

ASSESSMENT REPORT ON THE OBSERVANCE OF THE PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES:

**JSE CLEAR (PROPRIETARY)
LIMITED**

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1. Executive Summary

- 1.1. In April 2012, the Committee on Payment and Market Infrastructures (“CPMI”) and the Technical Committee of the International Organization of Securities Commission (“IOSCO”) published the Principles for Financial Market infrastructures (“PFMIs”). These are high-level principles which set minimum recommended standards for the operations of Financial Market Infrastructures (“FMIs”), namely, Central Securities Depositories (“CSDs”), Securities Settlement Systems (“SSSs”), Central Counterparties (“CCPs”), Payment Systems (“PSs”) and Trade Repositories (“TRs”). FMIs are expected to undertake periodic self-assessments to gauge their level of observance with the relevant principles.
- 1.2. The Financial Sector Conduct Authority (“FSCA”) and the Prudential Authority (“PA”) (collectively referred to as “the Authorities”) conducted an assessment on JSE Clear (Propriety) Limited (“JSE Clear”), sometimes referred to as the FMI, to evaluate the FMI’s compliance with the PFMIs. This process is also referred to as the PFMI Assessment.
- 1.3. The process followed regarding the PFMI Assessment consists of a self-assessment performed by the FMI to assess compliance with the PFMIs. The Authorities thereafter review the self-assessment performed by the FMI and provide an opinion on the extent to which the FMI complies with the principles assessed.

2. BACKGROUND OF THE ENTITY ASSESSED & METHODOLOGY USED

2.1. Background of JSE Clear

- 2.1.1. JSE Clear is a wholly owned subsidiary of JSE Limited (“the JSE”) which is a securities exchange. On 1 September 2022, JSE Clear was licensed as an Independent Clearing House (“ICH”) and CCP as defined in the Financial

Markets Act, 2012 (Act No. 19 of 2012) (“FMA”). Under its license, JSE Clear has been approved to centrally clear JSE listed derivatives.

2.1.2. The main objective of JSE Clear is to clear and risk manage transactions in listed derivatives traded on the JSE. Currently, JSE listed derivatives cleared by JSE Clear include the following:

- Equity derivatives.
- Commodity derivatives.
- Currency derivatives.
- Interest rate derivatives.

2.1.3. To perform its functions, JSE Clear has put in place rules and directives for its members which it enforces. JSE Clear’s regulatory powers over its members are provided for by the FMA. Accordingly, JSE Clear is classified as a Self-Regulatory Organisation (“SRO”).

2.1.4. To become a clearing member of JSE Clear, an entity has to meet requirements as outlined in section three of the JSE Clear rules. Licensed Banks as well as exchange members prudentially regulated by the JSE can become clearing members of JSE Clear. The current clearing members of JSE Clear are as listed below:

- Absa Bank Limited
- Investec Bank Limited
- Merrill Lynch South Africa
- Nedbank Limited
- Standard Bank Limited
- Rand Merchant Bank Limited
- JP Morgan

2.2. Background to the PFMI assessment

Assessors: The assessment was conducted by the FSCA and the PA.

Objective of the assessment: The main objective of the assessment is to confirm an FMI's ongoing compliance with the PFMI's issued by the CPMI and the Technical Committee of IOSCO.

3. PURPOSE OF THE ASSESSMENT REPORT

- 3.1. This report serves to provide results of the Authorities' review of JSE Clear's self-assessment and to confirm the FMI's ongoing observance of the PFMI's issued by CPMI-IOSCO.

4. PRINCIPLES NOT APPLICABLE TO JSE CLEAR.

- 4.1. There are principles that are not applicable to JSE Clear as an ICH and CCP. The following table lists these principles and the reasons why they are not applicable:

Principle	Name	Reason
Principle 11	Central Securities Depositories	The principle applies to CSDs. JSE Clear is not a CSD but an ICH and CCP.
Principle 12	Exchange of Value Settlement systems	As an ICH and CCP, JSE Clear does not itself operate a settlement system.
Principle 20	FMA Links	Currently non-applicable as JSE Clear does not have FMI links. Previously, JSE Clear advised that this would come into effect when their securities collateral services goes live. This will be assessed in the next PFMI

		review as the service was not live at the time of the current submission.
Principle 24	Disclosure of Market Data by Trade Repositories	Principle 24 deals with the disclosure of market data by Trade Repositories (TR) and is not applicable to JSE Clear as an ICH and CCP.

5. OVERVIEW OF THE PFMI.

Principle	Overview of the Principle
1. Legal Basis	An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.
2. Governance	An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.
3. Framework for the Comprehensive Management of Risks	An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.
4. Credit Risk	An FMI should effectively measure, monitor, and manage its credit exposures to participants and

	those arising from its payment, clearing, and settlement processes.
5. Collateral	An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks.
6. Margin	A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.
7. Liquidity Risk	An FMI should effectively measure, monitor, and manage its liquidity risk.
8. Settlement Risk	An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.
9. Money Settlements	An FMI should conduct its money settlements in central bank money where practical and available.
10. Physical Deliveries	An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.
11. Central Securities Depositories	A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities.
12. Exchange-of-Value Settlement Systems	If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it

	should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.
13. Participant Default Rules and Procedures	An FMI should have effective and clearly defined rules and procedures to manage a participant default.
14. Segregation and Portability	A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.
15. General Business Risk	An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise.
16. Custody and Investment Risks	An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets.
17. Operational Risk	A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.
18. Access and Participation Requirements	An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.
19. Tiered Participation Arrangements	An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

20. FMI Links	An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.
21. Efficiency and Effectiveness	An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.
22. Communication procedures and standards	An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.
23. Disclosures of Rules, Key Procedures and Market Data	An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI.
24. Disclosure of Market Data by Trade Repositories	A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

6. METHODOLOGY FOR THE ASSESSMENT

The process commenced with the Authorities assessing JSE Clear's observance with the PFMIIs based on responses provided by JSE Clear. In verification of the responses from JSE Clear, the Authorities requested further information, including updated frameworks, policies and procedure documents. The CPMI-IOSCO rating scale was utilised to rate the level of compliance of JSE Clear with the PFMIIs following the self-assessment by the FMI utilising the same rating scale. The rating scale takes into account the issues of concern and the magnitude of risk urgency, and is as follows:

Rating	Definition
Observed	The FMI observes the principle. Any identified gaps and shortcomings are not issues of concern and are minor, manageable and of a nature that could be addressed in the normal course of business.
Broadly Observed	The FMI broadly observes the principle. The assessment has identified one or more issues of concern that the FMI and Authorities should address and follow up on a defined timeline.
Partially Observed	The FMI partly observes the principle. The assessment has identified one or more issues of concern that could become serious if not addressed promptly. The FMI and the Authorities should accord a high priority to addressing these issues.
Not Observed	The FMI does not observe the principle. The assessment has identified one or more serious issues of concern that warrant immediate action. Therefore, the FMI and the Authority should accord the highest priority to addressing these issues.
Not Applicable	The principle or responsibility does not apply to the type of FMI or the Authority being assessed because of the particular legal, institutional, structural or other characteristics of the FMI or Authority.

For each principle assessed, specific documents were provided (e.g. policies, standard operating procedures, reports and references to rules) by JSE Clear in support of the assessment and, where necessary, supplementary material was requested from the FMI in support of its responses to the self-assessment.

7. SUMMARY OF RATINGS

The table below summarises the ratings pertaining to JSE Clear:

Principle		Rating	Reason
Principle 1	Legal Basis	Observed	Met Key Considerations of the Principle
Principle 2	Governance	Observed	Met Key Considerations of the Principle
Principle 3	Risk Management Framework	Observed	Met Key Considerations of the Principle
Principle 4	Credit Risk	Observed	Met Key Considerations of the Principle
Principle 5	Collateral	Observed	Met Key Considerations of the Principle
Principle 6	Margin	Observed	Met Key Considerations of the Principle
Principle 7	Liquidity Risk	Observed	Met Key Considerations of the Principle
Principle 8	Settlement Finality	Observed	Met Key Considerations of the Principle
Principle 9	Money Settlements	Observed	Met Key Considerations of the Principle
Principle 10	Physical Deliveries	Observed	Met Key Considerations of the Principle
Principle 13	Participant Default Rules and Procedures	Observed	Met Key Considerations of the Principle
Principle 14	Segregation and Portability	Observed	Met Key Considerations of the Principle

Principle 15	General Business Risk	Observed	Met Key Considerations of the Principle
Principle 16	Custody and Investment Risk	Observed	Met Key Considerations of the Principle
Principle 17	Operational Risk	Observed	Met Key Considerations of the Principle
Principle 18	Access and Participation Requirements	Observed	Met Key Considerations of the Principle
Principle 19	Tiered Participation Arrangements	Observed	Met Key Considerations of the Principle
Principle 21	Efficiency and Effectiveness	Observed	Met Key Considerations of the Principle
Principle 22	Communication Procedures and Standards	Observed	Met Key Considerations of the Principle
Principle 23	Disclosure of Rules, Key Procedures and Market Data	Observed	Met Key Considerations of the Principle

8. DETAILED ASSESSMENT

Principle 1: Legal Basis

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

Overall Rating:

Observed

Overall Comment:

This principle requires an FMI to have sound legal basis for its activities. JSE Clear has sound legal basis for its activities stemming from the various legislative instruments such as the Financial Sector Regulation Act, 2017; Financial Markets Act, 2012, Financial Markets Act Regulations, 2018 and various Standards and Board Notices, inter alia.

Key Consideration 1	Assessment of the Key Consideration	Rating	Recommendation
The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.	All the securities traded and cleared through JSE Clear form part of the JSE's list of securities kept in terms of section 11(8)(a) of the FMA and section 13 of the Derivatives Rules. The terms, conditions and obligations of the parties that conclude transactions in these securities	Observed	None

	are contained in the contract specifications.		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations	JSE Clear has rules that have been framed in English, conform to the legality principle as contemplated in the Constitution of South Africa, satisfy the requirements of the FMA, are subject to public scrutiny prior to taking effect, are subject to the approval of the Registrar of Securities Services prior to taking effect, and any JSE Clear rules or contracts that are not clear and understandable will be deemed void for vagueness.	Observed	None
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.	JSE Clear exercises public duties, with all its actions being subject to constitutional control and the rule of law. Section 53 of the FMA requires JSE Clear to make rules in relation to the matters set out in the section (which rules cover the activities and operations of JSE Clear).	Observed	None

	<p>Section 50 of the FMA imposes a public duty on JSE Clear to enforce the clearing house rules and supervise compliance by authorised users with these rules.</p> <p>When motivating changes to the rules, JSE Clear articulates these proposed changes in writing to the Registrar and is required to demonstrate that such changes are in accordance with the provisions of the FMA.</p> <p>By virtue of its review and approval process for all JSE Clear rule changes, the Registrar confirms that JSE Clear's rules are framed in accordance with the provisions of the FMA.</p> <p>All rules are published on the JSE Clear website for access by the public.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation

An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.	Not Applicable - JSE Clear only operates within SA.	Observed	None
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation
An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.	Not Applicable - JSE Clear only operates within SA.	Observed	None

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Overall Rating:**Observed****Overall Comment:**

The governance arrangements of JSE Clear such as the controlling body and the subcommittees have been assessed and were found to be in line with Principle 2 of the PFMI.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.	The JSE Clear Enterprise Risk Management Framework document articulates JSE Clear's risk management philosophy and the various policies that have been established to underpin this.	Observed	None
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.</p>	<p>JSE Clear is a private company, wholly-owned by the JSE. JSE Clear is governed by its own board of directors, supported by a Risk Committee and two Advisory Committees - one focused on risk and one focused on operations.</p> <p>JSE Clear operates under the structure of the JSE Clear Rules approved by the Registrar of Securities Services and the company is therefore bound by the FMA, the Companies Act and the King IV Code on Corporate Governance. Internal governance is reflected in the company's Memorandum of Incorporation, the Board Charter, Committee Terms of reference and a Code of Ethics.</p>	<p>Observed</p>	<p>None</p>
<p>Key Consideration 3</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>
<p>The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.</p>	<p>Article 11.1.1 of JSE Clear's MoI vests the management and control of JSE Clear in the Board, which has the powers conferred upon it by the relevant legislation, the rules of JSE Clear made in terms of such legislation, and JSE Clear's MoI. Roles and responsibilities for a licensed Clearing House are also specified in the FMA that the JSE Clear Board, as the controlling body, has to fulfil.</p>	<p>Observed</p>	<p>None</p>

