



Brokers' Guide to IDX Futures

March 2017

Introduction

IDX futures give an investor exposure to an international share just like a single stock future would provide exposure to local shares. They are margined investments, priced in rands, and listed on the South African Futures Exchange (SAFEX).

IDX futures are available on international equities spanning a variety of global markets including but not limited to the US, UK, Europe, Japan, Australia and Hong Kong.

Popular IDX futures include those on Hammerson PLC, Tencent Holdings Ltd, the iShares Core S&P500 ETF, Volkswagen AG and Pernod Ricard to name a few. There are over 300 names currently traded, with more being added on a weekly basis as requested.

Investec is a recognised market maker and liquidity provider in IDX futures.

Pricing

IDX futures are priced in a similar manner to Single Stock Futures. Investec applies the below formulae in calculating the fair value of the IDX future for long and short positions taken:

rf : Funding rate
 rd : Deposit rate
 sb : Scrip borrow rate
 d : Days to expiry
 f : Execution fee

Long positions:

$$FV = (S_0 \times FX_0) \times \exp^{(rf \times d/365)}$$

Short positions:

$$FV = (S_0 \times FX_0) \times \exp^{((rd-sb) \times d/365)}$$

Depending on the direction of the trade (buy/sell), an execution fee equivalent to $(S_0 \times FX_0) \times f$ is then added/subtracted from the fair value price.

S₀ : Equity spot price in foreign currency
 FX₀ : Currency spot price

MTM

The JSE takes a snapshot of the underlying equity price and the applicable FX rate at 17h00 (SAST) for MTM purposes. It then applies a SAFEX funding rate to this in calculating the IDX future MTM value for the day.

This is purely for margining purposes, and will not reflect the ultimate value the client is likely to receive. At trade unwind, Investec will use the spot equity price achieved in the market, the current FX rate at that point, and will apply its own funding rate as quoted at trade initiation.

Dividends and corporate actions

IDX contracts are traded in tandem with IDX dividend futures to enable the value of all dividends declared to be debited from the short-holder and credited to the long-holder.

How they look

The IDX future holding the value will have a name ending in the letter **G**, for example 13 Mar17 TSL**G** is a March-expiring IDX future on Tesla Motors. The dividend future will end in the letter **D**, and will be called 13 Mar17 TSL**D**.

Dividend future price

Dividend futures are initially booked over at a price of zero, and hence carry no initial value. Should the underlying company pay out a dividend, the JSE will adjust the value of these contracts so that the long-holder receives the

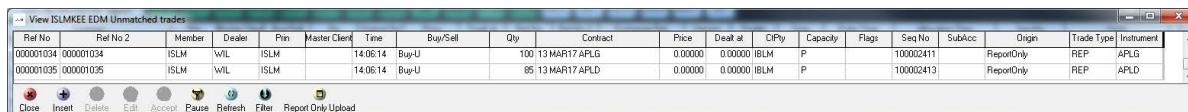
value of the dividend, and the short-holder is credited with the same.

Ratio of IDX futures to dividend futures

To account for dividend withholding tax in certain jurisdictions, Investec applies a ratio to the quantity of dividend futures allocated for each IDX trade. For example, the US carries a dividend withholding tax rate of 15%. For every 100 IDX futures traded, the long-holder will receive 85 dividend futures (0.85 ratio), which will be credited with the gross amount of the dividend as per SAFEX's treatment of these. This net result would be equivalent to the long-holder paying a 15% withholding tax rate on the full position. This ratio varies per jurisdiction in line with dividend withholding tax rates faced.

Booking

IDX futures are booked through SAFEX's Nutron system as with all other listed equity derivatives.



Ref No	Ref No 2	Member	Dealer	Pin	Master Client	Time	Buy/Sell	Qty	Contract	Price	Deal at	CQty	Capacity	Flags	Seq No	SubAcc	Origin	Trade Type	Instrument
000001034	000001034	ISLM	WIL	ISLM		14.06.14	Buy-U	100	13 MAR17 APLG	0.00000	0.00000	IBLM	P		100002411		ReportOnly	REP	APLG
000001035	000001035	ISLM	WIL	ISLM		14.06.14	Buy-U	85	13 MAR17 APLD	0.00000	0.00000	IBLM	P		100002413		ReportOnly	REP	APLD

Expiry and rolls

Expiry dates are set as ‘two days prior to the third Wednesday of March, June, September and December or the previous business day if a public holiday’.

