JOHANNESBURG STOCK EXCHANGE
International Derivatives

Introduction to JSE International Derivatives | A new landmark in trading

Table of Contents

1. Introduction

The JSE's International Derivatives (IDX) is an initiative in collaboration with Deutsche Bank and Investec Capital Markets that will provide South African investors (including retail and corporate investors, trusts and funds) with an opportunity to trade and gain exposure to the price movements of internationally listed equities (shares) and potentially internationally recognized indices.

The JSE's Equity Derivatives Market (Safex) will list, provide a trading platform, regulate, risk manage and clear cash settled equity derivatives (initially futures and at a later stage options) on internationally listed shares (e.g. BP, Vodafone, Glaxo Smith Kline, Rio Tinto and Nokia) that are not listed on the JSE.

This exciting initiative will allow local investors simple and effective access to international markets, without exchange control restrictions or the counterparty risk associated with unregulated over-the-counter trading.

2. Trading on the Nutron trading system

In line with international trends on true price discovery and transparency, the JSE recommends that IDX is order driven. However, in order to start a new market a hybrid market model (allowing for both central order book and reported trades) will initially be supported.

2.1 On-screen trading

The on-screen trading of international derivatives will be conducted on the Nutron trading system and will be subject to the Derivatives rules and directives. Two new trading windows called IDX and IDX Dividends have been created on the Nutron trading system. *Figure 1* illustrates the proposed on-screen trading window for IDX derivatives (single stock futures contracts). This screen will display the best bids/offers on the central order book. Orders on the central order book will match on time price priority. *Figure 2* indicates an example of the bids/offers window used for adding orders onto the central order book. *Figure 3* indicates an example of the central order book depth.

Figure 1   Nutron trading window for international derivatives

Figure 2   Nutron bid/offers window for international derivatives

Figure 3   Nutron depth window for international derivatives

2.2 Reported trades

Transactions in IDX derivatives may be conducted away from the central order book and reported to the Nutron trading system. To encourage market participation, the criteria for a reported transaction in respect o f i nternational d erivatives is the same a s t he criteria i n r espect o f e quity d erivatives (i.e. 1 (one) contract).

Figure 4   Nutron reported trades screen

2.3 IDX Dividend Futures

When a company pays a dividend its share price usually declines by approximately the corresponding amount. The reason for this price decline is that part of the company's available capital has now been paid back to shareholders. When an investor buys an IDX Single Stock Future (SSF) the JSE has already adjusted the price by the estimated dividends that will be paid up to expiry of the IDX SSF If the JSE's or the Liquidity Provider's estimate is inaccurate an investor can mitigate the estimation risk by buying a d ividend f uture simultaneously with a IDX SSF. Some L iquidity P roviders r equire that investors purchase a dividend future when purchasing an IDX SSF. This helps to ensure that neither party incurs loses due to incorrect dividend estimations.

The JSE will list an associated dividend future for every IDX SSF listed.

2.4 Listing

Listing o f new i nternational d erivatives w ill b e d one o n r equest f rom t he m arket. H owever, t hese securities must comply with the requirements prescribed by the JSE. The requirements include-

- the underlying security must be an internationally listed instrument;
- a committed Liquidity Provider; and
- the a vailability o f a   reference p rice o n d ay o f l isting a nd pr ices a nd d ividend d ata daily thereafter.

If a request is not supported by a liquidity provider, the JSE will consider listing the instrument if –

- there are two counterparties to a pre-arranged transaction; and
- the minimum value of a trade exceeds 10 million ZAR in value.

2.5 Market times

Due to the possible time zone differences of the underlying markets that IDX will be tracking, IDX will be open for the maximum practical amount of time. However, initially IDX will track the current Equity Derivative Market trading times which are reflected in *Table 1*.

Table 1   Proposed IDX trading times and periods

Time	Period	
08h30-17h30	Automated Trading	Trading takes place where bids and offers are placed on the central order book and matched by the Nutron system
17h30	Market Close	Automated Trading ends
08h30 -18h00	Reporting	All off-screen trades (reported trades) will be reported onto the Nutron system.

2.6 Pre-trade and post-trade disclosure

The N utron t rading s ystem p rovides f or pr e-trade na me g ive u p a nd p ost-trade a nonymity i n t he central order book, and consequently –

- there will be pre-trade disclosure of member details in IDX (i.e. only order details will be seen, and the identity of the members who entered the orders); and
- there will be no post-trade disclosure of member details on IDX (i.e. the market will only see the details of the trade but not the identity of the members that have traded).

