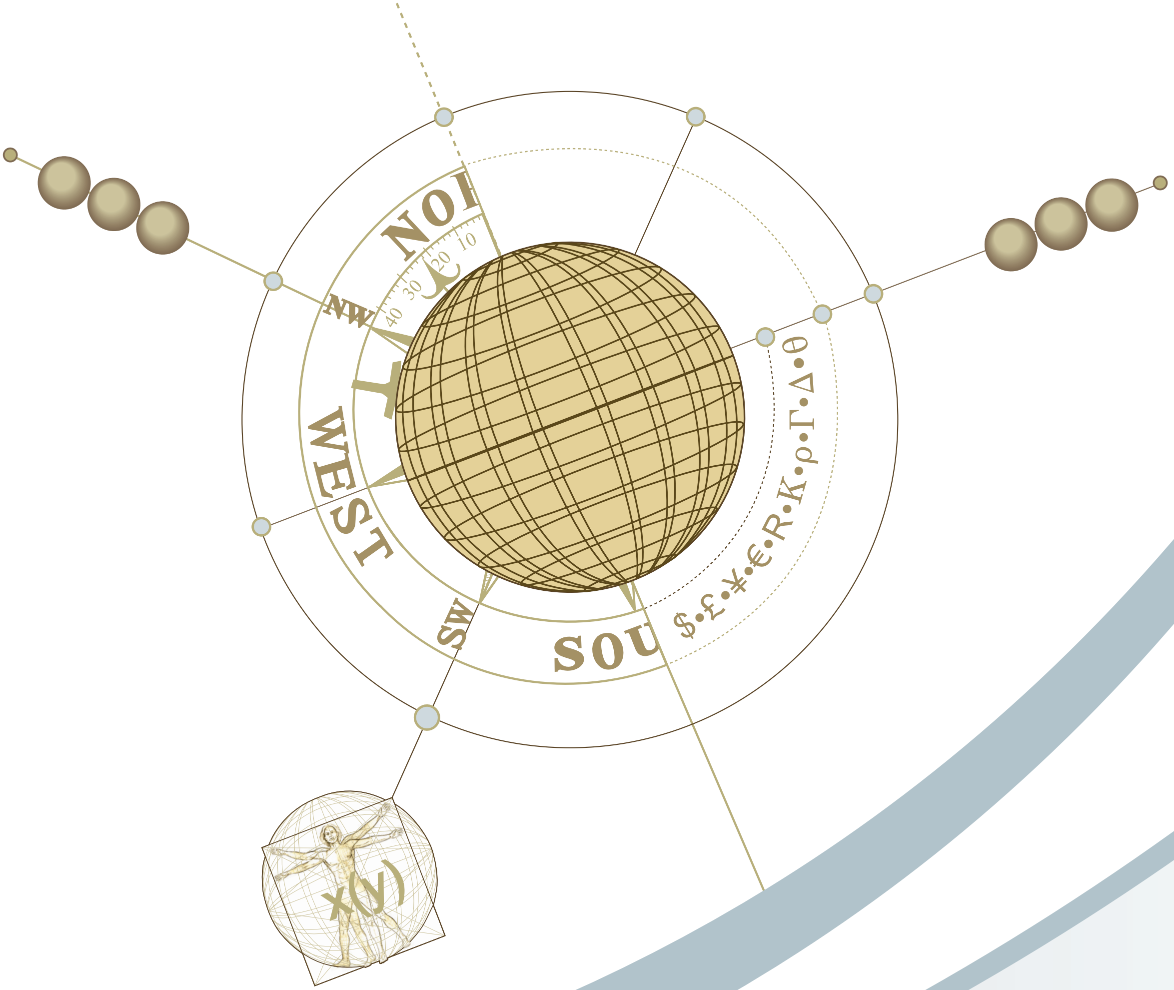



# Global Markets
# Commodity reference warrants

Standard Bank

# Commodity reference warrants

The Standard Bank of South Africa Limited ("Standard Bank") is pleased to launch commodity reference warrants (CoRW). CoRWs a re listed on the JSE Limited and enable investors to trade commodities as an asset class.

