

## Spot Cross Calculations

### For currencies quoted in units to USD (Non-Inverted)

#### Sterling Cross Calculation

$$\begin{aligned} \text{GBP/HKD Bid} &= (\text{USD/HKD Bid}) * (\text{GBP/USD Bid}) \\ \text{GBP/HKD Offer} &= (\text{USD/HKD Offer}) * (\text{GBP/USD Offer}) \end{aligned}$$

#### Euro Cross Calculation

$$\begin{aligned} \text{EUR/HKD Bid} &= (\text{USD/HKD Bid}) * (\text{EUR/USD Bid}) \\ \text{EUR/HKD Offer} &= (\text{USD/HKD Offer}) * (\text{EUR/USD Offer}) \end{aligned}$$

#### Other Currency Cross Calculation eg HKD

$$\begin{aligned} \text{HKD/CAD Bid} &= (\text{USD/CAD Bid}) / (\text{USD/HKD Offer}) \\ \text{HKD/CAD Offer} &= (\text{USD/CAD Offer}) / (\text{USD/HKD Bid}) \end{aligned}$$

#### Other Currency Cross Calculation eg CHF

$$\begin{aligned} \text{USD/CHF Bid} &= (\text{EUR/CHF Bid}) / (\text{EUR/USD Offer}) \\ \text{USD/CHF Offer} &= (\text{EUR/CHF Offer}) / (\text{EUR/USD Bid}) \\ \text{CHF/HKD Bid} &= (\text{USD/HKD Bid}) / (\text{USD/CHF Offer}) \\ \text{CHF/HKD Offer} &= (\text{USD/HKD Offer}) / (\text{USD/CHF Bid}) \end{aligned}$$

### For currencies quoted in USD per unit (Inverted)

#### Sterling Cross Calculation

$$\begin{aligned} \text{GBP/AUD Bid} &= (\text{GBP/USD Bid}) / (\text{AUD/USD Offer}) \\ \text{GBP/AUD Offer} &= (\text{GBP/USD Offer}) / (\text{AUD/USD Bid}) \end{aligned}$$

#### Euro Cross Calculation

$$\begin{aligned} \text{EUR/AUD Bid} &= (\text{EUR/USD Bid}) / (\text{AUD/USD Offer}) \\ \text{EUR/AUD Offer} &= (\text{EUR/USD Offer}) / (\text{AUD/USD Bid}) \end{aligned}$$

#### Other Currency Cross Calculation eg HKD

$$\begin{aligned} \text{HKD/AUD Bid} &= (\text{HKD/USD Bid}) / (\text{AUD/USD Offer}) \\ \text{HKD/AUD Offer} &= (\text{HKD/USD Offer}) / (\text{AUD/USD Bid}) \end{aligned}$$

**Or**

$$\begin{aligned} \text{HKD/AUD Bid} &= (\text{USD/AUD Bid}) / (\text{USD/HKD Offer}) \\ \text{HKD/AUD Offer} &= (\text{USD/AUD Offer}) / (\text{USD/AUD Bid}) \end{aligned}$$

Other Currency Cross Calculation eg CHF

$$\begin{aligned} \text{USD/CHF Bid} &= (\text{EUR/CHF Bid}) / (\text{EUR/USD Offer}) \\ \text{USD/CHF Offer} &= (\text{EUR/CHF Offer}) / (\text{EUR/USD Bid}) \end{aligned}$$

$$\begin{aligned} \text{CHF/AUD Bid} &= (\text{CHF/USD Bid}) / (\text{AUD/USD Offer}) \\ \text{CHF/AUD Offer} &= (\text{CHF/USD Offer}) / (\text{AUD/USD Bid}) \end{aligned}$$

**Or**

$$\begin{aligned} \text{CHF/AUD Bid} &= (\text{USD/AUD Bid}) / (\text{USD/CHF Offer}) \\ \text{CHF/AUD Offer} &= (\text{USD/AUD Offer}) / (\text{USD/CHF Bid}) \end{aligned}$$

**For currencies quoted in units to EUR : (Inverted)**

USD Cross Calculation

$$\begin{aligned} \text{USD/CHF Bid} &= (\text{EUR/CHF Bid}) / (\text{EUR/USD Offer}) \\ \text{USD/CHF Offer} &= (\text{EUR/CHF Offer}) / (\text{EUR/USD Bid}) \end{aligned}$$

Sterling Cross Calculation

$$\begin{aligned} \text{GBP/CHF Bid} &= (\text{USD/CHF Bid from above}) * (\text{GBP/USD Bid}) \\ \text{GBP/CHF Offer} &= (\text{USD/CHF Offer from above}) * (\text{GBP/USD Offer}) \end{aligned}$$

Other Currency Cross Calculation eg HKD

$$\begin{aligned} \text{HKD/CHF Bid} &= (\text{USD/CHF Bid from above}) / (\text{USD/HKD Offer}) \\ \text{HKD/CHF Offer} &= (\text{USD/CHF Offer from above}) / (\text{USD/HKD Bid}) \end{aligned}$$

Other Currency Cross Calculation eg CHF

$$\begin{aligned} \text{CHF/DKK Bid} &= (\text{EUR/DKK Bid}) / (\text{EUR/CHF Offer}) \\ \text{CHF/DKK Offer} &= (\text{EUR/DKK Offer}) / (\text{EUR/CHF Bid}) \end{aligned}$$