2.7 Traded currency

All contracts on IDX will be quoted and traded in ZAR to 2 decimal places, and reported, allocated or assigned to 4 decimal places.

2.8 Nominal

All contracts traded on IDX will be traded in a nominal of 1, the reasons being -

- the price of some foreign companies quoted in ZAR could be large;
- it will increase the liquidity of the market; and
- it is easier to effectively apply corporate actions.

The JSE will consider listing contracts with a different size nominal if requested to do so, or if it is determined that this will increase market participation in IDX.

2.9 Identification codes

The Nutron trading system uses 4 letter alpha codes for contracts on the trading windows. The first three letters are used to determine the underlying instrument of the contract. The letter 'G' will be used as the fourth letter for all IDX securities to indicate that the underlying is an internationally listed security (Global or non-South African). This alpha code plus the expiry date uniquely identifies an instrument on IDX.

All IDX dividend futures will be loaded with the letter 'D' as the 4th character, to ensure ease of identification.

2.10 Settlement

All IDX contracts will be cash settled in ZAR.

2.11 Options

The JSE will not list options initially on IDX, however the listing of options will be considered at a later stage. The options when listed will have the following features -

- option type - American (options can be exercised at any time).
- when the future is loaded an option will automatically be created. The strike is loaded at the money. From this point on, the market will load the strikes at which they want to trade. The increment at which the contracts can be loaded by the market will be determined when the contract is loaded. This will depend on the size of the contract's share price.

2.12 Spreads and splits

The Nutron trading system will automatically create spread instruments. The JSE will not list splits initially, however the listing of splits will be considered at a later stage.

Table 2   Examples of spreads and splits

Spreads		
	Buy	Sell
Bid	Far	Near
Offer	Near	Far

Splits		
	Buy	Sell
Bid	NASDAQ	S&P 500
Offer	S&P 500	NASDAQ

2.13 Booking Fees

The booking fees for IDX are 2 basis points based on the underlying price per contract traded. The formula for calculating the booking fees will therefore be as follows:

((Nominal x Underlying Price x 0.2) / 100) x Number of contracts traded

2.14 Hedging currency risk

2.14.1 Clients

As indicated in the *Closeout dates and methodologies* section of this document, the expiry dates of international derivatives will be aligned with currency derivatives traded on Yield-X. Yield-X may be used by clients to hedge the currency risk associated with trading international derivatives. This will ensure a perfect hedge by removing the volatile currency element from the international derivative. The client's exposure will then be purely to the offshore international security.

This can be best explained by means of an example. Assume the following variables:

- □ an internationally listed future instrument trades at $1,000;
- □ the Rand/Dollar (R/$) exchange rate (R/$) is 1$ = R10; and
- □ the internationally listed future therefore trades at R10,000 (Not taking present value and dividend assumptions into account)

Assume the international future's price stays constant at $1,000 but the R/$ changes from R10 per dollar to R8 per dollar (Rand therefore strengthened against the Dollar). The buyer of the international future would lose money as the value of his future would now only be R8,000 ($1,000 X R8), a loss of R2,000. The seller of the international future on the other hand would have made R2,000 without the price of the underlying moving.

To eliminate the currency fluctuation risk, the buyer of the international future could have sold 1 R/$ currency future contract (which provides an exposure to $1,000) when the R/$ was 1$ = R10. When the Rand strengthens to R8 the buyer would have made R2,000 (R2 * $1,000) on the short currency position.

By hedging with a currency future the buyer of the international derivative therefore would eliminated the currency risk as the R2,000 loss on the international derivative is offset by the profit on the short currency future.

Table 3   Impact of currency fluctuations on international derivatives

Currency fluctuation	Impact on international derivative	
	Buyer	Seller
Rand strengthens against foreign currency	Loses money	Makes money
Rand weakens against foreign currency	Makes money	Loses money

2.14.2 Liquidity Providers

The JSE recommends that the IDX Liquidity Providers, using their overseas balance sheets in order to hedge themselves with the underlying security listed on a foreign exchange, hedge their positions with the currency or currency forward in order to eliminate the currency risk.

3. Clearing and Settlement

3.1 Clearing model

SAFCOM presently acts as the clearing house for the conclusion of securities traded on the equity derivative market, agricultural products market and Yield-X.

The risk management functions are governed in terms of clearing house agreements entered into separately with each clearing member, wherein clearing members guarantee all obligations arising from transactions in exchange contracts reported to SAFCOM for clearing.

SAFCOM acts as the central counterparty to the participants to the transactions in the securities that it clears. By a process of "novation" SAFCOM interposes itself in transactions between market participants, becoming the buyer from the seller and the seller to the buyer. In this manner, each participant's credit exposure to the other is substituted with an exposure to the clearing house, thus ensuring that in the event of default of one participant, the other is not affected.

