

Introduction to Covered Warrants

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1. What are Covered Warrants?
2. Covered Warrant Terms
3. Benefits of Covered Warrants
4. Risks of Covered Warrants

General Information on Covered Warrant

1. Understanding the Covered Warrant Structure
2. Factors Affecting Covered Warrant Prices
3. Examples

KIS & KIS VN Covered Warrants

1. KIS the OTC Derivatives Expert
2. KIS VN Covered Warrants

1. What are Covered Warrants?

Definition

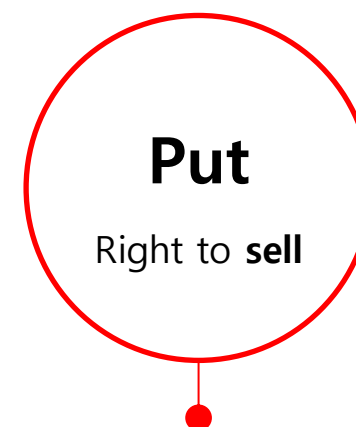
- A "Covered Warrant" is an instrument that gives an investor the **right to buy or sell** an underlying asset at a **pre-determined price (Strike)** on a **specified expiry date (European exercise style)**
- "Covered" refers to the issuer guarantee payment of the warrant

European exercise style : Can only be exercised at expiry / American exercise style : Can be exercised anytime before expiry
As of May 2019, only European exercise style is approved in Vietnam

Call vs. Put



- **Increase** in value when **underlying asset goes Up**



- **Increase** in value when **underlying asset goes Down**

Note : As of May 2019, only call Warrants are approved in Vietnam,
Derivative warrants in Hong Kong and equity linked warrants(ELW) in Korea may be viewed as benchmarks

2. Covered Warrant Terms

Basic structure

- Seven elements of a covered warrant



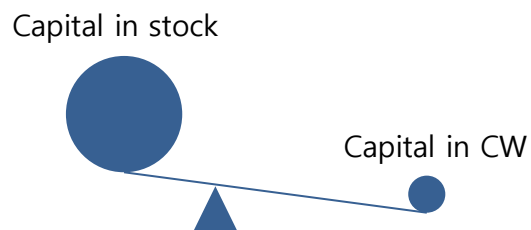
Note : As of May 2019, single stock underlying asset, 3-24 month expiry, cash based settlement, European style warrants approved in Vietnam

3. Benefits of Covered Warrants

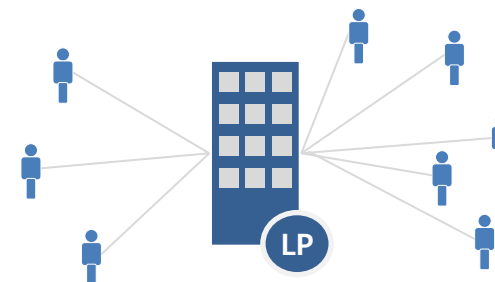
Advantages

- **Leverage:** Covered warrants give investors **leveraged exposure to underlying stock**
 - Price movement of CW is significantly large than underlying stock; investor can increase leverage at low financing cost
- **Better liquidity:** Issuers (liquidity provider) provide **liquidity** for issued covered warrants
 - Investors can lower trading costs (narrower bid-ask spread and larger volume)
- **Easier access:** Covered warrants **trade similarly as securities**
 - Investors can trade covered warrants on Ho Chi Minh Stock Exchange (HOSE) as easily as “traditional stocks”
- **Limited loss:** **Maximum potential loss is limited** to size of covered warrant purchase amount
 - CW investor can lose only the amount of CW purchasing value

