FOREX 101

How JSE listed Currency Derivatives can help protect you against adverse market movements

What is FOREX?

- Abbreviation of ***Foreign Exchange (FX)***
  - Currency of other countries
- Trading FX
  - The act of exchanging one country's currency for another
  - Exchange rate
    - The value of one country's currency relative to another
- Spot exchange rate = Current exchange rate
  - Cash
  - T + 2 settlement *(Delivery of currency)*

Exchange Rate

- It is the Rate of Exchange between two currencies
  - I.e. $/R 13.0750 or €/R 15.5674
  - You will pay R13.0750 for every $1 and R15.5674 for every €1 purchased
- Types of rates:
  - A **MID** rate is the average between the Bid and Offer rates
  - **BID** rate is the price at which someone is willing to **BUY**
  - **OFFER** rate is the price at which someone is willing to **SELL**
- Eg. Bank XYZ quote : $/R: 13.0570 / 13.0990
  - Bank XYZ will buy Dollars at R13.0570 and sell Dollars at R13.0990
  - The difference of 0.0420 cents is known as the **spread**
  - The mid rate is **R13.0780**

Factors affecting Exchange rates

- Inflation Rates
- Interest Rates
- Country’s Current Account / Balance of Payments
- Government Debt
- Terms of Trade
- Political Stability & Performance
- Recession
- Speculation

FX Derivatives

JSE Currency Derivatives

- Futures
  - Currency futures are contracts that allow buyers and sellers of currency to commit to an exchange rate today, for a future value date

- Options
  - A currency option is an agreement that gives investors the right, but not the obligation, to buy or sell a Currency Futures Contract at a future date and a predetermined price, known as the strike rate.

Advantages of Futures

- Flexible dynamic hedge
- Cost is known and deductible
- Margin lower than collateral
- Transparent and regulated trade
- Can exit position with best priced counterparty at any time without penalties
- No obligation to deliver Forex (unless explicitly required)
- No SARB approval required
- No firm and ascertainable commitment (paperwork) required to enter/exit a trade
- Have a daily view on profit/loss of the hedge

Uses of Currency Derivatives

- **Hedge**
  - Reduce risk by protecting an existing portfolio against possible adverse currency movements.
  - Hedgers have a real interest in the underlying currency and use futures as a way of preserving their performance.

- **Invest**
  - Enhance the long-term performance of a portfolio of assets.

- **Speculate**
  - Enhance risk with the aim to make a profit on short-term movements in prices.
  - Speculators enter into currency futures contracts in order to take a view on the movement of the underlying exchange rate, without having the need to buy the underlying currency

Qualifying Clients

- The following categories of clients are permitted to trade and hold positions in Currency Derivatives:
  - A South African individual with no limits applicable
  - A South African corporate entity with no limits applicable
  - A non-resident individual or non-resident corporate entity with no limits applicable
  - A resident financial service provider and collective investment scheme, subject to their foreign portfolio allowance
  - A resident pension fund organisation, subject to their foreign portfolio allowance
  - A resident long-term or short-term insurer, subject to their foreign portfolio allowance
  - A hedge fund may trade in an unlimited capacity provided that they are not regulated under investment managers' rules

Products Offered

- **Currency Futures** – A derivative contract that allows participants to take a view on the movement of the exchange rate as well as hedge against currency risk.
- **Currency Options** – A derivative contract that grants the purchaser the right but not the obligation to trade a Currency Futures contract at a predetermined date in the future (IMM date) at a prearranged price (strike), regardless of where the underlying market is trading.
- **Any Day Futures and Options** – A currency futures or options contract that gives the investor the ability to hedge to a specific date other than the standard IMM dates.
- **Can Do Options** – Can Do Options represent an innovative, extremely flexible method of investing in Exchange Traded Derivative Contracts. In essence, these instruments enable investors to select a basket of Futures and Option contracts while negotiating terms such as the expiry date.
- **Quanto Futures** – A Currency Future that mirrors the movement of a foreign referenced underlying.
- **African Currency Futures** – A derivative contract that allows participants to take a view on the movement of an African Country's exchange rate as well as hedge against African currency risk.