In order to address the central counterparty risk it takes on, SAFCOM uses a hierarchical risk management structure (see Figure 5) whereby a client's obligation for the due fulfilment of an exchange contract is guaranteed by his or her trading member, and the trading member's obligation is in turn guaranteed by its clearing member. The enforcement of these obligations is laid out in exchange rules, thus ensuring that SAFCOM only becomes the guarantor of last resort if a clearing member is not able to perform.

SAFCOM uses a cash margining system to mitigate the market risk inherent in highly-geared derivative instruments. All participants are required to pay initial margin for their positions in exchange contracts. This "good faith deposit" is paid via participants' trading and clearing members to SAFCOM and is returned once the exposures are closed out.

Initial margin is designed to cover all but extreme market movements and is adjusted by the daily mark-to-model process which re-values all open positions. The variation margin that results from the daily mark-to-model process ensures that initial margin levels are maintained. SAFCOM may, in the event of extreme price movements, invoke an intra-day mark-to-model to cover any additional price risk that eventuates.

Figure 5   Risk management hierarchy
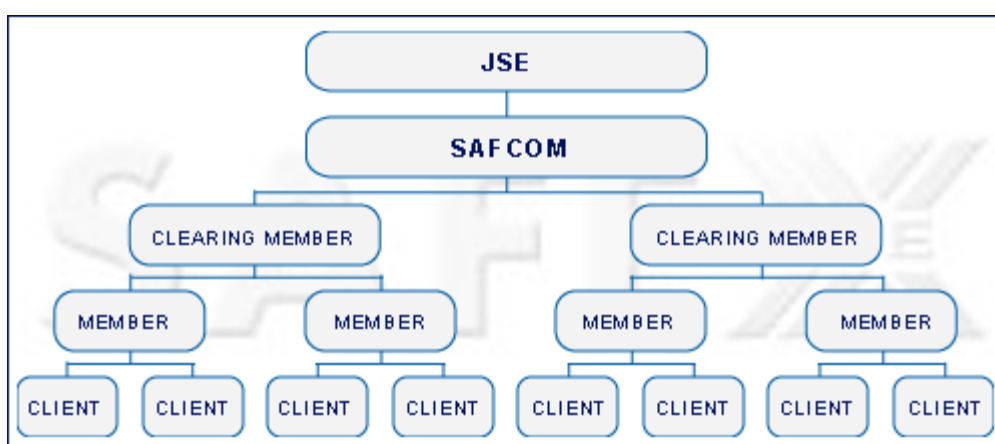
3.2 Portfolio scanning methodology

Initial margin will be determined using the portfolio scanning methodology as currently used in respect of JSE listed equity derivative securities and currency derivatives. This methodology is a standard deviation based margining methodology using daily returns from the previous seven years as input. It is based on data from the previous 2001 daily underlying closing prices (2000 changes) recalculated every 30 days.

The benefits of the portfolio scanning margining methodology are-

- its simplicity;
- its good global track record;
- it is a transparent, fair and reproducible method that is well understood and accepted by market participants; and
- it allows for offsetting of initial margin based on the combined risk of deals, thus position holders pay less initial margin when the combination of positions lessens the risk.

3.3 Initial margin calculations

In the clearing of existing derivatives, the SAFCOM initial margin calculation uses a standard deviation of 3.5. Standard deviations are a statistical measure of dispersal around the mean.

The current model for calculating the currency futures initial margin will be adopted for IDX. To establish a ZAR closing price for the past 2001 days, it is proposed that the historic prices of the currency spot, based on the Reuters/Bloomberg ZAR daily closing price, is multiplied by the underlying security closing price for that day.

3.4 Market versus stock specific volatilities and initial margins

It is recommended that stock specific measures are employed which will enable the JSE to observe correlations, volatilities and develop risk profiles for a specific underlying security. Initial margins, specific to the underlying security will allow for more accurate valuation which will enable the JSE/SAFCOM to set smaller initial margins for the less risky securities, thereby encouraging trades and liquidity in IDX.

3.5 Regression and stress testing

The JSE did run regression analyses on the variation in ZAR denominated prices on a number of internationally listed or quoted securities to confirm the valuation methodology in respect of the calculation of initial margin. Regression analysis tested, inter alia, stock correlation with ZAR movements and stress tests to determine the outcome of the 5 best and worst days for individual stocks when combined with the five best and worst days for the Rand.