Leverage



Better Liquidity

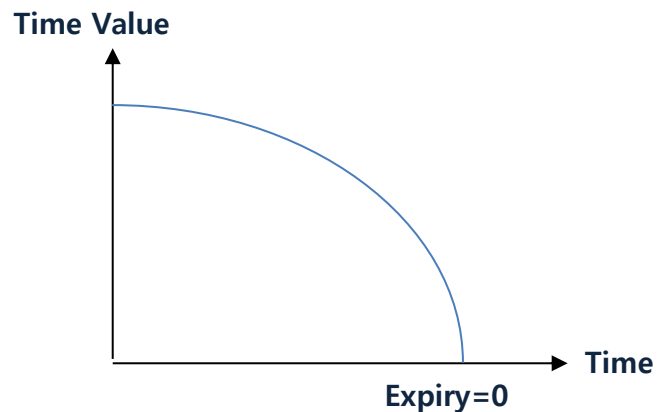


4. Risks of Covered Warrants

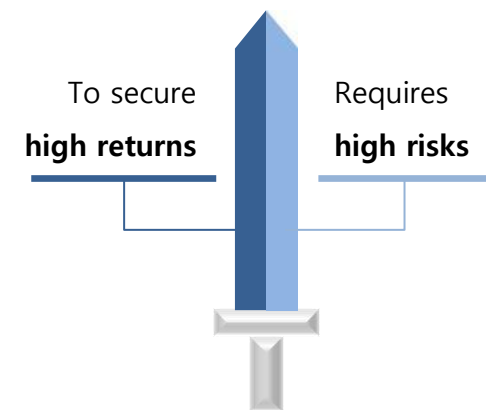
Risks

- **Limited life:** Unlike single stocks, **covered warrants expire**
 - Time value of covered warrants steadily decay until expiry
- **No rights associated with stock ownership:** CW investors are **not eligible for dividends or other stockholder rights**
 - Stock dividends and other corporate events already embedded in covered warrant price
- **Price volatility:** Covered warrant prices can **change dramatically**
 - Heavy losses may be incurred if underlying asset moves in opposite direction due to leverage

Time Value



High Leverage



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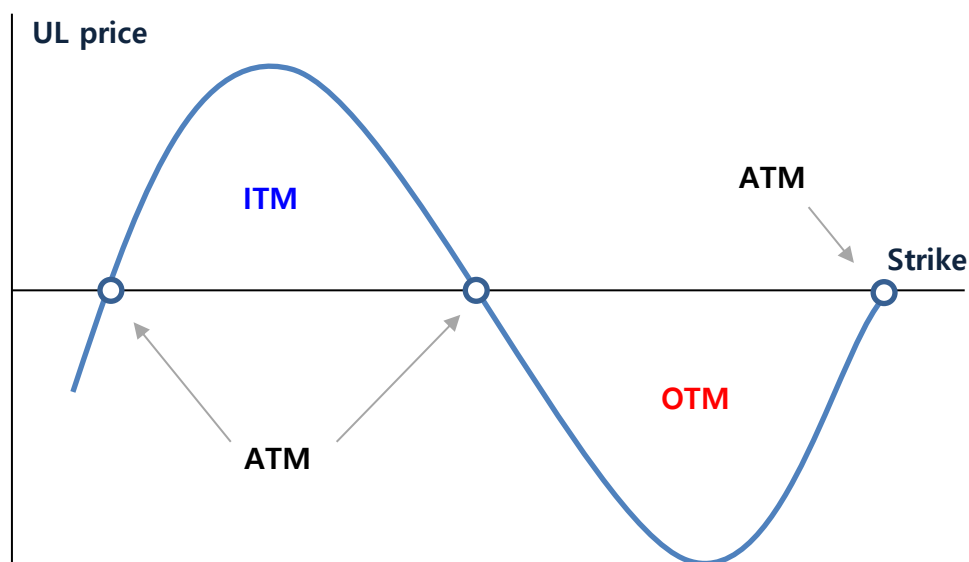
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1. Understanding the Covered Warrant Structure

Moneyiness of covered warrants (Call CW)



Moneyiness	Call Warrants	Put Warrants
ITM	UL price > Strike	UL price < Strike
ATM	UL price = Strike	UL price = Strike
OTM	UL price < Strike	UL price > Strike

