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### MARKET NOTICE

Johannesburg Stock Exchange

Tel: +27 11 520 7000 www.jse.co.za

| Number:           | 104/2016                                      |
|-------------------|---|
| Relates to:       | Equity Market                                 |
|                   | I Equity Derivatives                          |
|                   | Commodity Derivatives                         |
|                   | Interest Rate and Currency Derivatives        |
| Date:             | 23 February 2016                              |
|                   |   |
| SUBJECT:          | ADDITIONAL INITIAL MARGIN FOR LARGE EXPOSURES |
|                   |   |
| Name and Surname: | Terence Saayman                               |
| Designation:      | Head of Risk                                  |

## Dear JSE Stakeholder

In March 2015 the JSE Clear Board approved a framework for calling a higher level of initial margin from portfolios presenting large and concentrated exposures to cover these additional risks. This framework is specifically designed to mitigate the concentration risk faced by the clearinghouse and its clearing members, and is referred to as concentration margin. It should, however, be noted that concentration margin is merely a component of initial margin, and is treated as initial margin under the JSE Clear rules and directives.

The concentration margin framework consists of two components:

- A component to take cognisance of the amount of time needed to liquidate specific positions and the potential losses associated therewith (referred to as the liquidation period margin), and
- A component to ensure that under JSE Clear's stress testing policy, the stressed exposure for a particular portfolio is never greater than a predefined tolerance level (referred to as the large exposure margin).

In order to minimize the sudden impact on client cash flows, it was decided to implement the concentration margin framework in two distinct phases, with phase one focusing on the implementation of the liquidation period margin, and phase 2 focusing on the large exposure margin. The implementation of Phase 1 was successfully completed on 03-August-2015, all portfolios attracting liquidation period margin above ZAR 50 million are funding that requirement daily.

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Phase 2 will now be implemented across all of the derivatives markets operated by the JSE, according to the following approach:

- From 04-Apri-2016 to 08-April-2016, JSE Clear will call large exposure margin from accounts where the total large exposure margin requirement is greater than ZAR 400 million, however, only the portion in excess of R400 million will be called for;
- From 11-April 2016 to 15-April-2016, JSE Clear will call large exposure margin from accounts where the total large exposure margin requirement is greater than ZAR 350 million, however, only the portion in excess of R350 million will be called for;
- From 18-April 2016 to 22-April-2016, JSE Clear will call large exposure margin from accounts where the total large exposure margin requirement is greater than ZAR 300 million, however, only the portion in excess of R300 million will be called for;
- From 25-April-2015 onwards, JSE Clear will call large exposure margin from accounts where the total large exposure margin requirement is greater than half the size of the JSE Clear Default Fund (currently the size of the JSE Clear Default Fund is ZAR 500 million), however, only the portion in excess of this threshold will be called for.

Appendix A provides more details with regards to the calculation methodology for large exposure margin, and an example of the calculation is provided in Appendix B. The profit and loss for each instrument under each scenario used to quantify the large exposure margin are published at the following link on the JSE's website: <u>https://www.jse.co.za/downloadable-files?RequestNode=/Safex/Margin\_Requirements</u>

In order to avoid larger than anticipated initial margin calls, clients are advised to give consideration to this methodology when considering the economics of clearing large transaction through JSE Clear.

Please contact Paul du Preez (paulp@jse.co.za) or risk@jse.co.za if you have any questions with regards to this notice.

This Market Notice will be available on the website at https://www.jse.co.za/redirects/market-notices-and-circulars

## APPENDIX A: CALCULATION METHODOLOGY

Under JSE Clear's stress testing framework, the stressed exposure at default (sEAD) for a particular client under a particular stress scenario is calculated by:

- 1. Calculating the Mark-to-Market (MtM) of each contract cleared by JSE Clear on day T+0;
- 2. Using the contract level MtM values to calculate the MtM value of the particular client portfolio on day T+0;
- Calculating the stressed Mark-to-Market (sMtM) value of each contract under the particular scenario, for valuation date T+2 (generic asset-class price changes are applied, and options are revalued under the stressed futures price and volatility scenario), and the associated profit and loss (sPnL) associated with having a long position in each contract;
- 4. Using the above contract level sPnL values to calculate the stressed variation margin (sVM) associated with the change in the MtM value of the client portfolio (from MtM T+0 to sMtM T+2); and finally
- 5. Calculating the stressed exposure at defeault (sEAD) as the difference between to total amount of initial margin held against the exposure and sVM.

The large exposure margin is then calculated as the absolute value of the sum of half the size of the JSE Clear Default Fund (currently R500m), and the smallest (largest negative) sEAD across all of JSE Clear's historic stress testing scenarios, and. However, if the abovementioned sum is greater than zero, no large exposure margin will be applied.

The exact set of stressed contract level sPnL values used to quantify large exposure margin will be published on the JSE website, and will be updated on at least a weekly basis.

## APPENDIX B: LAGRE EXPOSURE MARGIN EXAMPLE

Suppose the following set of sPnL values are published for the Mar-15 ALSI futures contract:

| Contract | Expiry    | C/P/F | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|----------|-----------|-------|------------|------------|------------|------------|
| ALSI     | 17-Mar-16 | F     | 50,000     | 5,000      | -5,000     | -50,00     |

Furthermore, assume that a particular client is long of 30,000 Mar-16 ALSI futures, with normal initial margin of R750m against the exposure. The sEAD for the particular client under the above scenarios will be as follows:

| Scnearo | Scenario 1             | Scenario 2            | Scenario 3            | Scenario 4             |
|---------|------------------------|-----------------------|-----------------------|------------------------|
| sEAD    | R2.25billion           | R900 million          | R600 million          | -R750 million          |
|         | R750m + (50,000x30,00) | R750m + (5,000x30,00) | R750m - (5,000x30,00) | R750m - (50,000x30,00) |

The large exposure margin for the particular client is then the absolute value of:

• R250m (half the size of the JSE Clear Default Fund) – R750m = -R 500m.

The total large exposure margin will thus be R500m, and the total initial margin against the exposure R1.25 bn.