STATUS ON IOSCO PFMI PRINCIPLES

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Principle	PFMI Condition	NSE Clear Action and Status
Principle 1: Legal basis	A FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.	As a CCP, the NSE Clear is licensed under the Capital Markets Act and the Capital Markets (Derivatives Markets) Regulations 2015. To govern all aspects of its mandated responsibilities, the NSE developed the NSE Derivatives Rules which were approved by the CMA in 2016. The purpose of these Derivatives Rules and directives is to achieve the objects of the NSE as set out in its Memorandum and Articles of Association by providing the procedures necessary to establish and regulate a fair and efficient derivatives market and to ensure that the business of the NSE is carried out in an orderly manner and with due regard to the objects of the Capital Markets Act. Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations
Principle 2: Governance	A 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.	The NSE Clear was established in 2014 to act as the CCP for the NSE Derivatives Market. It was constituted with a separate Board of Directors whose mandate is to provide strategic guidance and ensure overall management and control of the Clearing House and derivatives market. It is chaired by Mr. Sam Kimani (Former Chairman NSE PLC and Former Chief Executive Jamii Bora Bank). The NSE has constituted a **Derivatives Oversight Committee** which is comprised of seven (7) Industry players (current and former) with vast experience in the financial services. The Committee's key objective is to advise the NSE Board on strategic issues and the oversight role of the NSE relating to the derivatives market (NEXT) and the NSE Clearing House, NSE Clear. It is chaired by Ms Shiru Mwangi (former EA Regional Head of Global Markets – Stanbic Bank) The NSE has set up an **Advisory Committee** comprising of experienced market players who will advise on product and market development and strategic issues. It is chaired by Ms Patricia Kiwanuka – Former Executive Director – Asset Management, Old Mutual/UAP Group; and The NSE has also set up a **Risk Management Committee** which shall advice the NSE on the formulation of policies on risk management matters. It is chaired by

		Mr. William Arogo – Former Chief Risk Officer (CRO), Barclays Bank (K) Ltd. The Oversight Committee, Advisory Committee and Risk Management Committee have all been set up as required by statute. Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations
Principle 3: Framework for the comprehensive management of risks	A FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.	The NSE Clear has developed a robust risk management framework for defining, measuring, reporting and mitigating various risks that are inherent in a derivatives market. This has been supported by various risk management documents and policies that will ensure that all the perceived legal, credit, liquidity, operational and other risks are well handled and mitigated. Some of the policies developed include: a) NSE Clear Back-testing methodology; b) NSE Clear Back-testing policy; c) NSE Clear Stress-testing policy; d) NSE Clear Stress-testing methodology; e) NSE Clear Default Fund policy; f) NSE Clear Default Handling procedure; g) NSE Clear Guarantee Acceptance Guides; h) NSE Clear SGF Investment policy; i) NSE Clear Risk Standard Operating Procedures; j) NSE Clear Liquidity Risk Management Guide; and k) NSE Clear Disaster Recovery Plan and Crisis Management Policy In addition to this, the NSE Derivatives Rules cover aspects such as KYC/AML which ultimately form the first line of risk management as initial margin obligations and additional buffers charged by the various market participants are pegged on their client assessments. The Derivatives Rules also provide for penalties and enforcement powers in case of late settlements by any participants past the stipulated time.
Principle 4: Credit risk	A FMI should effectively measure, monitor, and manage its credit exposures to participants and those	The NSE Clear through its rules, various policies and procedures ensures that credit risk is assessed and covered in the following manner: 1. The credit risk associated with the members' open positions must be covered

	arising from its payment, clearing, and settlement processes. A FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence	by cash posting in favor of the clearing house, and complementarily by the other components of its safeguards structure. 2. The credit risk associated with the positions registered until the end of a given trading session must be covered by cash posted by members by the morning of the next trading day, in accordance with the time frame and procedures established by the clearing house procedures and the NSE Derivatives Market Rules. 3. During the day, throughout the trading session, the credit risk deriving from new transactions accepted is controlled using the Clearing House's intraday risk management system, in accordance with the rules of the clearing house. 4. Cash is constituted in favor of NSE, in compliance with the applicable legislation and regulations, in order to mitigate credit risk and systemic risk, pursuant to the provisions of the laws and rules governing the Derivatives Market. As this market shall be a pre-funded market, all this trading cash (or margin) shall be posted in form of cash. The clearing house may also require differing amounts of margin from different members, including members of the same type, by virtue of the clearing house's perception of the credit risk represented by each member, in which case NSE's Derivatives Market Oversight and the Risk Management Committees will decide. The clearing house calculates the credit risk deriving from a member's open positions as the highest potential cost of closing out this member's positions in the market, considering the stress scenarios defined by the NSE and the risk calculation methodology. The calculated credit risk is based on the segregated position held by the investor under a trading member or clearing member, and covered by cash posted by the investor in favor of the clearing house through the trading member or clearing member. As a complementary mechanism to mitigate the credit risk to which it is exposed, the clearing house has established and will maintain a settlement guarantee fund, whose purpose is to cover the losses associated with default on obligations to the clearing house by one or more clearing members.

