Automated Trading Policy

Version No	4.1
Document Type	Policy
Parent Document	Enterprise Risk Management Framework
Parent Framework	Compliance
Document Approver Name	Zunaid Patel
Document Approver Job Title	Global Head, CFCC, Markets, Islamic Banking and ME&P
Document Owner Name	Thomas Parker
Document Owner Job Title	Head, CFCC Advisory FM, Macro and UK & Europe
Document Contact Name	Gregory Wood; Tiffany Cheung
Document Contact Job Title	Senior Business Manager, Electronic Trading; Director, CFCR Advisory, Markets Trading
Business Scope	All Businesses
Function Role	All Functions
Geography Scope	GLOBAL
Approval Date	20/09/2024
Effective Date	23/09/2024
Next Review Date	23/09/2026

Table of Contents

Version Control Table

Name	Changes made	Materiality	Approved by	Version number	Approval Date	Effective Date
Tiffany Cheung	Migration to Inline format- Non Material Change(No change to document content)	Non-Material	Zunaid Patel	4.1	20/09/2024	23/09/2024

The full version history is included in *Appendix.*

1. PURPOSE AND SCOPE

1.1 Objectives

The **Automated Trading Policy** ("**the Policy**") sets out the requirements and responsibilities for the identification, measurement, mitigation, and monitoring of Automated Trading Risk within Standard Chartered Bank ("**the Group**"). The Policy is built on a risk-based approach, which means that application of the principles, the risk management plans, processes, controls and risk assessment are determined in accordance with the risk profile or level of risk.

The Policy is mapped to Automated Trading, a level 3 risk within the Group's Non-Financial Risk Taxonomy. Automated Trading Risk is the risk of inappropriate design, development or deployment of automated trading activities (including algorithmic trading) resulting in unfair customer outcomes or market disruption.

The purpose of the Policy is to outline the overall risk management approach of Automated Trading Risk to internal stakeholders in **First Line of Defence** ("**1LOD**"), **Second Line of Defence** ("**2LOD**") and **Third Line of Defence** ("**3LOD**").The Group allocates responsibilities for the Policy in a manner consistent with the Three Lines of Defence Model as outlined in the Enterprise Risk Management Framework ("**ERMF**").

1.2 Risk Type Frameworks and Ownership

The Policy leverages and augments policy and practice already implemented within the Group.

Where a Policy requirement overlaps with a Risk Type Framework ("**RTF**") defined within the ERMF, it is expected that the framework for the RTF will be applied, with appropriate reference to any specific regulatory requirement that is aligned with the RTF.

- o For example, **Regulatory Technical Standards 6** ("**RTS 6**") Chapter II requirements around "testing and deployment of trading algorithms systems and strategies" should leverage the Operational and Technology RTF and apply any additional requirements from RTS 6 Chapter II not already covered by the risk framework.

As referred to in Section 1.1, Automated Trading Risk include risk of inappropriate design, development or deployment of automated trading activities (including algorithmic trading) resulting in unfair customer outcomes or market disruption.

Table 1 (below) sets out second line oversight and challenge responsibility for the Bank's Automated and Algorithmic trading activities for areas where Compliance does not act in a second line capacity are specified in each respective RTF with associated ownership.

Refer to section 3 of this Policy regarding responsible roles to implement the mandatory policy statements. These roles are expected to be appointed on a global basis but should also be implemented at country level where appropriate for the regulatory jurisdiction of the Automated or Algorithmic Trading activities.

Risk Type Framework	Second Line oversight and challenge responsibility
Market Risk	Market Risk Officer
Credit Risk (CIB) Framework and Credit Risk (WRB) Framework	Credit Risk Officer
Operational and Technology Risk	Operational Risk Officer
Compliance Risk	CFCC Advisory Officer
Financial Crime Risk	CFCC Advisory Officer
Information & Cyber Security Risk	Technology Risk Officer
Model Risk	Model Risk Officer

Table 1. Second Line oversight and challenge responsibility for Automated Trading, a level 3 risk within the Group's Non-Financial Risk Taxonomy.

1.3   Regulation of Automated and Algorithmic Trading

Regulation through market directives such as **Markets in Financial Instruments Directive II** ("MiFID II"), supervisory statements and best practices, look to mitigate Automated Trading Risk through the implementation of policies, governance frameworks and risk controls.

