

# Understanding Callable Bull / Bear Contracts



Investors reading this leaflet should also refer to the information in the HKEx website ([www.hkex.com.hk/cbbc](http://www.hkex.com.hk/cbbc)) for more details and updated information.

Trading in Callable Bull/Bear Contracts (CBBC) involves high risks; investors are strongly advised to have a thorough understanding of the product as well as the terms and conditions of the CBBC being offered and/or consult their brokers or professional investment advisers before trading.

## What Are CBBC?

CBBC are a type of structured product that tracks the performance of an underlying asset without requiring investors to pay the full price required to own the actual asset. They are issued either as Bull or Bear contracts with a fixed expiry date, allowing investors to take bullish or bearish positions on the underlying asset. CBBC are issued by a third party, usually an investment bank, independent of HKEx and of the underlying asset.

CBBC are issued with the condition that during their lifespan they will be called by the issuers when the price of the underlying asset reaches a level (known as the "Call Price") specified in the listing document. If the Call Price is reached before expiry, the CBBC will expire early and the trading of that CBBC will be terminated immediately. The specified expiry date from the listing document will no longer be valid.

CBBC may be issued with a lifespan of three months to five years and are settled in cash only. They are traded on the cash market of HKEx through the Third Generation Automatic Order Matching and Execution System (AMS/3) during the market's trading hours.

## Major Features of CBBC

### 1. Price Movement of CBBC Tends to Track the Price of Underlying Asset Closely

The price changes of a CBBC tend to follow closely the price changes of the

underlying asset (i.e. delta close to one). Thus, if the underlying asset increases in value, a Bull CBBC with entitlement ratio of 1 to 1 generally increases in value by approximately the same amount whereas a Bear CBBC with entitlement ratio of 1 to 1 generally decreases in value by approximately the same amount. This property offers investors a product which tracks the price movement of the underlying asset more closely and with higher price transparency than some other structured products. However, when the underlying asset of a CBBC is trading at a price close to its Call Price, the change in the value of CBBC may be more volatile and disproportionate with the change in the value of the underlying asset.

### 2. CBBC have a Call Price and a Mandatory Call Feature

For Bull contracts, the Call Price must be either equal to or above the Strike Price. For Bear contracts, the Call Price must be equal to or below the Strike Price. If the underlying asset's price reaches the Call Price at any time prior to expiry, the CBBC will expire early. The issuer must call the CBBC and trading of the CBBC will be terminated immediately. Such an event is referred to as a Mandatory Call Event (MCE).

### 3. Categories of CBBC

There are two categories of CBBC, namely Category N CBBC and Category R CBBC.



(i) A Category N CBBC refers to a CBBC where its Call Price is equal to its Strike Price, and the CBBC holder will not receive any cash payment once the price of the underlying asset reaches or goes beyond the Call Price (i.e. when the CBBC is called).

(ii) A Category R CBBC refers to a CBBC where its Call Price is different from its Strike Price, and the CBBC holder may receive a small amount of cash payment (called "Residual Value") when the CBBC is called. But in the worst case, no residual value will be paid by the issuer. (see point 5 below for the determination of residual value)

#### 4. Valuation at Expiry

CBBC can be held until maturity (if not called before expiry) or sold on the Stock Exchange (the Exchange) before expiry.

(i) In the case of a Bull contract, the cash settlement amount at normal expiry will be the positive amount of the settlement price of the underlying asset as determined on the valuation day less the Strike Price.

(ii) In the case of a Bear contract, the cash settlement amount at normal expiry will be the positive amount of the Strike Price less the settlement price of the underlying asset on valuation day.

For CBBC with a Hong Kong stock as underlying, the settlement price of the CBBC will be the closing price of the underlying on the last trading day. For CBBC with a Hong Kong stock index as underlying, the settlement level of the CBBC will be the same index level for settling that expiring index future contract. There will be no cash settlement if the amounts calculated under (i) and (ii) are negative.

#### 5. Determination of Residual Value for Category R CBBC

When a Category R Bull contract is called, the residual value will be the positive

amount of the settlement price as determined according to the terms in the listing document less the Strike Price. The settlement price of a Bull contract must not be lower than the minimum trade price of the underlying asset (i.e. the lowest traded price) after the Mandatory Call Event and up to and including the next trading session.

Similarly, when a Category R Bear contract is called, the residual value will be the positive amount of the Strike Price less the settlement price as determined according to the terms in the listing document. The settlement price of a Bear contract must not be higher than the maximum trade price of the underlying asset (i.e. the highest traded price) after the Mandatory Call Event and up to and including the next trading session. For this purpose, pre-opening session and morning session are considered as one trading session. But, in the adverse case where the settlement price is at or goes beyond the Strike Price, there may not be any residual value.

