

Johannesburg Stock Exchange

Post-trade and Information Services

ITaC Position Paper

Post-trade PP03 - Securities and Foreign Currency Collateral

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1.2 Document Information

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1.3 Revision History

Date	Version	Description
23 May 2016	1.0	Initial Published Version
01 February 2022	2.0	Updates: <ol style="list-style-type: none">1. Revised document to current state of Securities Collateral2. Removed FX Collateral in the scope3. Replaced EoD and Intra-day Collateral processes with a start of day process
29 March 2022	3.0	Further revised document to reflect current state of securities collateral initiative

1.4 References

Name	Version	Description

1.5 Contact Details

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1.6 Definitions, Acronyms and Abbreviations

ITaC	Integrated Trading and Clearing – a JSE project aimed at implementing an integrated Trading and Clearing solution across all of its markets i.e. Equity, Bonds and Derivatives
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2 ACCEPTANCE OF SECURITIES AND FOREIGN CURRENCY COLLATERAL

2.1 Executive Summary

Currently JSE Clear, the Central Clearing Counterparty (CCP) for listed derivatives in the South African market, collects ZAR cash collateral against derivative exposures. Over recent years there has been a steady growth in demand from the market for the acceptance of securities and foreign currency collateral. Post the 2008 financial crisis and the tightening of risk and regulatory frameworks and policies such as Basel III, CPMI IOSCO and EMIR, the demand for efficient asset utilisation has increased. The ability to post securities and foreign currency collateral is expected to provide clients with some relief in the face of increasing capital requirements and free up ZAR cash.

JSE Clear calls for Initial Margin (IM), Variation Margin (VM) and Default Fund contributions from its clients as part of its risk management processes. These margins and contributions are currently payable in ZAR-cash only. The acceptance of alternate collateral forms will allow members to meet IM calls through a combination of ZAR-cash, selected securities and at a later stage, in the case of non-resident clients, selected foreign currency cash collateral. Support in principle for the acceptance of foreign currency cash collateral for non-resident clients has been obtained from the regulator however it is subject to formal approval from the South African Reserve Bank and National Treasury. VM will continue to be payable in ZAR cash. The option for Clearing Members to fulfil default fund contributions using alternative collateral has yet to be finalised and will be communicated in due course.

The current RTC solution, delivered as part of the ITaC initiative provides the systems and processing capability for the acceptance of securities and foreign currency collateral against the whole IM obligation i.e., base IM requirement and margin add-on (note a minimum cash percentage will be applicable).

In addition to the current technology and process capabilities, the relevant policies, rules and legislation needs to support the acceptance of securities. The JSE in consultation with stakeholders is in the process of reviewing and addressing these aspects. A key focus of this and a requirement that needs to be satisfactorily addressed before JSE Clear can start accepting securities collateral is the ability to timeously liquidate assets in the event of a participant default and insolvency. Stakeholders will be kept informed as to the progress and expected timelines in this regard.

To adequately manage the risk of the CCP and safeguard the market, JSE Clear will set and manage various criteria relating to the acceptance of alternate collateral forms such as, a minimum percentage of collateral that must be in the form of cash to meet liquidity needs in the event of a default, eligibility criteria determining the list of admissible securities and valuation haircuts. The pledge is the proposed mechanism to be used for securities collateral.

The JSE clearing system (RTC) will integrate to the Strate collateral management system for the management of securities collateral. Processes will cater for the posting of securities collateral against end of day margin calls in the Start of Day collateral process. The solution also caters for flexibility required by market participants to manage the mix of the collateral posted against JSE Clear exposures during the day, by for example substituting securities for cash, cash for securities or one security for another.

2.2 Introduction

JSE Clear is the central counterparty (CCP) for JSE operated derivative markets. To mitigate the risk of Trading Members and Clearing Members defaulting, JSE Clear collects Initial Margin (IM) and Default Fund contributions from Clearing Members to cover any potential losses arising from a default.

