B3’S TRADING PROCEDURES MANUAL

05/25/2025

TABLE OF CONTENTS

CHANGE LOG 5

TITLE I – INTRODUCTION 7

SOLE CHAPTER – OBJECT 7

TITLE II – TRADING ENVIRONMENT 8

CHAPTER I – CONNECTIONS TO THE TRADING ENVIRONMENT 8

1. GRANTING OF CONNECTIONS TO THE TRADING ENVIRONMENT 8

2. CONTROL AND MONITORING 8

3. CONNECTION CATEGORIES 9

4. CONNECTION ORIGIN 12

5. HOSTING LOCATION 13

6. CERTIFICATION OF TRADING SOFTWARE 15

7. CONNECTIVITY TESTING 15

CHAPTER II – PARTICIPANTS 17

1. FULL TRADING PARTICIPANTS, TRADING PARTICIPANTS AND FOREIGN PARTICIPANTS 17

2. MARKET MAKERS 19

3. TRADERS, ORDER CONVEYORS, RESPONSIBLE BANK ORDER CONVEYORS AND BANK ORDER CONVEYORS 30

CHAPTER III – TRADING 31

1. LOTS 32

2. TRADING SESSION 32

3. INSTRUMENT STATUS AND TRADING PHASES 33

4. ORDERS, BIDS AND ASKS 34

5. CALLS 49

6. SPECIAL TRADING PROCEDURES - AUCTIONS 51

7. TRADING TUNNELS 78

8. BLOCK TRADES OF SECURITIES 98

9. CORRECTION, CANCELLATION AND INCLUSION OF ORDERS AND TRADES IN THE TRADING ENVIRONMENT 101

10. MASS CANCEL 104

11. IMPLIED 105

12. SUSPENSION OF TRADING 107

13. CIRCUIT BREAKER 109

14. LEVERAGE CONTROL FOR DAY TRADE OPERATIONS 109

CHAPTER IV – TECHNOLOGICAL RISK CONTROL 114

1. PRE-TRADING RISK CONTROL 114

2. MESSAGING CONTROL 114

3. MARKET PROTECTION 116

4. THROTTLING 117

5. INTENTIONAL SELF-TRADING 118

6. CANCEL ON DISCONNECT (COD) 121

CHAPTER V – EMERGENCY AND CONTINGENCY MEASURES 123

1. EMERGENCY MEASURES OF AN OPERATIONAL NATURE 123

2. OPERATING PROCEDURES IN RESPONSE TO FAILURE OF CRITICAL COMPONENTS OF THE TRADING SYSTEM 123

3. BUSINESS CONTINUITY PLAN 126

TITLE III – ORGANIZED MARKETS 128

CHAPTER I – EXCHANGE MARKET 128

1. CASH EQUITIES MARKET 128

2. CASH PRIVATE FIXED-INCOME MARKET 130

3. DERIVATIVES MARKET 132

4. STRATEGY TRADES 149

5. FORWARD MARKET 150

CHAPTER II – ORGANIZED OVER-THE-COUNTER MARKET AS CENTRALIZED

SUMMARY

MULTILATERAL TRADING SYSTEM 155

1. GENERAL PROVISIONS 155

2. TRADING IN EQUITIES 155

3. TRADING IN FIXED-INCOME ASSETS 159

4. EX-PIT TRADES 160

CHAPTER III – SPOT FOREIGN-EXCHANGE MARKET 162

1. GENERAL PROVISIONS 162

2. TRADING INSTRUMENT 162

3. TRADING 162

4. ROUND LOT AND TICK SIZE 162

5. ORDER TYPES AND DISCLOSURE 162

6. REJECTION TUNNEL 163

TITLE IV – FINAL PROVISIONS 164

CHAPTER I – SANCTIONS AND PRUDENTIAL MEASURES 164

1. INFRINGEMENT OF PROCEDURES OR INADEQUATE USE OF CONNECTIONS 164

2. INFRINGEMENT OF THE RULES FOR USING THE PRE-TRADING RISK CONTROL TOOL OR INADEQUATE USE OF RISK LIMITS 164

3. DECLARATION OF SPECIAL SITUATION OF FULL TRADING PARTICIPANT, TRADING PARTICIPANT OR FOREIGN PARTICIPANT 165

CHAPTER II – APPEALS AGAINST SANCTIONS 166

CHAPTER III – NOTICES TO THE MARKET 168

CHAPTER IV – SUPPLEMENTARY RULES 169

ANNEX I 170

ANNEX II 172

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

CHANGE LOG

(FROM 05/02/2019)

Change	Date	Circular Letter*
1	06/17/2019	042/2019-PRE
2	08/05/2019	026/2019-VOP
3	12/16/2019	098/2019-PRE
4	03/23/2020	033/2020-PRE
5	07/06/2020	084/2020-PRE
6	09/04/2020	110/2020-PRE
7	04/23/2021	030/2021-PRE
8	08/20/2021	092/2021-PRE
9	10/04/2021	119/2021-PRE
10	01/31/2022	014/2021-PRE
11	06/01/2022	056/2022-PRE
12	08/01/2022	091/2022-PRE
13	09/01/2022	108/2022-PRE
14	09/12/2022	005/2022-VNC
15	11/28/2022	162/2022-PRE
16	07/31/2023	127/2023-PRE
17	08/14/2023	139/2023-PRE
18	08/28/2023	146/2023-PRE
19	09/04/2023	150/2023-PRE
20	10/30/2023	171/2023-PRE
21	11/24/2023	190/2023-PRE
22	11/27/2023	194/2023-PRE
23	01/24/2024	002/2024-PRE and 004/2024-PRE
24	01/29/2024	011/2024-PRE
25	04/01/2024	033/2024-PRE

26	04/17/2024	052/2024-PRE
27	05/02/2024	064/2024-PRE
28	07/22/2024	007/2024-VNC
29	08/05/2024	102/2024-PRE
30	12/09/2024	168/2024-PRE and 167/2024-PRE
31	02/17/2025	009/2025-PRE
32	06/16/2025	008/2025-VNC
33	06/23/2025	011/2025-VNC
34	06/30/2025	008/2025-VPE and 018/2025-VNC
35	07/21/2025	024/2025-VNC
36	08/01/2025	028/2025-VNC
37	10/01/2025	038/2025-VNC
38	11/03/2025	045/2025-VNC
39	12/08/2025	053/2025-VNC
40	03/16/2026	011/2026-VNC and 007/2026-VPE
41	04/24/2026	025/2026-VNC
42	05/04/2026	027/VNC-2026
43	05/25/2026	031/2026-VNC

** Circular Letter by which the change was disclosed.*

TITLE I – INTRODUCTION

SOLE CHAPTER – OBJECT

This trading procedures manual establishes **trading** procedures and technical criteria for use in the **trading environment** and the **trades** performed with **assets** and **derivatives** on the exchange market, organized over-the-counter (OTC) market and foreign-exchange market operated by B3 in accordance with B3's trading rulebook, of which this manual is an integral and supplementary part.

This trading procedures manual is complemented by the **trading platform**'s technical specifications, and by circular letters and external communications in force published by B3.

The acronyms used in this trading procedures manual and the terms in boldface, in their singular and plural forms, have the definitions and meanings specified in B3's glossary of terms and acronyms, which is independent of B3's other normative documents.

Terms generally used in the financial and capital markets, legal, economic and accounting terms, and technical terms of any nature used in this trading procedures manual have the meanings generally accepted in Brazil.

In the event of ambiguity between the provisions contained in this B3 trading operating procedures manual and in other regulations issued by B3 not related to the trading environment, the more specific regulation shall prevail, considering the matter that is the subject of the ambiguity. If the regulations and the matter are related to the **trading environment**, B3's trading rules shall prevail.

This manual is approved by the B3 Joint Board of Officers and, as applicable, by the competent regulatory bodies, under the terms of the regulations issued by them.

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

TITLE II – TRADING ENVIRONMENT

CHAPTER I – CONNECTIONS TO THE TRADING ENVIRONMENT

Authorized participants and **registered participants**, as defined in B3's trading rulebook, operate in the **trading environment** by means of **connections** established by B3.

1. GRANTING OF CONNECTIONS TO THE TRADING ENVIRONMENT

A **connection** to the **trading environment** may be granted to a **full trading participant responsible for the connection,** and where applicable to a **trading participant** and **foreign participant**, provided they meet the following conditions:

I - Technical: compliance with all technical requirements needed to assure a proper and safe **connection** to the **trading system**, as defined by B3 in the PQO (Operational Qualification Program) guidelines.

II - Regulatory: compliance with all rules established by B3, BSM (B3 Market Supervision), CVM (Securities and Exchange Commission of Brazil) and BCB (Central Bank of Brazil). In the case of a non-resident **investor**, the **full trading participant** (PNP), **trading participant** (PN) and **foreign participant** (FP) are responsible for complying and enforcing compliance with the law in the **investor**'s country of origin as it applies to the markets operated by B3.

Connections must be acquired, altered and canceled electronically with B3, and only by **full trading participants**, who may allow the **trading participant(s)**, **foreign participant(s)** or **investor** linked to them to use their **connections**. **Trading participants** and **foreign participants** connect to the **trading system** through one or more **full trading participants**.

2. CONTROL AND MONITORING

B3 controls and monitors the use of **connections** to ensure they comply with the trading rulebook, the provisions of this trading procedures manual, and the technical specifications of its systems, protocols, and **trading** and market data interfaces.

For this purpose, B3 verifies the different categories of **connection** established in its trading rulebook and (i) the means of execution, (ii) the origin of the **connection**, (iii) the hosting location, (iv) segregation of the flow of electronic messages, and (v) conformity with the parameters required for the transmission of electronic messages, as detailed on B3's portal.

Based on the different **connection** categories, means of execution, **connection** origin and hosting location, at the time the **connection** is acquired B3 assigns an alphanumeric identification code for

use in **orders** and **cross orders** sent via the **connection** in accordance with the following parameters available on B3's website.

In **operations** automatically executed by B3, it will be used the Sender Location EXCB3SAF, therefore, the trading desk will not be considered as a mean of execution, as well as there will not be an associated **trader.** When the **operations are** executed by B3 on the participant's demand, the Sender Location, the **trader** and the FIX trading session of the **operations** will be used, in the absence of such information, it will be requested for the **participant** to include in the operation.

For prudential reasons, B3 does not allow the same **connection** to be shared by more than one **full trading participant**, **trading participant** or **foreign participant**, so that the flow of **orders** must be segregated for each **participant**.

B3 establishes procedures to identify the user who inserts an **order**, the **investor**, the origin of the **order** (the IP of the connection used by the **full trading participant**, **trading participant**, **foreign participant** and of the **connections** granted by them), the responsible **operations** professional (**trader**, **conveyor** or **responsible bank order conveyor**) and the **asset** or **derivative** (audit trail), storing this information for at least five years.

In the event of non-compliance with the rules for use of **connections** and/or inadequate use of **connections**, B3 may at its sole discretion take the measures provided for in its trading rulebook, this trading procedures manual and the technical specifications of its systems, protocols, and **trading** and market data interfaces.

3. CONNECTION CATEGORIES

3.1. Full trading participant connections

Full trading participant connections are authorized by B3 for **full trading participants**, **trading participants** or **foreign participants** under the responsibility of one or more **full trading participants,** and they are used to register **orders** in the **trading system** on their own behalf or on behalf of **investors**.

A **full trading participant connection** permits:

I - Real-time reception of the market data feed;

II - Registration, modification and cancellation of **orders**, in accordance with rules established by B3;

III - Purchases for **blocking**, **options exercise**, blocking automatic exercise, and registration of forward **transactions**.

3.1.1. Means of execution of full trading participant connections

Authorized participants can access **full trading participant connections** by different means of execution to send **orders** to B3's **trading system**:

I - **Trading desk**
II - **Order conveyor**
III - **Automatic position unwind**
IV - **Automatic cross**
V - **Admin Session**

3.1.2. Trading desk

Used by **full trading participants** or **trading participants** to register **orders** on their own behalf or on behalf of **investors**. **Orders** may be sent only by **operations** professionals who have been accredited by B3, such as **traders**.

An **order** sent by a **trader** on behalf of an **investor**, or an **order** of automatic position unwind, characterizes the means of execution called **trading desk** and must use only the **connection** earmarked for this means of execution.

3.1.3. Order conveyor

Used by **full trading participants** or **trading participants** to register **orders**, including **orders** of automatic position unwind, on their own behalf or on behalf of **investors**. **Orders** may be sent only by **order conveyors**, **responsible bank order conveyors** or **bank order conveyors**.

Access by a **bank order conveyor** to send **orders** and **register transactions** must be authorized by the **responsible bank order conveyor**.

3.1.4. Automatic position unwind

Used by **full trading participants**, **trading participants** or **foreign participants** to register **orders**, on their own behalf or on behalf of **investors**, orders may be sent solely by algorithms, without the intervention of a trading professional and should be in conformity with parameters pre-stablished by the **full trading participant**, the **trading participant** or the **foreign participant** with the sole purpose of mitigating risk or reducing a position. It's mandatory the identification of a trading professional, in

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

the message sent to B3 when registering an **order**, that will be responsible for the algorithm of the automatic position unwind.