The requirements in this Policy are driven principally by the following:

- MiFID II Article 17, supplemented through **Commission Delegated Regulation (EU) 2017/589** of 19 July 2016 with regard to regulatory technical standards specifying the organisational requirements of investment firms engaged in algorithmic trading ("RTS 6")

- Prudential Regulatory Authority:

    Supervisory Statement 5/18, June 2018 ("PRA SS 5/18")

- Financial Conduct Authority:

    "**Algorithmic Trading Compliance in Wholesale Markets"**, February 2018, ("FCA Algo Trading")

- Hong Kong Monetary Authority & Securities and Futures Commission:

    "**Sound Risk Management Practices for Algorithmic Trading**", March 2020, ("HKMA Algo Trading")

The Group is required to comply with all relevant local regulatory requirements for the jurisdiction where the Automated or Algorithmic Trading activity is conducted. These regulations focus on the risks related to Algorithmic Trading. Whilst many of the same risks apply across the entire spectrum of Electronic, Automated and Algorithmic Trading, and the same principles of risk management should be applied around design, development, testing, deployment and operation, it is expected that higher standards are applied to Automated and Algorithmic Trading activities given higher levels of automation.

Classification of the risk profile of an Automated or Algorithmic Trading activities through risk tiering must be based on a clearly defined and objective risk assessment process that determines the levels of human and machine involvement within the investment and execution decision processes.

Where local regulatory requirements are stricter than those set out in this Policy, the stricter local requirements shall prevail and must be recorded in a Local Addendum, refer to section 4.1.

1.4   Scope of Applicability

The Policy applies to all Group businesses that engage in Automated and Algorithmic Trading activities, as defined within Section 2.2 of this Policy.

- Whilst most systems are likely to be deployed within Standard Chartered Markets, there may be systems in use elsewhere in the Group that would fall under the Policy.

- The provision by the Group of Direct Electronic Access ("**DEA**") or clearing services to clients, included within RTS 6, is beyond the remit of the Policy.

- For avoidance of doubt, any system that is determined to constitute High Frequency Trading ("**HFT**") will be considered in scope of the Policy.

2. MANDATORY POLICY STATEMENTS

2.1. Automated Trading Governance Approach

The Automated Trading Governance Forum ("**ATGF**") Terms of Reference ("**ToR**") sets out the requirements of the ATGF as authorised by the Markets Non-Financial Risk Committee ("**Markets NFRC**").

The ATGF shall create a robust governance approach that meets the expectations of regulatory bodies that have implemented regulatory requirements or guidance around Automated and Algorithmic Trading activities.

The governance approach should cover the key risks within Automated and Algorithmic Trading activities, which include, but are not limited to:

- Design,

- Development,

- Testing,

- Deployment,

- Change management, and

- Operation.

These key risks can occur at several levels, both for the tools that rely on automation or algorithms, but also at the system-level where these tools are implemented; henceforth called "Automated and Algorithmic Trading Systems".

The governance approach will be implemented by functions with sufficient knowledge and experience to review and understand risks of Automated and Algorithmic Trading Systems and ensure that inherent and residual risk are managed according to the risk appetite of the Group.

The governance approach should provide clear guidance on all key risks and how they are operationally managed and mitigated. This can be achieved in the form of Standards related to this Policy or other documentation as appropriate.

Refer RTS 6 Chapter I ("General organisational requirements") and PRA SS 5/18 Section 2 ("Governance").

2.2. Identification of Automated and Algorithmic Trading Systems

The ATGF must create a definition of Automated and Algorithmic Trading that meets the expectations of regulatory bodies that have implemented regulatory requirements or guidance around this activity and shall maintain an inventory of all Automated and Algorithmic Trading Systems identified as inscope of this Policy, as well as an inventory of risk controls related to those systems. The inventory of algorithms and risk controls should be documented in line with the regulatory expectation outlined in PRA SS 5/18 Section 5 ("Inventories and documentation").

The ATGF has determined that this Policy shall apply to all Automated and Algorithmic Trading activities deemed to be in scope of the definition of Automated and Algorithmic Trading (N.B. this applies to both Bank and Third-Party systems), where:

- "**Automated Trading**" is defined as any automated or semi-automated program that has a direct or indirect impact on either the Bank's risk or a client outcome and MUST include automated acceptance of a trade request from a client or automated execution of an order sent to a trading venue.