	In the money (ITM)	At the money (ATM)	Out of the money (OTM)
Warrant Price	Highest	Mid	Cheapest
Intrinsic Value	○	X	X
Leverage	Lowest	Mid	Highest

Note : Intrinsic value refers to the difference between the current underlying asset price and strike price when CW is in the money

2. Factors Affecting Covered Warrant Prices

Covered warrant pricing model

- Black-Scholes model is mostly commonly used for option pricing
- Covered Warrant Price = BS (S , K , T , σ (Volatility), q , r , Call/Put)

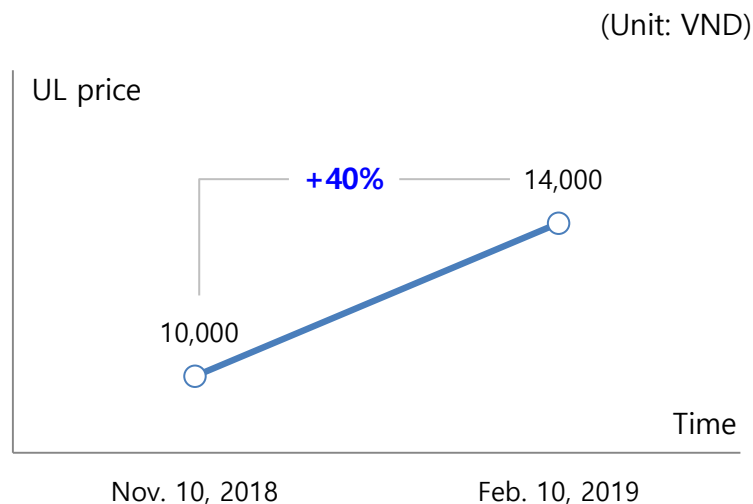
Factors affecting Covered Warrant price

	Factor	Call Warrant Price	Put Warrant Price
S	Underlying stock price ↑	+	-
K	Strike price ↑	-	+
T	Time to expiry date ↑	+	+
σ	Implied volatility ↑	+	+
q	Dividends ↑	-	+
r	Interest rate ↑	+	-

3. Examples (simple)

Underlying asset (UL) vs. covered warrant (CW)

- Simple UL vs. CW example



- **Terms on CW for above UL:**

- Expiry: February 10, 2019
- Conversion ratio : 1:1
- Strike price: VND 10,000

- **Buy UL stock on November 10, 2018**

- Buy 10 UL at VND 10,000
- Total value: VND 100,000

- **Return on February 10, 2019**

- $\text{VND } 40,000 = (14,000 - 10,000) \times 10$
- **Return: 40%** = $40,000 / 100,000$

- **Buy CW of UL on November 10, 2018**

- Buy 100 CW at VND 1,000
- Total value: VND 100,000

- **Return on February 10, 2019 at expiry**

- $\text{VND } 300,000 = (14,000 - 10,000) \times 100 - 100,000$
- **Return: 300%** = $300,000 / 100,000$

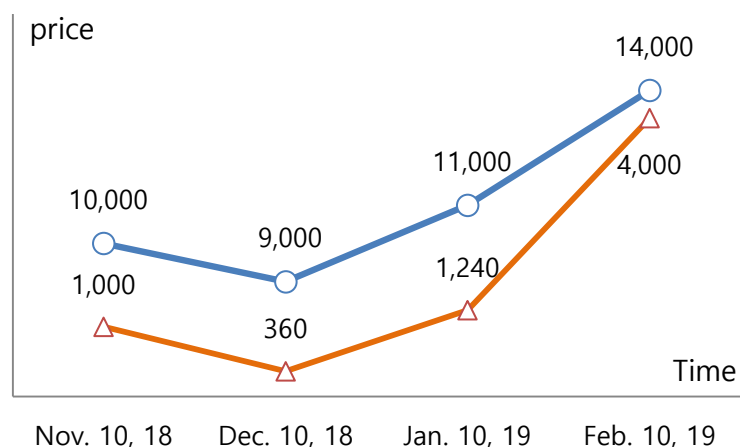
CW return exceeds UL return by 7.5 times