3.1.5. Automatic Cross

Used by **full trading participants** or **trading participants** to automate the register of **cross orders** on behalf of **investors**, **cross orders** may be sent solely by **counterparty search electronic system**, without the intervention of a trading professional and should be in conformity with parameters pre-stablished by the **full trading participant** or the **trading participant**.

The **orders** registered through the automatic cross must respect the rules of **cross orders** registering, and it´s mandatory the identification of a trading professional that will be responsible for the **order** in the message sent to B3. The **operations** will be analyzed by B3, being **the full trading participant** or the **trading participant** responsible for adopting the necessary controls to ensure the effective framework.

B3 may ask the **full trading participant** or the **trading participant** for information to confirm the correct use of this functionality.

3.1.6. Admin Session

Used by **full trading participants**, **trading participants** or **foreign participants** exclusively to send an **order** cancelation message, and the Sender Location informed in the message must contain the prefix "SUP".

3.2. Sponsored direct connections

Sponsored direct connections are used by **investors**, always under the responsibility of a **full trading participant**, **trading participant** or **foreign participant**, solely to register **orders** on their own behalf (proprietary **portfolio**) directly in the **trading system**.

A **sponsored direct connection** permits:

I - Real-time reception of the market data feed;

II - Registration, modification and cancellation of **orders**, in accordance with pre-trading limits set by the **full trading participant**, **trading participant** and **foreign participant**;

III - Purchases for **blocking**, **options exercise**, blocking automatic exercise, and registration of forward **transactions**.

The granting of **sponsored direct connections** by **full trading participants**, **trading participants** and/or **foreign participants** requires the insertion of mandatory clauses containing the conditions established by B3 for use of these **connections** in the respective intermediation agreements entered into with their **investors**.

4. CONNECTION ORIGIN

The origin of a **connection** is identified according to the user of the Order Management System (OMS), Execution Management System (EMS), and any other **order** management systems that are directly connected to the **connection**, whether it is a **full trading participant connection** or a **sponsored direct connection**. Thus, a **connection** may have the following origins:

I - A **full trading participant**, **trading participant** and **foreign participant**;

II - An independent technological solution **provider**;

III - An **investor** authorized to send **orders** only on their own behalf, exclusively in the case of a **sponsored direct connection**.

The technological infrastructure can be installed on the premises of the **full trading participant**, **trading participant**, **foreign participant** or **investor**, at the independent **provider's** data center, or at B3's data center.

Technological infrastructure supplied by an independent **provider** is allowed only if the provider agrees to:

I - Sign a specific instrument governing the activity with B3;

II - Obtain certification for the technological solution provided to **the full trading participant**, **trading participant** and/or **foreign participant**, in accordance with the procedure required by B3;

III - Use high-availability (HA) resources to deliver the services offered, assuring the adequate functioning of its systems and links so that they can handle the volume of **transactions** performed by the **full trading participant**, **trading participant** and/or **foreign participant;**

IV - Access B3's technological infrastructure in a contingency with at least one alternative provider-independent trading solution;

V - Have a plan for recovery from total or partial disasters in the event that the **provider** is unavailable.

5. HOSTING LOCATION

The hosting location is the site at which the technological infrastructure that enables a **full trading participant**, **trading participant**, **foreign participant**, **provider** or **investor** to connect to the **trading system** is installed. It may be B3's co-location area or a different data center.

This technological infrastructure handles **order** reception and routing, market data distribution and diffusion, execution report drop copy reception and distribution, and hosted equipment monitoring.

5.1. B3's co-location area

The technological infrastructure to which only the **full trading participant**, **trading participant**, **foreign participant**, **provider** or **investor** has access is hosted in B3's co-location area. Access to the installed equipment is performed as detailed in B3's technological infrastructure access manual.

5.1.1. Leasing space in co-location area

Full trading participants, **trading participants**, **foreign participant**, **providers** and **investors** accredited and certified by B3 are authorized to lease space in the co-location area, observing the legal and regulatory restrictions applicable to their respective jurisdictions, to host the technological infrastructure for:

I - Receiving and routing **orders** to B3's **trading system**;

II - Receiving and distributing drop copy messages;

III - Receiving and distributing market data;

IV - Monitoring the equipment installed and the **transactions** executed;

V - Other **trading**-related activities.

5.1.2. Cross-connections between different parties' racks hosted in B3's co-location area

In B3's co-location area, cross-**connections** are allowed between the following, provided all contracting parties involved give their consent:

I - **Providers** and **investors**;

II - **Providers** and **full trading participants**;

III - **Providers** and **trading participants**;

IV - **Providers** and **foreign participants**;

V - **Providers** and **providers**;

VI - **Full trading participants**, **trading participants** and **foreign participants**.

The contracting parties may ask B3 to authorize the contracting and use of cross-**connections** between racks leased by:

I - **Full trading participants**;

II - **Trading participants**;

III - **Foreign participants**;

IV - **Investors belonging to the same business group**;

V - **Full trading participants and investors**;

VI - **Trading participants and investors**;

VII - **Foreign participants and investors**.

B3 analyzes these requests based on the following criteria, among others at its discretion: (i) protection of **investors**, (ii) operational needs, and (ii) mitigation of order execution risk, including the use of an additional pre-trading tool.

If a request is denied, B3 notifies the applicant by the usual means of communication.

5.1.3. Restrictions on use of cross-connections between different parties' racks hosted in B3's co-location area

Cross-**connections** may be used only for:

I - **Order** reception and routing;

II - Market data reception and distribution;

III - Drop copy message reception and distribution;

IV - Monitoring the equipment installed and the **transactions** executed.

6. CERTIFICATION OF TRADING SOFTWARE

The software used by **participants** to trade in the **trading environment** must be certified in accordance with the procedures required by B3, which will be subject to oversight by BSM (B3 Market Supervision) and may be monitored by verification of the software version based on a constant sequence in the access message:

M.m.R.B.

where:

M = major release with material changes to the software (new certification required)

m = minor changes such as additional functionality (new certification not required)

R = revision with improvements and bug fixes (new certification not required)

B = new build, not necessarily with changes (new certification not required)

If material changes are made to the software, the **full trading participant**, **trading participant** or **foreign participant** must apply to B3 for recertification. Nevertheless, B3 may at its discretion require recertification for such software whenever it deems necessary.

7. CONNECTIVITY TESTING

The **full trading participant**, **the trading participant** and **foreign participant** must carry out daily morning connectivity tests of the connections relevant to the functioning of their activities, as well as at least one contingency connection. Relevant connections will be considered those that have frequently registered offers in the previous month, for real instruments, according to the parameter published on the B3 website. Any other connection that presents operations with test assets will be considered a contingency connection, regardless of the frequency observed.

Connectivity tests must encompass, beyond the relevant connections, market data feed channels and drop copies (copies of execution report messages). The purpose of these tests is to validate the systems, **trading** stations and **connections** of **full trading participants**, **trading participants** and **foreign participants** connected directly to the **trading system**, permitting prior identification of problems that may affect the **trading environment** and/or **trading system**.

Full trading participants must perform morning **connectivity tests** of the **connections** that originate in their own systems or **provider** systems and are for use by **investors** who are their customers or by operations professionals.

Trading participants and **foreign participants** must perform morning **connectivity tests** of the **connections** supplied by **full trading participants** and that originate in their **trading participant** own system, the **foreign participant** or **provider** systems for use by **investors** or operations professionals.

Investors must perform morning **connectivity tests** of the **connections** that originate in their own systems. **Connectivity test** automation is allowed. Whoever is directly connected to B3 is responsible for daily archiving of information and evidence relating to their participation.

During connectivity testing, **full trading participants**, **trading participants** and **foreign participants** are responsible for notifying B3 immediately of any problems or failures detected.

Connectivity test instruments should not be used for systems **performance testing** during the **trading session**. B3 may at its sole discretion provide instruments for **performance testing** after the **trading session** ends.

Execution procedures and times as well as instrument codes and the specific script for **connectivity testing** are available from B3's portal.

CHAPTER II – PARTICIPANTS

1. FULL TRADING PARTICIPANTS, TRADING PARTICIPANTS AND FOREIGN PARTICIPANTS

Notwithstanding the provisions of B3's trading rulebook, the following are responsibilities of **full trading participants**, **trading participants** and **foreign participants**:

I - Using **connections** in accordance with the terms and conditions on which they are contracted for and their operational specifications, as per the parameters available from B3's portal;

II - Managing (authorizing, altering and excluding) password-protected access to **trading systems** to assure their use by individual users without sharing;

III - Maintaining adequate systems and processes that enable them to receive, evaluate, refuse and accept **orders** sent by **investors** or their representatives by telephone or other voice transmission or instant messaging systems, or personally. Records must be kept of all such **order** conveyance, containing at least:

(a) The date, start and end time, and duration of each recording of conversations with **investors** or their representatives;

(b) Identification where applicable of the operations professionals who received the **orders** and registered them in the **trading environment**, with the telephone extension or equivalent;

(c) The type and side of the **order**;

(d) The **order's** validity;

(e) Identification of the **asset** or **derivative**, quantity, and price of the **order**, as applicable.

IV - Maintaining a system to record transmission of **orders** by telephone or other voice systems and clearly play back recordings of conversations with **investors** or their representatives, with at least the information itemized in the previous subclause;

V - Taking all necessary steps to assure regular maintenance and continuous monitoring of the recording system in order to keep its quality as high as possible and assure its integrity, continuous operation, complete playback and retrieval of information without insertion or editing of recordings, including at least:

(a) Implementation of controls that assure the integrity and completeness of the recording logs, with at least one daily backup of all recordings made by the recording system, integrity and information retrieval tests, and safekeeping of backup files in a physically separate location for the originals;

(b) Maintenance of a report updated daily on all occurrences involving the recording system that may impair, however partially, the recording and/or reading and retrieval of recordings, with start and end time and a detailed description of the problem, the measures taken to remedy it and its consequences;

VI - Making available recordings of conversations with operations professionals to B3, BSM or **investors** whenever requested;

VII - Transcribing conversations between their operations professionals and **investors** if required to do so by B3 or BSM;

VIII - Having rules and parameters for their activities that contain at least the procedures set out in Annex I to this trading procedures manual;

IX - Making available to the **investors** the rules and parameters of the participant's activities and their amendments before the start of **operations** and in an easily accessible place, on their website, applications and other electronic relationship channels managed by the **trading participant** or by the **full trading participant**, or by the **foreign participant** and offered to the **investors**;

X - Communicating immediately to all the **investors** when the rules and parameters for their activities change, as indicated therein, keeping available the changes of the last five years. Changes must be communicated to the **investors**, highlighting the modifications made;

XI - Safekeeping forward contracts and documents serving as proof of all **ex-pit trades** for at least five years from the date of **settlement**, and making them available to B3 and BSM for analysis whenever necessary;

XII - Obtaining a statement of informed consent from all non-resident **investors**, especially **investors** based in the United States of America (U.S. Persons) and in the case of products subject to CFTC oversight, warranting:

(a) The **investor's** consent and submission to the jurisdiction of CVM, BCB and the relevant foreign regulators, as applicable;

(b) Express permission, in compliance with Supplementary Law 105/2001, for B3 to send information (full name and home country address, CVM code and NFA ID or other codes identifying the **investor**, as applicable, and details of **transactions** performed) to regulators in Brazil and elsewhere for the purposes of complying with regulatory requirements;

XIII - Ensuring that non-resident **investors** trade only authorized products in compliance with the applicable domestic and foreign legislation and regulations, and to this end deploying means to monitor such **investors** and prevent **registration** of **orders** for unauthorized products by setting **trading limits**;

XIV - Implementing the necessary measures to ensure that **investors'** registration details are kept up to date and presented to B3 and BSM whenever requested;

XV - Signing trading intermediation agreements or the equivalent with their **investors**, including non-residents, with at least the information specified in Annex II to this trading procedures manual;

XVI - Ensuring that foreign institutions that act as intermediaries use adequate practices for the identification and **registration** of non-resident **investors** in accordance with the applicable legislation in their countries of origin;

XVII - Setting **trading limits** for **investors** in accordance with the parameters defined by B3.

When **trading participants** are involved, they are responsible for the obligations stipulated in items XIV, XV, XVI and XVII. When a **foreign participant** is involved, they become responsible for the obligations indicated in items XIV, XV, and XVII. Otherwise **full trading participants**, **trading participants** and **foreign participants** are jointly responsible for the fulfillment of these obligations.

In the case of a **foreign participant**, item XIV and the registration of the limits defined in item XVII may be operationalized by third parties according to the contract entered by the parties.

Items XI and XVI do not apply to the **foreign participant**.

2. MARKET MAKERS

2.1. Registration

Brazilian and foreign legal entities and investment funds that comply with 2.1.1 below are eligible to apply for registration as **market makers**.

2.1.1. Investment funds

Investment funds may act as independents **market makers.**

Only if the sole shareholder and fund manager are the same financial institution or financial institutions that belong to the same business conglomerate can act as contracted **market makers**.