- "**Algorithmic Trading**" is defined as a subset of "Automated Trading" and is defined as trading in financial markets where a computer algorithm automatically determines individual parameters of orders or quotes such as whether to initiate the order or quote, the timing, price or quantity of the order

or quote, or how to manage the order or quote after its submission, with limited or no human intervention.

- In the context of Algorithmic Trading, an "**algorithm**" is defined as a self-contained logical component within an Algorithmic Trading System that is designed to meet an investment and/or execution objective based on the inputs provided and can contribute to the initiation or management of an order or quote with limited or no human intervention. The term "algorithm" within this context is synonymous with "algorithmic strategy."

Refer to the Automated Trading Standard for further information on Regulatory definitions of Algorithmic Trading and examples of Electronic, Automated and Algorithmic Trading.

Refer PRA SS 5/18 Section 2.3 ("The governance framework"), Section 2.7 ("Algorithmic trading policy") and Section 5 ("Inventories and documentation).

2.3. Automated and Algorithmic Trading System Approval

To ensure that the risks of any Automated or Algorithmic Trading System are fully understood, all systems must go through a detailed Automated Trading Risk Assessment ("**ATRA**") and be granted a Licence to Operate ("**LTO**") by the ATGF before the system is used in production.

Refer PRA SS 5/18 Section 3 ("Algorithm approval process").

2.4. Automated Trading Risk Principles

The Policy sets the principles that must be followed by the Group proportional to the risks of the algorithms, Automated and Algorithmic Trading Systems, and algorithmic strategies (collectively "**Automated and Algorithmic Trading Systems**").

These principles are that the 1LOD using such systems **must**:

1. Identify all trading systems that are in scope of the Automated Trading Policy and Standard.

2. Ensure that systems are authorised for use in production within parameters set though the ATRA conducted in accordance with this Policy and approver by the ATGF.

3. Have in place effective systems and controls (both from operational risk and market risk perspective) to ensure that all systems:

   a. are subject to appropriate pre- and post-trade Execution Risk Controls, including – but not limited to – any Minimum Mandatory Controls ("**MMCs**") as defined by the ATGF, implemented to limit market risk, counterparty credit risk and operational risk, including procedures for dealing with transactions which have been blocked but which 1LOD wants to transact, and

   b. operate within thresholds and limits that are continuously monitored to ensure that the system operates within the risk appetite of the Group, with any breaches promptly highlighted and managed according to agreed rules of engagement between 1LOD and

      2LOD control functions, and

   c. are appropriately monitored by 1LOD in real-time when in operation for any unexpected behaviour or signs of disorderly market conditions, and

   d. any issues with operation of the system and/or its pre- and post-trade controls are escalated promptly to the ATGF for review in accordance with the ATGF ToR.

4. Have in place effective controls for the enforcement of business mandates and prevention of unauthorised access, including, where appropriate, information barriers to prevent leakage of any confidential trade data, as well as appropriate information and cyber security according to Group requirements.

5. Have in place methodologies for the testing and deployment of systems, including:

   a. segregation of test environments from production, and

   b. independence of teams performing testing from those developing the systems, and

   c. conduct conformance testing with trading venues where appropriate to ensure that the system does not create or contribute to a disorderly market, and

   d. that new systems and changes to systems are deployed in production in a controlled manner, and

   e. systems meet the governance requirements laid out within the Group Technology Policy.

6. Have in place appropriate "stress test" procedures for system and risk controls performance testing of the Automated or Algorithmic Trading System to ensure that the system is resilient and have sufficient capacity for severe but plausible scenarios around increased order flows or market stresses, including demonstration that systems operate within capacity and latency expectations.

7. Have in place the infrastructure for accurate recordkeeping and real-time monitoring, including prompt trade reconciliation and conformance with all appropriate regulatory requirements around transaction reporting, including any recordkeeping standards for Automated and Algorithmic Trading Systems that may fall in scope of HFT as defined under relevant regulation.

8. Have in place procedures for reporting incidents related to Automated and Algorithmic Trading promptly and ensure that appropriate remedial action is taken based on the risk of incident.

9. Have in place effective business continuity arrangements to manage disruptive events such as failure of its Automated and Algorithmic Trading Systems or unavailability of physical resources.