3.6 Intra-day margining

In terms of the Derivatives rules, SAFCOM in its sole discretion may mark-to-model (M-t-M) positions at any time on any business day and call for additional variation margin.

3.7 Close out dates and methodologies

Close out dates and methodologies are dependant on the type of underlying security listed on IDX -

- if the underlying security is a derivative listed or quoted on an international exchange, close out of the international derivative in IDX will be aligned to the close out dates of that particular exchange. However, due to time zone differences, the JSE may require that close out occurs on the business day following the close out of the underlying derivative.
- if the underlying security is an equity security listed or quoted on an international exchange, close out of the international derivative in IDX will be aligned to current JSE currency

derivatives close out periods. (i.e. 2 days prior to the third Wednesday of Mar, Jun, Sep & Dec or the previous business day if a public holiday). As with currency futures the JSE will apply an arithmetic close-out methodology to determine both the Currency and Underlying Equity Spot values. This arithmetic close-out methodology consists of 30 iteration snapshots (last trade per minute for 30 minutes) from the underlying spot markets between 16:30 and 17:00 SA time.

4. Liquidity Providers and products

4.1 Liquidity providers

Essentially, t he l iquidity p roviders w ill de termine t he u nderlying s ecurities, l isted o n i nternational markets or exchanges, for which they wish to provide liquidity. Initially only members with access to off-shore balance sheets may participate as liquidity providers in the IDX market as Exchange Control Regulations do not allow the flow of local currency for hedging purposes.

SARB h as h owever t entatively p rovided t hat South A frican A uthorised D ealers may apply f or t he same dispensation applicable to currency derivatives in Yield-X. In effect, South African Authorised Dealers are able to hedge offshore using a local balance sheet, subject to the following requirements:

- the hedge a mounts ar e w ithin t he A uthorised D ealer's Macro F oreign p rudential e xposure limits; and

- the required approval is obtained from the Bank Supervision Department of SARB.

Multiple potential l iquidity providers w ere approached b y t he J SE and invited t o participate i n IDX. Deutsche Bank and Investec Capital Markets have committed to the initiative and will be the JSE's initial Liquidity Provider in IDX.

4.2 Products (underlying securities)

The JS E in itially lis ted 21 IDX SSFs w ith a n ear (12/12/2008), middle (16/03/2009) a nd f ar (12/06/2009) expiry on each. Over time and depending on market participation, the JSE will increase the number of IDX SSF contracts listed, with the longer term objective to list options on the IDX SSFs and ZAR based international index futures and options. *Table 4* below lists 10 IDX securities which are constituents of the FTSE100 index listed on the LSE. *Table 5* lists 11 IDX securities which are constituents of the DJ Eurostoxx Index.

Table 4   FTSE 100 Instruments

FTSE100 Instruments	BLB Code*	Sector Code	Nutron Code**
BP PLC	BP/ LN Equity	Oil & Gas	BPPG
Vodafone Group PLC	VOD LN Equity	Telecommunications	VODG
GlaxoSmithKline PLC	GSK LN Equity	Pharmaceuticals	GSKG
Royal Dutch Shell PL	RDSB LN Equity	Oil & Gas	RDSG
Rio Tinto PLC	RIO LN Equity	Mining	RIOG
AstraZeneca PLC	AZN LN Equity	Pharmaceuticals	AZNG
BG Group PLC	BG/ LN Equity	Oil & Gas	BGPG
Tesco PLC	TSCO LN Equity	Food	TSCG
Xstrata PLC	XTA LN Equity	Mining	XTAG
ENRC PLC	ENRC LN Equity	Mining	ENRG

* Bloomberg ticker code

** Nutron Trading System code

Table 5   *DJ Eurostoxx Instruments*

DJ Eurostoxx Instruments	BLB Code*	Sector Code	Nutron Code**
Total SA	FP FP Equity	Oil & Gas	TOTG
Telefonica SA	TEF SQ Equity	Telecommunications	TEFG
E.ON AG	EOAN GY Equity	Electric	EOAG
Siemens AG	SIE GY Equity	Miscellaneous	SIEG
Nokia OYJ	NOK1V FH Equity	Telecommunications	NOKG
Sanofi-Aventis SA	SAN FP Equity	Pharmaceuticals	SANG
GDF Suez	GSZ FP Equity	Gas	GSZG
ENI SpA	ENI IM Equity	Oil & Gas	ENIG
Bayer AG	BAY GY Equity	Chemicals	BAYG
SAP AG	SAP GY Equity	Software	SAPG
LVMH Moet Hennessy Louis Vuitton SA	MC FP Equity	Luxury Goods	LVMG

* Bloomberg ticker code

** Nutron Trading System code

4.3 Contract specifications

The contract specifications will be similar to the SSFs listed on the EDM. An example is set out in *Table 6* below.