If the fund manager is also the fund administrator, the sole shareholder or another financial institution in the same business conglomerate must be responsible for administration of the fund.

The bylaws of the investment funds must provide for their activity as **market makers**, clearly defining their intentions and purposes in performing this activity, as well as the risks inherent to the **market maker** activity.

The obligations and responsibilities inherent in the activity of market makers, as established in B3's trading rulebook, this trading procedures manual and the applicable regulations, apply to the administrator and responsible for management of the investment fund, or to the manager and single shareholder if the administrator is not responsible for its management, and they are deemed effectively responsible for sending **market maker**-related **orders**.

2.2. Market maker accreditation

After approval of the institution as a **market maker** at B3, **market makers** must request accreditation to act as **market makers** for specific **assets** and **derivatives** or for B3's programs involving groups of **assets** and/or **derivatives**.

The documentation required for accreditation, which must be filed with B3's Electronic Trading Department, is specified in the guide to **market maker** accreditation procedures, available from B3's portal.

Each accreditation request is examined by a work group, which may require additional documentation to prove that the applicant has the operational infrastructure and financial capacity to act as a **market maker** in the **asset**, **derivative** or program concerned.

If accreditation is denied, the applicant may appeal to B3's Chief Operating Officer – Eletronic Trading and CCP within ten (10) calendar days of receiving notice of the denial.

A specific procedure is followed for **market maker** accreditation in each **asset** and/or **derivative**, depending on whether the institution applies for accreditation as (i) an independent **market maker**; (ii) an independent market maker accredited for one or more of B3's programs; or (iii) a contracted **market maker**.

2.2.1. Independent market makers

Institutions that apply for accreditation as independent **market makers** must file with B3 a signed application form and specify the **assets** and/or **derivatives** for which they wish to be accredited as **market makers**.

B3 sets limits for the mandatory entry of **bids** and **asks** and defines criteria for fulfillment of **orders** and other parameters applicable to the **assets** and/or **derivatives** concerned, including without limitation the spread, minimum lot and minimum activity period during each **trading session**, as applicable.

Independent **market makers** must begin acting as such not more than thirty (30) days after approval of their accreditation application. Competitive bidding procedures are permitted to contract **market makers** for specific **assets** or **derivatives**. The maximum number of **market makers** authorized to act as such for each type or class of **asset** and **derivative** can be found on B3's portal.

2.2.2. Independent market makers accredited for B3's programs

Independent **market makers** may request accreditation for the market making programs launched from time to time by B3 to foster liquidity in certain **assets** and/or **derivatives**.

B3's market making programs are announced on its portal, which lists the **assets** and/or **derivatives** covered by each program, the parameters for market making activity in each case and other relevant information such as obligations, requirements and conditions.

Market makers may receive remuneration and/or benefits from B3 in the form of a monetary consideration, discounts and/or exemption from payment of exchange fees and trade registration fees, in accordance with the specifications of each program for which they are accredited.
Competitive bidding procedures are permitted to contract **market makers** for specific **assets** or **derivatives**, the maximum number of **market makers** authorized to act for each type or class of **assets** and/or **derivatives** is available on B3's website, as well as the criteria for the selection process.

The procedures for accreditation for B3's market making programs are detailed in the guide to **market maker** accreditation procedures.

2.2.2.1. Parameters for market making activity in B3's programs

Market makers accredited for B3's programs must make daily **bids** and **asks** for the **assets** and/or **derivatives** covered by the program in accordance with the respective parameters, which include

without limitation: (i) spread; (ii) minimum lot; (iii) minimum activity during a trading session; (iv) mandatory contract months; and (iv) activity months.

B3 may change the activity parameters after the onset of a program, notifying the institutions concerned via the same means of communication as those used to announce the accreditation process for the program in question.

2.2.3. Contracted market makers

Market makers may be contracted (i) by the **issuer** of an **asset** or by its parent company or one of its subsidiaries or affiliates, or (ii) by any holder of the **assets** or **derivatives** for which it is a **market maker**.

The contracted **market maker** can perform as a standard contracted **market maker**, in which must directly follow all obligations of the **market maker** program, or, as a specialized **market maker**, modality in which must subcontract another **market maker** to perform during the **trading session**, maintaining buy and sell **orders**. For each asset, the contracted **market maker** can only perform in one modality.

The contracted **market maker** that performs in the specialized model will remain responsible for the obligations subcontracted in relation to the contracted and B3 and must send B3 a subcontracting term that allows the identification of the subcontracted **market maker**.

2.2.3.1. Specialized market makers

The contracted **market maker** in the specialized model must guarantee to the contracted party:

I - Daily and monthly submission of reports containing the statistics of the performance and the trading of the asset, and the submission of these reports to B3;

II - Implementation of an educational program for the contracted party, including training and subjects related to the market's trading dynamic, properly attested by B3; and

III - Assessment and review of parameters in order to guarantee the subcontracted **market maker** effectiveness, ensuring greater liquidity for the market, with duo proof, with B3, of the effectiveness of the subcontractor's performance.

2.2.3.2. Minimum contents of market maker service agreements

The service agreement entered into by and between a **market maker** and the contracting party must include clauses containing at least the following contents:

I - The object of the agreement, specifying the **assets** and/or **derivatives** concerned, their tickers, and the market in which the **market maker** is to trade;

II - Activity parameters to be respected by the **market maker**, including without limitation the minimum lot, maximum **spread** and minimum activity period during each **trading session**;

III - Whether any remuneration, commission or fee is to be paid to the **market maker** for providing the service;

IV - Whether there is an agreement between the **market maker** and contracting party governing the exercise of voting rights if equities are the object of the **market maker's** activity;

V - Whether there is an agreement between the **market maker** and contracting party governing the purchase and sale of **assets** issued by the latter;

VI - An undertaking by the market maker and contracting party that they will comply with B3's trading rules and this trading procedures manual as well as all of B3's other regulations and operatingl procedures and other applicable regulations to the **market maker's** performance;

VII - The responsibilities and obligations of the **market maker** and contracting party;

VIII - The conditions for termination of the agreement;

IX - The term of the agreement; and

X - The parties' obligation to give B3 notice of at least thirty (30) days in advance of the end of the **market maker's** activity if the **market maker** is disaccredited and/or the agreement is terminated early.

B3 analyzes all agreements between **market makers** and their contracting parties to verify compliance with the provisions of this trading procedures manual, B3's trading rulebook and the applicable regulations. If this analysis detects the absence of any of the above minimum clauses or any other failure to comply with this trading procedures manual, B3's trading rulebook and/or the applicable regulations, B3 will notify the **market maker** in question so that the agreement can be amended to assure compliance before it begins acting as **market maker** for the **asset** and/or **derivative** concerned.

The activity parameters defined in any agreement between a **market maker** and its contracting party, especially the parameters mentioned in item II above, must be approved by B3 before the agreement is signed. B3 may set limits for the mandatory entry of **bids** and **asks** for the **assets** and/or **derivatives** covered by such agreements, and criteria for the fulfillment of **orders**.

From time to time B3 may review activity parameters at its sole discretion to align **market maker** activity with its objectives.

2.3. Intermediaries

If a **market maker** is not a **full trading participant**, it must designate a **full trading participant** as its intermediary, which will also be responsible for the **market maker's** activity. **Market makers** may designate a different intermediary for each new accreditation but only one intermediary per accreditation for **assets**, **derivatives** or B3's programs.

The intermediary must sign and be properly identified in the accreditation instrument for each **market maker** program, whereby it undertakes to discharge all obligations relating to the **market maker's** activity except those deriving from the **market maker's** performance.

If a **market maker** replaces a **full trading participant** as its intermediary, the replacement must be formalized via the signature of an addendum to the accreditation instrument. The **market maker** must file the addendum with B3 at least five days before the new intermediary starts operating as such, and the intermediary that is to be replaced must intermediate the **market maker's** trades until the new intermediary takes over.

Substitution of a **full trading participant** is conditional on compliance with the requisite operating procedures and confirmation by B3 of the starting date for the new intermediary's activity.

2.4. Activities

Market makers must conduct their activities in strict compliance with the applicable regulations and maintain high ethical standards in their activities as **market makers** and in all other activities associated with the markets operated by B3.

Market makers must not conduct their activities in such a way as to create artificial demand, supply or pricing conditions for the **assets** and/or **derivatives** concerned and must not use unfair practices.

B3 supervises the activities of **market makers** to verify such compliance.

2.4.1. Activity parameters

In performing their activities **market makers** must observe the following parameters defined by B3:

I - Minimum lot: multiples of round lots – every **bid** and **ask** must be based on the minimum lot;

II - Maximum **spread**: the maximum difference between **bids** and **asks** for the **asset** or **derivative**, expressed as a percentage or absolute number, or in terms of volatility;

III - Minimum **activity**: the minimum percentage of each **trading session** during which the **market maker** must trade in order to comply with the parameters.

To alter the activity parameters, the **market maker** must file a formal request in accordance with the procedure established in the guide to **market maker** accreditation procedures and, if the request is approved, (i) file a new accreditation instrument with B3 in the case of a **market maker** program offered by B3, or (ii) file an addendum to the service agreement in the case of a contracted **market maker**.

For the cases mentioned above, alterations to the parameters will occur only by approval and on the date stipulated by B3.

Market makers must operate during the **trading session** in the period(s) determined by B3, excluding where applicable the **opening call**, **intermediate call**, **closing call** and any **auctions** to which the **asset** and/or **derivative** is submitted.

For an **asset** or **derivative** whose **underlying** is traded abroad or that is referenced in an **asset** or **derivative** traded abroad, the **market maker** must comply with the activity parameters established in this trading procedures manual only when the **underlying** or reference for the **asset** or **derivative** is traded in its market of origin abroad.

The occurrence of holidays in a **market maker's** home country will not be accepted as a justification for being dispensed from its obligations.

B3 will monitor the market maker trading activity, and if it identifies recurrent non-compliance with the operational parameters established for the assets and/or derivatives related to each program in which it operates, it will issue a formal notice requesting explanations and the submission of an action plan to ensure compliance. In case of recurrence or failure to comply with the submitted action plan, B3 reserves the right to impose the additional sanctions provided for in this manual.

B3 may at its sole discretion authorize a **market maker** to perform its activities without observing the activity parameters in the following situations:

I - A significant change in the volatility patterns or prices of the **assets** and/or **derivatives** for the program in the markets where the **market maker** operates

II - In the existence of issues in the technological infrastructure, such as the complete or partial interruption of the infrastructure that prevents the market maker activity from taking place, or problems with the connection to the **trading system** used by the **market maker** or, where

applicable, the **full trading participant** that acts as its intermediary, provided evidence is filed as proof of the problems in question, when applicable

III - Unforeseen circumstances or force majeure resulting in a technical shutdown of the **market maker** or of the **full trading participant** that acts as its intermediary, by providing evidence where applicable

IV - The holding of auctions for **assets** and/or **derivatives** in the program, or their underlying **assets** and/or **derivatives**.

B3 may also, at its sole discretion, waive a market maker's obligations in the event of other exceptional circumstances.

The parameters and rules for monitoring the obligations will be outlined in the circular letters linked to the market maker programs. Failure to comply with these parameters and rules may result in the application of the penalty of market maker disqualification, as described in Section 2.7 of Title II of this manual.

2.4.2. Asset and derivative quotations

If the quotation of an **asset** and/or **derivative** for which an institution is a **market maker** is less than one Brazilian Real (BRL1.00) for thirty (30) consecutive **trading sessions**, the maximum **spread** for the **market maker** may be set at an absolute value, if so requested by the **market maker** and approved by B3.

Market makers may request a change of the maximum **spread** to a percentage if the quotation remains above BRL1.00 for at least six months or if the **issuer** takes appropriate steps to bring the **quotation** into line with the provisions of B3's issuer manual, whichever occurs first.

2.4.3. Market maker activities in PTOs and OPACs

Market makers are not required to trade in the five **trading sessions** preceding a PTO (Public Tender Offer) or OPAC (Public Tender Offer for Investment Fund Units) **auction**, with regard to the **assets** involved in the PTO or OPAC or the **derivatives** referenced in them.

In the case of a PTO or OPAC that does not entail cancellation of the **issuer's registration** or cancellation of the **issuer's** listing on B3, the **market maker** must resume its activities within five (5) days of the PTO or OPAC **auction**.

2.4.4. Dispensation from activities

Market makers must immediately notify B3's Electronic Trading Department if they are unable to comply with the rules established by B3's trading rulebook and this trading procedures manual, presenting a suitable justification and the consent of the **full trading participant**, if applicable.

Notice can be given by means of a recorded telephone call, provided formal written notice is filed within one business day.

The Director of Electronic Trading may accept the justification submitted, granting the **market maker** a dispensation from its mandatory activities in one or more **trading sessions**.

If the justification is not accepted, and if any **market maker** fails to perform its mandatory activities without justification, the **market maker** concerned will be notified and will be subject to the penalties established by B3's trading rulebook and this trading procedures manual.