		The clearing house uses the settlement fund only after the use of collateral posted by the members declared defaulters and if the value of such collateral is not sufficient to cover the amount owed to the clearing house by the clearing member concerned, in compliance with the rules of the Derivatives market. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations; • NSE Clear Default Fund policy; • NSE Clear Default Handling procedure; • NSE Clear Guarantee Acceptance Guides; • NSE Clear SGF Investment policy; • NSE Clear Risk Standard Operating Procedures; and • NSE Clear Liquidity Risk Management Guide
Principle 5: Collateral	A 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.	As the NSE Derivatives Market is a pre-funded market, the only form of collateral that is currently accepted will be in cash form. Cash is constituted in favor of NSE, in compliance with the applicable legislation and regulations, in order to mitigate credit risk and systemic risk, pursuant to the provisions of the laws and rules governing the Derivatives Market. As this market is a pre-funded market, all this trading cash (or margin) is posted in cash form. In regards to the concentration limits, these have been well specified in the NSE Derivatives Rules (Rule 7) and product specifications reports in market-wide, client wide and trading member limits. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations; • NSE Clear Default Fund policy; • NSE Clear Default Handling procedure; • NSE Clear Guarantee Acceptance Guides; • NSE Clear SGF Investment Policy; • Derivatives Product Specification Reports; • NSE Clear Risk Standard Operating Procedures; and • NSE Clear Liquidity Risk Management Guide

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.	The NSE Clear risk management team calculates margin through the historical Value-at-Risk (VAR) model with a confidence level of 99.95% which is well above the PFMI condition of 99%. Value at Risk (VaR) is a measure of the risk of investments. It can be defined as: for a given portfolio, time horizon, and probability, the probability VaR is defined as a threshold loss value, such that the probability that the loss on the portfolio over the given time horizon exceeds this value is p. This assumes mark- to-market pricing, and no trading in the portfolio. It estimates how much a set of investment might lose, given normal market conditions, in a set time period such as a day. VaR is typically used to gauge the amount of assets (in this case, Initial Margins) needed to cover possible losses. Back-testing is done on a daily basis, and any reviews on the procedures that need to be reviewed are carried out on a quarterly basis in accordance with the

		NSE Clear back-testing policy. Reference Documents are: • NSE Clear Back-testing methodology; • NSE Clear Back-testing policy; • NSE Clear Stress-testing policy; and • NSE Clear Stress-testing methodology
Principle 7: Liquidity risk	A FMI should effectively measure, monitor, and manage its liquidity risk. A 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.	In the event of a payment failure, the clearing house becomes exposed to the liquidity risk in both monetization process for margin and assets under settlement and position closeout process for the member declared a defaulter. These two processes are enforceable within the scope of the treatment of failure situations, which is dealt with in the NSE Default Handling Procedures. Pursuant to the NSE Clear Default Handling Procedure, the closeout strategy that determines the amount of required margin meets restrictions such as minimum period for each position to start being settled and maximum daily trading limits for each instrument, which does not influence market reference prices in a significant way. Regarding liquidity risk in the monetization process, and in order to ensure that the necessary liquidity is available to meet its obligations in the prescribed manner and time, even in the event of simultaneous failures of one or more clearing members, NSE Clear imposes restrictions on the types of assets acceptable as margin and on their corresponding volumes. In addition, it has mechanisms that allow for the rapid monetization (conversion into financial resources) of margin and assets under settlement as stipulated in the NSE Clear Liquidity Risk Management Guide. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations; • NSE Clear Default Fund policy; • NSE Clear Default Handling procedure; • NSE Clear Guarantee Acceptance Guides; • NSE Clear SGF Investment policy;