Table 6   Example of international derivatives contract specification

| Product	International Derivative Single Stock Future
Underlying Equity Name	Vodafone Group PLC
Underlying Listed Exchange	London Stock Exchange (LSE)
Underlying Sector Code	Telecommunications
Part of Underlying Index	FTSE100
Underlying ISIN	GB00B16GWD56
JSE Nutron Code	VODG
Bloomberg Code	VOD LN Equity
Contract size / Nominal	1 x The underlying equity price in ZAR
Expiry dates and times	16:30; 2 days prior to the third Wednesday of Mar, Jun, Sep & Dec or the previous business day if a public holiday
Quotations	Price per underlying equity to two decimals in ZAR.
Minimum Price Movement	0.01 ZAR
Expiry Valuation Method	The official close out price determined by the JSE will be used.
Settlement Method	Cash settled
Trading Hours	08h30 – 17h30
JSE Fees	2 Basis points of nominal value
Daily M-t-M closing price	The official daily closing price will be determined by the JSE between 17:00 and 17:15.

4.4 Liquidity Provider rebates

In order to increase market liquidity and encourage the participation of On-Screen Liquidity Providers in IDX, the JSE will waive booking fees for a period agreed to with the On-Screen Liquidity Providers.

4.5   Liquidity Providers software

The JSE provides a free vanilla front-end for the Nutron platform. This front-end contains the functionality that provides auto-quoting for a Liquidity Provider. Most Yield-X Liquidity Providers, in respect of currency derivatives, make use of this functionality. *Figure 6* illustrates the high-level auto-quote process

Figure 6   Nutron front-end diagram
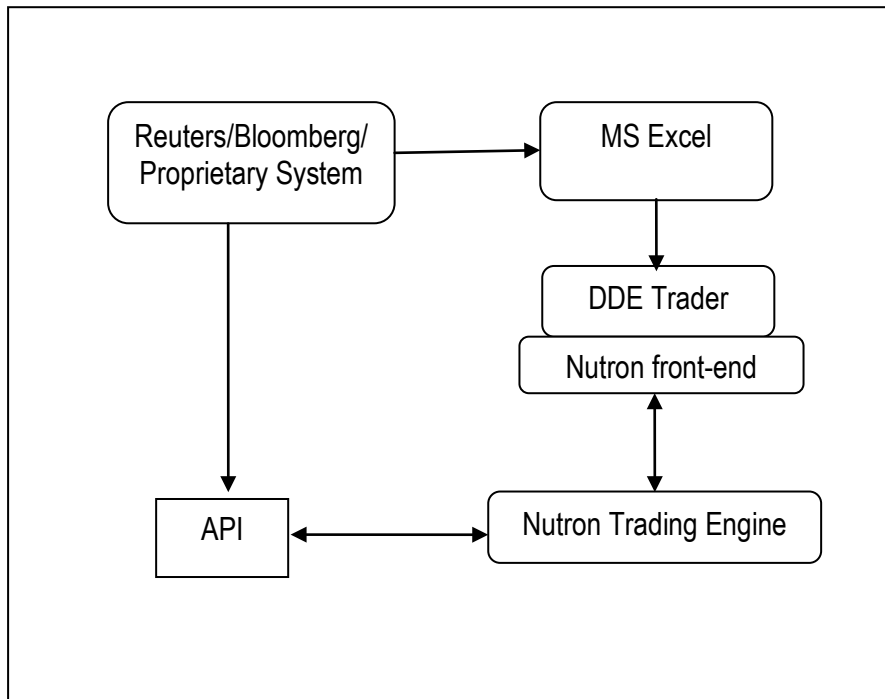
Notes

    a)   Liquidity Providers receive live prices from Reuters/Bloomberg/Proprietary System and pull this data into MS Excel.

    b)   Bid and ask spreads are adjusted in the MS excel model. The resulting data is automatically fed into the DDE Nutron vanilla front-end and pushed into the Nutron central order book.

    c)   Alternatively, Liquidity Providers may develop proprietary front-end software, as Nutron has a true open Application Programmable Interface (API). Copies of the Nutron API specification may be obtained by e-mailing derivative_info@jse.co.za.