Listed Currency Futures Contracts

- US Dollar/Rand
- Euro/Rand
- Pound/Rand
- Australian Dollar/Rand
- Japanese Yen/Rand
- Canadian Dollar/Rand
- Swiss Franc/Rand
- Chinese Renminbi/Rand
- New Zealand Dollar/Rand
- Turkish Lira/Rand
- Danish Krone/Rand
- Hong Kong Dollar / Rand
- Euro/Dollar Quanto
- Pound/Dollar Quanto

AFRICAN CURRENCIES:

- Zambian Kwacha/Rand
- Kenyan Shilling/Rand
- Nigerian Naira/Rand
- Botswana Pula/Rand

CURRENCY INDEX:

- Rand Index (RAIN)

Trading JSE Currency Derivatives

- We have two main categories of participants in the Currency derivatives market at the exchange, namely, Market Makers and Trading Members

- Market Makers:
  - Price Makers
  - Authorised Dealers
  - On-Screen and Off-screen pricing

- Trading Members:
  - Price takers → Brokers, Asset Managers
  - Off-screen trading
  - On-screen price taking

Pricing Currency Futures

- What makes up the price of a Currency Future (Forward)?
  - **Future = Spot price + forward points**
    - Spot price e.g. $/R14.5800 (bid) / $/R14.5850 (offer)
    - Forward points *(interest rate differential between today and expiry date)* = 300 points bid / 350 points offer
  - Future price is R14.6100 (bid) / R14.6200 (offer)
    - (R14.5800 + 0.0300) (R14.5850 + 0.0350)
- On the exchange we quote and trade the expiry date so the price will always include the forward points.

Live Currency Futures Pricing – JSE website

Johannesburg Stock Exchange

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CONTRACT	BID QTY	BID	OFFER	OFFER QTY	LAST TRADED	HIGH	LOW	VOLUME	OPEN INTEREST
14MAR16 QUANTO € / $	250	1,0886	1,0908	250	1,0965	0,0000	0,0000	0	2
13JUN16 QUANTO € / $	250	1,0920	1,0950	250	1,0997	0,0000	0,0000	0	0
19SEP16 QUANTO € / $	250	1,0971	1,1014	250	1,1038	0,0000	0,0000	0	0
14MAR16 AU$ / R	500	11,5078	11,5218	500	11,5205	11,5205	11,5154	475	14705
13JUN16 AU$ / R	250	11,6627	11,6911	250	11,6436	0,0000	0,0000	0	3067
19SEP16 AU$ / R	475	11,8579	11,8778	650	11,8888	11,8888	11,8888	25	875
19DEC16 AU$ / R	500	12,0432	12,0642	500	12,0099	0,0000	0,0000	0	152
14MAR16 CAD/ R	100	11,8736	11,8899	100	11,8102	0,0000	0,0000	0	0
13JUN16 CAD/ R	100	12,0907	12,1094	100	12,0251	0,0000	0,0000	0	0
14MAR16 CNH / R	100	2,4529	2,4607	100	2,4400	0,0000	0,0000	0	0
13JUN16 CNH / R	100	2,4760	2,4852	100	2,4602	0,0000	0,0000	0	22550
14MAR16 DKK / R	100	2,3480	2,3610	100	2,3511	0,0000	0,0000	0	0
13JUN16 DKK / R	100	2,3985	2,4115	100	2,4011	0,0000	0,0000	0	0
14MAR16 € / R	460	17,5538	17,5730	500	17,6067	17,6900	17,6067	443	58989
13JUN16 € / R	495	17,9277	17,9486	750	18,0506	18,0506	18,0506	5	42280
19SEP16 € / R	500	18,3584	18,3826	500	18,3114	0,0000	0,0000	0	9138
14MAR16 CHF / R	100	16,0896	16,1216	100	16,0339	0,0000	0,0000	0	6657
13JUN16 CHF / R	100	16,4583	16,4948	100	16,4003	0,0000	0,0000	0	0
14MAR16 £ / R	200	22,3224	22,3423	850	22,3450	22,4775	22,3420	914	56147
13JUN16 £ / R	385	22,7371	22,7606	650	22,7600	22,8102	22,7571	215	5164

Margining

- Each trade is matched daily by JSE Clear, i.e. the exchange ensures that there is a buyer and a seller to each contract traded.
- The JSE's clearinghouse JSE Clear becomes the counterparty to each trade once each transaction has been matched and confirmed.
- The clearinghouse therefore ensures settlement takes place on each trade.
- To protect itself from non-performance, JSE Clear employs a process known as margining. This mechanism is two-fold:
  - Initial Margin
  - Variation Margin

Zero-sum game:
For every winner there is an equal loser

1 USDZAR Contract = $1,000

Therefore 10 contracts = $10,000

Client A	Exchange	Client B
Buys 10 contracts @ R13.20		Sells 10 contracts @ R13.20
	Market closes @ R13.30	
Receive 10c per $		Lose 10c per $
	Market closes @ R13.50	
Receive 20c per $		Lose 20c per $
	Market closes @ R13.30	
Lose 20c per $		Receive 20c per $
	Close position @ R14.00	
Receive 70c per $		Lose 70c per $
Nett up: 80c (10 000x80c=R8 000)		Nett down: 80c (10 000x80c=R8 000)

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