If a **market maker** is unable to perform its activities owing to (i) technological hitches or problems with the **full trading participant's connection** to B3's **trading system**, (ii) abnormal prices or high **volatility** of the **asset** or **derivative**, and/or (iii) unforeseen circumstances or force majeure entailing technological interruptions, the Director of Electronic Trading may deem these to justify a dispensation.

B3 will communicate decisions to grant such dispensations using the usual means of communication with the market.

2.4.5. No access to insider information

Market makers must not have access to relevant information that has not been publicly disclosed with regard to the **assets** and/or **derivatives** in the program, with regard to the **issuer**, where applicable, and with regard to other companies in the same business group. **Market makers** must not trade in **assets** and/or **derivatives** with the aim of gaining access to insider information before it is disclosed to the market.

Market makers must take appropriate and necessary measures to segregate access to relevant information about the **assets** and/or **derivatives** in the program and about their **issuers** or the **issuers** of **assets** that serve as **underlying** or reference for a **derivative** in the program. The segregation must encompass without limitation the other companies in the same business group as the **issuer** concerned, so as to assure strict compliance with the applicable legal and regulatory provisions.

Any **market maker** that happens to have access to insider information must immediately stop acting as a **market maker** and notify B3.

Market makers are not allowed to trade in any **asset** issued by them or in any **derivative** with an **underlying** issued by them or referenced in an **asset** issued by them. No **market maker may** trade in any **asset** or **derivative** with an underlying issued by a company that is its direct or indirect parent, subsidiary, affiliate or joint venture, or in any **asset** or **derivative** referenced in an **asset** issued by such a company.

Market makers must inform B3 of any change to their shareholding or ownership structure that entails a change of direct or indirect control within fifteen (15) days of the change in question.

2.5. Discreditation

B3 may revoke a **market maker's** accreditation for a given **asset**, **derivative** or program in the following situations:

I - Failure to discharge any of the obligations established by this trading procedures manual, B3's trading rulebook and the applicable regulations;

II - Failure to comply with the activity parameters;

III - Cancellation of registration as a **market maker**.

Market makers may apply to B3 for discreditation from an **asset**, **derivative** or program by filing at least thirty (30) days written notice in advance of the end of their activity. If the market maker withdraws from the accreditation process before start acting in the market maker program, it will be dismissed from complying with the notice period.

2.6. Substitution

In the event of **market maker** substitution by a contracting party, the substitute **market maker** is responsible for notifying B3 and at the same time filing an accreditation instrument for the requisite approval of parameters. Accreditation of the substituted **market maker** will be revoked within ten (10) days of B3's approval of the accreditation instrument and/or of the service agreement entered into by and between the substitute **market maker** and the contracting party.

Substitution of a **market maker** is conditional on compliance with the requisite operating procedures and non-interruption of the program so that the substitute **market maker** begins its activities on the business day subsequent to the date on which the substituted **market maker** ceases its activities.

In case of the subcontracted **market maker** requests its discreditation, the specialized **market maker** will be responsible for the substitution, ensuring the continuation of the program. If it's not

possible to replace the subcontracted **market maker**, the specialized **market maker** will be subjected to discreditation or may choose to migrate to the standard contracted **market maker** model.

The flow of communication with B3 is specified in the guide to market maker procedures.

2.7. Sanctions applicable to market makers

If a **market maker** infringes any of the provisions of B3's trading rules, this trading procedures manual or any of B3's other operating rules and procedures as well as the regulations applicable to its activity, B3 may apply the following penalties, without prejudice to the application of other sanctions in accordance with B3's rulebooks and manuals:

I - A warning;

II - Partial or total suspension of benefits;

III - Discreditation and/or cancellation of registration.

The above sanctions may also be applied to a market maker on the occurrence of events that at B3's sole discretion may jeopardize the integrity and reliability of the markets it operates. Regarding the imposition of the penalty of disqualification, an appeal can be made to the Chief Operating Officer - Electronic Trading and CCP within a period of 5 (five) business days, with suspensive effects on the market maker's activity during this period.

B3 reports to CVM and BSM all penalties applied to market makers.

2.8. General provisions

Market makers must designate an **account** for each **asset** or **derivative** in which they make a market and for supervision of their activities. They may change these **accounts** by application to the Director of Electronic Trading with at least five business days' notice. An **admincon account** may be designated both for **registration** of their own **bids and asks** and for execution of **investors' orders**, but **trades** performed by the **market maker** may not be **allocated** to this **account**.

Detailed rules and instructions for requesting account registration, alteration or exclusion can be found in the guide to **market maker** procedures.

3. TRADERS, ORDER CONVEYORS, RESPONSIBLE BANK ORDER CONVEYORS AND BANK ORDER CONVEYORS

No **trader, order conveyor, responsible bank order conveyor** or **bank order conveyor** shall:

I – Act as an attorney-in-fact for or representative of **investors** to **participants**;

II - Contract with **investors** to provide securities portfolio management, consulting or research services, or perform such services, even free of charge;

III - Use passwords or electronic signatures reserved exclusively for use by **investors** to send **orders** via the **electronic system**;

IV - Receive from or on behalf of **investors** or give **investors** cash, securities or other **assets** for any reason as payment for the provisions of services described in this trading procedures manual;

IV - Produce and send **investors** account statements with information on **transactions** performed or open **positions**.

Traders, **order conveyors**, **responsible bank order conveyors** and **bank order conveyors** are considered representatives of a **full trading participant** or **trading participant**.

3.1. Traders

Traders may execute competing managed **orders**.

Orders sent to the **trading system** by **traders** do not require mandatory identification of the **investor** or master account, except in the case of **orders** sent by **investors** who are high-frequency traders (HFTs) but must respect the timeframe defined in the normative documents regarding **allocation**, give-up designation, and **trade** clearing and **settlement**, with the exceptions specified in this trading procedures manual.

3.2. Order conveyors

Orders sent require mandatory designation of the **investor's** account or master account.

Order conveyors shall not execute competing managed **orders**.

3.3. Responsible bank order conveyors and bank order conveyors

Orders sent require mandatory designation of the **investor's** account or master account.

Orders sent by **responsible bank order conveyors** and **bank order conveyors** require mandatory identification of the **responsible bank order conveyor**, regardless of whether the **order** was received and entered by the latter or by one of the **bank order conveyors** authorized by them.

Responsible bank order conveyors and **bank order conveyors** shall not execute competing managed **orders**.

Responsible bank order conveyors shall:

I - Authorize **bank order conveyors** to perform the activities defined in this trading procedures manual and in B3's trading rulebook;

II - Assure compliance with the rules and procedures established by the applicable legislation and regulations;

III - Assure the segregation of individual and non-shared user accesses.

On receiving an **order** from an **investor** and sending it to the **trading system**, a **bank order conveyor** duly authorized by a **responsible bank order conveyor** from the same branch shall:

I - Assure compliance with the rules and procedures established by the applicable legislation and regulations;

II - Use access to the **order** entry system individually without sharing.

CHAPTER III – TRADING

Trading in **assets** and **derivatives** during **trading sessions** results from the matching of **bids** and **asks** or **cross orders** in B3's **trading system** registered by **authorized participants** in accordance with the provisions of B3's trading rulebook and this trading procedures manual.

Registration of **orders** and **trades** in **assets** and **derivatives** must follow the rules described in this trading procedures manual governing the organized markets on which they are admitted to **trading**.

The list of **assets** and **derivatives** admitted to **trading** is available from B3's portal.

1. LOTS

In organized markets, **orders** may be entered, and **trades registered** with quantities equal to the round lot or multiples thereof. For specific **assets**, **order** entry and **trade registration** is also allowed involving odd lots.

The list of **trading** lots for **assets** and **derivatives** admitted to **trading** is available from B3's portal.

2. TRADING SESSION

Trading sessions are held via the **trading system** and divided into the following periods:

I - Regular trading period

II - After-market period (extended hours)

III - After-hours period (T+1)

Trading hours, periods of **trading sessions** and the respective authorized **assets** and **derivatives** are available on B3's portal, and may be altered by delegation of B3's Chief Operating Officer – Eletronic Trading and CCP or Director of Electronic Trading in order assure the adequate functioning of the markets operated by B3, in which case the markets will be given due notice, as will the regulatory authorities, where appropriate.

2.1. Regular trading period

Trades executed during **regular trading periods** are **registered** on the day of their execution.

2.2. After-market period

Orders not canceled during the **order** cancellation phase of a **regular trading period** remain valid in the **after-market period**, subject to **after-market** trading limits, except for the forward rate agreement on DI x U.S. Dollar spread (FRC) and the forward rate agreement on one-day **repurchase agreements** x U.S. Dollar spread (FRO), **orders** for which will be canceled by B3 if they remain valid in the **central order book**.

Trades executed during **after-market periods** are **registered** on the day of their execution.

2.3. After-hours period (T+1)

Before the start of the **after-hours period**, all **orders** with validity for the day are canceled by B3.

Trades executed during **after-hours periods** are registered on the business day subsequent to the day of their execution (T+1), and daily variation margin is cash-settled on the second business day after execution (T+2), in accordance with the **clearinghouse's** rules.

3. INSTRUMENT STATUS AND TRADING PHASES

3.1. Instrument status

The status of **trading** in **assets** and **derivatives** can be configured on the **trading platform** as follows:

I - Open status: **assets** and **derivatives** can be freely traded, including registration of **orders**, modification of existing **orders**, cancellation of **orders**, and execution of **trades**.

II - Forbidden status: no **registration**, modification and cancellation of **orders** allowed, and hence no execution of **trades**.

III - Reserved status: characterizes an **auction** situation, in which **orders** may be registered, modified and canceled. **Orders** that participate in the theoretical price of the **auction** can be freely canceled in the initial seconds of the **auction** and, after the free cancelation period, such orders can only be cancelled due to operational error. The length of the free cancellation period is available on B3 website. The modification of the **orders** that participate in the theorical price of the **auction** will be restricted to an improvement on the price or a raise in the quantity. Because it involves an **auction**, this status does not permit immediate execution of **trades**, which are executed only when the **auction** ends.

IV - **Order** cancellation status: exclusively for **order** cancellation but with no **order registration** and modification or **trade** execution allowed.

V - Closed status: no **order registration**, modification or cancellation allowed, and **orders** with validity for the day are eliminated from the system.

3.2. Trading phases

Trading phases are previously defined periods for trading of various kinds in each group of **assets** and **derivatives**.

The following phases are available on the **trading platform**:

I - Pre-opening phase: precedes **trading** in an instrument, with a specific duration and designed to assure the opening of **trading** at a fair and transparent price. **Order registration** is allowed

but no **trades** are matched. **Orders** are used only to define the theoretical opening price in accordance with **auction** rules.

II - Open phase: free **trading**, with **order registration**, modification and cancellation, and **trade** execution.

III - **Order** cancellation phase: halts entry of new **orders** and **trade** execution. **Orders** can be canceled during this phase.

IV - Pre-closing phase: halts **order registration**, modification and cancellation. This phase can be used to close **auctions** that are extended sufficiently to overlap with periods of previous **trading sessions**.

V - Closing **call** phase: closes **trading** transparently using the same rules as those used for fixing (theoretical price formation) in the last few minutes of **regular trading sessions**.

VI - Closed phase: no **order registration**, modification or cancellation allowed, and **orders** with validity for the day of the **trading session** are eliminated by the system.

4. ORDERS, BIDS AND ASKS

4.1. Orders

Orders are acts that precede **trade** execution whereby **investors** instruct **full trading participants**, **trading participants** or **foreign participants** to register **bids** or **asks** or execute **trades** in **assets** or **derivatives** on their behalf. **Orders** may contain specific conditions.

Orders must be registered with the **trading system** as **bids** or **asks** by **participants**, observing the following priority rules:

I - If two or more **orders** have the same price, matching priority will be determined by the chronological sequence in which the **orders** were received;

II - **Orders** from **investors** who are not linked to a **full trading participant**, **trading participant** or **foreign participant** must have priority over **orders** issued by **investors** who are;

III - Managed **orders**, competing managed **orders** and discretionary **orders** do not compete with each other or with other types of **order**, and rules (I) and (II) do not apply to them.

4.2. Order types

The conditions that can be specified by **investors** for execution of their **orders** must accord with the following types of **order**:

I - Market **order**: specifies only the quantity and characteristics of the **assets** and/or **derivatives** to be bought or sold, and must be executed as soon as it is received;

II - Limit **order**: executed only at a price equal to or better than the price specified by the **investor**;

III - Managed **order**: the **investor** specifies only the **asset** and/or **derivative** to be traded and the total quantity or financial volume, so that distribution of execution (price, quantities and time) is the responsibility of the **full trading participant**, **trading participant** or **foreign participant**;

IV - Competing managed **order**: a managed **order** issued together with one or more managed **orders** or discretionary **orders** for the same **asset** and/or **derivative**, and on the same side, so as to compete for execution. **Trades** executed as a result of competing managed **orders** are allocated to the respective **investors** according to average execution price only after the **orders** are executed;

V - Discretionary **order**: issued by an **investor**, a securities portfolio manager or a representative of more than one **investor**, establishing the conditions under which the **order** is to be executed;

VI - Funding **order**: an **order** comprising a **bid** or **ask** for one or more **assets** on one of the markets operated by B3 and a concurrent **bid** or **ask** for the same **asset** or **assets** on the same market or another market operated by B3;

VII - Stop **order**: an order to buy or sell an **asset** or **derivative** when a specified price is reached;

VIII - Matched **order**: tied to execution of another **order** from the same **investor**; may specify a price limit.