		• NSE Clear Risk Standard Operating Procedures; and • NSE Clear Liquidity Risk Management Guide
Principle 8: Settlement finality	A FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, a FMI should provide final settlement intraday or in real time.	The NSE Derivatives Rules (Rule 6) provide that settlement will occur by midday of every day for the previous day's transactions. The NSE Clear undertakes novation of all trades and this is aided by having initial margin deposited by the clients in order to mitigate against any counterparty credit risk. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations; • NSE Clear Default Fund policy; • NSE Clear Default Handling procedure; • NSE Clear Guarantee Acceptance Guides; • NSE Clear SGF Investment policy; • NSE Clear Risk Standard Operating Procedures; and • NSE Clear Liquidity Risk Management Guide

Principle 9: Money settlements	A FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, a FMI should minimize and strictly control the credit and liquidity risk arising from the use of commercial bank money.	Currently, the NSE Clear is using prefunded money in the commercial bank system for settlement purposes. This is currently being undertake by a Tier 1 commercial bank Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations
Principle 10: Physical deliveries	A 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.	Despite the fact that the initial products launched in the NSE Derivatives Market are cash settled, the NSE Derivatives Rules (Rule 7) do provide for physical settlement. This will also be in line with the various product specification documents for which the different products will have physical settlement as the preferred settlement methodology. Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations
Principle 11: Central securities depositories	A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimize and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry.	N/A to a CCP
Principle 12: Exchange-of-value settlement systems	If a 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	The settlement of a financial transaction by an FMI may involve the settlement of two linked obligations, such as the delivery of securities against payment of cash or securities. This may bring out principal risk when one obligation is settled but the other is not. The proposition would therefore be to have a delivery versus payment (DvP)

	one obligation upon the final settlement of the other.	system that would help to mitigate against this risk. This can be settled in a net or gross basis. The NSE Clear is currently using a multi-lateral netting system in order to enhance the efficiency of settlement. Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations
Principle 13: Participant-default rules and procedures	A 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.	The NSE Derivatives Rules (Rule 9) provides for default and default handling. This is further enhanced by the default handling procedure which provides a clear guiding structure towards the handling of default which is: • To ensure the observance of the defaulting party's obligations towards NSE Clear; • To prevent losses for NSE Clear; and • To minimize the impact on the market, Clearing Members and NSE Clear's services. The Default Handling Procedure, together with the Default Fund Policy, clearly stipulates the obligations of all participants in times of default as well as the applicable timelines for handling of the default. The Default Handling Procedure provides a step by step guide as to the handling of default from the client level, trading member level and clearing member level while the Default Fund Policy demonstrates the use and sequence of use of the financial resources held in the Settlement Guarantee Fund. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations; • NSE Default Handling Procedure; and • NSE Default Fund Policy

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.	The NSE Clear in its Clearing System manual has laid out the various procedures for the portability of positions of a participant's clients and the collateral for the same. The NSE Derivatives Rules also provide for segregation of a participant and their clients' funds/collateral of which the NSE will have monitoring and inspection of. These were also extensively tested prior to launch of the market. Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations
Principle 15: General business risk	A 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 materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.	The NSE Clear through its Enterprise Risk Management framework has been able to identify the general business risks that would face the Clearing House upon launch of the market. Furthermore, in terms of capitalization, the CMA required the NSE to be capitalized to the tune of KSh.1 billion for it to run the Derivatives Market. As at December 2020, the Exchange is currently capitalized at Kshs. 2.15 Billion (includes paid up and retained reserves). Further, the licensing regulations require that the NSE maintain a minimum liquid net worth capital requirement of an amount equal to one half of the estimated gross operating costs of the derivatives exchange for the next twelve-month period, or such other liquid net worth amount as prescribed by the Regulator. The NSE Clear, a wholly owned subsidiary of the NSE, on the other hand has capital allocated to it, based on a capital to turnover ratio of 12.5x. Additional capital allocation will be committed based on this ratio. Reference Documents: • NSE Derivatives Rules; and • Capital Markets (Derivatives Markets) Regulations