## What are commodity reference warrants?

A commodity reference warrant (CoRW) is a derivative – its value is derived from another underlying asset, in this case a commodity (gold, platinum, oil, etc). More specifically, its value is based on the change in the rand price of the underlying commodity (e.g. R7.50 x $1,000.00).

CoRWs are available in both calls and puts, allowing investors to take advantage of positive and negative movements in the rand value of the underlying commodity. Depending on the type of warrant traded, the investor has the right **but not** the obligation to either buy or sell the performance of the rand value of the underlying commodity (e.g. the rand value of the gold price) at a specific rand value (known as the strike price) on a specific date (known as the expiry or maturity date).

A CoRW's intrinsic value is determined from the difference between the rand value of the underlying commodity and the strike price. It is the amount that the warrant is worth if it had to expire on that day. If a CoRW does not have any intrinsic value at maturity, the loss incurred is the initial amount invested (the premium).

CoRWs are cash settled in South African rand which means that no transfer or settlement of foreign currency occurs. CoRWs cannot be exercised into the underlying (i.e. physical gold); if they are held to expiry, investors will be paid their intrinsic value, if any. However, CoRWs can be bought and sold throughout their term (i.e. up until expiry), with Standard Bank acting as the liquidity provider. In other words, CoRWs trade in a liquid secondary market where investors may enter and exit their warrant positions with ease.

## Commodity reference call warrants

- Call warrants enable investors to BUY the rand performance of a particular commodity (i.e. the rand value of the commodity) and are therefore suitable for those who believe the underlying rand commodity price will increase.
- Holders of call CoRWs are at risk if the underlying commodity price weakens and/or the rand strengthens.
- Call warrants are said to be in-the-money if their strike price is lower than the rand value of the underlying commodity.
- If a call warrant's strike price is higher than the rand value of the underlying commodity at maturity, the warrant expires worthless and the loss incurred is the amount invested in the warrant.

## Commodity reference put warrants

- Inversely, put warrants enable investors to theoretically SELL the rand performance of a particular commodity (i.e. the rand value of the commodity) and are therefore suitable for those who believe the underlying rand commodity price will decrease.
- Holders of put CoRWs are at risk if the underlying commodity price strengthens and/or the rand weakens.
- Put warrants are said to be in-the-money if their strike price is higher than the Rand value of the underlying commodity.
- If a put warrant's strike price is lower than the rand value of the underlying commodity at maturity, the warrant expires worthless and the loss incurred is the amount invested.

## Why trade a commodity reference warrant?

- To benefit from fluctuations in the rand price of a commodity;
- To take advantage of your view of where the rand value of a specific commodity will be trading (e.g. the rand gold price) in the future;
- To diversify your portfolio by adding commodity exposure;
- To hedge against adverse movements in the rand commodity price;
- There is no securities transfer tax payable;
- No margining process applies; therefore no daily settlement of profits and losses takes place;
- Liquidity is provided by Standard Bank; and
- Geared/leveraged exposure to an underlying rand-denominated commodity price.

## Gearing or leverage

CoRWs provide investors with leveraged exposure to the rand value of a specific commodity price. This implies that investors are required to pay a small price to purchase the warrant, but are exposed to the full value of the underlying. Therefore, a small percentage change in the underlying commodity price or exchange rate will result in a much greater percentage change in the price or value of the warrant.

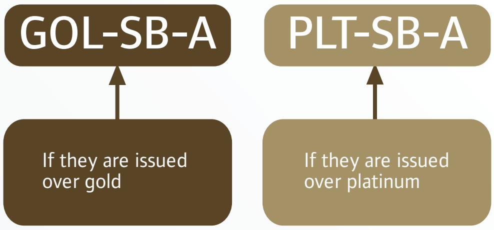
Gearing improves potential profits when trading a warrant. However, an adverse movement in the underlying commodity price or exchange rate will result in a greater percentage loss in the value of the warrant than the percentage change in the underlying commodity price or exchange rate.

## Standard Bank - the issuer and liquidity provider

Standard Bank will issue CoRWs over a number of commodities and will provide both bid (buy) and offer (sell) prices intraday to the market, allowing investors to enter and exit positions throughout the day.

## How to identify a Standard Bank commodity reference warrant?

Standard Bank commodity reference warrants will be identifiable by the following code:




Call CoRWs will be identifiable by the series A – O, and put CoRWs by the series P – Z.