4.3. Bids and asks

Bids and **asks** are acts whereby **authorized participants** manifest their intent to buy or sell **assets** or **derivatives** via **full trading participants**, **trading participants** or **foreign participants** under the responsibility of one or more full **trading participants**, registering the terms and conditions with the **trading system**.

4.3.1. Bid and ask types

The following **bid** and **ask** types are authorized for **registration** with the **trading system**:

I - Limit **bid** or **ask**: must be executed at the price specified by the **investor's order** or better, so that in the case of a limit **bid**, execution must not occur at a price higher than the limit set, and in the case of a limit **ask**, execution must not occur at a price lower than the limit set;

II - Market **bid** or **ask**: must be executed at the best price available on the opposite side of the **central order book** when registered. If not completed filled, the balance is registered at the price of the executed **trade**;

III - Stop **bid** or **ask**: registered in the **central order book** when the specified trigger price is reached. If executed, the resulting **trade** must be at a price between the trigger price and the limit price specified in the **bid** or **ask**. The following rules apply:

(a) Stop limit **bid**:

(i) The trigger price must be higher than the price of the last **trade**;

(ii) The limit price must be equal to or higher than the trigger price;

(iii) The **bid** is registered in the **central order book** at the limit price.

(b) Stop limit **ask**:

(i) The trigger price must be lower than the price of the last **trade**;

(ii) The limit price must be equal to or lower than the trigger price;

(iii) The **ask** is registered in the **central order book** at the limit price.

(c) When a stop **bid** or **ask** is registered in the **central order book**, it is converted into a limit **bid** or limit **ask**;

(d) Stop **bids** and **asks** may not be registered during an **auction**.

IV - **Cross order**: A **cross order** is a **bid** and an **ask** for a given **asset** or **derivative** registered simultaneously at the same price by the same **full trading participant**, **trading participant** or **foreign participant** in the **trading environment**, representing both the buyer and seller;

V - Retail Liquidity Provider (RLP) **order**: An RLP **order** is designed to supply liquidity for part of the flow of aggressing **orders** from retail customers and to be aggressed only by **orders** from

retail customers of the same intermediary that have agreed to the conditions of the RLP **order** at the same price or a better price, available on the same side of the **central order book**, as detailed in this manual.

VI - Midpoint **bid**: **bid** whose price is given by the arithmetic average of the price of the best **bid** and the price of the best **bid** visible in the **central order book**, limited by a price pre-defined by the **participant**, with a quantity equal to or greater than the minimum lot defined on B3's website, and whose interaction only takes place with **bids** of the same type.

For **assets** traded on the exchange market, the following **bids** and **asks** are also allowed:

I - Market **bid** or **ask** with protection: the limit price for execution is the best available price based on the first price level on the opposite side of the **central order book** at the time of **registration** plus the protection value for a **bid**, or minus the protection value for an **ask**;

II - Stop **bid** or **ask** with protection: activated when a **trade** is matched at a price equal to or higher than the trigger price, with the limit price for execution being the trigger price plus the protection value for a **bid**, or minus the protection value for an **ask**.

Bid and **ask** types are available from B3's portal. In the event of changes to **bid** and **ask** types, B3 will inform participants in an external communication.

4.3.2. Bid and ask qualifiers

Bid and **ask** qualifiers are available from B3's portal. In the event of changes to **bid** and **ask** qualifiers, B3 will inform participants in an external communication.

The following qualifiers for **bids** and **asks** are allowed:

I - Minimum quantity: conditional on matching the minimum quantity defined at **registration**. If the minimum quantity cannot be matched, the **bid** or **ask** is automatically eliminated by the **trading system**. The following rules apply:

(a) The minimum quantity must be a multiple of the round lot;

(b) If the minimum quantity is matched, the balance (if any) remains on the **central order book** until at least one round lot is matched;

(c) If a registered **bid** or **ask** is converted into a minimum quantity **bid** or **ask**, the latter will be eliminated from the **central order book** if the minimum quantity cannot be matched;

(d) No **bids** or **asks** can be registered during an **auction**.

II - Disclosed quantity (iceberg): only part of the quantity is visible to the market. The following rules apply:

(a) The disclosed quantity must be a multiple of the round lot. Round lot multipliers are available from B3's portal;

(b) For **assets** traded on the exchange market, no disclosed quantity **bids** or **asks** for odd lots can be registered;

(c) When the disclosed quantity is completely filled, the **trading system** checks to see whether there is a remainder from the total quantity of the **bid** or **ask**. If so, the **trading system** makes this a new disclosed quantity, which loses priority in the **central order book** compared with already registered **orders** at the same price;

(d) An increase in the publicly quoted quantity of a disclosed quantity **bid** or **ask** comes into effect only after total execution of the previously quoted quantity;

(e) If the disclosed or total quantity of a **bid** or **ask** is decreased, or the total quantity is increased without any change to the disclosed quantity, the **bid** or **ask** will not lose priority in the **central order book** compared with already registered **orders** at the same price.

III - Day: remains valid until a trade is matched or until the end of the trading session in which it is registered. If unmatched, the **order** is canceled;

IV - Immediate-or-cancel (IOC): accepted by the **trading system** for **registration** only if part of its quantity is matched immediately.

The following rules apply to IOC **orders**:

(a) If part of the **order** is filled, the remainder is automatically eliminated by the **trading system**;

(b) If it is impossible to match at least part of the quantity, the **order** is automatically eliminated by the **trading system**;

(c) If a previously registered **order** is modified to become an IOC **order**, the **trading system** will check whether at least part of the quantity can be matched. If not, the **order** is automatically canceled by the **trading system**;

(d) Registration of IOC **orders** is allowed during an **auction**. If any IOC **order** is partially filled after the **auction** ends, the remainder is canceled.

V - Fill-or-kill (FOK): registered by the **trading system** only if the total quantity is matched on **registration**. Otherwise the **order** is automatically eliminated by the **trading system**.

If a previously registered **order** is modified to become a FOK **order**, the **trading system** will check whether the total quantity can be matched. If not, the **order** is automatically canceled by the **trading system. Registration** of FOK **orders** during an **auction** is not allowed**.**

VI - Good-till-cancel (GTC): remains active on the **central order book** until completely filled or canceled, until the occurrence of dividend distribution or other entitlements involving the **asset**, or until expiration (if a **derivative**);

VII - Good-till-date (GTD): remains active on the **central order book** until completely filled or canceled, until it expires on the date set in the order, until the occurrence of dividend distribution or other entitlements involving the **asset**, or until the **derivative** expires;

VIII - Market-on-auction (MOA): registered only during an **auction** for execution when the **auction** ends at the theoretical price then calculated. MOA **orders** have priority over other **order** types or qualifiers except MOC **orders**, with which they compete according to chronological sequence of **registration**. If a MOA **order** is not completely filled at the end of the **auction**, the remainder is eliminated;

IX - Market-on-close (MOC): can be registered at any time during the **regular trading period** but is activated in the **central order book** only during the closing **call**. MOC **orders** have priority over other **order** types or qualifiers except MOA **orders**, with which they compete according to chronological sequence of **registration**. If a MOC **order** is not completely filled at the end of the **auction**, the remainder is eliminated.

X - Scheduled limit **order** for the closing call (LOC): limit **order** by price, which can be registered at any time during the regular trading session and is activated in the central order book only during the closing call. LOC **orders** do not have priority over other types of **orders** or **order** qualifiers and always compete based on price priority and chronological order of entry, respectively. If, at the end of the auction, the LOC **order** is not fully executed, the remaining balance will be canceled.

4.3.3. Cross orders

It is permitted to register cross **orders** for **assets** and/or **derivatives** in the **central order book** and in the solution designated for the trading of large lots, called the Book of Block Trade (BBT). For the purposes of this trading operational procedures manual, both modalities will be jointly referred to as cross **orders**.

In addition to the general rules for cross **orders** set forth in this trading operational procedures manual, cross **orders** registered in the BBT must observe the specific rules applicable to large-lot trading solutions.

B3 may authorize the **registration** of cross **orders**, pursuant to this trading operational procedures manual, in order to enable the closing of **positions** of **clients** declared to be in default or facing difficulties in meeting their obligations.

B3 may reject the **registration** of cross **orders** for **assets** and/or **derivatives** with low liquidity.

4.3.3.1. Cross orders in the central order book

Cross orders for **assets** and/or **derivatives** in **the central order book** may be rejected:

I - During a **call** or **auction**;

II - If there are registered valid **orders** with a better price.

Registration of a **cross order** for **assets** and/or **derivatives** in **the central order book** is accepted:

I - In the absence of other **orders**, if the price of the **cross order** complies with the **auction** tunnel limits;

II - For situations where the spread is greater than the tick size, for **assets** and derivatives, the registration of cross **orders** can only happen if:

(a) the price of the **cross order** is higher than the best **bid** and lower than the best **ask**, provided the tick size for each **asset** or **derivative** is respected;

(b) the price of the **cross order** is at the best **bid**, or at the best **ask**, if descendant from **orders** of a disproportional size to the liquidity of the **asset** or **derivative** for execution at the average price for the period in the same **trading session**, generated by time-weighted average price TWAP (time-weighted average price) or volume-weighted average price (VWAP) algorithms, according to parameters available on B3's website;

(c) the price of the **cross order** is at the best **bid**, or at the best **ask**, if descendant from **orders** related to structured operations that involve several **derivative** contracts and/or **assets** and coordinated execution, to assure the quantities and prices agreed by the parties; or

(d) the price of the **cross order** is at the best **bid**, or at the best **ask**, if descendant from **orders** intended to correct operational errors.

III - For situations where the spread equals to the tick size at the best **bid** or **ask** exclusively in the following cases:

(a) **Orders** of a size disproportional to the liquidity of the **asset** or **derivative** according to parameters available on B3's portal;

(b) **Orders** of a size disproportional to the liquidity of the **asset** or **derivative** for execution at the average price for the period in the same **trading session**, generated by TWAP (time-weighted average price) or VWAP (volume-weighted average price) algorithms, according to parameters available on B3's portal;

(c) **Orders** relating to structured transactions that involve several contracts and/or **assets** and coordinated execution, to assure the quantities and prices agreed by the parties;

(d) **Orders** designed to correct operational errors by a **participant**.

The execution of **orders** generated by time-weighted average price (TWAP) and volume-weighted average price (VWAP) algorithms is not the same as the automatic cross, used to register cross **orders** through **counterparty search electronic system**. The registered **trades** through automatic cross must respect the rules of cross **orders** specified in this trading procedures manual and other B3's normative documents.

Registration of **cross orders** in **the central order book** will not be allowed in any other circumstances than those described in items I, II and III above.

B3 may cancel **cross orders** if their quantity is less than the minimum established by B3 and posted on its portal.

4.3.3.2. Cross orders in BBT

The cross **order** for **assets** in the BBT may be rejected if there are valid **orders** registered in the BBT book at a better price.

The **registration** of the cross **order** for **assets** in the BBT will only be accepted if the price of the direct order complies with the **rejection** tunnel limits.

4.3.3.3. Minimum size and thresholds for cross orders for assets and derivatives

The thresholds (maximum percentage limits for the cross order) for the cross order for **assets** and derivatives, as well as the minimum size for the **registration** of cross **orders** are available on B3's

website. The cross **order** in the BBT must comply with the list of **assets** admitted for large-lot trading and with the minimum trading lot sizes defined by the CVM.

To ensure that the minimum size of the cross order is in line with the trading dynamics and the market characteristics, B3 will review the value of the minimum size and thresholds annually, based on data from the last 12 (twelve) months.

In addition to the annual review for products that have thresholds, B3 will carry out the monthly monitoring, based on the period of the last 3 (three) months of market quality indicators and thresholds that will serve as a basis for triggering new control measures, in cases where the thresholds (by market or by assets) are exceeded, and/or there is a deterioration of the market quality indicators, as described below.

(i) B3 will release, in the first fifteen (15) days of each month, reports to CVM, to BSM and to the market, with the quality indicators and thresholds of the **asset** and of the market. The calculation of the **asset** and market thresholds will take into account the volume of cross **orders** registered in **the central order book** and in the BBT.

(ii) If a deterioration of a specific **asset** or of the market in general is identified, B3 will adopt two measures: (a) will increase the minimum size of the cross order for the specific **asset** or for the market for registration in the **central order book**, with an increase of at least 50% (fifty percent) in relation to the previous size, for both cases; and (b) suspension of the registration of cross **orders** in the BBT.

(iii) On the same date of publication of the reports, B3 will disclose a prior notice to the market informing about the measurements to be implemented, which will become valid on the 3rd (third) business day after the date of publication of the prior notice.