	<p>The JSE Clear Board's primary responsibilities, based on an agreed assessment of levels of materiality, include being the focal point (and custodian of corporate governance) for:</p> <ul style="list-style-type: none"> - management of its relationship with all shareholders and other stakeholders of JSE Clear; - providing strategic direction to JSE Clear; - identifying key risk areas and key performance indicators of the Clearing House's business; - monitoring investment decisions; and - considering significant financial matters and risk. <p>The JSE Clear Board also operates in terms of its Board Charter, aligned to King IV and the Companies Act. The roles and responsibilities of directors can be found in the FMA, the Companies Act and the JSE Clear Board Charter.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation

<p>The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).</p>	<p>The JSE Clear Board formally appoints new directors to the Board. In terms of the JSE Clear MOI, the JSE as the 100% shareholder is entitled to recommend new directors who are employees of the JSE as well as external independent candidates to the Board for approval. The Clearing Members are also entitled to recommend candidates to the Board for approval.</p> <p>The JSE Clear Board appoints new members taking the following into consideration:</p> <ul style="list-style-type: none"> - the particular skills or experience each Board member brings to the Board; - the capacity of each appointee to satisfy the competency requirements necessary for being a director; and - taking cognisance of the race and gender of the candidate to ensure the achievement of demographic equity. 	<p>Observed</p>	<p>None</p>
<p>Key consideration 5</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>

<p>The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.</p>	<p>In order to optimise the operation of the CCP, JSE Clear has staff in its own employ to perform the operating functions, risk management services, declaration of defaulting members and clearing house services ("the services") in terms of its licensed responsibilities. The provision of these services is governed by the applicable JSE Clear rules. The JSE Clear Chief Executive Officer is the individual who has been tasked with ensuring that the services are delivered in accordance with the JSE Clear rules and contractually agreed service levels.</p> <p>The primary responsibility of the JSE Clear management team (comprising the JSE Clear CEO, CRO, CCO and CIO/COO) is the oversight and execution of all of the activities required to fulfil the various licensed functions imposed on JSE Clear as part of its Independent Clearing House and CCP license.</p>	<p>Observed</p>	<p>None</p>
<p>Key consideration 6</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>

<p>The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.</p>	<p>The JSE Clear Enterprise Risk Framework document articulates JSE Clear's risk management philosophy and the various policies that have been established to underpin this.</p> <p>This document provides a comprehensive overview of JSE Clear's risk management approach, clearly determines and records the different risks to which JSE Clear is exposed by operating a clearing service and provides an auditable monitoring, control and management framework for both the policies and the risks.</p> <p>JSE Clear's Enterprise Risk Management Framework is connected to, and aligned with, the risk appetite statement set by the JSE Clear Board. The Risk Appetite Statement addresses the following dimensions:</p> <ul style="list-style-type: none"> - Capital; - Prefunded resources; - Liquidity; - Operational; - Human resources; - Cyber security; - Compliance and ethics; - Fraud and corruption; and - Reputation. 	<p>Observed</p>	<p>None</p>
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	<p>The JSE Clear Risk Committee terms of reference clearly assigns responsibilities for key risk decisions. Decisions in crisis and emergency situations are defined in the JSE Clear's default procedures.</p> <p>JSE Clear is ultimately responsible and accountable for the governance of risk, focusing on establishing, maintaining and monitoring the effectiveness of the processes, policies and plans of risk management and systems of internal control. The JSE Clear Board has constituted the JSE Clear Risk Committee to assist in discharging its duties. The JSE Clear Risk Committee has been delegated the responsibility for determining JSE Clear's overall risk philosophy, risk appetite and the standards/ methodologies to be deployed by JSE Clear to manage risk.</p>		
Key consideration 7	Assessment of the Key Consideration	Rating	Recommendation

<p>The board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.</p>	<p>Clearing Members are required (in terms of Article 21 of the JSE Clear MOI) to nominate Clearing Member representatives for consideration to appointment to the Board of JSE Clear.</p> <p>The CCP and ICH also stated that JSE, FSCA and Clearing Members are participants in the JSE Clear Risk Committee. In addition, all clearing members are participants in the two JSE Clear Advisory Committees, the main consultative body used in stakeholder engagement. The JSE Clear Governance & Compliance function engages on an ongoing basis with the regulatory bodies mentioned.</p>	<p>Observed</p>	<p>None</p>
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Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Overall Rating:**Observed****Overall Comment:**

JSE Clear has been found to have a risk management framework for managing all risks of a CCP, including the legal, credit, liquidity, operational, and other relevant risks

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.	<p>As a licensed CCP operating only within SA, JSE Clear is exposed to:</p> <ul style="list-style-type: none">- Systemic risk- Counterparty credit risk- Liquidity risk- Legal risk- General business risk- Investment risk (Credit)- Operational risk- Reputational risk <p>The JSE Clear Enterprise Risk Management Framework document articulates JSE Clear's risk management philosophy and the</p>	Observed	None

various policies that have been established to underpin this. This document provides a comprehensive overview of JSE Clear's risk management approach, clearly determines and records the different risks to which JSEC is exposed by operating a clearing service and provides an auditable monitoring, control and management framework for both the policies and the risks.

The Risk Appetite statement for dimensions such as Capital, Prefunded Resources, Liquidity, Operational and Compliance are stipulated to determine the boundaries within which JSE Clear needs to operate.

The Risk team reports formally to the JSE Clear Executive Committee on at least a monthly basis. Similarly, reporting takes place on a quarterly basis to the JSE's Exco (via the JSE Risk Exco sub-committee), the JSE Clear Risk Committee and JSE Clear Board on risk exposures, via a quarterly risk report specifically created for the CCP.

	<p>The JSE Clear Board and Risk Committees have oversight of all policies and procedures - and receive (at a minimum) quarterly feedback on all risk events affecting the CCP.</p> <p>Policies are reviewed by Internal Audit for compliance with applicable laws, regulations and codes of practice in all relevant jurisdictions, and for compliance with internal processes and policies.</p> <p>Back-testing results test the effectiveness of counterparty credit risk measurement and control.</p> <p>Stress testing is used to assess the adequacy of JSE Clear's financial resources to sustain it in a period of severe stress, defined by "extreme but plausible" stress scenarios.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.	JSE Clear stated that the CCP and ICH provides daily information on exposures to all Clearing Members and their Trading Members. This includes variation margin and change in initial margin at a client, trading	Observed	None

	<p>member and clearing member level per asset class.</p> <p>JSE Clear also provides information to facilitate the calculation of clearing members banks' regulatory capital with regard to counterparty credit risk.</p> <p>All reports and policies are distributed to and discussed with the JSE Clear Risk Advisory Committee, key changes are discussed at Trading Advisory committee meetings and rulebooks and policies are available on the JSE website.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk management tools to address these risks.	JSE Clear has identified the risks relating to these interdependencies, which is pertinent due to the concentrated nature of the South African financial market. In particular, JSE Clear has a limited number of banks that are Clearing Members, and often the entities that act as clearing members also interacts with the CCP in other capacities (e.g., as liquidity providers, investment banks or settlement banks). This could	Observed	None

exacerbate stress in the local market and could contribute to contagion.

These risks are monitored and reported to the JSE Clear Risk Committee and JSE Clear Board quarterly, but are managed and monitored on a daily basis by the Chief Risk Officer and thresholds are in place for appropriate internal and external escalation of exposure and settlement breaches.

The following tools have been utilised:

- JSE Clear sets conservative entry requirements and monitors the credit quality of its clearing members.
- A conservative investment mandate is in place to mitigate against concentration risk with investment counterparties.
- JSE Clear maintains liquidity facilities with 3 local and 2 international (non-clearing member) banks
- Alternate bank accounts are set up for settlement of daily margin flows.

Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
<p>An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.</p>	<p>JSE Clear's risk log is reviewed and assessed twice a year and strategic risks are assessed quarterly. Credit and liquidity stress testing scenarios are reviewed at least annually and more often if market conditions change materially. These reviews are conducted by the JSE Clear Risk Committee.</p> <p>Scenarios relating to site disaster, regulatory compliance and system failures have been identified and documented and are maintained in a risk register and detailed in the business continuity and disaster recovery plans.</p> <p>Stressing market variables:</p> <ul style="list-style-type: none"> - Historical and hypothetical stresses are used in the daily credit and liquidity stress testing calculations, along with operational events that could impact liquidity risk. - Financial stress testing assesses the resilience of JSE Clear's financial performance and 	Observed	None

business sustainability under various scenarios such as a material loss in revenue or a once off cost due to an operational or cyber event.

JSE Clear has its own Default Management committee, which is convened in instances where either default in the market has occurred, or the potential for a default has been identified. In both instances, the JSE Clear's formal default management procedures will be applied.

Principle 4: Credit Risk:

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

Overall Rating:**Observed****Overall Comment:**

JSE Clear has risk management policies and frameworks that sets out detailed procedures to identify, measure and monitor the risks that JSE Clear is exposed to.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.	Credit exposures to clearing members are firstly mitigated by entry requirements to becoming a clearing member. Per the JSE Clear's membership requirements, clearing members have to have R200m worth of assets (own funds).	Observed	None

	<p>JSE Clear manages its current exposures to clearing members by performing at least one scheduled mark-to-market settlement cycle daily, where profits and losses are realized through variation margin payments.</p> <p>Potential future exposures are taken into account through initial margin, which is calculated based on Value-at-Risk methodologies and held as collateral throughout the lifetime of a position. Also, the JSE Clear default fund is in place to cover potential future exposures under stressed conditions, should losses in a default situation exceed initial margin held.</p> <p>Credit exposures to investment counterparties are managed through the JSE Clear Investment Mandate, which specifies the minimum credit rating of investment counterparties.</p> <p>Credit standings of JSE Clear's members and investment banks are monitored on an ongoing basis and reported to the JSE Clear Risk Committee quarterly.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.</p>	<p>JSE Clear identifies credit risk by considering any market participant that could cause losses to JSE Clear as a result of non-payment of monies due.</p> <p>JSE Clear faces credit risk from its clearing members, its investment banks and its settlement bank:</p> <ul style="list-style-type: none"> - Should a clearing member default, JSE Clear is responsible for meeting the defaulting clearing member's variation margin payments on its behalf using prefunded resources. The JSE Clear default fund is in place to cover potential future exposures under stressed conditions should losses in a default situation exceed initial margin held. JSE Clear thus faces credit risk to its clearing members, as JSE Clear contributes to the JSE Clear default fund. - The JSE Clear default fund is invested with a range of investment banks, therefore JSE Clear faces credit risk should an investment bank default, as JSE Clear contributes to the default fund. Similarly, JSE Clear has credit risk on the investment of its own funds. 	<p>Observed</p>	<p>None</p>
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Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
<p>A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.</p>	<p>Per JSE Clear's membership requirements, the CCP and ICH monitors the capital of its Trading and Clearing Members (which are not banks). In the case of Clearing Members, they have to have R200m worth of assets (own funds) to become a Clearing Member.</p> <p>In the case of default of a participant, initial margin held is used to cover market movements until the position is closed. JSE Clear also has a Default Fund (currently ZAR 600m in size) and would apply the risk waterfall in the case of default as defined in the Rules.</p> <p>Daily cash payments are processed through the Central Bank payment system (SAMOS). All cash movements - initial margin, variation margin and booking fees - are netted across markets per day with one cash movement flowing per clearing member.</p>	Observed	None

Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
<p>A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for,</p>	<p>To cover current exposure arising from price movements, JSE Clear requires realized losses on all outstanding positions to be paid to the winning position holders through daily variation margin payments. To cover potential future exposure, JSE Clear imposes initial margin requirements calculated to a 99.7% confidence level. Furthermore, the JSE Clear default fund covers potential future exposures under stressed conditions, should losses in a default situation exceed initial margin held.</p> <p>Initial margin and the default fund monies in cash are invested across financial institutions in accordance with the credit, concentration and liquidity limits specified in the JSE Clear Investment Mandate. To ensure sufficient liquidity i.e. availability of prefunded resources in a default situation, a minimum of 30% of the total margin on deposit and 30% of the default fund must be invested on call. The weighted average duration of the margins invested must be less than 75</p>	Observed	None

and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.	<p>days and that of the default fund less than 100 days.</p> <p>Initial margin requirements are calculated to ensure that JSE Clear's total credit exposure to clearing members is fully covered with a 99.7% degree of confidence.</p>		
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation

<p>A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly. A full validation of a CCP's</p>	<p>Stress testing at JSE Clear is conducted by completing the following steps:</p> <ul style="list-style-type: none"> - Stress scenarios are defined by a set of stressed risk factors (e.g. equity price moves, exchange rate moves) and an economic storyline of the stress, where applicable; - These stress scenario risk factors are applied to revalue the portfolio under stressed conditions (stressed MtM); - Default assumptions are applied to the stressed portfolio (i.e. default the largest clearing member, apply netting rules, assumption of no porting of healthy entities under the defaulter etc.); - The resulting loss from the default under stressed conditions is calculated, by taking into account initial margin available to cover stressed variation margin; and finally - JSE Clear's total default resources are compared to the resulting loss above. <p>Stress testing results are calculated and monitored on a daily basis.</p>	<p>Observed</p>	<p>None</p>
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<p>risk-management model should be performed at least annually.</p>	<p>Escalation level breaches are reported to the CRO and CEO on the day the breach arises in accordance with the Stress Testing Policy. The CRO/CEO are responsible to escalate material breacher to the JSE Clear Risk Committee.</p> <p>If stress testing indicates that there are insufficient financial resources (under circumstances of extreme but plausible market conditions), JSE Clear can elect to:</p> <ul style="list-style-type: none"> - Increase the size of the JSE Clear default fund; or - Increase initial margin requirements. <p>JSE Clear's risk management models are reviewed and approved annually by the JSE Clear Risk Advisory Committee and Risk Committee. Material changes are approved by the Board.</p>		
Key Consideration 6	Assessment of the Key Consideration	Rating	Recommendation

<p>In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.</p>	<p>In total, 29 stress testing scenarios are defined, including 24 historical scenarios and 5 liquidity scenarios.</p> <p>Keeping JSE's pivotal role in the South African trading market in mind, all scenarios were constructed with the focus on South African market stresses. However, due to its interaction with global financial markets, these mostly coincide with global stresses. All scenarios represent extreme yet plausible moves in the market.</p> <p>Daily price and volatility history was collected for the most prominent risk factors in each of the markets - equities, commodities, bonds and interest rates and currencies. Data history was collected as far back as possible, in most cases from 2000s and in some cases earlier. Two-day price and volatility stresses per asset class were then analysed and used to define all scenarios.</p> <p>Following periods of high volatility, analysis is conducted to determine whether additional scenarios from the recent stress period should be added to the scenario set.</p>	<p>Observed</p>	<p>None</p>
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	All scenarios are subject to scrutiny by not only the Risk Team, but market experts within JSE Clear. The scenarios are reviewed and approved annually by the JSE Clear Risk Advisory Committee, the JSE Clear Risk Committee and the JSE Clear Board.		
Key Consideration 7	Assessment of the Key Consideration	Rating	Recommendation
An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.	<p>According to the JSE Clear rules and directives, the credit losses which JSE Clear may face as a result of a Clearing Member(s) default is limited to JSE Clear's contribution to the JSE Clear default fund.</p> <p>In the event that all prefunded resources are exhausted and there are still outstanding obligations of the defaulter, a variation margin haircutting process will be followed to apportion the shortfall across variation margin winners in the respective markets.</p> <p>After a loss event where the Default Fund is accessed, the fund size will be recalculated and JSE Clear and the non-defaulting Clearing Members will</p>	Observed	None

	replenish the fund as per the methodology specified in the JSE Clear Rules and Default Fund Policy.		
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Principle 5: Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Overall Rating:**Observed****Overall Comment:**

JSE Clear's collateral management policies have been well documented and assessed by the Authorities. Changes to the policies and an increase of the collateral pool to provide for non-cash collateral was reviewed and approved through regulatory channels.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.	<p>Historically, JSE Clear has only accepted ZAR cash collateral to cover initial margin held by the clearing house, which has been invested in terms of the JSE Clear Investment Mandate.</p> <p>JSE Clear has gone live with its securities collateral service for the acceptance of government bonds against initial margin.</p> <p>JSE Clear has an approved Collateral Policy which sets out principles in</p>	Observed	None

	<p>relation to the acceptance of securities collateral. The Collateral Risk Management Framework specifies JSE Clear's collateral eligibility criteria as well as concentration and other limits applicable.</p> <p>Eligible securities will be accepted as collateral for initial margin obligations as part of the daily margin settlement process. There are no exceptional circumstances in which securities collateral will be accepted.</p> <p>As JSE Clear will only accept South African government bonds, specific wrong-way risk (WWR) will not apply. As and when the collateral service is expanded to accept other securities, specifically equities, the collateral risk management framework will be enhanced to ensure appropriate management of specific wrong-way risk and functionality in the Collateral Management System in support of the management of wrong-way risk will be utilised e.g. restrictions that prevent a counterparty from pledging its own stock or stock of closely linked entities.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.</p>	<p>The rules regarding the current acceptance of ZAR cash collateral have been in place for a number of years and were initially published for regulatory review and public commentary before being implemented.</p> <p>The changes to these Rules in relation to the acceptance of securities collateral followed the normal process which included:</p> <ul style="list-style-type: none"> - Internal changes and review of the Rules and Directives. - Review by the JSE Clear Risk and Advisory Committees. - Approval by the JSE Clear Board. - Approval by JSE Executive Committee. - Approval by the Financial Services Conduct Authority. - Published for public comment. <p>At the CCP and ICH, haircuts are conservatively determined through the haircut methodology, which takes into account a 20 year lookback including period of stress and 99.96% confidence interval.</p>	<p>Observed</p>	<p>None</p>
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	<p>Additionally, JSE Clear may factor results from the periodic assessment of bid-ask spreads on government bonds as an indication of liquidity of the bonds. For example, JSE Clear conducts an annual poll of market participants to elicit and determine average bid-ask spreads on government bonds of varying sizes under stressed market conditions.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
<p>In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.</p>	<p>The potential for procyclicality of haircuts is minimised through the conservative methodology used in determining the haircuts. This considers the most severe 3-day price move based on a 20 year look-back (including an appropriate period/s of stress) and a 99.96% confidence interval.</p> <p>The 3-day price stress aligns with the setting of concentration limits which limit aggregate collateral positions in a security to a value that JSE Clear can readily liquidate in 3 days without adversely impacting market prices. This calculation is based on the average daily value traded (ADVT) of the security and a conservative</p>	Observed	None

	market participation assumption. Where required, historically observed price stress scenarios will be supplemented with hypothetical stresses to ensure that haircuts are conservative.		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.	<p>JSE Clear stated that to reduce liquidity risk in the normal course of business and in the event of a participant default, a certain percentage of the initial margin requirement must be covered by Rand cash. The remainder of a market participant's initial margin obligation may be covered in acceptable securities.</p> <p>Furthermore, JSE Clear will impose limits on the aggregate amount of each security that it will accept from a clearing member and its trading members and clients to avoid undue concentration of collateral in a particular security (or asset class, type of security, obligor etc.) and ensure collateral can be liquidated within the predefined liquidation period used in determining valuation haircuts. This</p>	Observed	None

	<p>aggregate amount will be used to determine account level limits such that the sum of the account level limits does not exceed the aggregate limit. Additionally, a percentage limit will be applied at the account level such that a participant will not be able to cover more than a specified percentage of their exposure in any one security. This limit supports the ability to ensure a diversified collateral basket.</p>		
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation
An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.	JSE Clear does not accept cross-border collateral and does not intend to do so in future.	Observed	None
Key Consideration 6	Assessment of the Key Consideration	Rating	Recommendation
An FMI should use a collateral management system that is well-designed and operationally flexible.	<p>The JSE Clear securities collateral solution makes use of Strate's Collateral Management System (provided by Clearstream). The primary features of this solution are:</p> <ul style="list-style-type: none"> - Pledge between collateral giver and collateral receiver. - Defining and pledging collateral as required by JSE Clear. 	Observed	None

	<ul style="list-style-type: none"> - Applying JSE Clear's list of eligible securities, security valuations and haircuts. - Application of valuation haircuts and concentration limits. - Wrong way risk management. - Intra-day and EOD revaluation of collateral with top-ups and releases of collateral. - Collateral substitution. - Pledging of securities collateral against initial margin call - daily at SOD - Withdrawals of securities collateral (substitute with cash) - daily at SOD. <p>JSE Clear will not permit the reuse of collateral. All collateral will be pledged directly to JSE Clear. Lastly, the CCP and ICH stated that the entity will be sufficiently staffed to manage both the operational and risk aspects of the collateral solution.</p>		
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Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Overall Rating**Observed****Overall Comment:**

Sufficient evidence was reviewed to assess the risk-based margin system of JSE Clear.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.	<p>JSE Clear has an established margin policy and methodology.</p> <p>JSE Clear manages its current exposures to clearing members by performing at least one scheduled mark-to-market settlement cycle daily, where profits and losses are realized through variation margin payments.</p> <p>The portfolio level determinants of credit exposure are as follows (across all products and markets cleared by JSE Clear):</p>	Observed	None

- The historic price volatility of the positions in the portfolio (including price volatility during times of stress);
- The liquidity of the positions in the portfolio;
- The degree to which the prices of the positions in the portfolio are correlated (including price correlation during times of stress); and
- The extent to which the positions in the portfolio are concentrated.

The JSE Clear Rules stipulate that margin payments must be made by 10h00 on each business day, which applies to all clearing members. Clearing members are required to have operationally resilient payment processes and adequate liquidity. Failure to meet the daily payment deadline may be considered a default event, which would result in JSE Clear implementing its default management framework.

All clearing members are locally based and fall within the South African time zone.

Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
<p>A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.</p>	<p>JSE Clear has direct access to the underlying trading system. Mark-to-market price data is extracted from the trading system. Other pricing inputs such as volatility surfaces, prices of underlyings, yield curves and rates are obtained from the JSE's valuations system and/or external sources (e.g. Bloomberg, Refinitiv, Super Derivatives). This data feeds into the initial margin calculation system.</p> <p>JSE Clear only sources pricing information from reputable third-party data providers.</p> <p>Internal controls and contingency measures are in place to ensure that any data that feeds into the margin system is timely and reliable.</p> <p>Daily validation (e.g. checking for price variances, zero prices) is performed in order to identify possible anomalies.</p> <p>Access to reliable, readily available price data is one the critical aspects which JSE Clear assesses before</p>	<p>Observed</p>	<p>None</p>

	<p>admitting a product for clearing. More specifically, JSE Clear does not clear products where it does not have access to readily available, reliable pricing data.</p> <p>JSE Clear only sources prices from observable markets or reputable independent vendors.</p> <p>Valuation models are independently validated in accordance with the JSE Group Model Governance Framework.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation

<p>A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the sub-portfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.</p>	<p>The base initial margin for a position in a single contract is calculated through a historical value-at-risk methodology, with a 2-day liquidation period, a 99.7% confidence level, and a rolling 3 year look-back period supplemented with a 1-year stressed period of risk.</p> <p>Portfolio offsets are determined by considering historic price correlations (including price correlations during times of stress).</p> <p>Back-testing is performed daily to ensure that the 99.7% coverage level is maintained.</p> <p>The initial margin model, together with the inputs (e.g. liquidation period, confidence interval and look-back period) are determined in accordance with the CCP's risk appetite and regulatory requirements and considering industry best practices.</p> <p>In light of the products JSE Clear currently clears, and the collateral it currently accepts, the CCP and ICH does not believe that "Wrong-way Risk" is a significant factor to be</p>	Observed	None
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	<p>considered. JSE Clear currently only clears exchange traded derivatives with exposures in stock futures and options not constituting a material proportion of total cleared exposure.</p> <p>JSE Clear accepts ZAR cash as collateral and with the launch of its securities collateral service accepts government bonds only.</p> <p>The impact of wrong-way risk is considered as part of the new product / service offering approval process.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.	<p>A mark-to-market process is run daily for every listed instrument and the variation margin is calculated daily for all positions on a client level.</p> <p>The rules specify that at 17:00 on each business day, or such other time as JSE Clear may determine on a particular business day, the positions in each exchange contract of members and their clients shall be</p>	Observed	None