10. Have in place automated monitoring tools to ensure that the system is not used for any purpose that is contrary to market abuse laws or the rules of a trading venue to which it is connected.

11. Establish a comprehensive Service Level Agreement that clearly defines the roles and responsibilities of both the service provider and outsourced party for the provision of the Algorithmic Trading and relevant processes.

12. Follow all local regulatory requirements around Automated and Algorithmic Trading including, where applicable, notify the relevant competent authority that it is engaging in algorithmic trading activities and notifies any trading venue at which it engages in such activities as a member or participant.

Where an Automated or Algorithmic Trading system has been provided by a third-party, the business using such systems must pragmatically follow the same risk management principles as systems developed internally.

2.5. Kill Switch Processes

1. All businesses operating an Automated or Algorithmic Trading Systems must have the ability to withdraw from trading, manage any open risk as necessary, and disable trading within the system, including cancelling some or all unexecuted orders in a controlled manner as appropriate to the system and any trading venues accessed. This should also include when instructed by an authorised party within the business or related control function to activate the Kill Switch process. Where the Kill Switch process requires multiple steps, the process must be clearly documented and understood by the authorised staff operating the system.

2. The Kill Switch process must be assessed periodically (as defined by the ATGF) in both simulation and production, and any deficiencies with the processes must be remediated.

3. The Kill Switch process should be understood by the relevant control functions from the business. These control functions must have authorisation to invoke the Kill Switches process as required. Authorisation must be approved by 1LOD and 2LOD control functions responsible for operation of the Automated or Algorithmic Trading System.

4. If the Kill Switch process is invoked by an authorised party within the business or related control function, then the Automated or Algorithmic Trading Systems must only be reactivated by that authorised party or another named authorised party.

5. All Kill Switch processes must be incorporated into a Master Kill Switch Process which documents all senior management representatives across 1LOD and 2LOD control functions authorised to invoke the Master Process, and who are authorised to re-enable trading after the Master Process has been invoked.

6. Individual Kill Switch processes should reference the Master Kill Switch Process, and authorised staff operating the Automated or Algorithmic Trading System must understand what is required if the Master Kill Switch Process is invoked by authorised senior management representatives.

7. Invocation of the Master Kill Switch Process must be documented, including who authorised the event, justification for the event, the efficiency of the event, and any lessons learnt from the event.

Refer RTS 6 Article 12 ("Kill functionality") and PRA SS 5/18 Sections 5.8, 5.9 and 5.10 ("Kill switch procedure").

2.6. Algorithmic Trading Model Risk Assessment

Algorithmic Trading Systems that use mathematical models, methods or assumptions leading to trading outcomes may pose model risk and as such require elevated model risk review under the Model RTF.

The Group Model Family Standards – Algorithm Trading Models sets out the requirements for review and approval of all identified algorithmic trading models. Once an algorithmic trading model has been identified it must follow these standards in coordination with the governance requirements set out within this document. Evidence of conformance with the algorithmic trading model standard should be provided during the approval and/or recertification process for the system employing the model.

2.7. Automated and Algorithmic Trading System Material Change Assessment

All changes to an Automated or Algorithmic Trading System must be reviewed in accordance with the processes defined by the Automated Trading Governance approach described in Section 2.1.

Under this framework, all changes identified as material must be reviewed and approved before they are deployed in production.

Changes to algorithmic trading models should be assessed as "minor" or "major" and assessed through the process outlined within the Group Model Family Standards – Algorithmic Trading Models.

2.8. Automated and Algorithmic Trading System Recertification

All approved Automated and Algorithmic Trading Systems and their risk controls must go through a recertification process on a periodic basis, as defined by the ATGF. This is intended to ensure that systems and risk controls are behaving as expected.

This recertification is typically annual, but dispensation may be granted by the ATGF specifically to systems where the risk of not performing the recertification within the previously approved period is considered to be low.

Recertification should consider any material changes to the Automated or Algorithmic Trading System, and any incidents that may have occurred since the last certification or initial approval.

Recertification should assess any change to the risk profile of the system, including how its risk is tiered in accordance with the governance framework, and make recommendations for additional controls as necessary before the system is approved for continued operation.