(iv) In the period between the implementation of the measures referred to in item (ii) and the publication of the next report to the regulators and to the market, B3 will analyze if the measures adopted where able to return or provide a trend for the market to return to thresholds. If the effectiveness of the measures adopted has been verified, B3 will reinstate the minimum size for registration in **the central order book** and the possibility of registering cross **orders** in the BBT.

(v) If the measures adopted are shown to not be effective, B3 will apply the rule for the minimum size of the cross order for orders traded in **the central order book** between the best bid and the best ask, being the minimum size always half (50%) of the size of

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

the current rule for the register of orders, according to a respective deterioration of a specific asset or market.

(vi) If none of the measures adopted are shown to be effective to return the indicators to previous levels or provide an improved trend, B3, after prior approval by CVM, may adopt additional control measures to preserve the integrity of the market and the centrality of the order book.

(vii) The acting procedures mentioned on items (ii) to (vi), may also be adopted in cases where B3 identifies a deterioration of at least 10% (ten percent) in relation to the previous level to the introduction of the minimum size rule for the cross order, for the quality indicators below in **the central order book**:

(a) Variation in the liquidity cost of assets.

(b) Average spread.

(c) Average depth (considering top of the book orders and the first 3 (three) price levels).

(d) ADTV (Average Daily Trading Volume).

4.3.3.4. Sanctions applied to participants in relation to the use of the cross order

As described in the B3's Trading Rulebook, B3 may apply certain sanctions to **participants** who do not comply with the cross order registration rules.

If the **participant** registers cross orders in disagreement with the requirements, B3 may apply to the respective **participant** the penalty of written warning, fines, suspension of the access, and even, the cancellation of the access authorization.

B3 may not apply penalties in cases where it is proven that the operations in disagreement with the rule have little relevance and low expressiveness.

If the **participant** registers cross orders in disagreement with the requirements in a certain month, B3 can apply to the respective **participant** the penalty of written warning.

If a written warning is applied to a **participant** three times, in the fourth occurrence of non-compliance with the rule by that **participant** in a moving window of 24 (twenty-four) months, B3 will apply to the respective **participant** a fine of R$50,000.00 (fifty thousand reais). In the fifth occurrence, in a moving window of 24 (twenty-four) months, a fine of R$200,000.00 (two hundred thousand reais) will be applied. In the sixth occurrence, in a moving window of 24 (twenty-four) months, a fine of R$500,000.00 (five hundred thousand reais) will be applied and the **participant** will be restricted

from registering cross orders in the month following the month of the application of the penalty, according to the notification to be sent by B3 to the **participant**.

After the compliance with the restriction of the register of cross orders for a month, if the **participant** registers, in a moving window of 24 (twenty-four) months, a cross order in disagreement with the rule, it will be applied a fine of R$ 500,000.00 (five hundred thousand reais), and the restriction of the register of cross orders in the 2 (two) months following the month of the application of the penalty. Every month in which the **participant**, in a moving window of 24 (twenty-four) months, registers a cross order in disagreement with the rule, it will be applied a fine of R$ 500,000.00 and the restriction of the registering of cross orders for the period of 1 (one) additional month in relation to the last restriction of registering cross orders applied to the **participant**. After the second suspension, inclusive, in addition to the prevision described above, the Operational Qualification Program certification committee may analyze the cancellation of the **participants** Operational Qualification Program (PQO) seal.

Without prejudice to B3's competence to apply penalties, it is incumbent to BSM, within its sphere of action, to investigate and punish the infractions as provided in the B3's Trading Rulebook, in the rules that complement it or in the legislation and regulations in force, applying as necessary, the penalties provided for in its bylaws or in the form of its procedural regulations.

4.3.4. Retail Liquidity Provider (RLP) orders

Retail Liquidity Provider (RLP) **orders** have the following characteristics:

(a) They can be aggressed only by **orders** from customers of the same intermediary who are flagged with a retail ID RLP opt-in;

(b) The price of an RLP **order** is automatically and continually adjusted by the trading platform, so that when the **bid-ask spread** (the difference between the best **bid** and the best **ask**) is one tick, the RLP buy **order** is **registered** at the best **bid** and the RLP sell **order** is registered at the best **ask**. When the **bid-ask spread** is two ticks or more, the price of the RLP **order** is improved by at least one tick, at the discretion of the intermediary or its authorized **investor**;

(c) When the difference between the best **bid** and the best **ask** is one tick size, the operation of the RLP order will consider two scenarios, according to the configuration set by B3:

(i) The RLP buy **order** is registered at the best **bid** and the RLP sell order is registered at the best **ask**; or

(ii) The RLP **order** is disabled, and the **investors orders** are directed to the **central order book**.

(d) RLP **orders** can be registered only with same-day validity;

(e) RLP **orders** flagged with a retail ID can only be limit **orders**, stop **orders**, or market **orders** with same-day validity;

(f) Considering (i) the top price level of the **central order book** at a given time, (ii) the presence in the book of an RLP **order** from an intermediary, and (iii) the arrival of an aggressing **order** from a retail customer of the same intermediary; and (iv) that the scenario set by B3 be as described in subitem (i) of item (c);

(i) RLP **orders** have priority over all **orders** from other intermediaries;

(ii) RLP **orders** do not have priority over **orders** from customers of the same intermediary that can be matched with the aggressing **order**. Thus if there is an **order** in the **central order book** from another customer of the same intermediary that can be matched with the aggressing **order**, the aggressing **order** is sent to the **central order book** and matched with all **orders** from all intermediaries down to the last matchable **order** from a customer of the same intermediary. If any **orders** are left over, the aggressing **order** is sent to the RLP book;

(iii) If there are **orders** left over after execution via the RLP book, they are redirected to the **central order book**.

(g) B3 may refrain from applying provision e ii if an institutional customer (i) expressly instructs the brokerage house concerned to this effect, and (ii) appropriately marks **orders** sent to the trading platform;

(h) For the derivatives market, the number of contracts traded via RLP must not exceed fifteen per cent (15%) of total volume of the derivative. Calculation of "total volume" and "number of contracts traded via RLP" excludes contracts traded by **participants** on their own account via RLP and includes contracts traded by customers of **participants** via RLP. Given the above rule and considering that RLP **orders** are for retail customers only, each **participant** may submit at most 15/X of its retail volume as RLP **orders**, where X is the market share of retail customers in the instrument considering the market as a whole

(i) The fifteen per cent (15%) cap may be changed by B3 depending on market conditions, in which case **participants** will be notified in advance;

(ii) Percentage X will be updated every month and calculated as the daily average market share of retail customers in the previous month;

(iii) Thus, the average computed for month *t* will be the parameter to be observed as the cap for month *t+1*.

(i) For the cash market **assets**, the total volume traded via RLP must not exceed the lower of: (i) the percentage established by B3 on the retail flow of the **asset** during the calendar month; or (ii) the percentage established by B3 on the total volume of the **asset**, according to the parameters disclosed on B3's website.

(a) The aforementioned percentage of the retail flow to the cash market **assets** may be altered by B3, depending on market conditions, which will be communicated in advance to the **participants**.

(j) RLP **orders** are not displayed in the market data feed for the **central order book**, but are disclosed via the market data feed immediately after the close of trading;

(k) In RLP **orders**, **participants** may allow another participant to act as counterparty to consolidate the respective flows of aggressing retail **orders**, provided they comply with all other conditions for RLP **orders**;

(l) The complete list of **assets** and **derivatives** authorized to trade via RLP, as well as the list of scenarios set by B3, are available on B3's portal.

4.3.4.1. Obligations of participants in using Retail Liquidity Provider (RLP) orders

Participants that use RLP **orders** must:

(a) Register the account number (one per **asset** or **derivative**) to be used for RLP **orders** with B3;

(b) Assure transparency for retail customers in the use of RLP **orders** and provide the means for customers to opt-in and opt-out of participating as aggressors of RLP **orders**;

(c) Take steps to ensure that **orders** from retail customers are not artificially held back but are sent directly to the trading platform;

(d) Make sure all individual customers are able to be aggressors of RLP **orders**;

(e) Publish monthly reports on their official websites containing at least the following information, which must remain available for at least six months:

(i) The volume traded by the **participant** using RLP **orders**;

(ii) The products for which the **participant** allows RLP **orders** to be used, both in own-account **trading** and in **trading** by customers;

(iii) The percentage of customers using RLP **orders**;

(iv) The number of customers who received benefits of any kind by using RLP **orders** (better price or quantity);

(v) The number of contracts and retail customer orders executed against RLP **orders**;

(vi) The number of **orders** improved;

(vii) The number of contracts improved.

(f) comply with the educational, informational, and disclaimer support requirements disclosed by B3;

(g) comply with the leverage control requirements and the liquidation indicators disclosed by B3;

(h) obtain prior approval from B3 for all course and alert content, as well as any subsequent changes, before disclosing them to clients.

(i) Include in the opt-in mechanism authorizing participation as aggressors of RLP **orders** a link to the risk metrics associated with regular **trades** and **day trades** on B3's portal.

(j) Ensure that the incentive policies are similar between the markets available for using the RLP **order**.

4.3.4.1.1. Monitoring regarding the use of the Retail Liquidity Provider (RLP) order for mini U.S. Dollar Futures (WDO) and Mini Ibovespa Futures Contract (WIN)

The **participants** of the RLP **orders** must comply, in addition to the minimum **margin** requirement applicable to **participants** who offer trading of mini contracts without using the RLP **order**, with the obligations set forth in item 14 of this operational trading procedures manual.

BSM will supervise, through indirect supervision, the sending of educational material to **investors** in cases where the triggers disclosed by B3 are reached. If BSM identifies a failure in the **participant's** process, it will inform B3, which will notify the **participan**t and initiate the sanction procedure described in item 4.3.4.1.2 below.

4.3.4.1.2. Sanctions to the participants regarding the use of the Retail Liquidity Provider (RLP) order for mini U.S. Dollar Futures (WDO) and Mini Ibovespa Futures Contract (WIN)

As described in the B3's Trading Rulebook, B3 may apply certain sanctions to participants who do not comply with the requirements regarding the use of the RLP order.

If B3 identifies non-compliance with the **participants** obligations for the use of the RLP **order**, as set forth in section 4.3.4.1 items (f) and (g), or when notified by BSM of the **participants** failure to send educational material, B3 will notify the **participant** and request an action plan to correct the failure in its process, which must be submitted within 10 (ten) business days.

If the **participant** fails to submit the action plan or does not comply with the plan or the deadlines presented, the participant will be notified, and the Electronic Trading Department of B3 will impose a daily **penalty** until the **participant** fulfills its obligation. The **penalty** will be the greater of (i) BRL 10,000.00 (ten thousand reais) or (ii) 2.5% (two and a half percent) of the number of contracts traded via RLP during the entire month of assessment (month of non-compliance) multiplied by half of the minimum tick size of the contract.

Regardless of the imposition of the daily **penalty**, B3 may apply the sanctions provided for in B3's trading rules, noting that recurrence will be considered an aggravating circumstance in the application of the **penalty** and the sanctions provided for in this manual and in B3's trading rules, including for penalty calibration purposes.

The **participant** may appeal the decision imposing penalties to the Vice President of Operations – Electronic Trading and CCP, without suspensive effect. The financial amounts received by B3 under the final decision regarding the payment of the daily penalty will be fully redirected to the implementation of educational measures for **investors**.

B3 will inform BSM of all communications with **participants** and actions taken by B3 regarding the sanctions applied.

Without prejudice to B3's authority to apply the penalties mentioned above, BSM, within its scope of action, is responsible for investigating and sanctioning violations of B3's trading rules, the complementary regulations, or applicable laws and regulations, applying, as appropriate, the penalties provided for in its bylaws, in accordance with its procedural regulations.

4.3.4.2. Consequence of exceeding the cap for trading via RLP orders

Participants that exceed the maximum percentage for contracts traded via RLP **orders**, truncated to one decimal place, in any month will be subject in the immediately subsequent month to an

adjusted cap to compensate for the excess. If the excess is greater than the cap, compensation will proceed in the ensuing months until the total excess is offset, potentially preventing the use of RLP **orders** for one or more months.

With respect solely to cash market **assets**, the adjusted cap to offset the excess in the limit of traded securities will not apply if, in the month in which the limit was exceeded, the **participant** intermediated fewer than fifty (50) trades with retail clients in a given instrument, provided that, in that same instrument, the **participant** maintained an RLP **order** registered.

5. CALLS

There are three kinds of **call**:

I - Opening calls*;*

II - Intermediate calls;

III - Closing calls.

B3 may change the start time and/or duration of **calls**, notifying the market in advance of any such change.

Call times and **trading** phases, with a list of **assets** and derivatives that have **calls**, are available from B3's portal.

5.1. Opening calls

During **opening calls**:

I - Order registration does not result in **trade** matching;

II - Orders are subject to the type 1 and type 4 **rejection tunnels**, in accordance with the provisions of this trading procedures manual;

III - Orders may be registered, modified and canceled, in accordance with the provisions of this trading procedures manual.

To assure good price formation and the integrity and regular functioning of the markets it operates, B3 may cancel **trades** executed at the start of an **opening call** and begin a new **call** for **assets** and **derivatives**, notifying the market in advance.