#### Eligible Underlying Assets for CBBC Issuance

At initial launch, issuers can apply to issue CBBC on the following underlying assets:

- Highly liquid Hong Kong stocks listed on the Exchange: HSBC Holdings plc, Hutchison Whampoa Ltd., PetroChina Co. Ltd., China Mobile (Hong Kong) Ltd. and Cheung Kong (Holdings) Ltd.;
- Two Hong Kong stock indices: Hang Seng Index and Hang Seng China Enterprises Index (i.e. H-shares Index);
- Overseas stocks and overseas stock indices;
- Currencies; and
- Commodities

More underlying assets may be added in the future from time to time subject to consultation with the Securities and Futures Commission.

## How Do CBC Work?

The theoretical price of a Bull Contract is generally determined by the difference between the spot price of the underlying asset and the Strike Price of the Bull Contract plus funding costs, after adjusted for entitlement. Whereas for a Bear Contract, the theoretical price is generally determined by the difference between the Strike Price

of the Bear Contract and the spot price of the underlying asset plus funding costs, after adjusted for entitlement.

For Bull contracts, the Call Price can be equal to or higher than the Strike Price; whereas for Bear contracts, the Call Price can be equal to or lower than the Strike Price. The following example illustrates how a Bull contract works:

### Example 1: Category N Bull Contract (Without Residual Value)

At the time of issuance	
• Underlying asset	Stock X
• Spot Price	\$110
• Call Price (fixed at issue)	\$90
• Strike Price (fixed at issue)	\$90
• Funding Costs	\$4.5
• Contract Entitlement	1 : 1
• Expiry	12 months
Theoretical price at issue: [(Spot Price – Strike Price + Funding Costs)/entitlement]	\$24.5
Value of one board lot (100 shares)	\$2,450

#### If Spot Price falls to \$90 (i.e. the Call Price)

- Mandatory Call Event occurs
- The Bull Contract is called and trading is terminated
- There will be no residual payment
- Net loss will be the original investment of \$2,450

#### If not called before expiry and at expiry:

• Price of Stock X:	\$130
Settlement amount of a Bull Contract (Settlement Price* – Strike Price)/Entitlement = (\$130 – \$90)/1	\$40
* Settlement Price is the closing price of Stock X on the Last Trading Day	
Value of one board lot	\$4,000
Net profit of one board lot (Value of the Bull Contract at expiry – Original Investment) = \$4,000 - \$2,450	\$1,550
Rate of Return = \$1,550 / \$2,450	63%

### Example 2: Category R Bull Contract (With Residual Value)

At the time of issuance	
• Underlying asset	Stock X
• Spot Price	\$110
• Call Price (fixed at issue)	\$95
• Strike Price (fixed at issue)	\$90
• Funding Costs	\$4.5
• Contract Entitlement	1:1
• Expiry	12 months
Theoretical price at issue: [(Spot Price – Strike Price + Funding Costs)/entitlement]	\$24.5
Value of one board lot (100 shares)	\$2,450



If Spot Price falls to \$95 (i.e. the Call Price)	
<ul style="list-style-type: none"> <li>Mandatory Call Event occurs</li> </ul>	
Residual value of the Bull Contract at Call: (Settlement Price* – Strike Price)/Entitlement = (\$94 – \$90)/1	\$4
* Settlement price as determined according to the terms in the listing document which must not be lower than the Minimum Trade Price of the underlying asset after the Mandatory Call Event and up to and including the next trading session. It is assumed to be \$94 in this example. If settlement price is determined to be equal to or less than the Strike Price, no residual payment will be received. The total loss will be the original investment amount.	
Value of one board lot	\$400
Net loss of one board lot (\$2,450 - \$400)	\$2,050

If not called before expiry, the payoff will be the same as in Example 1 above:	
<ul style="list-style-type: none"> <li>Price of Stock X:</li> </ul>	\$130
Settlement amount of a Bull Contract: (Settlement Price* – Strike Price)/Entitlement = (\$130 – \$90)/1	\$40
* Settlement Price is the closing price of Stock X on the Last Trading Day	
Value of one board lot	\$4,000
Net profit of one board lot (Value of the Bull Contract at expiry – Original Investment) = \$4,000 - \$2,450	\$1,550
Rate of Return = \$1,550 / \$2,450	63%

Note: the calculation of profit and loss in the two examples above have not taken into account the commission and other transaction costs.