To date, JSE Clear has only accepted ZAR cash for these obligations, while all major global CCPs accept IM and Default Fund contributions from their Clearing Members in the form of securities and foreign currency collateral. The need for JSE Clear to consider alternative collateral options to fund IM calls and Default Fund contributions has been raised in various forums across the JSE derivatives markets for a few years. The call for the ability to post alternative collateral, in the form of securities or foreign currency collateral has intensified in the recent past.

The benefits of accepting alternative collateral include:

- Allowing effective utilisation of assets and for clients to have the benefit of freeing up their ZAR cash holdings for other capital requirements or investment needs
- Aligning South Africa with global markets where all major CCPs allow for the posting of securities and foreign currency collateral against IM and Default Fund contributions

The JSE has created capabilities that enable the acceptance of securities, held with the local CSD (Strate), and foreign currency as IM collateral. The initial collateral solution is aimed at facilitating the acceptance of securities collateral only, against IM (including Large Exposure and Liquidation period Add-on).

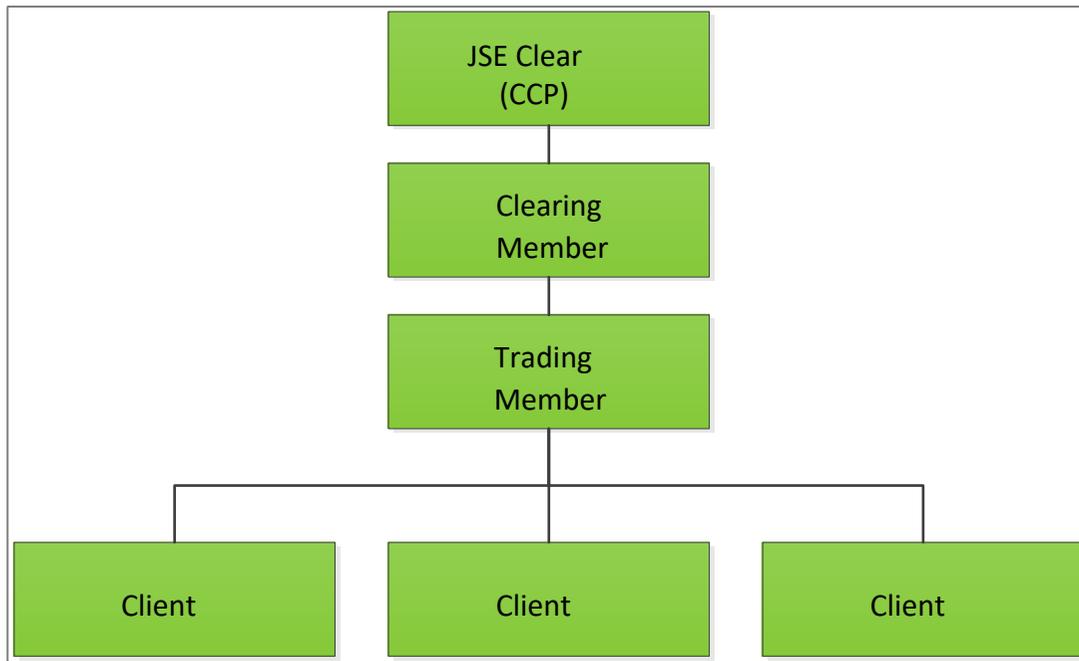
Also, the JSE in consultation with key stakeholders, is currently reviewing the policies, rules and legislation in support of accepting securities and FX collateral for both the initial and future collateral solutions.

This paper outlines the conceptual framework and process for the acceptance of non-ZAR cash collateral against exposures in the derivatives markets operated by the JSE and cleared by JSE Clear. It is intended to inform market participants of the JSE position in this regard, based on market engagement. It is also worth mentioning that only the ITaC markets (Equity Derivatives and Currency Derivatives) are being considered for this phase.