5.2. Intermediate calls

The following rules and procedures apply to **intermediate calls**:

I - **Order registration** does not result in **trade** matching;

II - **Orders** are subject to the type 1 and type 4 **rejection tunnels**, in accordance with the provisions of this trading procedures manual;

III - **Orders** may be registered, modified and canceled provided the operating procedures for **auctions** are followed.

IV - **Trades** executed during **intermediate calls** do not affect settlement price formation.

To assure good price formation and the integrity and regular functioning of the markets it operates, B3 may cancel **trades** executed at the start of an **intermediate call** and begin a new **call** for **assets** and **derivatives**, notifying the market in advance.

5.3. Closing calls

The following rules and procedures apply to **closing calls**:

I - **Order** registration does not result in **trade** matching;

II - **Orders** are subject to the type 1 and type 4 **rejection tunnels**, in accordance with the provisions of this trading procedures manual;

III - **Orders** may be registered, modified and canceled provided the operating procedures for **auctions** are followed.

To assure good price formation and the integrity and regular functioning of the markets it operates, B3 may cancel **trades** executed at the start of a **closing call** and begin a new **call** for **assets** and **derivatives**, notifying the market in advance.

5.4. Closing call extensions

The rules and definitions for automatic extensions to **calls** for **assets** and **derivatives** are established in this trading procedures manual and available from B3's portal.

6. SPECIAL TRADING PROCEDURES - AUCTIONS

An **auction** is a special **trading** procedure, which aim to offer suitable conditions for equitable **investor** participation, whereby a **trade** is exposed to competing **bids** and **asks** for a short period.

6.1. Auction rules

6.1.1. Theoretical price formation (fixing)

The criteria for **theoretical price** formation are described below:

I - First criterion: The **auction** price is the price at which the largest quantity of the **asset** or **derivative** is traded.

II - Second criterion: In the event of a tie on the first criterion, i.e. if there are two or more prices at which the same quantity of **assets** or **derivatives** is traded, the prices that create the smallest imbalance in the sale are selected, and in the interval between these prices the **theoretical price** is the closest to the price of the last **trade**, or in its absence the closest to the adjusted closing price or, for **derivatives** only, the closest to the settlement price for the **trading session**, rounded in accordance with tick size.

III - Third criterion: In the event of a tie on the first and second criteria, i.e. if there are two or more prices at which the same quantity of **assets** or **derivatives** is traded, and two or more prices at which the same imbalance is created on opposite sides, the **auction** price is the closest price to the price of the last **trade** among those that created the tie on the second criterion, or in its absence the closest to the adjusted closing price or, for **derivatives** only, the closest to the settlement price for the **trading session**, rounded in accordance with tick size.

6.1.1.1. Characteristics

The characteristics of **theoretical price** formation are described below:

I - There is no pro-rata matching for **orders** at the same price, except in the cases specified in this trading procedures manual.

II - The **trading system** uses a price scale rather than a single price to set the **theoretical price**, which is as close as possible to the last price or, where applicable, to the settlement price.

III - **Bids** that are equal to or higher than the **theoretical price** and **asks** that are equal to or lower than the **theoretical price** cannot have their quantity reduced but can be changed only to improve the price or increase the quantity, except in cases of correction and/or cancellation of

orders by B3. These **orders** can be freely canceled in the initial seconds of the **auction**, and, after the free cancelation period, such **orders** can only be cancelled due to operational error. The length of the free cancellation period is available on B3 website.

IV - **Bids** with a higher price than the **theoretical price** and **asks** with a lower price than the **theoretical price** are completely filled.

V - **Bids** and **asks** at the **theoretical price** may be filled completely, partially or not at all, depending on the theoretical quantity for the **auction**.

VI - Disclosed quantity (iceberg) **orders** cannot be registered during an **auction**. Disclosed quantity **orders** registered before the start of an **auction** must comply with the priority rule for the quantity publicly quoted when they joint the **auction**. If an **order** is modified, the total quantity must be disclosed to the market.

VII - Remainders of immediate-or-cancel (IOC) **orders** are canceled at the end of the **auction**.

6.1.2. Priority

The **trading system** uses the following priority rules to match **trades** subject to **auction**:

I - Market-on-auction (MOA) **orders** for **auctions** and market-on-close (MOC) orders for **closing calls** have priority over other types or qualifiers of **orders**, being organized in chronological order of record. The balance of any such **orders** that are not completely filled when the **auction** begins is eliminated;

II - **Orders** containing price limits, including LOC **orders**, have priority for matching at the same price level in accordance with the chronological sequence of their registration, except for **orders** originating with canceled **trades** and re-entered by B3.

6.1.3. Auction extensions

The following events may justify an **auction** extension:

I - A change in the **theoretical price**;

II - A change in the theoretical quantity;

III - Registration of a new **order** that changes the filled quantity of a previously registered **order**;

IV - A change in the unfilled balance;

V - Triggering of the **protection tunnel**;

VI - A decision by B3 to grant an extension.

B3 may extend or open an **auction** to preserve the regular development of trading.

The duration and extension parameters for **auctions** of **assets** and **derivatives** are communicated by B3 and are available on its portal.

6.2. Auction types

The procedural rules governing the holding of auctions are divided according to the type of **auction**:

I - **Ordinary auctions**;

II - **Special auctions**;

III - **Auctions for public tender offers (PTOs) for shares**;

IV - **Auctions for public tender offers for investment fund units (OPACs)**;

V - **Auctions of assets with trading suspended or when the issuer is declared bankrupt or undergoing out-of-court liquidation;**

VI - **Auctions of assets for repurchase order execution.**

6.2.1. Ordinary auctions

Ordinary auctions are held to comply with:

I - Regulatory requirements or a ruling by CVM;

II - B3's operating procedures;

III - A ruling by B3's CEO, Chief Operating Officer – Electronic Trading and CCP or Director of Electronic Trading.

Ordinary auctions are held without the need for consent from the buying or selling **full trading participants**, **trading participants** or **foreign participants** involved.

Ordinary auctions are subject to the **trading tunnel** rules established in this trading procedures manual.

6.2.1.1. Assets and derivatives submitted to ordinary auctions

All **assets** and **derivatives** admitted to **trading** on the exchange market and organized over-the-counter market operated by B3 can be submitted to **ordinary auctions**.

6.2.1.2. Eligibility

An **ordinary auction** will be held when a **trade** is eligible on the basis of the quantity, quotation and/or tradability criteria established in this trading procedures manual.

6.2.1.3. Baseline price

The **baseline price** of each **asset** is defined as follows:

I - At the start of a **trading session** and before execution of the first **trade**:

(a) The **baseline price** is equal to the adjusted closing price and corresponds to the center of the type 1 **rejection tunnel**, to the type 2 **rejection tunnel**, to the type 1 **auction tunnel** and to the type 2 **auction tunnel** respectively;

(b) In the case of exchange-traded funds (ETFs), the **baseline price** that corresponds to the center of the type 1 **rejection tunnel** and to the type 1 **auction tunnel** is the adjusted closing price of the ETF, and the **baseline price** that corresponds to the center of the type 2 **rejection tunnel** and to the type 2 **auction tunnel** is the **theoretical value** of a unit of the ETF (indicative optimized portfolio value, IOPV) referring to the previous trading day's closing price;

(c) In the case of unsponsored BDRs, the **baseline price** that corresponds to the center of the type 1 **rejection tunnel** and to the type 1 **auction tunnel** is the adjusted closing price of the BDR. The **baseline price** that corresponds to the center of the type 2 **rejection tunnel** and to the type 2 **auction tunnel** is the adjusted price of the BDR's **underlying**, which is equivalent to the price of the last **trade** in the **underlying** on its market of origin divided by the BDR's parity. Because the price of the **underlying** is quoted in the currency of the origin country, B3 uses the spot quotation of the currency of the origin country to translate the price of the last **trade** in the **underlying** on its market of origin into Brazilian Reais (BRL).

II - After execution of the first trade:

(a) The **baseline price** is:

(i) The price of the last trade in the **asset**, which corresponds to the center of the type 2 **rejection tunnel** and to the type 2 **auction tunnel**;

(ii) The opening price, which corresponds to the center of the type 1 **auction tunnel**;

(iii) The closing price, which corresponds to the center of the type 1 **rejection tunnel**; or

(iv) If an **auction** is triggered by violation of the type 1 **auction tunnels** during the **trading session**, the center of the tunnels is the resulting **auction** price.

(b) For Brazilian ETFs, the **baseline price** that corresponds to the center of the type 2 **rejection tunnel** and to the type 2 **auction tunnel**, will be the most recent value between the ETF last **trade** price and the theoretical price (IOPV) of the ETF. The IOPV is updated whenever it increases or decreases by a percentage pre-established on the B3 website, applied to the ETF's last **baseline price**.

(c) For unsponsored BDRs, the **baseline price** that corresponds to the center of the type 2 **rejection tunnel** and to the type 2 **auction tunnel** is the adjusted price of the **underlying** or the price of the last **trade** in the BDR, whichever is more recent. If it increases or decreases by a pre-established percentage disclosed on the B3 website, applied to the adjusted price of the **underlying** instrument, the latter is recalculated and used as the **baseline price** for ensuing **trades**.

B3's Director of Electronic Trading may establish different criteria from those specified in this trading procedures manual for the definition of the **baseline prices** of **assets** and **derivatives** if required by market conditions.

The above criteria do not apply to the options market.

6.2.1.4. Specific reasons for holding an auction

The following occurrences are also considered potential reasons for holding an **auction**.

I - Announcements of dividends and other entitlements: When an **issuer** of a listed security announces the distribution of dividends and other entitlements, B3 may hold an **auction** with a duration determined by the Director of Electronic Trading to preserve price continuity.

II - Technological problems: If a **full trading participant**, **trading participant** or **foreign participant** notifies technical problems or issues with technology before the end of an **auction**, the close of the **auction** may be delayed. If the **auction** is resumed after the original closing

time is past, a new time will be scheduled for the **auction** to be held with a duration of at least five minutes.

III - **Derivatives** with non-continuous **trading**: Some **derivatives** admitted to **trading** on B3 are traded solely by **auction**. The list of such **derivatives** with **auction** durations and extensions is available from B3's portal.

IV - B3 may determine the holding of an **auction** for **assets** that (i) have not been traded for 4 (four) months or more or (ii) whose number of outstanding shares, excluding blocked shares, is less than the quantity parameter available on B3's website. In this case, the following special **trading** procedure will be adopted:

(a) The **asset** will be submitted to non-continuous trading, through **auctions**, subject to extensions, follow by a cancellation phase, before the generation of trades.

(b) The cancellation phase will be used by B3 to verify whether the shareholders who registered the order have the shares in their portfolios. If they do not have them, the orders will be cancelled.

(c) Time interval between the generation of trades and the start of the **auction**.

(d) The parameters of **auction** duration, extension time and time interval between the generation of trades and the start of a new **auction** for the **assets** are available on B3's website.

6.2.1.5. Auctions held in response to an administrative, arbitration or court ruling

Full trading participants, **trading participants** or **foreign participants** are responsible for executing **orders** to buy or sell **assets** that are the object of administrative, arbitration or court decisions, and must be designated as such as in the respective rulings.

Execution of the **orders** must occur by means of an **auction**. The **auction** notice must be published at least forty-eight (48) hours in advance. The **auction** lasts at least five minutes and can be extended in accordance with the provisions of this trading procedures manual. If the **orders** are not completely filled, additional **auctions** may be held to fill the remainder.

The **auction** request procedure is as follows:

I - The **full trading participant** accesses the **auction** request functionality offered by the platform in connection with **asset** blocking by court or administrative order, entering the information required for publication of the **auction** notice, which must include:

(a) the **investor's** federal taxpayer number (CPF);

(b) the name or ticker of the **asset**, the quantity, and the minimum price or reference price;

(c) the **full trading participant's** code;

(d) the portfolio of the **asset**;

(e) the case number;

(f) the court that has authorized the sale of the shares;

(g) whether the **investor** opts to register **bids** in the **closing call** for the next five consecutive **trading sessions** if **orders** are not completely filled;

(h) the field reserved for terms and conditions; or

II - The following are filed with B3:

a) A copy of the administrative, arbitration or court decision authorizing the **auction** and of the supporting documents for the decision;

b) An **auction** request specifying the quantity of **assets,** and the minimum opening price or reference price;

c) A statement by the seller warranting that the **assets** to be auctioned are free and clear of claims, liens and encumbrances, accompanied by a statement of the seller's **position** with B3's **central securities depository**.

The **full trading participant** must register **closing call orders** and monitor their execution and **settlement**, assuming full liability in the event of **settlement** failure.

After **settlement** of the **trade**, the **full trading participant**, the **trading participant** and/or the **foreign participant** must notify the organization(s) that issued the administrative, arbitration or court ruling and BSM that the **auction** has been held as required.

6.2.1.6. Auctions to sell odd lots due to bonus issues, incorporation or reverse splits

The sale of fractional shares or odd lots of **assets** deriving from bonus issues, incorporation or reverse stock splits must be conducted by **auction**, in accordance with the applicable legislation and regulations.