2.9. MiFID II RTS 6 Annual Self-Assessment and Validation Exercise

The ATGF must ensure that an annual self-assessment and validation exercise is conducted to review the Group's compliance with the requirements outlined in MiFID II Article 17 and RTS 6, as well as any other regulatory self-assessments that may be required.

The ATGF must provide clear and appropriate guidance to Business Owners and all other stakeholders in the regulatory self-assessment so that the exercise can be completed in a timely, efficient and consistent manner, as per the timelines provided by the ATGF.

In accordance with the requirements of RTS 6 Article 9 ("Annual self-assessment and validation"), a report must be created by Traded Risk Management ("**TRM**") in conjunction with other 2LOD control functions with delegated authority for their Risk Type, as per Table 1, to validate the self-assessment provided by 1LOD. Conduct, Financial Crime and Compliance ("**CFCC**") Advisory must provide an overall assessment of compliance.

The RTS 6 self-assessment and validation reports must be formally approved by accountable executives responsible for implementation of this Policy, as detailed within Section 3 of this document. Self-identified issues should be risk-assessed and tracked through to remediation.

3LOD will review the RTS 6 self-assessment and validation reports and identify any other issues. Audit-identified issues should be risk-assessed and tracked through remediation.

3. RESPONSIBLE ROLES FOR IMPLEMENTING THE MANDATORY POLICY STATEMENTS

Responsible Roles(s)	Responsibility
Head, CFCC Advisory FM, Macro and UK & Europe	Risk framework owner for Automated Trading Level 3 risk and accountable executive for ATGF.
Global Head, Macro Electronic Trading	Accountable Executive for ATGF.
ATGF	The ATGF shall create a robust governance approach that meets the expectations of regulatory bodies that have implemented regulatory requirements or guidance around Automated and Algorithmic Trading activities.
Business Owner	The Business Owner is the person who owns the risk and whose area bears any monetary losses associated with a given Automated or Algorithmic Trading System. They need to be aware of any material changes, material risks (either self-identified or materialised), and major events that impacts their businesses. The Business Owner may also act as the Desk Head or have responsibility for multiple Desk Heads reporting to them.
Control Functions	Responsible for the roles set out in Section 4 of the Automated Trading Standard.
TRM	Responsible to create the RTS 6 annual self-assessment and validation

Responsible Roles(s)	Responsibility
	report, in line with Section 2.9 of this Policy. Ensure that all new Automated and Algorithmic Trading Systems are risk reviewed and approved prior to implementation, and material changes are risk-reviewed and approved during operation of the system. Under their Delegated Traded Authority, TRM also have authority to initiate Kill Switch processes as required and must be notified of relevant control failures in real-time.
CFCC Advisory	Provides an overall assessment of compliance for the RTS 6 annual self - assessment and validation report.
Group Internal Audit	Review the RTS 6 self-assessment and validation reports and identify any other issues.

4. POLICY RELATED AUTHORITIES

Implementation of the Policy and the Automated Trading Governance Approach will be overseen by the ATGF.

The authorisation for the ATGF will be from the Markets NFRC and its delegation of powers will be through the ATGF ToR. The ToR will grant the ATGF the ability to create the governance approach necessary for implementing this Policy.

The ATGF is chaired by the Accountable Executives responsible for implementing the mandatory policy statements. Deputy chair of the ATGF will be the Risk Framework Owner. Membership of the ATGF will include roles responsible for advising on implementation of the Policy and will include functions expected to participate in governance according to regulatory requirements.

TRM are members of the ATGF and have Delegated Traded Authority to ensure that all new Automated and Algorithmic Trading Systems are risk-reviewed and approved prior to implementation, and material changes are risk-reviewed and approved during operation of the system. Under their Delegated Traded Authority, TRM also have authority to initiate Kill Switch processes as required and must be notified of relevant control failures in real-time.

The principles within this Policy must be complied with in full unless dispensation has been granted. Dispensation to this Policy can only be granted by the owner of the Policy in accordance with the dispensation requirements set out within the Framework and Policy Governance Standard. Dispensation must be formally documented and recorded centrally on GovPoint.

Please refer to the CFCC Guidelines for Group Dispensations and CFCC Guidelines for Country Dispensations and Local Addenda for more guidance.

4.1   Local Addenda

Where there are local requirements that are stricter than those set out in this Policy due to local regulatory requirements and/or audit commitments, the stricter local requirements shall prevail and must be recorded in a Local Addendum.