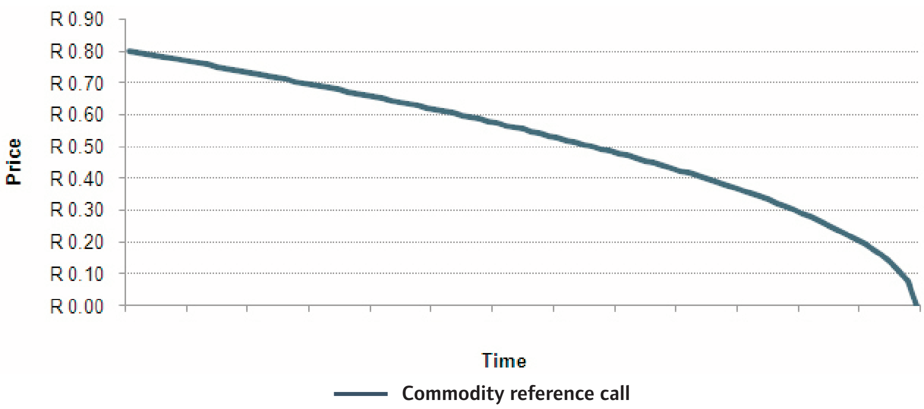
## Factors which influence the price and valuation of a commodity reference warrant

| Market variable | Change in variable | Change in call price | Change in put price |
|---|---|---|---|
| Exchange rate (USD/ZAR) | ↑ (rand weakens) | ↑ | ↓ |
| Commodity price (e.g. $ gold price) | ↑ | ↑ | ↓ |
| Time to expiry | ↓ | ↓ | ↓ |

* The table above assumes that as each market variable changes, the others stay constant

- **Commodity price** – CoRW prices are linked to the rand value of a specific commodity (e.g. USD/ZAR exchange rate x dollar gold price), so the underlying commodity prices is key to the price of the warrant. If the exchange rate had to remain constant and the underlying commodity price was to increase, the rand value of the underlying commodity would rise and a call warrants's value would thus increase.
- **Exchange rate** – CoRW prices are also linked to the exchange rate due to the underlying being the rand value of the underlying commodity. If the underlying commodity price was to remain constant but the exchange rate (e.g. USD/ZAR) had to weaken, the rand value of the underlying commodity would rise and call warrant's value would thus increase.
- **Time to expiry** – All warrants lose value with the passage of time. The chart below shows a gradual decline in a call CoRW's value over a three-month period. The commodity price and exchange rate used have remained constant at a level equal to the strike price of the warrant.

## Commodity reference call warrant




- **Volatility** – Volatility is the tendency of the rand value of the underlying commodity to rise and fall over the term of a warrant. Low volatility levels imply that a commodity price or exchange rate has not been fluctuating significantly. Volatility is important because if a market does not move fast enough, the rand value of the commodity price may not reach the strike price at maturity and the warrant's value will decrease.

## Risks associated with trading commodity reference warrants

- If a warrant expires out-the-money at maturity, it is worthless. The loss is limited to the amount invested (the premium).
- CoRWs are geared instruments. This implies that an adverse change in the underlying commodity and/or exchange rate will negatively impact their value by a factor of the percentage change in the underlying.
- A CoRW that is far out-the-money and close to expiry is highly geared, which increases the risk of losing the amount invested.

## Commodity reference warrants examples

### A call CoRW example:

| Warrant details | |
|---|---|
| Name | GOLSBA |
| Strike | R8600 |
| Underlying | Gold |
| Conversion ratio | 2000 |
| Style | European |
| Expiry | 6 months |

| Rand gold price | CoRW call price |
|---|---|
| R8,150 | 30c |
| R8,200 | 31c |
| R8,250 | 32c |
| R8,300 | 33c |
| R8,350 | 34c |

The investor purchases 100,000 GOLSBA at R0.32 when the rand gold price is trading at R8,250 (USD/ZAR exchange rate R7.50 x gold price $1100)

- Given the conversion ratio (2000:1), 100 000 warrants imply an exposure to 50oz of gold at expiry.
- The price paid to purchase the CoRWs is R32 000; (R0.32 x 100 000).
- The CoRW call position enables the investor to profit from the underlying rand commodity price strengthening (i.e. an increase in the dollar value of the commodity and/or a weakening in the USD/ZAR exchange rate).

