's market value.

For more information on this product, kindly contact your Trading Representative or UOB Kay Hian's hotline to request for a brochure.

BENEFITS & RISKS

Benefits

- Opportunity to control large amount of shares with relatively small investment.
- Flexible investment tenor.
- Opportunity for portfolio yield enhancement.

Risks

- Potential losses of up to 100% of capital invested.
- Counterparty's credit risk.
- Opportunity cost.

ADDITIONAL INFORMATION

American & European Options

European Options only allow Option buyers to exercise on expiration date. American Options buyers can exercise anytime before and on expiration date.

Exchange Traded & Over The Counter (OTC) Options

Exchange Traded Listed Options are largely American style and comes with standardised terms. Over The Counter (OTC) Options are generally European style and often used in Structured Products.

What Is Contract Size?

In the US, one Option contract controls 100 Options (1 share per Option). However, in other markets, this might differ.

What Is Maturity Date?

It is the date which the Option officially ends. Final settlement of shares is delivered to investors. Maturity Date is usually 5 business days after 'closing position'.

What Is Opening Position / Trade Date?

Opening Position is also called the Trade Date and it is when the Option is bought or sold.

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