JOHANNESBURG STOCK EXCHANGE
Equity Derivatives

Market Notice

Number: **F6525**
Date: **30 September 2013**

Dividend Future valuations where ETFs are the underlying

Background

JSE Equity Derivative Market participants are reminded that Dividend Futures (F-Contracts) in this market were specifically designed to eliminate dividend assumption risk when pricing a Capital Index or Single Stock Future. As a result the JSE does not charge any booking fees or initial margin on these instruments.

Another feature of the JSE's F-Contracts is the reset that occurs on Ex-Date. Ex-date is the day after the LDT- date (Last Day to Trade) and means that any person acquiring the share on or after this date will not qualify for the declared dividend. The share price will therefore trade at a price excluding the dividend amount from this date and the F-Contract is decreased by the dividend amount on this date.

As F-Contracts exists in the futures market with daily margining, the dividend cannot just be reduced by the dividend amount on ex-date as this will mean a negative cashflow from the long holder and a positive cashflow for the short holder of the F-Contract. In order to correct these cashflows, the JSE introduced functionality with will allow for a "Journal Transaction" which will create equal and opposite legs to the cashflows associated with removing the dividend from the F-Contract. It basically resets the price of the F-Contract without any cashflows. Another way of thinking of the journal transaction is the fact that if the dividend is not made zero on ex-date, investors will need to remember what the dividend value was in the past. The Journal transaction can therefore also be seen as the mechanism that clears the dividend history memory.

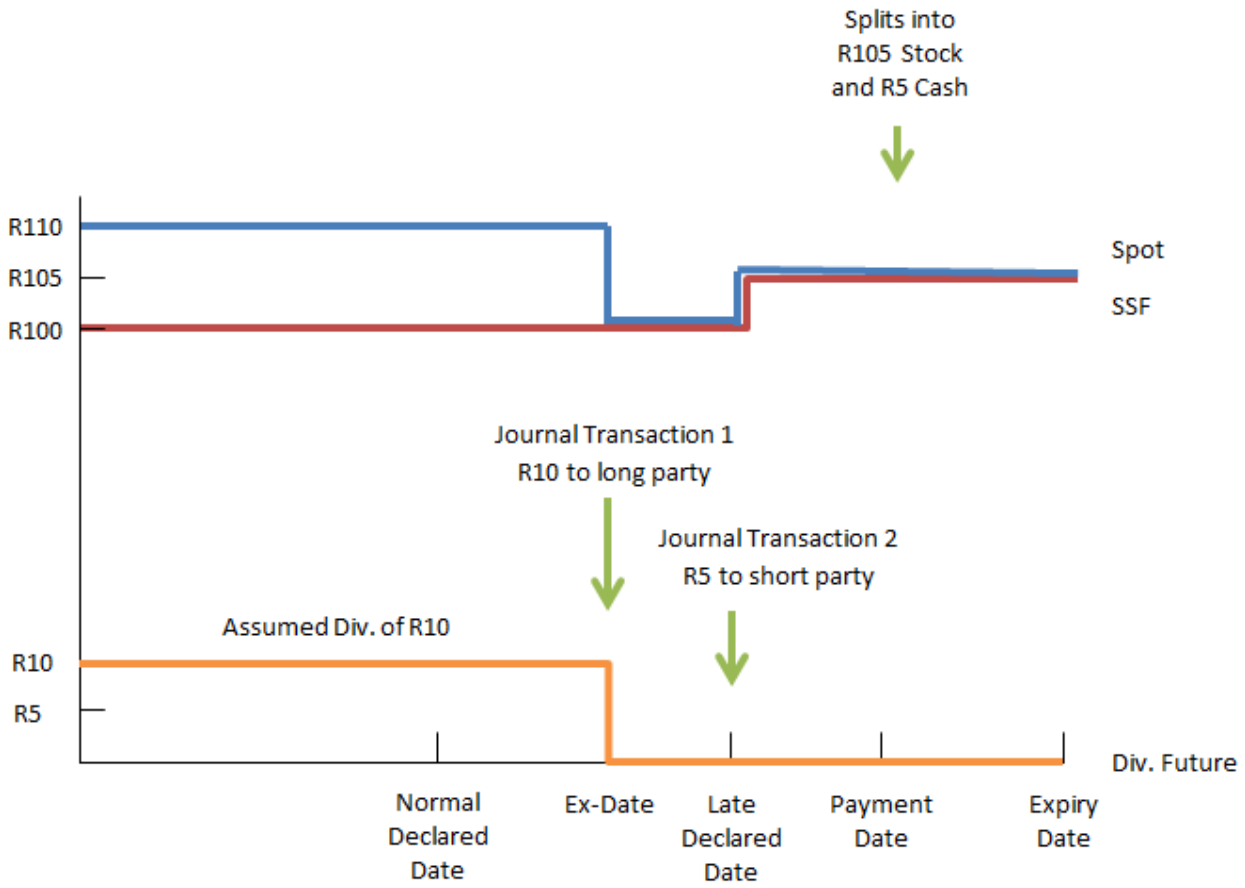
The attached appendices provide more information with regards to the history of Dividend Futures (Appendix A) and how these instruments are used when trading the virtual Dividend Neutral contracts (Appendix B).