The consideration of acceptance of foreign currency collateral and contribution to the default fund are out of scope and will be covered at a later stage. The same goes for acceptance of alternative collateral for settlement margin in the cash equities market.

2.3 Current Listed Derivative Landscape

JSE Clear novates transactions, by becoming the counterparty to the seller and the counterparty to the buyer, and acts as the central counterparty (CCP) in the various listed derivative markets (Equity Derivatives and Currency Derivatives) operated by the JSE. JSE Clear interfaces with Clearing Members who clear transactions for themselves (Direct Clearing Member) or for other Trading Members and for the clients of Trading Members (General Clearing Members) i.e. the end investors. At a high level this structure can be illustrated as follows:



All transactions are recorded at account level, i.e. Trading Member level (where they have house positions) and client level where positions are held. All collateral is held at the Trading Member and client level as well and is held in the name of the Trading Member or client i.e. neither the Clearing Member nor JSE Clear owns the collateral and it can only be used in the case of default. At the end

of the day JSE Clear sums up these transactions to determine closing positions, which are then used to calculate the applicable margins for each account. Margins calculated include:

1. **Initial Margin (IM)** - collected by the CCP to mitigate losses in the case of default. This margin is returned to the Trading member or client on closeout of their position. IM collected by the CCP includes Settlement Margin for contracts that are physically settled where the IM is held for 5 business days after Futures Close Out.
2. **Variation Margin (VM)** - refers to the cash movements relating to daily profits and losses on positions held. The positions are marked-to-market/marked-to-model each day to calculate the daily profit and loss, which must be settled by midday on the following day. Variation margin is (and will continue to be) payable in cash based on the trading currency and is not held by JSE Clear (due to the net zero sum game, JSE Clear effectively just facilitates payment between daily winners and losers).
3. **Additional Margin (AM)** – this margin requirement is requested or called by the Clearing Member or Trading Member who may request additional margin from clients should they see the need to do so and as with IM, this margin is returned once the positions which attracted the additional margin have been closed out. This margin may be held by the Clearing Member or Trading member or JSE Clear (where requested).
4. **Add-on Margin** – this margin forms part of IM and includes the liquidation period and the large exposure (or large position) add-ons.
5. **Default Fund** – this is a fund created to manage potential defaults on the derivatives market.

JSE Clear calculates the above margins per account and per position on all accounts then aggregates all required margin to the Clearing Member level. A daily account summary report is sent to the Clearing Member and the IM, including Add-ons and Variation Margin is reconciled between JSE Clear and the Clearing Member. JSE Clear then calls the applicable amounts from the Clearing Member. The Clearing Member may then request collateral from its Trading Members, who in turn may call from their clients to fund the margin call from JSE Clear. This payment is currently accepted only in ZAR cash and payment must be settled by 12h00 on the next business day.

2.4 Proposed Securities Collateral Principles and Processes – Listed Derivatives

2.4.1 Applicable Markets

The use of alternative collateral is proposed for the derivative markets operated by the JSE and cleared through JSE Clear, namely:

- Equity Derivatives
- Currency Derivatives

The Equity Derivatives and Currency Derivatives markets will be the first markets for which alternative collateral will be accepted.

2.4.2 Applicable Margins

The JSE proposes that securities collateral be accepted for IM for all client's obligations. Payment of VM will remain as cash only, based on the trading currency. JSE Clear will set a maximum percentage of the IM requirement which can be met with securities collateral.

2.4.3 Admissible Alternative Collateral and Qualifying Members

In the initial phase of accepting alternative collateral, only highly liquid government bonds will be accepted as securities collateral. Other asset classes may be considered in due course subject to meeting the JSE Clear risk requirements. All derivative market members and clients will be authorised to use the securities collateral facility, providing that the member or clients hold acceptable securities at Strate. Should clients be interested in this product the following parties should be contacted.