5. Corporate Actions

The JSE will make the necessary adjustments to international derivatives listed on IDX in respect of corporate actions on the underlying security. The JSE will attempt to replicate the underlying Exchange's (as set out in the contract specifications) treatment of corporate actions (Mergers, Special Dividends, Stock Splits, Divestitures etc). Corporate action data will be sourced from the exchange where the underlying security is listed or from internationally recognized corporate action information providers. The JSE will alert the market, by way of a market notice of all corporate actions impacting international derivatives listed on IDX. The JSE will adjust the international derivative contracts in a manner that neither party will gain or loose as a result of the corporate action.

Changes to contracts will be made to reflect all corporate actions. Data will be received from the particular source by the Information Services' corporate actions division. The data will be processed and sent to the necessary parties within the exchange to make all the necessary adjustments to the contracts. Market notices will only be sent out when the JSE have made changes to contracts.

6. Valuations

6.1 Overview

The value of an IDX SSF closely tracks the price of the underlying security. The cost of buying an IDX SSF and holding it to expiry is generally determined by three factors:

- the spot (cash) price of the underlying security;
- the interest income foregone by holding the security rather than the cash (opportunity cost); and
- the dividends that can be generated by the security (i.e. any dividends paid to the holder before the expiry of the IDX SSF).

IDX SSFs will be available to the open market, thus the prices will be subject to the normal supply and demand forces after initial listing on Nutron.

6.2 Reference data

To ensure that the reference data is complete accurate and reliable, the JSE will source daily dividend data and live prices of the underlying securities from international data vendors. The price discovery of the value of the underlying security of IDX international derivative will be referenced from the relevant market/exchange.

6.3 Time of valuations

The JSE will perform valuations on all IDX international derivatives at 17h30 on every trading day. These valuations will be published with all other statistical data on the Equity Derivatives website. If required, the JSE will perform a valuation at 15h00. IDX SSFs will be published on the same M-t-M Reports currently published for the Equity Derivatives market. The M-t-M Data spreadsheets will still be alphabetically ordered for all non-IDX instruments with an additional section at the bottom of the report for IDX instruments.

Due to obvious time zone constraints, the JSE will close at a different time to the market/exchange where the underlying security is listed or quoted. If the exchange/market where the underlying securities are listed or quoted closes after the official closing time of IDX, snapshots will be taken of the relevant spot prices and these prices will be used to calculate the IDX closing price and the mark-to-model valuations. The snapshots will take place in the time period 17h00 to 17h15. During this period the JSE will either use the mid-spread or the last traded price of an International Data Vendor application.

If after the close of IDX the price of the underlying security moves more than a percentage determined by SAFCOM intra-day margining will be performed in the morning of the next business day and the closing price of the underlying security will be used for the revised M-t-M calculations.

6.4 Valuation methodology

6.4.1 Instrument type

The valuation methodology is dependant on the instrument type of the underlying security -

- □ where the underlying security of a IDX SSF is an internationally listed equity security, the spot price, as determined in a snapshot, of the underlying securities will be used in the FairValue formula as the closing price; or

- □ where the underlying security of an IDX SSF is an internationally listed derivative instrument, the closing price will be the price of the derivative instrument, as determined in a snapshot that will be converted into a ZAR denominated closing price.

6.4.2 FairValue formula

The formula currently used by the JSE to calculate the fair value (forward value) of a single stock is (this also determines the price of the IDX SSF)

$$FairValue = (cp - dd) * \left[1 + i \frac{x}{365} \right]$$

where

$$dd = \sum_{k=1}^{n} D_k \bigg/ \left(1 + i_k \frac{x_k}{365} \right)$$

and

cp = closing spot/price at the end of the day of the underlying stock

i = interest rate (simple format) applicable for x, taken from the relevant yield curve

x = days to expiry of the futures contract

dd = discounted dividends

k = a counter

n = the number of dividends that fall within the time period from the valuation date to the expiry date

D_k = the k-th cash dividend

x_k = the number of days from the valuation date till the k-th dividend's ex-date

i_k = the interest rate (in simple format) applicable for x_k, taken from the relevant yield curve.

6.4.3 Adaptation of the FairValue valuation methodology

The FairValue valuation methodology requires adaptation to incorporate the currency aspect. In IDX international derivatives the JSE is currently researching two methodologies, however, in theory both methodologies should result in the same outcome. Both methods are explained below and Figure 7 illustrates these.

Method 1

The first method is to convert the foreign denominated spot price (snapshot taken of foreign exchange Bloomberg prices between 17:10 and 17:15 SA time) of the underlying security and the foreign denominated discounted dividends to a ZAR denominated spot price and ZAR denominated discounted dividends using the spot foreign exchange rate (snapshot taken of Bloomberg between 17:10 and 17:15 SA time). The ZAR forward price is then calculated using the FairValue formula with the relevant domestic interest rate. This is shown as route 1 in *Figure 7*.