	<p>marked-to-market on such basis as JSE Clear may determine.</p> <p>Authority is provided in the JSE Clear Rules. Rule 5.3.2 states: 'JSE Clear may, at any time on any business day, mark-to-market the position in any exchange contract or contracts of any exchange member or client if, in its sole discretion, the risk posed by any exchange member or client, or the conditions in the market for the exchange contract or its underlying instrument warrant such additional mark-to-market.'</p> <p>JSE Clear has the operational capacity to make and complete intraday margin calls for both initial and variation margin.</p>		
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation
In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they	JSE Clear allows initial margin offsets between contracts in the same asset class that are highly correlated i.e., between contracts on different but highly correlated underlyings and between contracts on the same underlying with different expiry dates). There are no offsets with	Observed	None

must have appropriate safeguards and harmonised overall risk-management systems.	<p>contracts cleared through a different CCP.</p> <p>According to JSE Clear's initial margin approach, initial margin offsets are only applied where historic correlations are greater than 70% during a rolling lookback period and greater than 80% during the applicable stress period. Offsets are determined through the Portfolio VaR methodology for Interest Rate Derivatives and JSPAN for all other derivatives.</p>		
Key Consideration 6	Assessment of the Key Consideration	Rating	Recommendation
A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily back-testing and at least monthly, and more frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile	<p>Back-testing is conducted by taking end of day initial margin observations and comparing these to the cumulative change in variation margin which was accrued by the clearing member, trading member and client accounts over the assumed liquidation period.</p> <p>Any negative changes in variation margin which exceed the associated initial margin are flagged as exceptions. The target confidence level is 99.7%. The back-testing</p>	Observed	None

periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.	<p>coverage ratio is consistently above 99.8% and is reported on a quarterly basis to the JSE Clear Risk Committee.</p> <p>Back-testing is performed on a contract and portfolio level on a daily basis.</p> <p>JSE Clear does not have cross margining across asset classes and with other CCPs.</p> <p>The following actions (amongst others) can be taken:</p> <ul style="list-style-type: none"> - Increase initial margin requirements (e.g. by adjusting margin parameters); - Increase the size of the JSE Clear default fund; and - Perform an intra-day mark-to-market settlement cycle. 		
Key Consideration 7	Assessment of the Key Consideration	Rating	Recommendation
A CCP should regularly review and validate its margin system.	<p>The margin policy and methodology are reviewed and approved annually by the JSE Clear Risk Committee.</p> <p>The margin system undergoes regular independent validation in accordance with the Model</p>	Observed	None

	<p>Governance Framework. Material model changes and new models are validated before the changed or new model is used in production.</p> <p>The method and results of the independent validation of models are communicated to the JSE Clear Risk Committee, JSE Clear Risk Advisory Committee and JSE Group Model Governance Committee.</p>		
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Principle 7: Liquidity Risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Overall Rating:

Observed

Overall Comment:

Sufficient evidence was presented to demonstrate the measuring and monitoring and management of JSE Clear's liquidity risk, and the maintenance of sufficient liquid resources to effect settlements.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.	<p>JSE Clear's liquidity risks arise from the need for JSE Clear to settle the variation margin obligation of a defaulting clearing member utilising the initial margin collateral held against that clearing member's exposures.</p> <p>Initial Margin is invested by JSE Clear in accordance with the investment mandate which specifies liquidity limits to ensure that sufficient initial margin is available on call to</p>	Observed	None

	<p>settle a defaulter's obligations. Liquidity risks may also arise from operational events impacting JSE Clear and the need to make initial margin payments to clearing members when exposures are reduced and margin needs to be returned (e.g. after futures closeouts).</p> <p>To reduce the daily liquidity requirements regarding clearing member margin payments, JSE Clear nets payments across all markets per clearing member.</p> <p>All of JSE Clear's cashflows are in ZAR. JSE Clear's liquidity needs can stem from a clearing member default, an operational incident, the failure of its settlement bank, the failure of an investment bank with which prefunded resources are invested or the need to return initial margin to clearing members.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.</p>	<p>Payments (of margin obligations and default fund contributions) are initiated via the JSE Clear Payment Clear House through central bank systems. JSE Clear monitors for the settlement confirmations through the South African Reserve Bank payments systems. The Real-Time Clearing system (RTC) also allows for monitoring of daily incoming SWIFT settlements i.e., the daily net settlements per clearing member across all JSE Clear markets.</p> <p>Further, the JSE Finance department monitors cash flows daily through the Omega system. This allows access to daily information on cash flows through JSE Clear. Along with this system, the JSE Finance department does reconciliations of all cash flows regularly.</p>	<p>Observed</p>	<p>None</p>
<p>Key Consideration 3</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>
<p>A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of</p>	<p>Payments are only done in ZAR cash, and payments are netted across markets per clearing member to reduce the liquidity movements. Net payments are monitored daily and calculated back over a period of</p>	<p>Observed</p>	<p>None</p>

<p>confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.</p>	<p>time to work out average movements per day.</p> <p>The aim of stress testing for liquidity risk is to assess whether JSE Clear has sufficient liquid resources to meet intra-day and multi-day payment obligations, under stressed conditions.</p> <p>For liquidity risk stress testing, scenarios could relate to the default of a clearing member or to operational events impacting JSE Clear, its settlement bank or one of its investment banks. The specific scenarios are detailed in JSE Clear Stress Testing Scenarios document. To quantify the liquidity needs of JSE Clear under any of these scenarios, we investigate JSE Clear's peak historic liquidity needs. Any adjustments needed to account for stressed market conditions are made, and the final cash flow need arising from the stress event is determined.</p> <p>The liquidity stress scenarios considered are:</p> <ul style="list-style-type: none"> - Default of a clearing member. 		
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	<ul style="list-style-type: none"> - JSE Clear Settlement bank can't process variation margin. - JSE Clear margin investment bank can't process initial margin pay-out. - JSE Clear can't receive or make any payments. - Default of a clearing member that is also an investment bank. <p>As the quantification is very specific to each stress scenario, the details of the quantification is discussed in the JSE Clear Stress Testing Scenarios document. The final step in the liquidity stress testing methodology is to compare the stressed liquidity needs to JSE Clear's available financial resources and escalate the need for additional resources appropriately.</p> <p>Liquidity stress testing calculations are conducted daily and reported on a monthly basis to the JSE Risk Exco and on a quarterly basis to the JSE Clear Risk Advisory Committee and Risk Committee, as per the JSE Clear Stress Testing Policy.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation

<p>A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.</p>	<p>JSE Clear conducts daily liquidity stress testing to assess its variation margin and other payment obligations against available liquid resources.</p> <p>Scenarios cover the default of a clearing member, operational events impacting JSE Clear, its settlement bank and/or one of its investment banks and an assessment of the maximum net margin payments due by JSE Clear to its clearing members. The specific scenarios are detailed in JSE Clear Stress Testing Scenarios document. The liquidity stress scenarios considered are:</p> <ul style="list-style-type: none"> - Default of a clearing member under extreme but plausible market conditions. - JSE Clear Settlement bank can't process variation margin. - JSE Clear margin investment bank can't process initial margin pay-out. - JSE Clear can't receive or make any payments. - Default of a clearing member that is also an investment bank under extreme but plausible market conditions. 	<p>Observed</p>	<p>None</p>
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As the quantification is very specific to each stress scenario, the details of the quantification are discussed in the JSE Clear Stress Testing Scenarios document. The final step in the liquidity stress testing methodology is to compare the stressed liquidity needs to JSE Clear's available financial resources and escalate the need for additional resources appropriately.

JSE Clear employs and maintains a number of measures, processes and liquid resources to ensure it is able to meet its payment obligations. These include:

- All payments are only affected in ZAR cash, and payments are netted across markets per clearing member to reduce the liquidity movements.
- Net payments are monitored daily and average and peak movements per day reviewed regularly.
- Daily payments to clearing members (outgoing payments) are only paid once incoming payments have been received.

	<ul style="list-style-type: none"> - Initial margin is invested in accordance with the liquidity limits specified in the investment mandate with a minimum of 30% on call and average and maximum duration limits to ensure sufficient IM available immediately in the event of a clearing member default. - JSE Clear has committed liquidity facilities with five banks (3 local and two international non-clearing member banks) to the value of ZAR 3.1bn. - Liquidity can be invoked against the value of the cash initial margin of the defaulter held by JSE Clear in trust and against the value of securities collateral sold in a default event. JSE Clear will only accept liquid South African government bonds as securities collateral for a portion of a participant's initial margin obligation and concentration limits will apply to ensure that the bonds can be sold with the assumed liquidation period. 		
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation

<p>For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.</p>	<p>JSE Clear only clears in ZAR. As at 29 November 2023, the total initial margin balance was R56.7bn with approximately 30% of this invested on call. Variation margin flows are a zero-sum game each day, and account summary reports are produced on a daily basis (per market) showing how much total variation margin each clearing member has to pay or receive.</p> <p>JSE Clear has a default fund of R600m that can only be used to cover losses in the case of a clearing member default. Margin and default fund contributions are invested according to the JSE Clear Investment Mandate (margin and default fund), which specifies liquidity limits e.g. at least 30% of margin must be invested on call.</p> <p>Further to this, committed liquidity lines to the value of ZAR 3.1bn are in place with 5 commercial banks, which can be drawn upon in a liquidity event.</p>	<p>Observed</p>	<p>None</p>
<p>Key Consideration 6</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>

<p>An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.</p>	<p>JSE Clear does not have any other supplemental liquid resources.</p>	<p>N/A</p>	<p>Not Applicable</p>
Key Consideration 7	Assessment of the Key Consideration	Rating	Recommendation
<p>An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to</p>	<p>Committed liquidity lines of ZAR 3.1 bn are in place with RMB, ABSA, Standard Bank, Bank of China and Standard Chartered, which can be drawn in a liquidity event. The reason for having 5 liquidity providers is the possibility that one of the banks is the defaulting clearing member in which case JSE Clear would not have access to that liquidity line.</p>	<p>Observed</p>	<p>None</p>

<p>assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.</p>	<p>The setting up of the liquidity lines involved agreeing the requirements for the liquidity lines and the specific conditions under which they will be drawn on. Each of the liquidity facilities is governed by contractual agreements between JSE Clear and the liquidity provider.</p> <p>Processes in relation to accessing the committed liquidity lines have been defined and tested as part of our annual default management testing.</p> <p>The 5 financial institutions that JSE Clear has facilities with are all authorised banks and are regulated by the South African Reserve Bank and have access to credit with the South African Reserve Bank.</p> <p>Processes in relation to accessing the committed liquidity lines have been defined and tested as part of default simulation testing.</p>		
<p>Key Consideration 8</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>

<p>An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.</p>	<p>Daily margin payments between JSE Clear and its clearing members are facilitated via SWIFT irrevocable payments messages (to reduce settlement risk) that are transmitted via central bank payments systems (SAMOS). Payments flow via SAMOS due to the high values related to these daily cash movements and their significance in the context of the South African Financial markets.</p> <p>JSE Clear currently has no access to credit at the central bank (SARB).</p>	<p>Observed</p>	<p>None</p>
<p>Key Consideration 9</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>
<p>An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants</p>	<p>JSE Clear conducts daily liquidity stress testing to assess whether JSE Clear has sufficient liquid resources to meet intra-day and multi-day payment obligations, under stressed conditions.</p> <p>Scenarios cover the default of a Clearing Member, operational events impacting JSE Clear, its settlement bank or one of its investment banks and an assessment of the maximum net margin payments due by JSE Clear to its Clearing Members. The</p>	<p>Observed</p>	<p>None</p>

