INTRADAY MARGIN CALL POLICY

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1. Introduction

This document details the Intraday Margin Policy (the "Policy") for JSE Clear (the "Clearing House"). It establishes standards and principles for intraday margining to support the work of the Clearing House and sets out key roles and responsibilities.

1.1 Purpose and scope

JSE Clear ("JSEC") requires collateral for equity, foreign exchange, fixed income and commodity derivatives positions to cover the margin requirement provided within the relevant deadline on each Clearing House business day. In the event of increased risk exposure during the day, JSEC may elect to perform an Intraday Margin Call ("IMC") in order to protect the central counterparty and safeguard the derivative markets by ensuring that intraday exposures are sufficiently collateralised.

Intraday Margin Calls may be issued for two purposes, for the settlement of:

- **Variation Margin** that has accumulated since the previous settlement run
- **Initial Margin**, in cases where participants have entered large positions during the trading day

The purpose of this policy is to provide transparency on the approach and thresholds for an IMC, as well as setting out the related roles and responsibilities for involved parties.

The policy is applicable to all markets which are centrally cleared by JSEC.

1.2 Regulatory requirements

The primary purpose of the Policy is to define JSEC's approach for conducting Intraday Margin Calls. The Policy has been drafted to support compliance with relevant external regulatory requirements, in particular, the Financial Markets Act[1] ("FMA") on standards for Clearing Houses.

[1] Financial Markets Act 19 of 2012

1.3 Key terms

The following terminology is used hereafter in the Policy:

- **Margin:** the collateral posted by market participants to the Clearing House to mitigate counterparty risk associated with their centrally cleared positions in the derivatives markets. Collateral is in the form of ZAR cash.
- **Intraday Margin Shortfall:** the difference between the point-in-time margin requirement on a portfolio and value of collateral posted as margin. This calculation considers any movements in the market value of the portfolio since the previous margin call resulting from changes in positions held and/or instrument prices.
- **Market assessment:** the process by which JSEC determines whether it is necessary to perform an Intraday Margin Shortfall calculation.
- **Margin call:** the processes by which the Clearing House addresses margin shortfalls through the issuance of settlement instructions to Clearing Members to fulfil margin obligations (variation and initial margin). This is typically conducted either:
    - At end of day after market close (“**EOD Margin Call**”)
    - Or, intraday day in circumstances described by this policy (“**Intraday Margin Call**”)
- **Margin settlement:** the process by which Clearing Members settle margin calls by posting cash to the Clearing House.
- **EOD margin reconciliation:** the process by which the Clearing House offsets any margin posted intraday against requirements identified during the EOD Margin Call, or subsequent Intraday Margin Calls.

2. Intraday margining call approach and thresholds

The objective of the Intraday Margin Call approach is to identify where market developments since the previous EOD Margin Call pose a risk, and to determine whether an IMC is required to ensure that sufficient margin is held by the Clearing House as collateral.

JSEC reserves the right to execute an IMC whenever it is deemed necessary.