- Contact your trading member or clearing member
- Contact STRATE to open a Segregated Depository Account (SDA) account
 - Chester Page chesterp@strate.co.za
 - Farzana Khan FarzanaK@strate.co.za
 - Marlon van Dorsen marlonvd@strate.co.za
- Contact JSE Clear for further information
 - Vaneshri Chetty clearops@jse.co.za

2.4.4 Valuation of the collateral

The collateral held as IM will only be accessed in the case of a default. To ensure that Clearing Members and JSE Clear are adequately covered, the valuation of non-ZAR collateral will take the following factors into consideration:

- **Impact Cost** – a measure of the degree to which the potential costs of liquidating the collateral may fluctuate
- **Liquidity Risk** – a measure of the degree to which the potential volume of trade in any security may fluctuate
- **Price Volatility** – a measure of the degree to which the price may fluctuate
- **Concentration Risk** – a measure of the risk of the bulk of posted collateral being only one share
- **Spread Risk** – a measure of the degree to which the difference between the bid and offer prices for an equity security may fluctuate

Quantification of the above considerations will result in a risk factor. The value of the collateral pledged should be discounted by this factor (haircut) after the daily valuation to determine the collateral value to be applied against the margin requirement.

2.4.5 Proposed Process

To facilitate the posting and acceptance of securities collateral, additional processes are necessary. JSE Clear, Trading Members, Clearing Members and clients will be required to open Segregated Depository Accounts (SDAs) with Strate as the JSE intends to utilise Strate's Clearstream Collateral Management System to manage securities collateral.

JSE Rules will be updated to cater for securities collateral.

As part of the end-of-day batch processing, JSE Clear will calculate IM, Additional Margin and Variation Margin on the individual accounts, aggregate to Clearing Member level and reconcile the balances with the relevant Clearing Member.

JSE Clear will then calculate what portion of the total IM balance can be met with securities collateral and sends exposures to STRATE.

On T+1 (next day), payments for EOD cash settlements will be processed and must be paid to JSE Clear by 12h00. In a separate process, JSE Clear will receive from Strate the portion of the total IM that has been met with securities collateral per Trading Member and client and process a cash settlement.

JSE Clear will not become the owner of the securities pledged to it as collateral (similar to ZAR cash where JSE Clear holds the cash collateral on behalf of Trading Members or clients).

2.5 Rules, Regulations and Reporting

The JSE's Rules and Directives are being amended to cater for securities collateral and ensure protection in terms of the Insolvency Act.

Historically, the provisions in the Insolvency Act relating to the realisation of securities collateral held by a Clearing Member/Trading Member in the event of the default of a Trading Member/Client were unclear: clarity was required as to whether the proceeds of the sale of the collateral may be retained to extinguish the debt of the Trading Member/Client.

Recent amendments to the relevant section of the Insolvency Act made as consequential amendments to the Financial Sector Laws Amendment Bill clarified the position that a Clearing Member/Trading Member, in the event of the default of a Trading Member/Client, may immediately realise the collateral and retain the value to extinguish the debt, in accordance with the rules made under the Financial Markets Act. The Financial Sector Laws Amendment Bill has been promulgated and assent to, but the effective date of the amendments to the Insolvency Act has not been gazetted by the Minister of Finance.

As is currently the case with ZAR cash collateral, JSE Clear will only have access to the securities collateral in the case where a Clearing Member defaults.

2.6 Conclusion

JSE Clear's RTC solution will enable the use of non-ZAR cash as collateral against full initial margin obligations (subject to a minimum ZAR cash percentage). Rules, policies and legislation in support of the acceptance of alternate collateral forms are being addressed in consultation with stakeholders and with due consideration of the ability to timeously liquidate assets in the event of a participant default and insolvency.

APPENDIX 1 - START OF DAY COLLATERAL PROCESS

Start of Day Collateral Process