The expiry methodology stipulated by the JSE is as follows:

Expiration procedure

Underlying expiration time	09h30 New York time
Expiration underlying reference (UREF)	The level of the underlying at the underlying expiration time on the expiration date
Currency expiration time	<p>As determined using the same expiration valuation method utilized for the expiry of standard currency futures on standard quarterly expiry dates:</p> <p>Dollar/Rand 10 Iterations, arithmetic average of the underlying traded spot price taken every 30 seconds for a period of five minutes, commencing at 09h55 ending at 10h00 New York time.</p> <p>Every other currency pair 10 Iterations, arithmetic average of the underlying spot mid-price (of the bid and offer) taken every 30 seconds and crossed at every iteration with the USD/ZAR price for a period of five minutes, commencing at 09h55 ending at 10h00 New York time.</p>

IDX futures are all cash settled in rands, so the client will never be obligated to purchase or take delivery of foreign equity.

For roll trades, Investec will price a close-long/close-short trade on the near contract at zero brokerage, and an open-long/open-short trade on the far contract including roll brokerage as agreed. Roll trades reference the same underlying price and FX rates on both sides, with the only difference being the interest rates quoted on the near and far contracts.

IDX trading universe

The JSE publishes a daily file containing all listed derivative contracts along with their fixed and margin requirements. The file can be downloaded from the below location:

https://www.jse.co.za/_layouts/15/DownloadHandler.ashx?FileName=/Safex/All%20Contract%20Details.xls

IDX contracts can be seen by filtering on the category column for international derivatives.

JSE listing requirements and process

The JSE maintains a set of criteria that used when listing new IDX futures. For ease of reference, these are duplicated below.

For an IDX to be eligible for initial listing, each of the following criteria must be met:

- i. The security underlying the futures contract must be a listed instrument on a major international securities exchange
- ii. The security underlying the futures contract must be a constituent of a major international index (e.g. S&P 500, NKY 225, FTSE 100, ASX 100)
- iii. The security underlying the futures contract must trade more than 67 out of 90 days (75% of 90 days), and demonstrate a 90-day average daily value traded of at least \$10 million³ after the removal of the nine largest observations from the 90-day time-series, i.e. the top 10%
- iv. The security underlying the futures contract must have a market capitalisation of at least \$4 billion⁴
- v. If the security underlying the futures contract is an international listed Index/ETF/ETN with a committed liquidity provider in the foreign market, the JSE will list an IDX if the necessary permissions from the Index/ETF/ETN provider are in place

The full JSE document can be accessed on the below link:

<https://www.jse.co.za/content/JSEBrochureItems/IDXandSSFListingRequirements.pdf>

New IDX futures can generally be listed on the same day if the request is made before 15h00, and the underlying security meets the above requirements. There is no fee for listing new IDX futures.

Example

Client A enquires about IDX contracts and wants to take a long position of R1 million in Alibaba. The broker routes this order through to Investec, which is a market-maker in IDX.

Investec will calculate the approximate number of shares in the underlying to execute. Assuming that Alibaba (BBG code: BABA US) is bought at \$102.07 (net price after US brokerage), FX is bought at a spot rate of R13.60, there are 50 days left to the March 2017 expiry date, Investec applies a long funding rate of 8.5% on March contracts and a 20bp transaction fee, the open long price would be calculated as follows:

Mar17 FACG price = $(102.7 \times 13.6) \times \exp^{(0.085 \times 50/365)} + (102.7 \times 13.6) \times 0.002 = R\ 1415.872$

Client A would receive the following:

	Quantity	Price	Total exposure (R)
13 Mar17 FACG	706	1415.872	999605.63
13 Mar17 FACD	600*	0	0
			<u>999605.63</u>

*706 x 0.85 = 600 dividend contracts, given that the US withholding tax rate is 15%

Investec will book these contracts through to the relevant broker/prime broker as instructed. Client A will have to place margin of R112 960.00 (706 contracts x R160 fixed margin per contract**) for this position, which is roughly 11.3% in margin, and implies a $1/0.113 = 8.85$ x gearing ratio.

**As referenced from the JSE's All-Contracts file, mentioned above in the IDX Trading Universe section.

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Interested in trading the US dollar with a regular JSE Equity account? Have a look at IBLUSD, Investec's new ETN.

<https://www.investec.co.za/products-and-services/trading/equities/equity-derivatives/exchange-traded-notes/usd-etn.html>

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