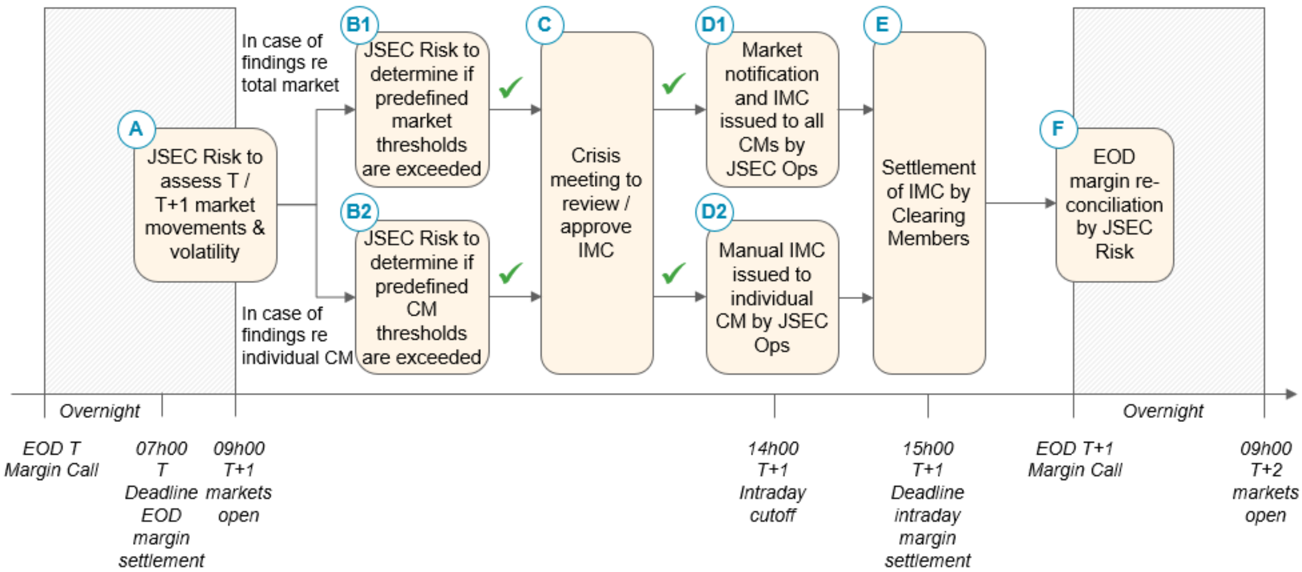
2.1 Intraday margining process

JSE Clear´s policy is to conduct a "routine" market assessment, which may in turn trigger an Intraday Margin Shortfall calculation and the issuance of an IMC. This would happen if predefined thresholds are breached and the resultant crisis meeting (convened to discuss the observed breach) determines that an IMC is required.

In addition, JSE Clear has the ability to perform ad-hoc Intraday Margin Shortfall calculations for selected markets, or Clearing Members in cases of extreme price volatility or large changes in the positions held by Clearing Members. Such circumstances may also result in JSEC issuing a more targeted IMC.

The approach and governance for a "routine" Intraday Margin Call is summarised in Figure 1 below.

Figure 1: *Indicative trading day timeline for a routine Intraday Margin Call approach*



Details on the process steps are described in detail below:

A. Step A: Market assessment

The JSEC Risk team conducts a market assessment on a daily basis to identify expected / observed market conditions that may require an IMC. Inputs for the market assessment may include market announcements, corporate actions as well as early warning indicators such as large price movements, extreme market volatility and increased trading volume.

B. Step B1 / B2: Intraday Margin Shortfall calculation and check versus thresholds

Should the market assessment reveal any material findings an Intraday Margin Shortfall and other calculations will be conducted by the JSEC Risk team to determine whether predefined thresholds, set at a market or individual Clearing Member level, have been exceeded (see section 2.2).

Depending on the market assessment, the calculations may be performed for the whole market, or on an individual Clearing Member level.

The calculation results should be presented in context of the predefined thresholds set out in Section 2.2 in a crisis meeting for discussion.

C. Step C: Crisis meeting to approve IMC

The crisis meeting, which should include the JSEC Responsible Officer (RO), the JSEC CRO and the JSEC COO (or their alternates should one or more of these persons be unavailable), will assess whether an IMC is required, and provide approval for JSEC to issue an IMC to the market, or to individual Clearing Member(s) as they determine necessary.

In the case where an IMC to an individual Clearing Member(s) is being considered, JSEC will engage the Clearing Member(s) to inform them of the situation and may request the Clearing Member(s) to reduce their exposures, failing which an IMC will be instituted.

Where practical constraints dictate that a crisis meeting as described above cannot be convened, the JSEC CRO may provide approval for JSEC to issue an IMC to an individual Clearing Member.

D. Step D1 / D2: IMC issuance

JSE Clear Operations will notify the relevant Clearing Members of their intention to issue an IMC and must issue the IMC by latest 14h00 South African Standard Time (SAST).

The IMC shall be enforced immediately and must met by the relevant Clearing Members no later than 60 minutes after the Clearing House has issued the margin call.

In the case of a market wide IMC, JSE Clear will inform the Financial Markets Division of the SARB that it will be issuing an IMC which will require participants to have the necessary access to liquidity to meet the intraday call.

E. Step E: IMC settlement

Clearing Members must respond to an IMC by settling the margin call within the defined deadline. .

Margin settlement must take place before 15h00 SAST, due to a dependency on the availability of the South African Multiple Option Settlement (SAMOS) system and Central Banks close-off times.

Per the JSE's Rules, JSEC reserves the right to instigate default proceedings against Clearing Members who fail to respond to an IMC in an appropriate manner.