Principle 16: Custody and investment risks	A FMI should safeguard its own and its participants' assets and minimize 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.	The NSE Settlement Guarantee Fund Investment Policy clearly stipulates that the Investment policy covers the investment of the Settlement Guarantee Fund. Part of these funds can be drawn for investment and it will range from medium – long term investments. According to the policy, the primary objectives in order of priority are: • Security - All investment decisions must be undertaken in a way that seeks to preserve the safety of the invested funds. The exchange does not wish to expose itself to the uncertainty of high-risk portfolio investments and weather losses associated with high-risk instruments should the investments go bad; • Liquidity – The investment portfolio should remain sufficiently liquid to enable the Exchange meet its obligations which are anticipated. The investment should be realizable on short notice and on a need basis; and • Yield – The investment should generate the best returns available in the market whilst not sacrificing on the above two principles. In addition to this, the policy provides for counterparty limits, proposed asset classes, criteria for evaluating institutions in which the investments shall be placed and management of the guarantee fund. This therefore helps to mitigate

		against the aforementioned risks. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations; • NSE Clear Default Fund policy; • NSE Clear Default Handling procedure; • NSE Clear Guarantee Acceptance Guides; • NSE Clear SGF Investment policy; • NSE Clear Risk Standard Operating Procedures; and • NSE Clear Liquidity Risk Management Guide
Principle 17: Operational risk	A 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.	The NSE Clear Risk Management team as well as the wider NSE Enterprise Risk Management team has established a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks. The NSE has an existing business continuity plan that will ensure timely recovery of operations and fulfillment of the clearing house's obligations. Additionally, the clearing house has developed a crisis management document that guides the procedures in case of a crisis or major disruption.
Principle 18: Access and participation requirements	A FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.	The NSE Derivatives Rules (Rule 3) provide for the membership criteria into the derivatives market. The rule allows for open access as long as the participants meet the requirements as stipulated by the NSE. The criteria also provides for hardware and software requirements for the different participants that are necessary in order to plug into the Clearing House's infrastructure in order to be able to carry out their necessary functions. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations;

Principle 19: Tiered participation arrangements	A FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.	N/A as the NSE Clear does not presently have tiered participation. All clients come through trading members and clearing members who are direct members of the NSE Clear.
Principle 20: FMI links	A FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.	N/A as the NSE Clear has no CCP link arrangement with any other Clearing House or Central Counterparty.

Principle 21: Efficiency and effectiveness	A FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.	A CCP should be efficient and effective in meeting the requirements of its participants and the markets it serves, while also maintaining appropriate standards of safety and security as outlined in the principles in this report. "Efficiency" refers generally to the resources required by the FMI to perform its functions, while "effectiveness" refers to whether the FMI is meeting its intended goals and objectives. An FMI that operates inefficiently or functions ineffectively may distort financial activity and the market structure, increasing not only the financial and other risks of an FMI's participants, but also the risks of their customers and end users. If an FMI is inefficient, a participant may choose to use an alternate arrangement that poses increased risks to the financial system and the broader economy. The primary responsibility for promoting the efficiency and effectiveness of an FMI belongs to its owners and operators. The NSE Clear has held a number of training forums with its market participants to discuss the operations and procedures, market related fees and pricing structure that will govern the derivatives market. This is to ensure that there is general consensus on the applicable fees to ensure effective settlement of transactions. Additionally, to enhance efficiency, the NSE Clear uses a novation and a multilateral netting system for settlement. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations;
Principle 22: Communication procedures and standards	A 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.	The NSE Clear uses email communication with its market participants in order to relay each clearing member's settlement obligations. Additionally, the relevant price information such as the settlement price, opening, closing, high and low prices of the day, open interest, traded volume e.t.c. are relayed on the NSE derivatives website as well as by contracted third party vendors. Reference Documents: • NSE Derivatives Rules; • Capital Markets (Derivatives Markets) Regulations;

Principle 23: Disclosure of rules, key procedures, and market data	A 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.	The NSE Clear has a number of policies and procedures that are publicly available through the NSE Derivatives website. Some of them are: a) NSE Clear Back-testing methodology; b) NSE Clear Back-testing policy; c) NSE Clear Stress-testing policy; d) NSE Clear Stress-testing methodology; e) NSE Clear Default Fund policy; f) NSE Clear Default Handling procedure; g) NSE Clear Guarantee Acceptance Guides; h) NSE Derivatives Membership criteria and fees; i) NSE Derivatives Internal Control Policy Additionally, all the relevant data is available on the derivatives website such as the settlement price, opening, closing, high and low prices of the day, open interest, traded volume e.t.c.

Principle 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.	N/A to a CCP