Scenario 1: Assume the gold price weakens from $1,100 to $1,086.67 (-1.21%) and the USD/ZAR exchange rate remains at R7.50 - the rand gold price thus decreases to R8,150.

- The value of the call warrants will decrease to R0.30 (as shown in the table above).
- The investor could choose to hold the warrant position in order to take advantage of the time left until maturity with the possibility that the warrants will increase in value and expire in-the-money, thereby delivering a profit.
- Alternatively, the investor could exit the warrant position and sell the warrants in the market for fear that the rand gold price will continue to weaken and therefore further reduce the value of the warrants or the likelihood of a positive return on investment. The investor could sell the call warrants back to Standard Bank at R0.30 and thereby take a loss of R0.02 per warrant bought.

Scenario 2: Assume the gold price strengthens from $1100 to $1113.33 (+1.21%) and the USD/ZAR exchange rate remains at R7.50the rand gold price thus increases to to R8,350.

- The value of the call warrants will increase to R0.34 (as shown in the table above).
- If the investor sells the warrants in the market, the total return earned will be 6.25% [(0.34 – 0.32) / 0.32], for a 1.21% [(1113.33-1100) / 1100] move in the underlying rand gold price.
- The CoRW will therefore effectively gain 5.16 times the movement of the rand gold price. The total cash return earned (excluding trading costs) will equal R2 000; (R0.34 – 0.32) x 100 000).

If the investor holds the CoRW until maturity and the rand gold price strengthens above the strike level of R8,600, the investor will receive a rand cash settlement. However, assume that at expiry the rand gold price weakens below R8,600, the warrant will expire out-the-money and the investor will lose the initial amount paid to purchase the warrants.

## How do you calculate the gearing on your commodity reference warrant?

The gearing indicates the extent to which the warrant will rise and fall if the underlying rand commodity price moves 1%**.**

= [Price of underlying rand commodity price / price of commodity call warrant x conversion ratio] x delta

| | | |
|---|---|---|
| = [8250 / (0.32*2000)] x 40% | = [8350 / (0.34*2000)] x 40% | = [8150 / (0.30*2000)] x 40% |
| = 5.15 x | = 4.91 x | = 5.43x |

Note how the gearing increases (everything else being equal) as the underlying rand commodity price decreases. As the gearing increases, so does the investor's risk.

| Warrant details | |
|---|---|
| Name | GOLSBA |
| Strike | R8000 |
| Underlying | Gold |
| Conversion ratio | 2000 |
| Style | European |
| Expiry | 6 months |

| Rand gold price | CoRW put price |
|---|---|
| R8,150 | 34c |
| R8,200 | 33c |
| R8,250 | 32c |
| R8,300 | 31c |
| R8,350 | 30c |

The investor purchases 100,000 GOLSBP at R0.32 when the rand gold price is trading at R8,250 (USD/ZAR exchange rate R7.50 x gold price $1100).

- Given the conversion ratio (2000:1), 100 000 warrants imply a short exposure to 50oz of gold at expiry.
- The price paid to purchase the CoRWs is R32 000 (R0.32 x 100 000).
- The CoRW put position enables the investor to profit from the underlying rand commodity price weakening (i.e. a decrease in the dollar value of the commodity and/or a strengthening in the USD/ZAR exchange rate).

Scenario 1: Assume the gold price strengthens from $1100 to $1113.33 (+1.21%) and the USD/ZAR exchange rate remains at R7.50 - the rand gold price thus increases to R8,350.

- The value of the put warrants will decrease to R0.30 (as shown in the table above).
- The investor could choose to hold the warrant position in order to take advantage of the time left until maturity and the possibility that the warrants will increase in value and expire in-the-money, thereby delivering a profit.
- Alternatively, the investor could exit the warrant position and sell the warrants in the market for fear that the rand gold price will continue to strengthen and therefore further reduce the value of the warrants or the likelihood of a positive investment return. The investor could sell the call warrants back to Standard Bank at R0.30 and thereby take a loss of R0.02 per warrant bought.