### Funding costs

The issue price of a CBBC includes funding cost and issuers are required to specify the formula for calculating the funding costs of their CBBC at launch in the listing documents. The funding cost of a CBBC includes the issuer's financing/stock borrowing costs after adjustment for expected ordinary dividend of the stock (if the underlying is a Hong Kong stock) and the issuer's profit margin. These items fluctuate from time to time. The funding costs are not fixed throughout the tenure of the contracts. In general, the longer the duration of the CBBC, the higher the funding costs will be paid upfront. The funding costs decline over time as the CBBC moves towards expiry. Investors are advised to compare the funding costs of different issuers for CBBC with similar underlying assets and terms.

### Risks Involved in Trading CBBC

#### Mandatory call

CBBC are not suitable for all investors and investors should consider their risk appetite prior to trading. A CBBC may be called by

the issuer when the price of the underlying asset hits the Call Price and that CBBC will expire early. Payoff for Category N CBBC will be zero when they expire early. When Category R CBBC expire early the holder may receive a small amount of Residual Value payment, but there may be no Residual Value payment in adverse situations.

Once the CBBC is called, even though the underlying asset may bounce back in the right direction, the CBBC which has been called will not be revived and investors will not be able to profit from the bounce-back.

#### Gearing effects

Since a CBBC is a leveraged product, the percentage change in the price of a CBBC is greater compared with that of the underlying asset. Investors may suffer higher losses in percentage terms if they expect the price of the underlying asset to move one way but it moves in the opposite direction.

#### Limited life

A CBBC has a limited lifespan of three months to five years. The life of a CBBC may be shorter if called before the fixed expiry date.





## CBBC Liquidity Providers

CBBC issuers are required to appoint a Liquidity Provider for each of their listed CBBC. Each Liquidity Provider should have a broker number of either 95XX or 96XX for identification. Investors can visit the HKEx website for the list of Liquidity Providers. The exact obligations of the Liquidity Provider for each CBBC are shown in the listing document.

## Capital adjustments

For CBBC with underlying Hong Kong stocks, the Call Price, Strike Price and entitlement ratio will be adjusted if there is a capital adjustment (such as bonus issue, right issue, share split and share consolidation) to the underlying stocks, the adjustment of the CBBC must follow the prevailing principles of stock options when applicable. Usually no adjustment for ordinary cash dividends is made but for other cash distribution such

as cash bonus, special or extraordinary dividend, adjustment would be made if the value of payment is at least two per cent or more of the share's closing price on the day of the announcement.

## Short selling

Short selling is only allowed for the respective Liquidity Providers of CBBC.

## Expiry day and last trading day

Each CBBC has a unique expiry date as specified by the issuer in the listing document. However, the last trading day of a CBBC is not the same as the expiry day. The last trading day of a CBBC is the same as the Mandatory Call Event Day (if called before expiry) or one trading day before the expiry day of the CBBC (if not called). The table below shows the trading arrangement of CBBC together with a comparison with Derivative Warrants (DW).

Trading/Settlement Day	1	2	3	4	5	6	7	8	9
Example: June and July 2006	22/6	23/6	26/6	27/6	28/6	29/6	30/6	3/7	4/7
Stock CBBC (Normal Expiry)					L, V	E		P	
Hang Seng index CBBC (Normal Expiry)					L	E, V			P
Stock / Hang Seng index CBBC (MCE) if MCE in morning session					L, E, V1 (if MCE1)			P1	
Stock / Hang Seng index CBBC (MCE) if MCE in afternoon session					L, E	V2 (if MCE2)			P2
<b>Comparison with DW</b>									
Stock DW		L				E			P
		<--- V (5 days average closing price) --->							
Hang Seng index DW		L				E, V			P

L = Last Trading Day  
 E = Expiry Day  
 V = Valuation Day/Price Determination Day  
 V1 = Determination of residual value for Category R CBBC in the afternoon session of Day 5, if MCE occurs in the morning session of Day 5 (MCE1)

V2 = Determination of residual value for Category R CBBC in the morning session of Day 6, if MCE occurs in the afternoon session of Day 5 (MCE2)  
 P = Payment Day  
 P1 = Payment Day (if MCE1)  
 P2 = Payment Day (if MCE2)  
 MCE = Mandatory Call Event

## Mandatory Call Event

For CBBC with a Hong Kong stock as the underlying asset, the CBBC will be called by the issuer when the underlying stock price (which must be concluded by means of non-cross automatic order matching on the Exchange) reaches or goes beyond the CBBC Call Price (MCE) during the Exchange's trading hours on any trading day up to the close of the Last Trading Day of the CBBC.