<p>and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.</p>	<p>specific scenarios are detailed in JSE Clear Stress Testing Scenarios document.</p> <p>To quantify the liquidity needs of JSE Clear under any of these scenarios, we investigate JSE Clear's peak historic liquidity needs. Any adjustments needed to account for stressed market conditions are made, and the final cash flow need arising from the stress event is determined.</p> <p>The liquidity stress scenarios considered are:</p> <ul style="list-style-type: none"> - Default of a clearing member under extreme but plausible scenarios. - JSE Clear Settlement bank can't process variation margin. - JSE Clear margin investment bank can't process initial margin pay-out. - JSE Clear can't receive or make any payments. - Default of a clearing member that is also an investment bank under extreme but plausible scenarios. 		
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	<p>As the quantification is very specific to each stress scenario, the details of the quantification are discussed in the JSE Clear Stress Testing Scenarios document. The final step in the liquidity stress testing methodology is to compare the stressed liquidity needs to JSE Clear's available financial resources and escalate the need for additional resources appropriately.</p> <p>Liquidity stress testing calculations are conducted daily and reported on a monthly basis to the JSE Risk Exco and on a quarterly basis to the JSE Clear Risk Advisory Committee and Risk Committee, as per the JSE Clear Stress Testing Policy.</p>		
Key Consideration 10	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.</p>	<p>The JSE Clear Rules define the consequences of a clearing member default and the actions that JSE Clear will take to manage the default. The JSE Clear Default Fund Policy and Default Management Policy documents further define the approach and actions JSE Clear will take to manage a default and settle the obligations of the defaulting clearing member.</p> <p>As per the JSE Clear's Rules and the JSE Clear Liquidity and Default Management policies, in the event of a clearing member default, JSE Clear will utilise incoming variation margin payments from healthy clearing members plus the JSE Clear liquidity lines up to the value of the defaulter's initial margin in order to settle market participants during the default process prior to the close out of the defaulted portfolio.</p>	<p>Observed</p>	<p>None</p>
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Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Overall Rating**Observed****Overall Comment:**

Settlement is effected in money of the clearing members settlement banks or by means of entries passed through the Reserve Bank settlement system or a designated settlement system.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI's rules and procedures should clearly define the point at which settlement is final.	<p>With settlement occurring through the JSE Clear PCH, finality occurs once confirmation via a SWIFT message is received once payment has been received by the respective clearing members settlement bank - Irrevocability is defined by the JSE Clear PCH Rules as well as the National Payment Systems Act.</p> <p>This information is disclosed to all participants as well as the settlement banks. Disclosure took place via the</p>	Observed	None

	<p>Settlement Banks each signing the PCH agreement.</p> <p>The NPS Act provides clarity regarding the finality of settlement through the JSE Clear PCH:</p> <p>5. Settlement provision:</p> <ol style="list-style-type: none"> 1. Settlement is effected in money of the clearing members settlement banks or by means of entries passed through the Reserve Bank settlement system or a designated settlement system. 2. A settlement that has been effected in money or by means of an entry to the credit of the account maintained by a settlement system participant in the Reserve Bank settlement system or a designated settlement system is final and irrevocable and may not be reversed or set aside. 3. An entry to / or payment out of the account of a designated settlement system participant to settle a payment or settlement obligation in a designated settlement system is final and irrevocable and may not be reversed or set aside. 		
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Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
<p>An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.</p>	<p>JSE Clear provides for settlement on the value date. The rules stipulate that payments have to be made by no later than 10am on the business day following the date that such payment accrued. Non-payment may lead to default.</p> <p>Payments are monitored through the JSE Clear PCH and escalated where payments are not made timeously. Payments are effected using SWIFT as irrevocable immediate settlements.</p> <p>JSE Clear does allow for intraday margining, where Clearing Members have to transfer money to JSE Clear, which is done via clearing member settlement bank funds.</p> <p>JSE Clear is able to enact intraday margining, as per the process described in the Intraday Margin Call Policy:</p> <ul style="list-style-type: none"> - JSE Clear conducts a market assessment. 	<p>Observed</p>	<p>None</p>

	<ul style="list-style-type: none"> - Intraday margin shortfall calculations are conducted against predefined thresholds. - A crisis meeting is held to approve the IMC. - JSE Clear notifies relevant CM of intention to issue and IMC by latest 14h00 SAST. - JSE Clear issues IMC and the CM is required to make payment no later than 60 mins thereafter - Margin settlement must take place before 15h00 SAST. <p>This will be done via JSE Clear PCH.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.	<p>JSE Clear defines the point of irrevocability to be when the clearing members balance positions and cash movements back to the clearing house.</p> <p>Prohibition of revocation is done via declaration of default. The member may be deemed to be in default if no payment is received. Revocation may occur when there are systems or process errors. JSE Clear is the only party allowed to revoke (and replace) the payments.</p>	Observed	None

	JSE Clear can revoke and then re-initiate payments where payments have been made for the wrong amount - i.e. this only relates to payments it initiates.		
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Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Overall Rating:**Observed****Overall Comment:**

JSE Clear does not settle in central bank money and has demonstrated that it assesses and addresses the credit and liquidity risk arising from the use of commercial bank money for settlements.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.	<p>JSE Clear manages the daily cash payments of Initial and Variation margin as well as booking fees through the central bank payment system (SAMOS) via the JSE Clear PCH using SWIFT messaging (ISO20022).</p> <p>JSE Clear PCH only uses settlement banks appointed by the Payment Association of South Africa and which are approved and regulated by the central bank.</p>	Observed	None

	<p>JSE Clear completes money settlements in ZAR only - no foreign currencies.</p> <p>JSE Clear does not settle using central bank funds, however, payments done to/from the JSEC clearing members are processed through the JSE Clear PCH and the actual settlement instructions flow via the central bank payment system.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk	<p>JSEC has set minimum entry requirements for applicants wishing to become clearing members as set out in Section 3 of the JSE Clear rules. The minimum requirement is that a clearing member shall have own funds of R200 million, or such other sum as JSE Clear may determine</p> <p>JSE Clear monitors the credit standings of the clearing members on an ongoing basis through assessing external credit ratings, exposures, margin-to-exposure ratios, market data and review of operational procedures and</p>	Observed	None

	<p>processes which support the clearing business and a demonstration of the adequacy of all current and planned arrangements is monitored.</p> <p>A competitive bidding process was completed and the current settlement bank was approved via that process. JSE Clear has back up accounts with an alternative commercial bank which are tested as part of production operations at least annually.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
<p>If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.</p>	<p>Settlement banks are regulated by the South African Reserve Bank (SARB), and as such are required to comply with the requirement stipulated by the regulator in order to maintain their banking license. Should any of the banks' activities prejudice their "licensed" status, the SARB will intervene and take resolute action immediately.</p> <p>JSE Clear has set minimum entry requirements for applicants wishing to become clearing members as set out in Section 3 of the JSE Clear</p>	Observed	None

rules. The minimum requirement is that a clearing member shall have own funds of R200 million, or such other sum as JSEC may determine

JSE Clear monitors the credit standings of the Clearing Members on an ongoing basis through assessing external credit ratings, exposures, margin-to-exposure ratios, market data and review of operational procedures and processes which support the clearing business and a demonstration of the adequacy of all current and planned arrangements is monitored.

Settlement banks are regulated by the South African Reserve Bank (SARB), and as such are required to comply with the requirement stipulated by the regulator in order to maintain their banking license. Should any of the banks' activity prejudice their "licensed" status, the SARB will intervene and take resolute action immediately.

In addition to its existing approach, JSE Clear will conduct a review of clearing member banks' capital

	<p>adequacy and liquidity positions, as presented in their quarterly Pillar 3 disclosures. JSE Clear will monitor relevant capital and liquidity adequacy ratios, including Common Equity Tier 1 (CET1) ratios, Tier 1 ratios, Total Capital ratios and Liquidity Coverage ratios. These ratios will be monitored against accepted minimum benchmarks and for material movements from one quarter to the next.</p> <p>Any concerns identified during any of JSE Clear's monitoring processes will be discussed with the clearing member bank concerned and escalated to the regulatory bodies as appropriate.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.	<p>A mandate is in place for JSE Clear's own funds with set limits and guidelines to manage both credit and liquidity risk.</p> <p>This is monitored on a daily basis.</p>	Observed	None
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.</p>	<p>The Derivatives Margin Service Agreement, which is signed by JSE Clear and each of the settlement banks covers aspects such as when transfers occurs, etc.</p> <p>Further the National Payment System Act, which governs over the settlements, states that payments are irrevocable.</p>	<p>Observed</p>	<p>None</p>
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Principle 10: Physical Deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

Overall Rating:**Observed****Overall Comment:**

The JSE Rules define JSE Clear's obligations and responsibilities with respect to delivery of physical instrument and commodities.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.	<p>Commodities (All the grain products - Wheat, maize, soy etc.):</p> <ol style="list-style-type: none">1. White Maize2. Yellow Maize3. Bread Milling Wheat4. Sunflower Seed5. Soybeans6. Sorghum <p>JSE Clear is responsible for the facilitation of the delivery process. We administer invoicing (to both buyer and seller), VAT compliance, with clearing members guaranteeing</p>	Observed	None

	<p>that good delivery takes place. JSE Clear also approves the silo facilities, as well as vetting the silo operators.</p> <p>Equity and Bond Physical Deliveries:</p> <ol style="list-style-type: none"> 1. Equities. 2. Bonds. <p>JSE Clear is responsible for the facilitation of the delivery process. On expiry, JSE Clear creates delivery obligations for the underlying securities and the positions are closed out at the close-out prices. The delivery notifications are sent to the trading members for physical delivery. Settlement margin is held until physical delivery has taken place in the underlying market.</p> <p>Physical delivery details are in the JSE Rules and contract specifications.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.	The operational processes in relation to the physical delivery are fully documented and available to the operations team of the CCP.	Observed	None

The monthly stock reports are received from each of the silo managers, these are also confirmed by the annual audits. The JSE have implemented random checks of each of the warehouses used.

Additional reporting is also done, where JSE Clear can compare the total capacity of a particular silo, and all the receipts that have been issued in respect of that facility and not only JSE original transferable silo receipts issued.

Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Overall Rating:**Observed****Overall Comment:**

JSE Clear has documented default management rules which has been reviewed and approved. These rules are intended to ensure that JSE Clear is able to contain losses in order to meet obligations.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.	<p>Section 10 of the JSE Clear Rules clearly defines a default event and how this is identified. The JSE Clear Default Fund Policy and Default Management Policy provide further detail in relation to defaults and default management.</p> <p>Per Rule 10.1.1 a clearing member shall default if:</p> <ul style="list-style-type: none">- 10.1.1.1 it fails to meet its obligations in respect of a trade or a position in terms of these clearing rules; or	Observed	None

	<ul style="list-style-type: none"> - 10.1.1.2 JSE Clear determines, in its sole discretion, that it will be unable to meet its obligations in respect of a trade or a position in terms of these clearing rules; or - 10.1.1.3 its clearing membership is involuntarily terminated. <p>The JSE Clear Rules specify when and how the liquidity facilities will be used by JSE Clear to meet the obligation of the defaulting clearing member. The use of financial resources in a default to cover losses and contain liquidity pressures is further described in the Default Fund Policy, Default Management Policy and Liquidity Policy.</p> <p>The JSE Clear Rules and Default Fund Policy specify the order in which the various financial resources will be accessed (i.e. the Default Waterfall). The Initial Margin already paid by the defaulting member forms the first line of defence. Should initial margin be insufficient the default fund will be accessed - first the defaulting member's contribution, then the JSE Clear contribution, and thereafter the contributions of the non-defaulting members.</p>		
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Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.	<p>The JSE Clear Default Management Committee Terms of Reference provides the structure and terms of reference for the Default Management Group Committee (“DMGC”) that will make decisions regarding the default of a clearing member. The committee will oversee the operational aspects of the management of a clearing member default and its actions will be guided by the JSE Clear Default Management Policy.</p> <p>The JSE Clear Default Management Process document describes when default-related activities need to be initiated, which parties need to take responsibility for which actions, and what the decision-making expectations of each of the different role-players should be. Additional detail is provided for discretionary procedures that need to be contemplated.</p>	Observed	None

Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should publicly disclose key aspects of its default rules and procedures.	<p>The JSE Clear Rules, Default Fund Policy and Default Management Policy are publicly available on the JSE's website, and the JSE Clear default management procedure documents have been widely distributed via JSE Clear's various governance committees and participants of the annual default simulations.</p> <p>The replenishment of resources following a default is covered in the Rules and the Default Fund Policy.</p> <p>These documents cover:</p> <ul style="list-style-type: none"> ○ the circumstances in which action may be taken; ○ who may take those actions; ○ the scope of the actions which may be taken, including the treatment of both proprietary and customer positions, funds and assets; 	Observed	None

	<ul style="list-style-type: none"> ○ the mechanisms to address an FMI's obligations to non-defaulting participants; and ○ where direct relationships exist with participants' customers, the mechanisms to help address the defaulting participant's obligations to its customers. <p>Market Participants (trading members, clearing members and Regulators) are also involved in the annual default simulation.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.	<p>JSE Clear performs tests of its default procedures or "simulations" with the various market participants annually. The last test was conducted in November 2023.</p> <p>The CCP and ICH further endeavours to test scenarios and procedures that have not previously been tested and or procedures that have been enhanced or require stakeholder education and review, in each of its fire-drills.</p>	Observed	None

	<p>The results are used to improve and enhance default management processes with any changes necessary to the Rules, policies, procedures or systems identified and actioned.</p> <p>The Default Procedure testing covers the default of the following entities:</p> <ul style="list-style-type: none"> - Default of a DCM (Direct Clearing Member) - Default of a GCM (General Clearing Member) - Default of a Trading Member and Trading Member client 		
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Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Overall Rating:**Observed****Overall Comment:**

JSE Clear was able to demonstrate its segregation arrangements, segregated accounts and its segregation of collateral received from clients.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.	<p>Identification: JSE Clear requires that all clients be registered with the JSE, before a member trades for or on behalf of a client. This registration process involves the provision of detailed client information, all of which is stored by JSE, and captured under a unique client identifier.</p> <p>Segregation: The JSE and JSE Clear rules and trading and clearing systems utilised enable the full segregation of margin, collateral and positions between clearing members, members and their clients. Trading members and clearing members are</p>	Observed	None

required to, at all times, retain additional and retained margin in a trust account. The applicable rules state, in peremptory terms, that all assets of market participants have to be segregated. This segregation is compulsory to client level and client assets are always segregated and held separate from the assets of a participant.

Collateral: JSE Clear still mainly collects initial margin by way of cash collateral which is registered against the client or trading member account, enabling segregation of collateral.

The protection to clients is afforded by the rules of the exchange and CCP. These rules are enforced by the JSE and JSE Clear and the segregation of all funds and assets between participants/customers (as well as customers/lower-level clients) ensures that this protection is effective. Section 35A of the Insolvency Act provides that the liquidator or trustee of an insolvent estate is bound by all the rules and practices of the JSE.

	JSE Clear has processes in place that allow for portability to occur at multiple levels (client and / or Member).		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.	<p>In terms of the JSE Rules all clients must be registered with the JSE, before a member trades for or on behalf of a client.</p> <p>The JSE and JSE Clear Rules and the trading and clearing systems used enable the full segregation of margin, collateral and positions between clearing members, members and their clients.</p> <p>JSE Clear collects initial margin mainly by way of cash collateral which is registered against the client or Trading Member account (i.e., the principal account)- enabling segregation of collateral.</p> <p>Collateral held is in the form of initial margin (and additional margin where called for by the trading members for clients and clearing members for trading members). Initial margin covers the potential future exposure</p>	Observed	None

	including the losses incurred in liquidating positions held in a particular defaulting account. Currently JSE Clear receives ZAR cash mainly as collateral.		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.	<p>In the instance of trading member default, the associated clearing member is obliged to take on the clients of the failing trading member, as per the JSE Clear rules (10.3.1.5).</p> <p>In the instance of a clearing member default, JSE Clear will attempt to port the healthy trading members to the other remaining clearing members and a trading member who is ported must conclude a clearing agreement with its new clearing member, failing which the positions of the trading member will be closed out. Refer to JSE Clear rules (10.2.7, 10.2.9)</p> <p>In the case of a trading member failure, no consent is required of the clearing member. This is specified under section 12.30.6 of the Derivative Rules, and no exceptions are allowed.</p>	Observed	None

	In the case of a clearing member default, JSE Clear will attempt to port the healthy trading members to the other remaining clearing members. The porting procedure is detailed in JSE Clear's Default Management Process document.		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.	<p>The JSE and JSE Clear Rules and the porting process document are available on the JSE's website.</p> <p>The Rules and porting process document include details on the protection of the clients assets on an individual basis.</p> <p>There are limited uncertainties or constraints with regards to JSE Clear's segregation arrangements.</p> <p>There are limited uncertainties with regards to JSE Clear's porting arrangements. The risk that a new clearing member may not conclude a clearing agreement with a trading member of a defaulting clearing member is commonly understood in the market. Recognising the practical challenges with porting, the sizing of</p>	Observed	None

	prefunded resources is based on the conservative assumption that none of the trading members will be ported.		
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Principle 15: General business risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Overall Rating:**Observed****Overall Comment:**

JSE Clear has been able to demonstrate how it identifies, monitors, and manages its business risk through its documented policies which are reviewed annually, its periodic reporting of the various risk areas to the various functional areas and governance structures, as well as its funding arrangements which are reported to the Authorities as required by the Authorities.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.	JSE Clear identifies and monitors general business risks through the Enterprise Risk Management Framework with the relevant business owners accountable for managing these risks in conjunction with Risk team as second line of defence. The risks are reviewed quarterly and reported to the JSE Clear Risk Committee with key actions noted and tracked.	Observed	None

	<p>The key business risks are categorised into risk themes:</p> <ul style="list-style-type: none"> - Strategy execution. - Strategic partners. - Operations. - People. - IT systems. - Cyber. - Compliance/regulatory. - Business environment. <p>The detailed risk register (log) is reviewed every six months by the JSE Clear Risk Committee.</p> <p>Risks are reported to the Risk Committee and Board on a quarterly basis or as they arise. A broad and consistent framework is applied through existing structures, namely the Enterprise Risk Framework and Risk Appetite and quarterly Enterprise, Financial and Operational risk reports.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business	JSE Clear has an established capital management plan that complies with the FMA regulatory capital requirements for central counterparties. This plan includes	Observed	None

<p>losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.</p>	<p>capital specifically for business risk, as well as for investment, operations and wind-down risks.</p> <p>The investment of JSE Clear capital is governed by the Investment Mandate for own funds. The mandate ensures that JSE Clear has sufficient liquid assets to enable it to apply its capital to address a material risk arising. The mandate requires JSE Clear to identify the main factors that affect the ability to repay funds when needed and to manage this through the application of liquidity limits.</p> <p>JSE Clear's capital management plan complies with the FMA regulatory capital requirements for central counterparties. As such, capital for business and wind-down risk is currently equal to 6 months of operating expenses (the regulatory minimum).</p> <p>The entity's internal estimate (determined through consultation with key decision makers in the business) of the time needed for recovery or wind-down is estimated at 4 months as it is a critical market infrastructure.</p>		
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	The entity holds the higher of the regulatory and economic capital requirement.		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.	<p>JSE Clear's formal Recovery and Resolution Policy sets out the principles and guidelines applicable to the recovery and resolution of the CCP. It describes the scenarios which may trigger a recovery situation, the circumstances under which the CCP can be recovered and the tools that are available to facilitate this recovery.</p> <p>The policy identifies the factors that may impede the CCP's ability to effectively discharge its recovery plan. These relate to market conditions at the time of recovery, the health of other interdependent financial institutions and the willingness of regulators and market participants to continue to support the market infrastructure.</p> <p>The JSE Clear capital plan has been designed to comply with the FMA regulations. This plan includes capital amounting to 6 months of operating</p>	Observed	None

	<p>expenses for business and wind-down.</p> <p>Capital held for business risk forms part of JSE Clear's own funds and its investment is governed by a separate Investment Mandate, namely; the Investment Mandate for JSE Clear own funds. JSE Clear has implemented a capital management plan that complies with the FMA regulatory capital requirements for central counterparties.</p> <p>This plan includes capital for general business risks, which is currently calculated to equal 6 months of operating expenses (the regulatory minimum). This capital is invested in accordance with the Investment Mandate (Own funds) which requires that the funds are invested in cash accounts with reputable financial institutions that meet specified credit ratings.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation

Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.	<p>JSE Clear's qualifying capital to cover general business risk comprises of share capital and premiums, retained earnings and reserves.</p> <p>The JSE Clear Board determines the form of capital resources required to cover risk tolerance in its clearing activities and required to fund strategic growth initiatives.</p> <p>Capital held to cover risks associated with investment, operational, legal, business and wind down is invested in accordance with the Investment Mandate (Own funds) which requires that the funds are invested in cash accounts with reputable financial institutions that meet specified credit ratings.</p>	Observed	None
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation
An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.	JSE Clear has implemented a capital plan that complies with the FMA regulatory capital requirements for central counterparties. This plan includes a capital management policy. JSE Clear will request capital from its parent (which has a 100% ownership of JSE Clear) before seeking alternative means of capital raising.	Observed	None

	<p>The JSE Clear Board is responsible for ensuring the company has sufficient capital and approving the raising of any additional capital required.</p>		
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Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Overall Rating:**Observed****Overall Comment:**

JSE Clear has demonstrated, through its processes and reporting arrangements, that its able to safeguard its own and its participants' assets.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.	<p>JSE Clear policy for the investment of funds under management, is captured in the JSE Clear Investment Mandate with the primary objective being to minimize the risk exposure in these funds and thereafter to maximize the investment income earned on funds invested. All these funds are administered by the JSE on behalf of JSE Clear.</p> <p>The specific selection criteria are listed in the Investment Mandate, mainly that the banks should be registered and regulated in South</p>	Observed	None

	<p>Africa and that they meet the credit rating criteria.</p> <p>At present, all funds managed by JSE Clear are invested in a variety of bank accounts spread across a number of banks with a minimum of a "A-1+" or "A-1" rating.</p> <p>JSE Clear relies on recognised credit rating agencies to assess and compute credit limits for the banks used.</p> <p>The banks' ratings are regularly monitored to ensure they continue to meet the eligibility criteria.</p> <p>Reviews by the Rating Agency are typically performed on the banks on an annual basis.</p> <p>Funds are only invested with banks regulated by the Prudential Authority which provides assurance that the banks have robust practices and internal controls in place.</p> <p>To further mitigate risk, investment limits are in place specifically to mitigate concentration risk in the</p>		
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	unlikely event that one of our investment banks defaults.		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have prompt access to its assets and the assets provided by participants, when required.	<p>JSE Clear has established legal certainty via the investment agreements that it has entered into with each of the institutions it chooses to invest with.</p> <p>Each agreement caters for the required specifications of the investment mandate i.e. the ability of JSE Clear to enact calls for funds on deposit, the ability to determine the specific investment vehicles used, and the terms under which early notifications for withdrawals or transfers are meant to be managed etc.</p>	Observed	None
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.	Multiple investment banks are used, and investments are made across a number of instruments, across a number of markets, all in an effort to mitigate concentration risk. Criteria are also set to limit the maximum portion of the funds invested at a single bank.	Observed	None

	Monitoring of the exposures that JSE Clear has to each of the institutions with which it invests is done on a daily basis. Daily reports are generated that indicate the amounts on deposit with each bank, the percentage of the total pool this represents, average investment duration and applicable interest rates.		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.	<p>The philosophy (that underpins the strategy) takes into account the role that JSE Clear plays in maintaining the stability of the market and is wholly aligned with JSE Clear's risk appetite.</p> <p>The management of these funds implies a fiduciary duty to the clearing members, trading members and their respective clients. Consequently, the utmost care must be taken as to where and how these funds are managed. As mentioned previously, the ultimate aim for the management of these funds is therefore to minimise the inherent risks related thereto and thereafter to optimise the return achieved.</p>	Observed	None