A Local Addendum must be approved by the Country RFO and recorded centrally on GovPoint. Please refer to the CFCC Guidelines for Country Dispensations and Local Addenda for more guidance.

5. CONNECTED PROCESSES AND ACTIVITIES

The processes which are impacted by the Policy requirements are formalised within the Automated Trading Process Universe within M7, which is reviewed regularly for completeness and appropriateness by the ATGF as part of its regular review of management information.

Process ID	Process
PROC-0000000008	FM	Trade Initiation, Execution & Capture

6. POLICY EFFECTIVENESS REVIEW

The Policy Owner will monitor effectiveness of this Policy and its underlying Standards through the following evidence-based activities such as:

- Control monitoring results, including review results of Control Sample Tests ("**CSTs**"), Key Control Indicators ("**KCIs**"), residual risk assessments and any applicable risk acceptances or root cause reviews for the processes connected to this Policy.

- Self-assessment and validation of compliance of this Policy with appropriate regulatory requirements, notably the MiFID II RTS 6 Annual Self-Assessment and Validation Exercise.

- Dispensations permitted against this Policy and the underlying Standard;

- Material regulatory findings, enforcement actions or regulatory breaches;

- Evidence of gaps or inefficiencies gathered from stakeholders through use of the Standard connected to this Policy, in addition to the effectiveness review of this Policy and its underlying Standard.

7. INTERCONNECTED POLICIES & STANDARDS

Policy Name	Parent RTF	Policy Owner	Area of connection
Group Market Conduct Policy	Compliance RTF	Global Head, CFCC, CIB, EA, ASA and AME	Markets Business Units which use Automated and Algorithmic Trading Systems must follow the procedures in place to ensure the transactions are conducted align with the Market Conduct Regulations and provide fair outcome to our clients. Please refer to Market Conduct Standard - Markets, Financing & Securities Services and Treasury.

Policy Name	Parent RTF	Policy Owner	Area of connection
Traded Risk Policy	Traded RTF	TRM Head, Regulatory and Operational Effectiveness	Market Risk includes those generated from Automated and Algorithmic Trading. The Traded Risk Policy requires TRM oversight of Automated and Algorithmic Trading, including the ability to initiate kill switch processes.
Group Model Risk Policy	Model RTF	Global Head, Model Risk Management	Elements of Automated and Algorithmic Trading System that constitute a Model must comply with the requirements of the Group Model Risk Policy. Connection between policies is via the Group Model Family Standard for Algorithmic Trading.
Group Operational Risk Policy	Operational and Technology RTF	Global Head of Operational Risk	All Automated and Algorithmic Trading Systems in scope of this Policy must comply with the requirements of the Group Operational Risk Policy.
Group Technology Policy	Operational and Technology RTF	Global Head, OTCR, Technology & Architecture	The design, development, testing, and deployment of Automated and Algorithmic Trading Systems in scope of this Policy must comply with the requirements of the Group Information Technology (IT) Policy.
Group Information and Cyber Security Policy	Information and Cyber Security RTF	Head, ICS Policy, Standards & Regulatory Management	All Automated and Algorithmic Trading Systems in scope of this Policy must comply with Group's requirements to protect, preserve, and manage the confidentiality, integrity and availability of the Group's Information Assets, Information Systems and Technology Infrastructure.

Policy Name	Parent RTF	Policy Owner	Area of connection
Group Data Conduct Policy	Compliance RTF	Global Head, Data Conduct, CFCC	All Automated and Algorithmic Trading Systems in scope of this Policy must comply with the Group's Data Conduct Policy for records management to ensure accountability, availability, retention, and destruction.

Standard Name	Parent RTF	Standard Owner	Area of connection
Traded Risk Limit Standard	Traded RTF	TRM Head, Regulatory and Operational Effectiveness	All Automated and Algorithmic Trading Systems in scope of this Policy must comply with monitoring of configurations and approved limits and thresholds.
Traded Risk Stress Testing Standard	Traded RTF	TRM Head, Regulatory and Operational Effectiveness	All Automated and Algorithmic Trading Systems in scope of this Policy must comply with the Traded Risk Stress Testing Standard, which sets out the overall stress testing approach for Traded Risk.
Group Model Family Standards for Algorithmic Trading	Model RTF	Global Head, Traded Risk Models Validation	Elements of Algorithmic Trading Systems in scope of this Policy that constitute a Model must comply with the requirements of the Group Model Risk Policy.
Framework and Policy Governance Standard	Enterprise Risk Management Framework	Head, Strategic Risk Management & Governance	All Automated and Algorithmic Trading Systems in scope of this Policy must comply with Dispensation requirements.