Method 2

The second method is to calculate the forward price in the foreign currency using the FairValue formula with the relevant foreign interest rates. convert the foreign denominated spot price of the underlying security to a foreign denominated forward rate using the foreign interest rate and then calculate the ZAR forward rate using the foreign exchange forward (F_t). This is shown as route 2 in *Figure 7*.

Figure 7   Illustration of the FairValue adaptation methodologies
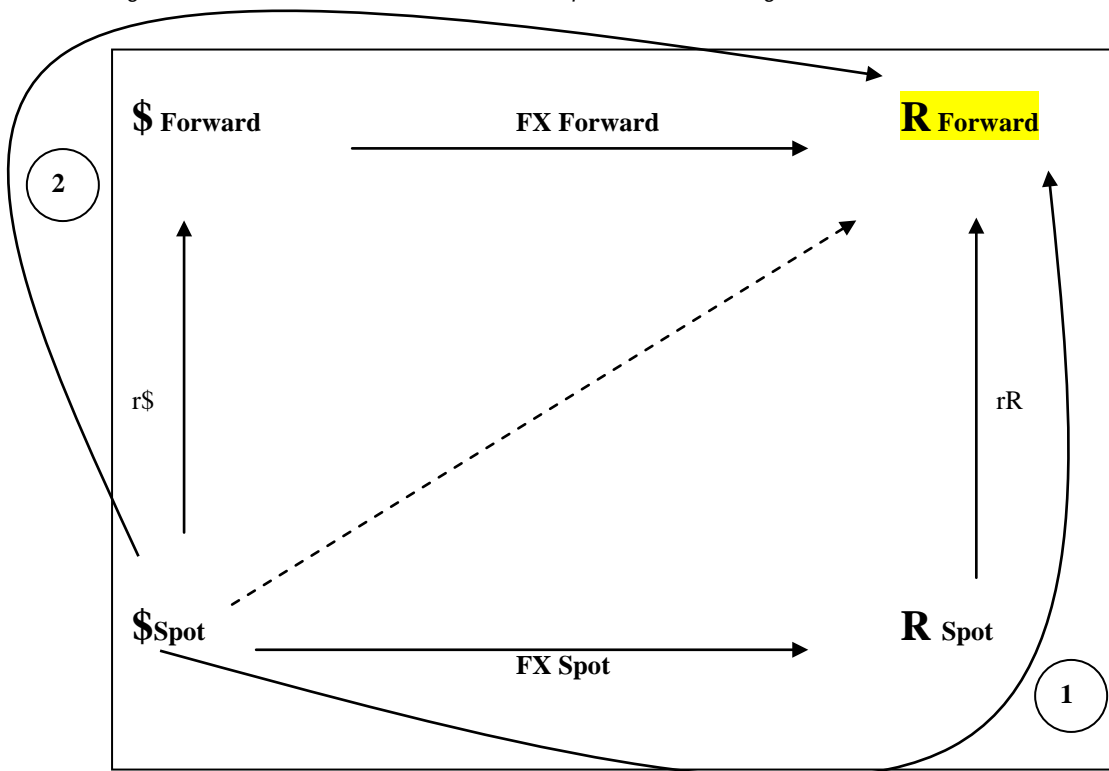
The foreign exchange forward is calculated as follows

$$F_t = S_{fx} \frac{1 + i_d t_d}{1 + i_f t_f}$$

where we have

S_{fx} = the spot exchange rate

i_d = the relevant domestic interest rate (simple format)

i_f = the relevant foreign interest rate

$t_d = \dfrac{x}{365}$ = domestic time

$t_f = \dfrac{x}{M}$ = foreign time.

M = foreign convention on days per annum used. This is 360 for US Dollar and Euro and 365 for Pound.

6.5   Closeout Price Calculation

In order to hedge/eliminate the currency risk associated with the trading of African Derivatives, it was agreed that the expiry date of African Derivatives and Currency Derivatives coincide.

Both instruments will expire at 10H00 New York time (i.e. 16H00 in SA winter and 17H00 in SA summer) two business days prior to the 3rd Wednesday of the expiry month (or the previous business day if that day is a public holiday). The expiry months will be March, June, September and December.

Both instrument's closeout prices will be calculated making use of a 30 iteration arithmetic average from the underlying spot market taken every 1 minute for a period of 30 minutes, ending at 10H00 New York time. In SA Summer time the 30 iterations will therefore be between 16H31 – 17H00 and between 15H31 – 16H00 during SA Winter. The Data Vendor used for the Currency Derivatives underlying spot prices will be Thomson Reuters and for International Derivatives the underlying spot prices will be taken from Bloombergs.