	<p>The investment strategy is disclosed to the JSE Clear Risk Committee, JSE Clear Board, and JSE Executive Committee. JSE Clear only invests with banks with locally regulated banks with a minimum of a "A-1+" or "A-1" rating.</p> <p>JSE Clear does not invest in participants' own securities.</p>		
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Principle 17: Operational Risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Overall Rating:

Observed

Overall comment:

JSE Clear has a Risk Management Framework which is implemented across the organization to identify sources of operational risk. Both executive and governance structures have clear duties and responsibilities in respect of risk management and the executive leadership is responsible for risk identification and mitigation on an ongoing basis.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.	The JSE Clear Enterprise Risk Management Framework and Operational Risk Management Policy are in place to ensure that key enterprise and operational risks are identified and appropriately managed by the JSE Clear business in accordance with a defined risk management process. Enterprise risks are categorised into risk types defined within the JSE Clear Enterprise Risk Management	Observed	None

	<p>Framework and includes cleared risks such as Clearing Member credit risk, margin, collateral and default) and other key risks such as settlement, liquidity, Investment and operational risk).</p> <p>Operational risk management for JSE Clear is aligned to the JSE Limited ERM Framework at market level with key measurements in place for reporting on the operational performance of the clearing system and related processes. The measurements are based on key plausible risks that may materialise across each of the market's value chain.</p> <p>Specific operational risks are actively managed by front line teams (JSE Clear Operations Team) within the JSE Clear business, in accordance with the JSE Clear Enterprise Risk Management Framework. The JSE Clear Risk Team monitors and manages financial risks (margin, collateral, default, credit) for the clearing business as well as enterprise and operational risks as the second line of defence. The JSE Clear Operations Team is headed up</p>	
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	by the Chief Operating & Information Officer who ensures accountability and active reporting on status of risks and incidents.		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.	<p>The JSE Clear CEO is responsible and accountable for the effective delivery of services by the JSE to JSE Clear. The JSE Clear Board has also constituted a JSE Clear Risk Committee, which meets regularly and monitors performance by the JSE Clear CEO as well as by the JSE Clear risk team.</p> <p>The JSE Clear CEO is dependent on the JSE Clear Chief Risk Officer and the JSE Clear Chief Information/Operating Officer for the management of day-to-day operational risk efforts including those provided as services to JSE Clear. This is detailed in the JSE Clear Board Charter and the JSE Clear Risk Committee Terms of Reference.</p> <p>The JSE Clear Operational Risk Framework is incorporated in the JSE Clear Enterprise Risk Management</p>	Observed	None

	<p>Framework, which is approved by the JSE Clear Risk Committee and JSE Clear Board. The framework is reviewed annually by the JSE Clear Risk Committee.</p> <p>Aspects of the Enterprise Risk Management Framework are reviewed on a quarterly basis via the Enterprise Risk Report prepared by the JSE Clear Risk team. The report provides the Risk Committee with an indication of the changing risk profile of the CCP as measured against the key categories of risk applicable to the organisation.</p> <p>The JSE Group Enterprise Risk Management Framework is subject to external audit on an annual basis. JSE Clear Enterprise Risk Management Framework is aligned to that of the group.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.	The JSE (as provider of certain services to JSE Clear) has an Enterprise Service Management solution (Service Now) that is aligned to the Information Technology	Observed	None

	<p>Infrastructure Library (ITIL) best practices framework, which facilitates the logging and tracking of mature ITIL aligned Incident, Problem, Change and Release Management Processes. Further to this, it also tracks and reports on the Incident Priority based defined Service Level Agreements.</p> <p>The stated objectives ensure that the systems of JSE Clear perform as required and are available during required business periods. Over and above the business security requirements that have been implemented in the systems (i.e. System-level access control), the JSE Information Security Management System (ISMS) addresses the preservation of confidentiality, integrity and availability of information and information processing technologies. The JSE and ISMS address governance, risk, compliance, processes, people and technology aspects of information security.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.</p>	<p>The JSE undertakes non-functional testing as part of ongoing system enhancements. This includes performance testing to ensure that systems can meet current and future capacity needs.</p> <p>Technical designs incorporate capacity projections to ensure new systems can be scaled for projected future volumes - this is reviewed continuously to ensure systems can always cater for the transactional load placed on them.</p> <p>Production environments are monitored in terms of performance to ensure that no capacity constraints are encountered and if required these are discussed at the monthly service level meetings with JSE Clear operations.</p> <p>Any major system or software upgrades are accompanied by performance testing to ensure the non-functional requirements are still adhered to.</p>	<p>Observed</p>	<p>None</p>
<p>Key Consideration 5</p>	<p>Assessment of the Key Consideration</p>	<p>Rating</p>	<p>Recommendation</p>

<p>An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.</p>	<p>JSE Clear makes use of physical offices and infrastructure housing facilities owned and managed by the JSE. Physical security is assessed and monitored as part of the overall JSE Risk Framework which then forms part of the Annual review process, and as well as the quarterly report. There is also a physical security section in the IT Security Policy, which stipulates access control to key IT physical infrastructure.</p> <p>A JSE Physical Security Policy is currently in place, which is appropriate until such time as JSE Clear opts to stop using the JSE's physical offices.</p> <p>The JSE aligns its information security programme and practices to the ISO 27001 standard, the Information Security Forum (ISF) Standard of Good Practice (SOGP), and is currently in the process of fully moving to the National Institute of Standards and Technology (NIST) cyber security framework.</p>	<p>Observed</p>	<p>None</p>
Key Consideration 6	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a widescale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.</p>	<p>The JSE Group has a Crisis Management Policy and Manual which includes the JSE Clear CRO, JSE Clear CEO and JSE Clear CIO/COO as part of the Crisis Management Stakeholders. Additionally, there is a JSE Clear Crisis Management Plan that guides how incidents / outages / disasters are to be managed from a clearing house stakeholder perspective. There is also a JSE Clear Business Continuity Policy and JSE Clear Business Continuity Plan.</p> <p>IT Operations have an IT Disaster Recovery Plan which speaks specifically to recovery plans in instances of major operational disruptions.</p> <p>The JSE also conducts a BCP / DR test on an annual basis. The last internal test was done in October 2023.</p> <p>The JSE Clear has a Crisis Communication Plan that guides how incidents / outages / disasters are to be managed from a Stakeholder perspective. Operationally, the head of each functional area in JSE Clear</p>	<p>Observed</p>	<p>None</p>
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(CCO, CRO, CIO/COO) takes responsibility for ensuring that the right stakeholders are kept abreast of crisis efforts.

The JSE Clear Crisis Communication Plan also provides guidance on how any services provided by third parties are incorporated into the recovery processes.

The JSE Crisis Management Manual also guides how communication will be managed depending on type of crisis and relevant stakeholders to be included.

The JSE conducts a full internal as well as a client facing DR BCP test annually involving clearing members and participants. The last internal test based on the PFMI submission was conducted in August 2023 and external facing October 2023. DR BCP tests are independently observed by the JSE's external auditors.

In addition, JSE Clear conducts BCP testing covering all settlement failure scenarios with clearing members, settlement banks, PASA and the

	<p>SARB. Based on the PFMI submission, the last test was conducted in December 2022.</p> <p>A default simulation was held in November 2023 and included Clearing Members.</p>		
Key Consideration 7	Assessment of the Key Consideration	Rating	Recommendation
<p>An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.</p>	<p>JSE Clear formally completes a risk assessment (JSE Clear Risk Log) twice a year where risks within our operations associated with key participants and third parties are identified. Our response and controls are also documented and where action plans are agreed, these are tracked to closure with the action owners.</p> <p>On a monthly basis, a dashboard containing top concerns in respect of our operations is completed and reported to the JSE Group Risk Management Committee. Twice a year, the JSE Clear Risk Log is taken to the JSE Clear Risk Committee for review.</p> <p>JSE Clear as the CCP has no other FMIs with which it interacts, and as</p>	Observed	None

such, no specific risks in this regard have been identified (i.e. nothing has been highlighted for other FMIs: systemically important payment systems, central securities depositories (CSDs), securities settlement systems (SSSs), central counterparties (CCPs), and trade repositories (TRs)).

Additionally, JSE Clear formally completes a risk assessment in which risks on the horizon are considered. Should JSE Clear identify in the near future that it will pose any risks to another FMI these will be assessed, evaluated and appropriate responses in accordance with our risk criteria will be documented, tracked and reported appropriately to the applicable governing Committees.

Principle 18: Access and participation requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Overall Rating:**Observed****Overall comment:**

JSE Clear has objective, fair and risk-based access criteria to its infrastructure which are provided for in the South African regulatory framework. The details of access to its infrastructure are captured in the Rules which are publicly available, including on its website.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk related participation requirements.	<p>JSE Clear applies stringent membership requirements for all of its members. Further to this, additional requirements with regards to the continued health of clearing members' financial and operational arrangements need to be fulfilled on an ongoing basis during the course of a clearer's membership which includes:</p> <p>Risk management requirements which include the requirement for clearing members to, at all times, have and maintain the necessary risk procedures, systems, facilities,</p>	Observed	None

resources and expertise to ensure that an adequate, effective and on-going process of risk management is established and maintained and a comprehensive and documented risk management framework is established and maintained.

Operational requirements which include the requirement for clearing members to, at all times, have and maintain the necessary procedures, administrative and other systems, controls, facilities, resources and expertise to ensure the efficient and effective performance of its functions as a clearing member; compliance with the FMA Act and the JSE Clear rules; accurate record keeping; adequate management of their own funds and the funds and assets of clients or exchange members and their clients for whom the clearing member performs a clearing service; minimize the risk of loss to the clearing member which results from any irregularity, fraud or error, and to detect any irregularity, fraud or error should they occur so that prompt remedial action may be taken by the clearing member; and that the records of the clearing member are

	<p>maintained in such a manner as to promptly disclose financial and business information that allows for management of the risk exposures of the clearing member relating to its activities as a clearing member of JSE Clear.</p> <p>Default Fund requirements which require Clearing Members to pay an amount of default margin to the Default Fund as determined by JSE Clear from time to time, as collateral for the due performance of all or any of its obligations as set out in the clearing rules.</p> <p>Financial resources requirements which require that a clearing member must at all times have sufficient capital as prescribed in the JSE Clear rules. A clearing member that is a bank or a branch of a foreign bank regulated by the Prudential Authority must meet the capital adequacy requirements imposed by the Prudential Authority.</p> <p>The own funds of a clearing member that is not a bank or a branch of a foreign bank must at all times be at least equal to R200 million. A clearing</p>		
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	member must ensure that it has sufficient cash resources or cash facilities to meet its obligations to JSE Clear in terms of these rules at all times. A clearing member that is not a bank or a branch of a foreign bank must procure that its obligations to JSE Clear in terms of the rules are guaranteed by a bank or bank holding company or a foreign bank or foreign bank holding company headquartered in a jurisdiction that substantially adheres to current Basel Capital Requirements.		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.	Considering the size of the risks and exposure being underwritten across the market (i.e. the open interest that each clearing member underwrites), the requirement for non-bank clearing members to have R200 million in own funds and a guarantee from a bank or bank holding company is deemed appropriate as a requirement to ensure participants are reputable, financially substantial firms, and aligns with JSE Clear's risk appetite. The size of the required guarantee is based on each non-	Observed	None

	<p>bank clearing member's cleared exposure.</p> <p>In addition to this, JSE Clear has implemented a number of risk mitigation processes to allow for enhanced monitoring and management of exposures (margin back-testing, stress testing, liquidity stress testing, margin add-ons, default fund etc.).</p> <p>The access and participation requirements are reviewed whenever a change to underlying legislation is considered (e.g., the implementation of the FMA and the subsequent repealing of the Securities Services Act and/or material structural changes are affected (e.g., as part of the migration to an independent clearing house with the associated creation of the JSE Clear Rulebook).</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant	The participants are required to submit audited financial statements annually (within three months after the end of its financial year-end).	Observed	None