8. STANDARDS MAPPED TO THIS POLICY

The Standard underpinning this Policy is set out in the table below. The Standard listed in this table is either in effect; or has been approved and is pending implementation, as at this Policy's effective date. Revisions to any Standards after this Policy's effective date will be reflected in the next version of this Policy.

As documented in the table, the role holder listed below (Standard Approver) is deemed to have delegated authority to approve corresponding Standard and corresponding dispensations.

Standard Name	Parent RTF	Standard Owner	Standard Approver
Automated Trading Standard	Compliance RTF	Director, CFCC Advisory, FM, Macro	Head, CFCC Advisory FM, Macro and UK & Europe

9. GLOSSARY

Term	Definition
1LOD	First Line of Defence: the SCB Business using the Automated or Algorithmic Trading System
2LOD	Second Line of Defence: the SCB control functions overseeing the risks arising from the usage of Automated or Algorithmic Trading Systems.
3LOD	Third Line of Defence: the SCB Group Internal Audit function.
ATGF	Automated Trading Governance Forum (SCB)
ATQ	Algorithmic Trading Quants (SCB)
ATRA	Automated Trading Risk Assessment (SCB)
DEA	Direct Electronic Access
ESMA	European Securities and Markets Authority
FCA	Financial Conduct Authority
FCA Algo Trading	FCA Algorithmic Trading Compliance in Wholesale Markets
HKMA	Hong Kong Monetary Authority
HKMA Algo Trading	HKMA Sound Risk Management Practices for Algorithmic Trading
HFT	High Frequency Trading
LTO	Licence to Operate (SCB)
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
PRA	Prudential Regulatory Authority
MMC	Minimum Mandatory Control
PRA SS 5/18	PRA Supervisory Statement 5/18
RTS	Regulatory Technical Standards
S2BX	Straight 2 Bank Exchange (SCB)
ToR	Terms of Reference
TRM	Traded Risk Management

10. APPENDIX

VERSION CONTROL TABLE

Document Author Name	Changes made	Materiality	Approved by	Version number	Approval Date	Effective Date
Vlassis Kyriakou	Review and update		Manoj Bhaskar	1.0	30 Jul 2019	-
Vlassis Kyriakou	Review and update		Simon Gurney	1.1	08 Sep 2020	-
Greg Wood	Revised policy statements and model risk assessment approach		Simon Gurney	2.0	03 Nov 2021	-
Vlassis Kyriakou	Remove from section 8 documents with the status "to be created"		Simon Gurney	2.1	03 Nov 2021	03 Nov 2021
Greg Wood	• Improved alignment with the requirements of Prudential Regulatory Authority Supervisory Standard 5/18 (sections 1 and 2) • Improved alignment with other Principal Risk Types within the Enterprise Risk Management Framework (sections 1, 2, 3 and 7). • Update to new policy template and standardisation with other policies.	Material	Simon Gurney	3.0	04 Apr 2023	31 Mar 2023
Greg Wood	Updated embedded URLs to GovPoint landing pages	Non-material	Simon Gurney	3.1	2 June 2023	30 May 2023
Greg Wood	• Change of Parent Risk Type Framework from "Traded" to "Compliance", with appropriate changes to owners, approvers and linked documents. • Addition of definition of	Material	Zunaid Patel	4.0	20 Sep 2024	23 Sep 2024

Document Author Name	Changes made	Materiality	Approved by	Version number	Approval Date	Effective Date
	"algorithm" and "algorithmic trading" as per PRA feedback received October 2023 (sections 2.3 and 10). • PRA SS 5/18 requirements updated where required. • Review and Update to reflect Lessons Learnt from the Citigroup Enforcement Action. The key changes are: 1) Inclusion of a clear definition of "algorithm" a "algorithmic trading". 2) Updated the Roles and Responsibilities of Automated Trading System Owners, including for Design, Development, Testing and Deployment of Automated Systems. Requirements for the Kill Switch processes.					