For CBBC with one of the Hang Seng indices as the underlying asset, the CBBC will be called by the issuer when the underlying index, as compiled by the index provider, reaches or goes beyond the CBBC Call Level (MCE) on any trading day up to the close of the Last Trading Day of the CBBC.

In general, an MCE is irrevocable and any trades concluded after the MCE will be cancelled either on the MCE Day or on the trading day following the MCE Day at the latest.

## Access to CBBC Information

Investors can refer to the HKEx website ([www.hkex.com.hk/cbbc](http://www.hkex.com.hk/cbbc)) for more detailed information on the CBBC traded on its securities market, including market education materials, issuers' previous announcements and listing documents, issuers' CBBC announcements for the current day and the CBBC daily trading summaries submitted to the Exchange by issuers. Investors can also refer to the CBBC issuers' websites and their publications for information on their respective CBBC.

## Frequently Asked Questions

### 1. When is the last trading day of a CBBC? Can the CBBC be sold after the Mandatory Call Event?

The last trading day of a CBBC is the same as the Mandatory Call Event Day (if called before expiry) or one trading day before the expiry day of the CBBC (if not called). When an MCE occurs, the CBBC will be called by the issuer and trading of that CBBC will terminate at once, hence investors cannot sell the CBBC.

### 2. Can CBBC be sold on the expiry day?

No. The expiry day of a CBBC is not the same as the last trading day. The last trading day is either the Mandatory Call Event day (if called before expiry) or one trading day before the expiry day (if not called before expiry).

### 3. How are CBBC traded on the Exchange?

CBBC are traded on the Exchange's AMS/3 platform during trading hours in board lot multiples (for example, one board lot equals 10,000 shares), settled on T+2 (T being the transaction day).

### 4. What transaction fees are payable on buying or selling CBBC?

Similar to the stock trading arrangements, transaction fees include brokerage commission, transaction levy, trading fee,

CCASS settlement fee and investor compensation levy (suspended since December 2005). Stamp duty is in general not applicable to cash-settled CBBC, but investors are advised to refer to the listing documents for information.

### 5. Will CBBC be covered by compensation fund?

Yes, the losses due to default of licensed intermediaries or authorised financial institutions are covered by Investor Compensation Fund. However, default by issuers will not be covered by the fund.

### 6. Will there be any adjustment effect to CBBC under capital adjustment of the underlying?

For CBBC on Hong Kong stocks, adjustment of the contract due to capital adjustment (including dividend adjustments) of the underlying stocks will follow the prevailing principle of stock options, when applicable and these same terms have to be specified in the listing documents. Adjustment will be made on the Call Price, Strike Price and entitlement ratio according to terms specified in the listing documents.

### 7. What if the underlying stock of a CBBC is suspended from trading?

If the underlying stock suspended from trading is a stock traded on the Exchange, the related CBBC will also be suspended from trading until trading of the underlying stock resumes. For trading suspensions involving overseas stocks, investors should refer to the arrangements stated in the CBBC listing documents.

### 8. How can investors get information about CBBC listed on the Exchange?

The delayed price of CBBC is displayed on the Exchange's Investment Service Centre webpage and published by most information vendors through their terminals/websites. Other information



such as listed issuers' announcements and listing documents are also available on the HKEx website. Investors can obtain the real-time prices of CBBC (and other Hong Kong securities) if they subscribe to the real time data.

**9. How can investors contact Liquidity Providers to request quotes?**

An investor can request a quote from a Liquidity Provider if the listing document states that quotes are provided upon request. For CBBC with Liquidity Providers that respond to quote requests, the telephone numbers of the Liquidity Providers are available on the CBBC stock page of AMS/3, in the listing document and on the HKEx website.

**10. What are the obligations of a Liquidity Provider?**

The listing document lists the exact obligations of the Liquidity Provider. In normal circumstances, Liquidity Providers should provide liquidity for CBBC issues through continuous quotes or in response to quote requests from five minutes after the market has opened until the market closes. The Liquidity Provider should provide liquidity for at least 10 board lots of the CBBC. An issuer must specify the maximum spread between the bid and offer prices for its CBBC and the maximum response time in the listing document. Under the quote request system, investors may request a quote from the Liquidity Provider.

**11. How many Liquidity Providers can an issuer appoint for each CBBC issue?**

An issuer may appoint different Liquidity Providers for different CBBC issues. However, for each CBBC issue there can only be one Liquidity Provider.

**12. Under what circumstances is the Liquidity Provider not required to provide liquidity?**

The circumstances in which the Liquidity Provider is not required to provide liquidity are described in the listing document. Investors should refer to the listing document for details.

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