<p>that breaches, or no longer meets, the participation requirements.</p>	<p>An initial check is performed to ensure the validity of the statements received, as well as to consider what the statements say about the overall financial health of the organisation. A detailed review is then undertaken to ensure that the capital requirements have been complied with (throughout the period), that there is sufficient surplus capital (should a surplus be required) and that sufficient capital will be available for the forthcoming period.</p> <p>The rules specify that members are required to inform JSE Clear of instances where they fail to comply with the capital adequacy requirements. The rules also specify how members are required to respond in instances where they no longer have anyone fulfilling the role of Compliance Officer.</p> <p>If the member fails to meet the requirements, the rules empower JSE Clear to terminate membership (involuntary termination of membership -refer to JSE Clear Rules, section 3.11).</p>		
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Principle 19: Tiered participation arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Overall Rating:**Observed****Overall comment:**

JSE Clear has managed to segregate information at the level of the underlying clients of the clearing members and gathers client information from its members. The information gathered enables JSE Clear to have insight about trends and possible risks that may emanate from these relationships.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.	<p>In terms of participation arrangements, JSE Clear currently allows for:</p> <ul style="list-style-type: none">- Self Clearing Members who clear for themselves and their clients; and- General Clearing Members who clear for themselves and their clients as well as for other trading members and their clients.- Further to this, the JSE currently allows for trading members that	Observed	None

	<p>are authorised and regulated by the JSE.</p> <p>The structure of the market is: client to trading member and trading member to clearing members. JSE Clear operates an agency CCP model in which the clearing members guarantee the obligations of their clients to JSE Clear. All client and trading member accounts, positions and collateral are recorded on the JSE Clear systems.</p> <p>All clearing members have to apply for membership of the clearing house and JSE Clear keeps a register of members. The register is updated whenever a new member is added or an existing member is terminated.</p> <p>Counterparty credit exposure is mitigated through the monitoring of exposures and calculation of margin at an account (principal) level with no netting allowed. JSE Clear also calculates and monitors liquidation and large exposure margin add-on's at an account level. JSE Clear also monitor default fund exposures and which clearing members, trading members and clients drive the</p>	
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	highest Cover 1 and Cover 2 stressed losses each day.		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.	<p>JSE Clear considers connections between parties such as ownership and control e.g., where a trading member is owned by the clearing member.</p> <p>However, from JSE Clear and the JSE's perspective these are treated as separate entities and both are required to submit capital adequacy returns (by way of example).</p> <p>JSE Clear also monitors and assesses position build-up where there are related entities.</p> <p>Margin is calculated down to account level and called for on a daily basis - no netting is allowed.</p>	Observed	None
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.</p>	<p>a. This is monitored and reported to the JSE Clear Risk Committee on a quarterly basis.</p> <p>b. This has been identified as is regularly monitored through internal and regulatory reporting.</p> <p>c. This is monitored on an ongoing basis (through inter alia assessment of which participants attract the large exposure margin add-on and drive material changes in total margin on deposit)</p> <p>d. This is monitored. It is worth noting that JSE Clear's clearing members are all large local or international banks with sizeable capacity and balance sheets.</p> <p>The JSE monitors for position build-up (large positions) and a large exposure margin add-on is called for where required.</p> <p>JSE Clear implements various measures to mitigate the counterparty credit risk.</p> <p>All derivative trading members have to apply for membership on the JSE and the JSE keeps a register of members. The register is updated</p>	<p>Observed</p>	<p>None</p>
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	<p>whenever a new member is added, or an existing member is terminated. JSE Clear records all positions and collateral at the principal level and has access to the details of trading members and clients through its reference data systems.</p> <p>Further to this, the trading members are required to submit monthly capital adequacy returns to the JSE. For the non-bank clearing member firms these returns are provided to JSE Clear monthly.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.	<p>Risks are monitored on an ongoing basis and are tabled at the JSE Clear Risk Committee, JSE Clear Risk and Operations Advisory Committees and the JSE Clear Board on a quarterly basis. All policies, including the Counterparty Credit Risk (CCR) Monitoring Policy, are reviewed annually or as required.</p> <p>Where required, the Rules are changed to mitigate against the newly identified risks.</p>	Observed	None

	JSE Clear also monitors credit standings and would consider mitigating actions (enforcing reduction in exposure and/or additional margin/surety) if a participant's credit standing deteriorated materially.		
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Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Overall Rating:**Observed****Overall comment:**

JSE Clear's offerings and services are tested and responded to via feedback received from the various JSE Clear governance forums. Participants are able to raise concerns and /or new requirements through these forums.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.	<p>JSE Clear maintains its focus of the needs of the market via rigorous and frequent engagement, at every level. The effectiveness of its offerings and services are tested and responded to via feedback received from the various JSE Clear governance forums - the Board, Risk Committee and Advisory Committees.</p> <p>All include representatives from a range of impacted market participants - as well as dealings with representatives (at all levels) from our clearing members (IT, sales and administrative staff in</p>	Observed	None

	<p>particular). JSE Clear prides itself on being a client-centric organisation, and places significance on the feedback it receives from the market.</p> <p>JSE Clear has also introduced a regular clearing member forum where more operational items and ongoing projects are discussed. Software vendors providing solutions to clearing members are also invited to this forum.</p> <p>A Service Agreement is in place between JSE Clear and the JSE which is based on the JSE Clear service objectives as well as the requirements of the market participants. These are measured daily and reported back to the JSE Clear Risk Committee and JSE Clear Board on a quarterly basis.</p> <p>Participants are able to raise concerns and /or new requirements through the various forums - JSE Clear Advisory committees and Risk Committee or JSE Clear Board.</p>		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation

<p>An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.</p>	<p>The goals and objectives related to JSE Clear's operational effectiveness are encapsulated in its Service Level Agreements. The agreement specifies the different aspects of the CCP's operations that need to be considered as part of the provision of its service offering and states the expected standard of service delivery for each of these aspects.</p> <p>The Service Agreement between JSE Clear and the JSE is based on the JSE Clear service objectives as well as the requirements of the participants.</p> <p>The expected service levels that JSE Clear needs to deliver to the market are specified in the level 2 risk appetite reporting and reporting in this regard included in the monthly JSE Clear Exco report.</p> <p>Specifically, JSE Clear's objectives are:</p> <ul style="list-style-type: none"> - Reduce systemic risk. - Ensure efficient, fair markets. - Protect investors. - Ensure orderly markets. 	<p>Observed</p>	<p>None</p>
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	<ul style="list-style-type: none"> - Promote transparency. - Provide credible information. <p>JSE Clear has a Service Agreement with the JSE which is based on JSE Clear's service objectives. These are measured daily and reported back to the JSE Clear Risk Committee and JSE Clear Board on a quarterly basis.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.	<p>JSE Clear uses level 1 and level 2 risk indicators to evaluate its efficiency and effectiveness.</p> <p>The level 1 risk indicators are reported quarterly to the JSE Clear Risk Committee.</p> <p>The level 2 risk indicators are measured and reported on monthly at the JSE Clear management meetings.</p> <p>JSE Clear operations area undertakes regular review of its processes and is specifically focused on operational stabilisation and operational resilience.</p>	Observed	None

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Overall Rating:**Observed****Overall comment:**

JSE Clear utilises appropriate communication procedures and standards to facilitate its business activities and services.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.	<p>JSE Clear only connects to local participants - the clearing members.</p> <p>As such, the protocol used to interface to the clearing system is TCP/IP with a proprietary API interface for the clearing systems used. Most clearing members also use a system supplied by the local service provider, facilitating connectivity to the CCP. JSE Clear does not govern the relationship between the participants and their clients.</p>	Observed	None

Principle 23: Disclosure of rules, key procedures, and market data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Overall Rating:**Observed****Overall comment:**

JSE Clear's Rules are available on its website. Other information is available publicly and upon request. This is deemed sufficient to enable members to have accurate understanding of risks and material costs they are likely to incur by participating in JSE Clear.

Key consideration 1	Assessment of the Key Consideration	Rating	Recommendation
An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.	<p>The primary rule-set used to govern the activities of the clearing house are the JSE Clear rules, which came into effect on the 1st of January 2023. These rules define the basic obligations of each of the market participants, as well as the responsibilities placed on each of these.</p> <p>A range of separate, topic-specific policies and procedures have been</p>	Observed	None

created to explain the workings of the different (primarily operationally focused) aspects of market participation.

The Rules and applicable documents are available on the JSE website.

Notification of new Rules and Rule changes are sent out to the market via Market Notices. Also, new documents or amendments to existing documents are circulated to participants.

The JSE Clear Rules and Directives (as well as new policies / policy amendments) are reviewed and approved by the various committees within JSE Clear's governance structure. Representatives from these committees assess these Rules and Directives, policies and procedures to test the basis on which these have been designed, the manner in which they are to be implemented or embedded, as well as the specificity with which the documentation of these guidelines reflect the original intent of the CCP and its stakeholders.

	<p>All JSE rules are reviewed, assessed and approved in advance by the Registrar, and all changes to JSE Clear rules:</p> <ul style="list-style-type: none"> - are canvassed with the relevant JSE advisory committee to obtain industry input. - Have to be motivated to the Registrar. - Have to be published for public comment. 		
Key Consideration 2	Assessment of the Key Consideration	Rating	Recommendation
An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.	<p>Since 2021, JSE Clear has had a full complement of staff in its own employ to perform the necessary functions for JSE Clear. JSE Clear has a full catalogue of documented processes and procedures explaining the operations of each of the areas within the organisation. These are documented at a level that allow all staff members to use them as operational procedures to conduct the day-to-day operations of JSE Clear.</p> <p>JSE Clear rules and directives dictate the powers and authorities it</p>	Observed	None

	<p>has in terms of the discretion it can exercise.</p> <p>Stress testing and Back-testing is also conducted, which gives a view of the risk profile of the participants specific portfolios and is distributed on a monthly basis to the applicable participants.</p>		
Key Consideration 3	Assessment of the Key Consideration	Rating	Recommendation
An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.	<p>To ensure that all market participants have a continued understanding of our rules and procedures, regular discussions with member representatives are held (i.e. recently discussions regarding the Default Rules and Procedures were held in preparation for the most recent default simulation: discussions regarding the rules in relation to collateral were held while the introduction of securities collateral was being contemplated).</p> <p>As per the JSE Clear Member Supervision Framework, JSE Clear undertakes at least annual onsite reviews with each clearing member to understand the arrangements and controls in place to meet the</p>	Observed	None

	<p>obligations placed on them per the rules.</p> <p>Generally, the measures used to test degree of members understanding of our rules and processes are mainly qualitative ones. Typically, our communication is deemed to be successful due to the fact that few deviations from expected behaviour are witnessed in our member community.</p> <p>The CCP relies on the clearing manager of each member firm. Members are required to formally nominate a staff member (often their compliance officers) to take the role of a clearing manager, whose responsibility it is to study the JSE rules and familiarise themselves with all endorsed processes and member obligations.</p>		
Key Consideration 4	Assessment of the Key Consideration	Rating	Recommendation
An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.	JSE Clear has established a standalone pricelist specifically for its clearing services - updates to which are distributed via market notices, and these fee details are also made available on the website.	Observed	None

	<p>Details relating to penalties are captured with the rules and directives, which are also available on the JSE website.</p> <p>JSE Clear typically provides for a minimum of 30 days' notice to be given for any amendments made to fees or the product / services pricing structure.</p> <p>Fees are typically reviewed and where applicable changed annually.</p> <p>Any fee changes are sent out by Market Notice to members.</p>		
Key Consideration 5	Assessment of the Key Consideration	Rating	Recommendation
An FMI should complete regularly and disclose publicly responses to the CPSSIOSCO Disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.	<p>The last self-assessment approved by the Authorities was completed in 2018.</p> <p>Members of the FSCA sit on the JSE Clear Risk Committee and are alerted of any significant changes that may be introduced to the CCP. In light of these potential changes, the regulator may at its discretion request that the CCP complete the</p>	Observed	None

	<p>IOSCO self-assessment outside of any schedule.</p> <p>JSE Clear publishes key risk policies, methodologies and frameworks on the JSE website. The rules are also published on the website.</p> <p>A variety of media / communication mechanisms are used for the public disclosure of information.</p> <p>The most commonly used of these include:</p> <ul style="list-style-type: none"> - The JSE Website. - Official Market Notices. - Press Statements. - Media Articles (including interviews with content matter experts or business owners). - Email. - Government Gazette (for Rules Changes specifically). <p>All public disclosures are published in English.</p>	
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