Note: Hypothetical model to be used only as a reference

3. Examples (detailed)

Underlying asset (UL) vs. covered warrant (CW)

- Detailed UL vs. CW example



- Detailed terms:

- **Strike: VND 10,000**
- **Expiry: February 10, 2019**
- **Conversion ratio: 1:1**
- **UL price: Blue line**
- **CW price: Orange line**
- **Total investment: VND 100,000**

Investment gains/loss in UL

Date (dd/mm)	Case	Nov. 10, 18	Dec. 10, 18	Jan. 10, 19	Feb. 10, 19
10/11	Buy 10 UL	-	-10,000	+10,000	+40,000
10/12	Buy 11 UL		-	+22,000	+55,000
10/01	Buy 9 UL			-	+27,000

Investment gains/loss in CW

Date (dd/mm)	Case	Evaluation Nov. 10, 18	Evaluation Dec. 10, 18	Evaluation 'Jan. 10, 19	Profit 'Feb. 10, 19
10/11	Buy 100 CW	-	-64,000	+24,000	+300,000
10/12	Buy 277 CW		-	+243,760	+1,008,280
10/01	Buy 80 CW			-	+220,800

Note : Hypothetical model to be used only as a reference

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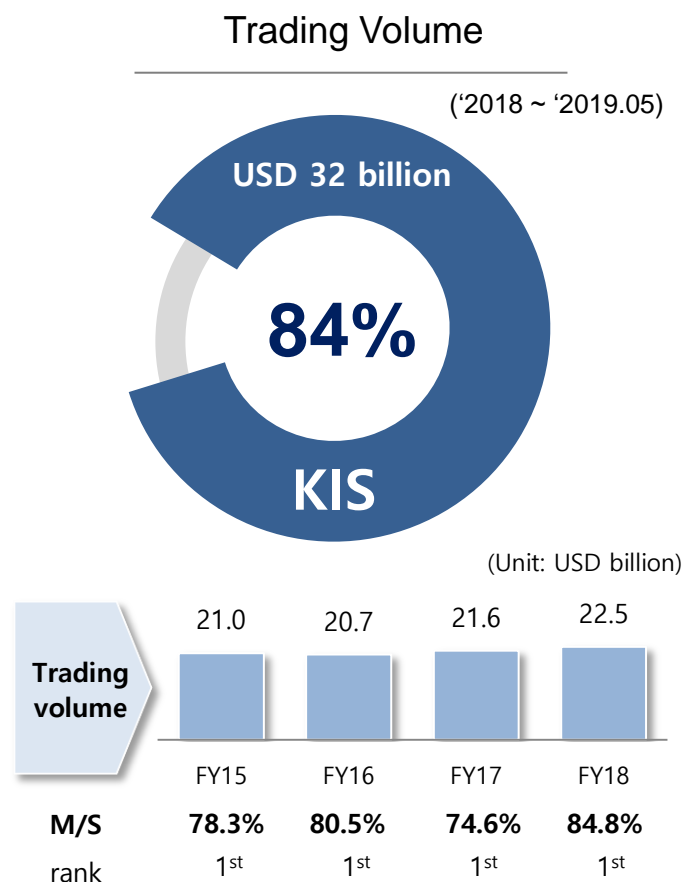
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1. KIS the OTC Derivatives Expert

KIS dominates the Korean ELW market

- Since the inception of the Korean ELW market, KIS has been at the forefront serving as a robust liquidity provider and market maker
- KIS has maintained a dominant position in the ELW market since 2014