Journal Transactions on Dividend Futures for ETFs

Due to the fact that ETF providers are not able to always publish their dividend amounts on ex-date the JSE has been valuing Dividend Futures where the underlying is an ETF at a zero price for the

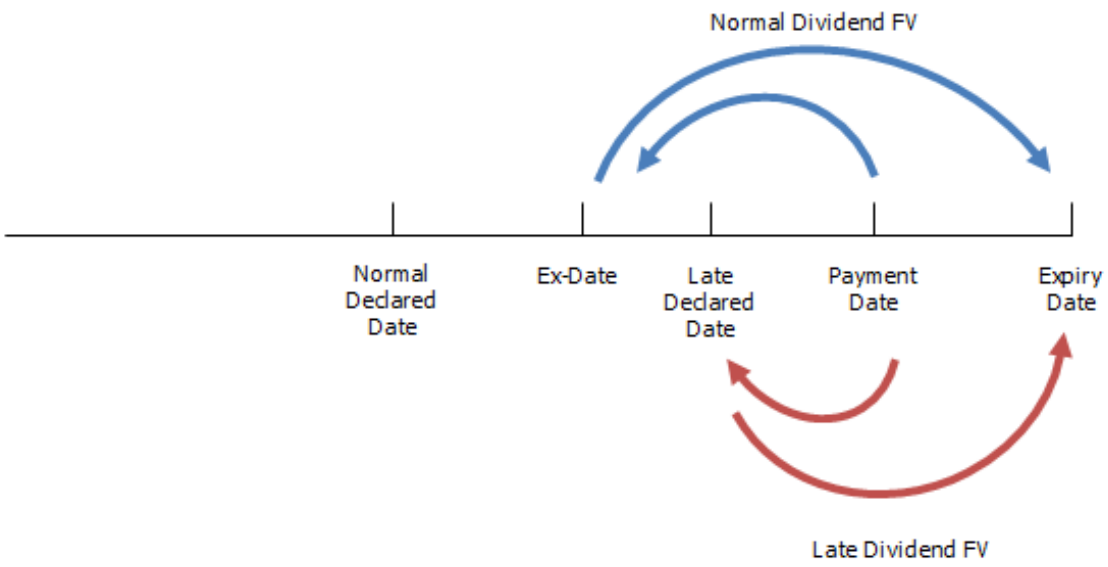
last couple of years. During a recent software upgrade, **the JSE now has the functionality to backdate journal transactions for instruments where the Dividend amount is unknown on ex-date. All Dividend Future contracts post the September 2013 closeout will therefore be calculated correctly.**

Let us illustrate by means of an example. When the dividend declaration date is after the ex-date for a given instrument, we will refer to it as a "Late Declared Date". Suppose we have an ETF with a late declared date which is currently trading at R110 in the spot market, the assumed dividend is R10 which means that the SSF and Dividend Future on this ETF is trading at R100 and R10 respectively. However, when the late declared date is reached, it is revealed that the market was wrong and that the dividend is in fact R5. The JSE will treat this as illustrated below (note that the diagram assumes no time value of money in the prices and no volatility in the underlying for simplicity):



The JSE will process the dividend on the ex-date as if it was going to be R10. This is the most accurate methodology and reduces the risk of future cash flows between counterparties. When we get to the late declaration date and discover that the size of the dividend was incorrect, we simply execute another journal transaction to correct for the difference. Journal transaction 2 will look back in time to the positions that existed when journal transaction 1 was executed. This will ensure that changes to a person's position will not interfere with the process.

The present value of the Future Value of the coupon will be calculated in the same way that is it for the normal dividend futures, the only difference being that the valuation date and hence the curve used will be as of the late declaration date rather than the ex-date. The diagram below illustrates this.



Ultimately, if you add the value of the SSF, the dividend future and the correctional journal transactions, you can see that value replicates that of holding the underlying, which is the ultimate goal of the dividend future and the dividend neutral contract alike.

This methodology will take effect on Tuesday the 1st of October 2013 and will currently have an effect on the prices of the following contracts:

STXQ
STDQ
SXFQ
SXIQ
STRQ
STXF
STDF
SXFF
SXIF
STRF

Please not that holders of both the F and the Q contracts in any particular underlying will not experience any profit or loss as the price movements will be offsetting.

The first journal transactions based on this methodology will happen when the securities go ex-dividend which is expected to be on or around the 19th of December 2013 to be confirmed via SENS announcement.

If you have any queries, please feel free to contact derivativestrading@jse.co.za

Graham Smale
Director: Bonds and Financial Derivatives
Tel: +27 11 520 7831
Fax: +27 11 520 8831
E-mail Address: grahams@jse.co.za

Distributed by the Company Secretariat +27 11 520 7346