Scenario 2: Assume the gold price weakens from $1,100 to $1,086.67 (-1.21%) and the USD/ZAR exchange rate remains at R7.50 - the rand gold price thus decreases to R8,150.

- The value of the put warrants will increase to R0.34 (as shown in the table above).
- If the investor sells the warrants in the market, the total return earned will be 6.25% [(0.34 – 0.32) / 0.32], for a 1.21% [(1,100-1,086.67) / 1100] move in the underlying rand gold price.
- The CoRW will therefore effectively gain 5.16 times the movement of the rand gold price. The total cash return earned (excluding trading costs) will equal R2 000 [(R0.34 - 0.32) x 100 000].

If the investor holds the CoRW until maturity and the rand gold price weakens below the strike level of R8,000, the investor will receive a rand cash settlement. However, assume that at expiry the rand gold price increases above R8,000, the warrant will expire out-the-money and the investor will lose the initial amount paid to purchase the warrants.

## How do you calculate the gearing on your commodity reference warrant?

The gearing indicates the extent to which the warrant will rise and fall if the underlying rand commodity price moves 1%.

= [Price of underlying rand commodity price / price of commodity call warrant x conversion ratio] x delta

| | | |
|---|---|---|
| = [8250 / (0.32*2000)] x 40% | = [8150 / (0.34*2000)] x 40% | = [8350 / (0.30*2000)] x 40% |
| = 5.15 x | = 4.79 x | = 5.57x |

Note how the gearing increases (everything else being equal) as the underlying rand commodity price increases. As the gearing increases, so does the investor’s risk.

## Restrictions in terms of exchange control regulations (at the time of writing, May 2010)

Pension funds and long-term insurance companies who have the required exchange control approval may not exceed 20% of their retail assets when investing in CoRWs.

Asset managers and registered collective investment schemes who have the required exchange control approval may not exceed 30% of their total retail assets under management when investing in CoRWs.

Individuals, foreigners, trusts and entities other than those specified above are not subject to any additional restrictions other than those set out in the warrants documentation.

## Glossary

**European style**
This means that the warrant can only be exercised on its expiry date.

**Conversion ratio**
This refers to the number of CoRWs that must be converted in relation to the rand price of one unit of the underlying commodity.

**Strike / strike price**
The pre-determined level against which the warrant’s intrinsic value is determined at expiry.

**Commodity reference call warrant**
A call warrant gives investors the right **but not** the obligation to buy the performance (in rands) of a commodity (i.e. buy the rand value of the underlying commodity price) at the predetermined strike price at maturity. If the rand value of the commodity price increases, the value of the call warrant will increase.

**Commodity reference put warrant**
A put warrant gives investors the right **but no**t the obligation to sell the performance (in rands) of a commodity (i.e. buy the rand value of the underlying commodity price) at the predetermined strike price at maturity. If the rand value of the commodity price decreases, the value of the put warrant will increase.

**Intrinsic value**
The intrinsic value of a warrant is determined from the difference between the rand value of the underlying commodity price and the strike price of the warrant.
Intrinsic value of a call warrant = (rand value of the underlying commodity price – strike) / Conversion ratio
Intrinsic value of a put warrant = (strike - rand value of the underlying commodity price) / Conversion ratio

**Premium**
The price paid upfront to purchase the CoRW.

**Gearing/Leverage**
Gearing allows for greater potential returns, but also greater potential losses. Simple gearing is the ratio of the rand value of the underlying commodity price to the warrant price. Effective gearing is the simple gearing multiplied by the warrant's delta.

**Delta**
Delta is a ratio that compares the change in the rand value of the underlying commodity price to the corresponding change in the price of the warrant.

**Theta or time value**
The additional value of a warrant (if any) over its intrinsic value resulting from the remaining term of the warrant.

**Out-the-money**
A call warrant is out-the-money when the rand value of the underlying commodity price is lower than the strike price at maturity. A put warrant is out-the-money when the rand value of the underlying commodity price is higher than the strike price at maturity.

**In-the-money**
A warrant with intrinsic value.

**Liquidity**
This refers to the ability of an investor to buy and sell a warrant in volume in the market without causing dramatic price fluctuations.

## Disclaimer



### Authorised financial services and registered credit provider (NCRCP15)

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