The arithmetic average for currency will be the official closeout price of the currency. As International Derivatives are traded and closed out in South African Rand, the International Derivative official closeout price will be calculated by multiplying the currency closeout price with the arithmetic average from the international spot market.

7. SARB Reporting

SARB needs to maintain proper recording of transactions affecting the Financial Account section of Balance Of Payments. The requirement to report to SARB is a condition of the listing of "inward listed" securities and currency derivatives. The JSE has entered into a service level agreement with SARB and all reporting to SARB must be in accordance with this agreement. The Clearing & Settlement Division of the JSE is responsible for reporting to the SARB.

8. Membership

All existing Equity Derivative members may trade IDX SSFs without any additional approval requirements. New membership applications are subject to the current Equity Derivatives membership application procedures. Membership applications are coordinated by the Equity Derivatives membership liaison officer (Secretarial Services).

9. Exchange Control Regulations

9.1 International derivatives dispensations

Since the Budget Speech of 2008 all corporate entities including limited or unlimited companies, private and public companies, closed corporations, partnerships, trusts, hedge funds and banks are authorized to trade currency futures with no restrictions on the value traded. Corporate entities do not need to apply to the Reserve Bank for approval to trade the currency futures nor do they have to report their trades. International Derivatives fall under this same dispensation from The South African Reserve Bank. See Exchange Control Circular 10/2007 "Inward Listing of Derivatives with Foreign Reference Assets"

9.2 International derivatives qualifying clients

The following categories of clients are permitted to trade and hold positions in International Derivatives and are referred to as "qualifying clients".

a) A South African individual with no limits applicable.

b) A South African Corporate entity with no limits applicable.

c) A non resident individual or non resident corporate entity with no limits applicable.

d) A resident financial service provider and Collective Investment Scheme subject to their foreign portfolio allowance.

e) A resident pension fund subject to their foreign portfolio allowance.

f) A resident long-term or short-term insurer subject to their foreign portfolio allowance.

10. Benefits and risks

10.1 Benefits of IDX SSFs

a) Diversify offshore - investing internationally is an important part of building a diversified investment portfolio. Investing in IDX SSFs investors can not only share in the growth of the world's largest and profitable companies but also reduce overall investment risk;

b) Convenience - IDX SSFs provides a convenient entry point into foreign markets without the restrictions and paperwork of exchange control regulations or the expense of setting up a foreign trading account. When investing directly into a foreign market there are complicated securities laws, levies and taxes. If you go through a third party manager there are additional costly fees. The JSE's IDX eliminates all these obstacles.

c) Invest offshore without using or minimizing your offshore allowance –

- as an individual or corporate entity investing in international derivatives does not use any of your offshore investment allowance;

- as a registered asset manager, investing in international derivatives does not require SARB's permission, but the positions fall under the prudential foreign portfolio limits.

10.2 Additional benefits of SSFs

a) SSFs offer you an opportunity to protect/hedge your share portfolio by selling SSFs in the same underlying share.

b) SSFs incur lower brokerage costs than actually trading in the underlying shares.

c) Your initial margin earns interest for the duration of your contract.

d) Corporate actions affecting the underlying shares are taken into account on the futures contract.

e) SSFs are characteristically liquid and easily traded.

f) With margin requirements of approximately 10% - 15%, SSFs provide a highly capital efficient way to participate in shares.

g) The JSE independently calculates the closing price on all listed SSFs.

h) You can sell short futures, benefiting from downward price movements.

10.3 Risks associated with IDX SSFs

a) Gearing offers significant returns but can also result in significant losses if the market moves against your position. Only experienced investors or investors with the help and advice of an experienced adviser should participate in this market. It is important for investors entering this market to be aware of the risks involved.

b) The SSFs are not capital protected. Investors may not get back the amount invested.

c) The value of any investment involving exposure to foreign currencies can be affected by exchange rate movements.

d) Currency element associated with IDX Futures as explained in the *Hedging currency risk* section of this document.

11. Contact details

For any further information with regards to this initiative, please contact:

JSE Limited – Derivatives Trading Division

Tel: +2711 520 7000
Email: derivativestrading@jse.co.za
www.jse.co.za

Deutsche Securities (Pty) Ltd

Tel: +27 11 775 7000
Email: kari.van-rensburg@db.com
www.db.com/southafrica/

Investec Capital Markets

Tel: +27 11 286 4521
Email: ed@investec.co.za
www.investec.com/IDX