1st Trading Volume

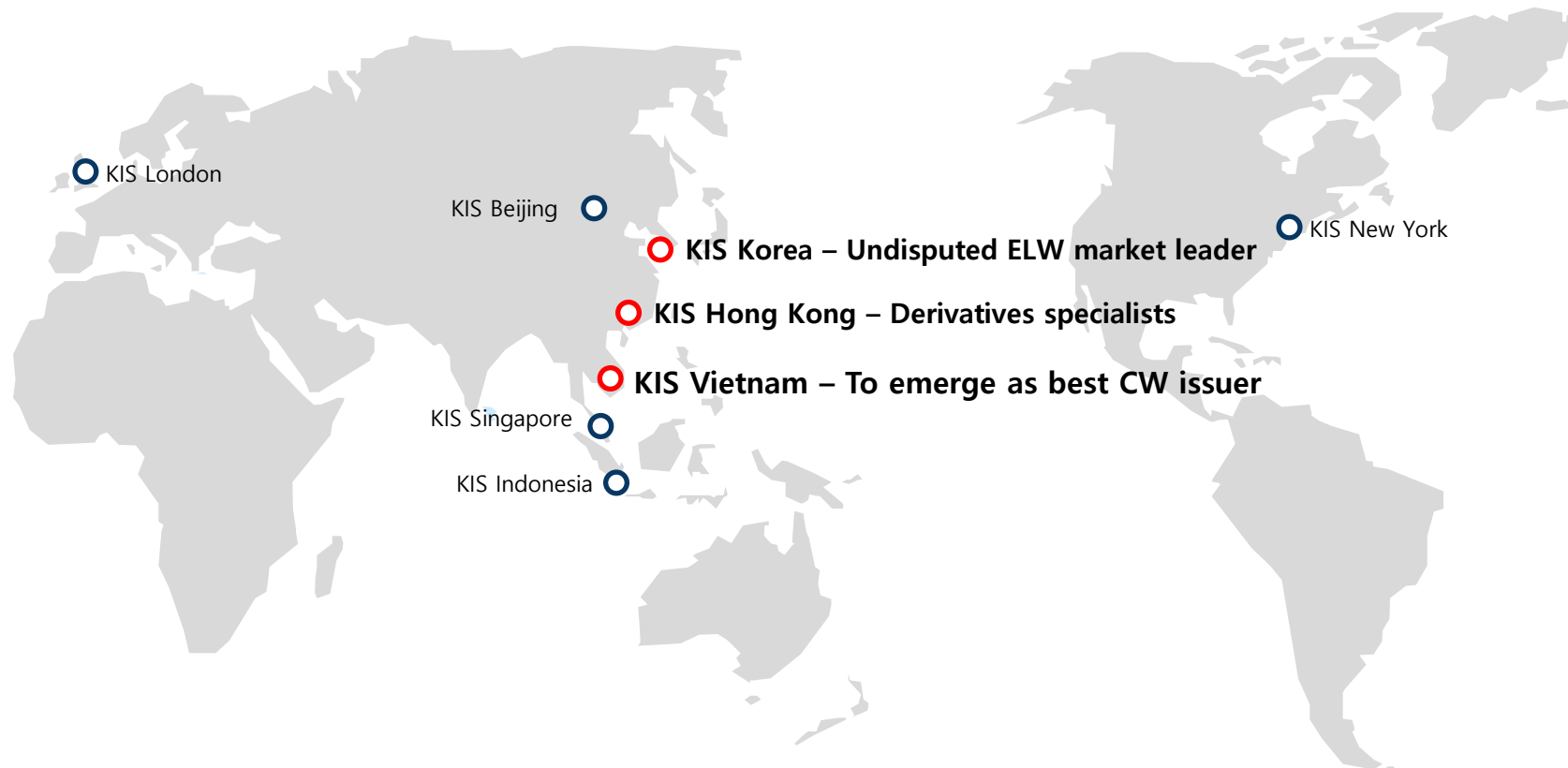
1,090 Products Listed

84% Market Share

2. KIS VN Covered Warrants

Why KIS warrants?

- Backed by the accumulated experience at KIS, Korea's ELW leader, KIS VN will provide the best liquidity provider services
- Based on robust operational capabilities, KIS VN will maintain CW market stability even during sudden market changes
- Collaborating with research centers, KIS VN will list optimal covered warrants based on current market conditions





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