F. Step F: EOD margin re-conciliation

At EOD, the JSEC will offset any margin posted intraday against margin requirements identified during the EOD Margin Call. Clearing Members must then settle the residual margin requirement.

2.2 Thresholds

JSEC's policy is to use the predefined thresholds outlined below as triggers to initiate consideration of an IMC and as inputs into the determination of whether an IMC is required:

- Intraday price movements of the JSE FTSE All-Share Index and/or USDZAR and/or Nominal Bond Curve and/or White Maize exceed 50% of the respective Initial Margin Requirement (IMR) percentage for these benchmark contracts[2].

  For example, assuming an IMR of 10% for derivative contracts on the All-Share index, if a decrease or increase in the All-Share index of 5% is observed intraday prior to the 14h00 cut-off time, then a crisis meeting should be convened to consider an IMC.

- An assessment should then be conducted of the extent to which the CCP is exposed i.e. extent to which IM held is sufficient to cover the realised intraday variation margin losses and potential further losses incurred in the day should the market continue to move in the same direction plus possible losses incurred in the closing down of a defaulted portfolio.

  This is determined by calculating and comparing the intraday variation margin to the initial margin currently held, at Clearing Member level.

  If VM loss is more than 50% of the IM held for more than two Clearing Members a market wide IMC should be strongly considered.

  If VM loss is more than 50% of the IM held for one or two Clearing Members then an IMC should to the individual Clearing Members concerned should be strongly considered.

Other inputs which JSEC might consider when determining whether an IMC is required include:

- Intraday Margin Shortfall exceeds the maximum margin payment of a Clearing Member in the last 5 years by 50%.
- Extreme events which result in significant market movements, or bespoke thresholds which the JSEC has determined for a particular Clearing Member.

Note:

- *Given JSEC's current clearing system architecture intraday margin calls can be run for the EDM and FXM market together (RTC platform) and separately for each of the IRD and CMD markets (Nutron/Nuclears platform).*

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[2] IMRs are calibrated for a 2 day margin period of risk

The Intraday Margin Shortfall is calculated based on movements in market prices and positions since the previous margin call, which is typically the previous day's EOD call ("EOD Margin Call"). However, in extreme circumstances JSEC reserves the right to issue multiple IMCs in a single day, in which case the calculation must be based on movements in market prices and positions since the previous IMC.

JSEC reserves the right and may from time to time consider issuing an IMC for reasons other than a breach of the thresholds set out above. In addition, JSEC may, under certain circumstances, refrain from making an IMC despite the fact that the above threshold(s) are exceeded.

3. Roles and Responsibilities

The below table outlines roles and responsibilities of parties involved in the intraday margining process. The roles are depicted in the order in which they appear along the process timeline.

Role / Members	Responsibilities
JSE Clear Risk	• Monitors early warning indicators and performs the daily market assessment in consultation with the JSEC CRO • Conducts Intraday Margin Shortfall calculation • Reports early warning indicator and threshold breaches to the JSEC CRO • Performs EOD margin reconciliation
JSE Clear CRO	• Owns and maintains the Policy • Monitors the application of the Policy, in particular with respect to managing the thresholds, and provides advice to users as required • Ensures that any dispensations or exceptions granted in conjunction with this Policy meet all regulatory expectations and are documented appropriately • Challenges and reviews the results of daily market assessment • Reviews the Intraday Margin Shortfall calculation and provides a recommendation to the crisis meeting as to whether an IMC is required • May approve an IMC for an individual Clearing Member, in cases where practical constraints prevent the convening of a crisis meeting
Crisis meeting *Attendees: JSEC RO, JSEC CRO, JSEC COO*	• Reviews the Intraday Margin Shortfall against predefined thresholds and other factors and determines the necessity for an IMC • Reviews and approves the IMC, based on recommendation from the JSEC CRO • Authorises dispensations to the Policy
JSE Clear Operations	• Prepares and communicates market notice / communication to Clearing Members in case of IMC decision • Executes the IMC • Prepares and extracts any Clearing Member facing reports • Captures payment instructions • Monitors and follows up on payments
Clearing Member	• Ensures Intraday Margin Shortfall is settled within the defined deadlines • Provides collateral for the remaining exposure at EOD margin call

4. Policy Governance

The JSEC Risk Committee will recommend the initial approval of this policy by the JSEC Board or when there are material changes. The regular annual review of this policy will be approved by the JSE Clear Risk Committee.