The auction notice must be published at least twenty-four (24) hours in advance. The **auction** lasts at least five minutes and can be extended in accordance with the provisions of this trading procedures manual.

6.2.2. Special auctions

A special auction is a procedure in which **bids** are made for:

I - **Assets** not admitted to **trading** on an organized exchange market or organized over-the-counter market;

II - Outstanding subscription rights;

III - Portfolios of **assets** and **derivatives**;

IV - Direct public **offer** under the regime FÁCIL – Facilitation of Access to Capital and Listing Incentives.

The trading procedures for a **special auction** are described in the respective **auction** notice for items I to III, and in a specific form, in accordance with current regulations, for item IV.

6.2.2.1. Assets not admitted to trading

For the holding of a **special auction** for the sale of **assets** not admitted to **trading**, a **full trading participant**, **trading participant** or **foreign participant** must send B3 a request to hold the **auction** and an **auction** notice containing information on the seller, the **assets** to be auctioned, the dynamics of the **auction** including the payment method, and an express mention that the buyers of the **assets** to be auctioned are entitled to sell them in due course only by means of private transactions.

The **auction** notice must be sent to B3 for approval and published at least forty-eight (48) hours in advance of the **auction**, unless the applicable legislation allows a longer period of notice. The **auction** lasts at least fifteen (15) minutes.

An **auction** request template is available from B3's portal.

6.2.2.2. Outstanding subscription rights

Remainders deriving from non-exercise of preemptive subscription rights are represented by subscription receipts and can be auctioned for the **issuer's** benefit, in accordance with the applicable legislation and regulations.

In the case of outstanding subscription rights to shares corresponding to five per cent (5%) of the quantity issued or less, the **full trading participant** and/or **trading participant** representing the **issuer** must request an **auction** for the sale of the respective subscription receipts and send B3 an **auction** notice specifying the price, quantity and other characteristics of the transaction.

The **auction** notice must be published at least twenty-four (24) hours in advance of the **auction**, which lasts at least five (5) minutes and may be extended in accordance with the provisions of this trading procedures manual.

In the case of outstanding subscription rights to shares corresponding to more than five per cent (5%) and less than one-third (1/3) of free float, the **full trading participant** and/or **trading participant** representing the **issuer** must also observe the specific requirements in the applicable regulations.

In the latter case, the **auction** notice must be published in a major national newspaper at least seventy-two (72) hours in advance. The auction lasts at least fifteen (15) minutes and may be extended in accordance with the provisions of this trading procedures manual.

6.2.2.3. Portfolios of assets and derivatives

By decision of its Settlement Department, B3 may hold **special auctions** of participants' portfolios of **assets** and **derivatives** in order to reduce open positions.

The **auction** notice must contain details of the portfolio in question, alongside other provisions.

6.2.2.4. Special Auction for a Direct Public Offer of Distribution under the regime FÁCIL

A direct public **offer** of distribution is a public **offer**, initial or secondary, for the total or partial distribution of securities issued by a Small-Sized Company (CMP), exempt from registration with the CVM, carried out directly through a system operated by B3, pursuant to the FÁCIL regime and B3's Issuer Regulation.

Auctions related to the FÁCIL regime will involve CMP shares and will be held under the circumstances and in accordance with the procedures established in the applicable regulations, as well as in B3's Issuer Regulation.

B3 will maintain procedures and monitoring routines necessary for the performance of its duties as the operator of organized markets and as the central securities depository under the FÁCIL regime, executing a cooperation agreement or technical cooperation arrangement with the CVM, in order to detail and complement, where applicable, the provisions set forth in its rules.

6.2.2.4.1. Document filing

I – Draft of the FÁCIL form, which must contain at least the following information:

(a) identification of the company;

(b) quantity of securities offered;

(c) unit price;

(d) **offer** start date;

(e) name and taxpayer identification number (CNPJ) of the Market Administrator;

(f) the rules for registering, modifying, canceling, and the types of **offers**;

(g) the possibility of increasing the originally offered quantity;

(h) target audience of the **offer**;

(i) **offer** success condition: acceptance must comply with the final quantity and unit price limits determined in the special procedure, as established in current regulation;

(j) copy of the intermediation agreement executed with a full **trading participant and/or trading participant**;

(k) copy of the valuation report, if applicable;

(l) proof of payment of the analysis fee for the direct public **offer** of distribution under the FÁCIL regime, in accordance with the pricing policy for **issuers**;

(m) any other documents requested by B3 depending on the specific characteristics of the **transaction**.

After receiving the documents, B3 will publish on its website that the direct public **offer** is under review, except when the offeror requests confidential analysis of the **offer**.

B3 will analyze the documents within a minimum period of 12 (twelve) business days from the date of filing. B3 may issue requirements, requesting that the information and documents submitted be adjusted to the applicable legal and regulatory provisions, as well as requiring the inclusion, in the

FÁCIL form, of any additional information it deems appropriate, in addition to warnings and considerations it finds necessary for investors' analysis and understanding of the **offer**.

If adjustments to the documentation are requested, the offeror must comply within the deadline established by B3, by resubmitting the applicable documents or by providing the requested clarifications in writing. B3 will analyze compliance with the requirements within 8 (eight) business days from the date of the new filing. Once the final version of the FÁCIL form has been approved, the Director of Electronic Trading will authorize the **auction** in B3's **electronic trading system**, and the FÁCIL Form, along with the other information and documents required under the FÁCIL regime, will be made available on B3's website in a dedicated section for each offering.

The offeror may request that B3 update the webpage related to the **offer** by submitting the information and documents to be amended, which will then be made available by B3 on its website.

The procedures for **investor** accreditation, as well as the procedures to be followed for the **auction**, will be included in the FÁCIL form and will be analyzed by B3 on a case-by-case basis.

6.2.2.4.2. Procedure

With a minimum of 3 (three) business days prior to the **auction**, B3 will notify the market of the authorization for the registration of purchase **offers** in the direct public **offer** of distribution under the regime FÁCIL.

During the **auction**, B3 may:

I – generate the **trades**;

II – submit the **asset** to an **auction** lasting at least 15 (fifteen) minutes;

III – refrain from generating **trades**, in which case the direct public offering of distribution under the FÁCIL regime will be canceled if the conditions stated in the form or required under applicable laws and regulations are not met;

IV – exclude or temporarily prevent specific intermediaries from representing **investors** in the special procedure, in accordance with the notification process set forth in Title IV, Chapter II of this manual, or interrupt the offering if it determines that such intermediaries are causing or contributing to non compliance with the rules;

V – interrupt the offering when the offeror fails to do so in the circumstances established under the regime FÁCIL;

VI – postpone the date of the special procedure at its sole discretion;

VII – require corrections, amendments, or cessation of the advertising of the **offer**;

VIII – close the special procedure early if the demand for the base quantity and the base unit price of the offering has been reached, provided that:

(a) at least 10 (ten) days have elapsed since the publication of the FÁCIL form; and

(b) this possibility is expressly stated in the FÁCIL form.

IX – the final unit price determined at the close of the special procedure shall be single and uniform within the same type, class, or series;

X – participants may cancel previously submitted purchase **offers** up to 24 (twenty-four) hours before the scheduled closing time of the special procedure;

XI – in the event of interruption of the offering, all purchase **offers** submitted by **participants** will be automatically canceled.

Only limit purchase **offers** will be accepted, in accordance with the price and quantity limits defined in the FÁCIL form.

Offers submitted in disagreement with the parameters established will be automatically rejected by the **trading system**.

Purchase **offers** may be monitored through B3's market data dissemination mechanisms (Market Data), using the respective issuer's trading code.

For item II, the Director of Electronic Trading may establish new timeframes whenever there is an improvement in the purchase price, until the **auction** is closed.

By the end of the day on which the **auction** is closed, B3 will update the offering's webpage, indicating whether the conclusion was successful or not. In the event of a successful conclusion of the direct **offer**, the information required under current regulation will be included on the offering page.

6.2.3. Public tender offers for shares (PTOs)

A public tender offer for shares (PTO) may be mandatory or voluntary in accordance with the applicable regulations and is held to buy some or all of the shares issued by a company, subject to approval by CVM and B3.

Auctions are held to perform PTOs in the situations and with the procedures established in the applicable regulations, and in B3's rules for listing of issuers and admission of securities to trading, issuer manual and special listing segment rules.

6.2.3.1. Document filing

To request authorization to hold a PTO, the institution acting as intermediary must file the following documents with B3:

I - The PTO notice containing the rules for registering, modifying and canceling **orders**;

II - A copy of the intermediary's service agreement with the **issuer**;

III - A copy of the appraisal, if any;

IV - A receipt for payment of the PTO analysis fee stipulated in the fee policy for **issuers**;

V - Other documents that may be requested by B3 depending on the circumstances of the PTO.

After it receives the documents, B3 publishes on its portal a notice to the effect that the PTO request is under analysis (not applicable to voluntary PTOs).

As of the date on which the PTO request is filed, B3 has thirty (30) calendar days to analyze the documents, except for a voluntary PTO, in which case it has at least three days for the analysis. When the final draft of the PTO notice has been approved, the Director of Electronic Trading sends the offerorand CVM, B3's authorization to hold the **auction** in its **trading system**.

The procedures for accrediting shareholders and transferring shares to B3's central securities depository are described in the PTO notice, as well as the **auction** procedures, and are analyzed by B3 in each case.

6.2.3.2. Procedure

At least three business days before the **auction**, B3 notifies the market that registration of **offers** for the PTO is authorized.

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

In the case of PTOs held to cancel or convert **issuer** registration, if options on the **issuer's** shares are admitted to trading B3 may delist option **series** without positions and implement any other measures it deems necessary, in accordance with the provisions of this trading procedures manual.

During the **auction**, B3 may:

I - Generate **trades**;

II - Generate **trades** after pro-rata matching;

III - Convene an **auction** lasting at least fifteen (15) minutes when there are **offers** above the price established in the PTO notice in order to give the offeror an opportunity to raise the PTO price or to enable sellers with higher prices to lower them;

IV - Convene an **auction** lasting at least fifteen (15) minutes when there are competing **offers**;

V - Refrain from generating **trades** and cancel the PTO in the event of non-compliance with the conditions stated in the PTO notice or the applicable legislation and regulations.

For items III and IV, the Director of Electronic Trading may establish a new timetable if the price bid or offered improves before the end of the **auction**.

By the third business day after the **auctio**n, the Director of Electronic Trading notifies CVM regarding the number of **trades** executed, the number of shares settled, and the **auction** price. When the **settlement** period of the **transactions** exceeds two (2) business days, the statements related to the **settlement** shall be submitted to the CVM within two (2) business days from the **settlement** date.

6.2.4. Public tender offers for investment fund units of shares in real estate investment funds – FII or investment funds in agribusiness production chains – FIAGRO (OPACs)

OPACs are held voluntarily to acquire some or all of the units issued by real estate investment funds (FIIs) or investment funds in agribusiness production chains – FIAGRO, subject to B3's approval.

According to the payment method proposed by the offeror, the OPAC is classified as:

I - a purchase, when the proposed payment is made in cash (local currency);

II - an exchange, when the proposed payment is made in securities; and

III - mixed, when the proposed payment is made partly in cash and partly in securities.

The following rules and procedures apply to an OPAC:

I - It must be open without distinction to all holders of units in the FII or FIAGRO in question;

II - It must be held in such a manner as to assure equal treatment of all unitholders, providing adequate information about the FII in question and the offeror, as well as the wherewithal for them to make an independent and informed decision whether to accept the offer;

III - It must be intermediated by a **full trading participant** or **trading participant** authorized by B3, which must guarantee cash settlement of the OPAC and payment for acquisition of any remainder, in accordance with item (X) below;

IV - The price and payment conditions must be uniform;

V - Payment must be in cash and in local currency, or in securities admitted for trading in regulated Brazilian markets;

VI - It must be held in the form of an **auction** on B3's **trading system**;

VII - **Intervention** or a competing OPAC from a third party that is not the offeror or related to it must be allowed;

VIII - It must be immutable and irrevocable after publication of the OPAC notice, unless: (a) an alteration results in an improved **offer** for unitholders; (b) the offeror relinquishes any of the conditions it originally established for the OPAC; or (c) any modification is made, or the offer is revoked in accordance with the terms and conditions established in the OPAC notice;

IX - Implementation of its conditions must not depend directly or indirectly on action by the offeror or a related party;

X - The offeror must undertake to acquire any remainder within one month of the **auction** at the final price of the OPAC updated to the date of effective payment in the manner established by the OPAC notice if more than two-thirds (2/3) of the units issued by the FII or FIAGRO are found to be held by the offeror or related parties after the OPAC **auction**;

XI - The offeror must undertake to keep at least one-third (1/3) of the units issued by the FII or FIAGRO in circulation, except in the situation specified in item (x) above.

B3 may allow the exchange or mixed OPAC to be settled with payment in assets or securities not admitted for trading in regulated markets, provided that equitable treatment and adequate communication to the holders of the shares subject to the OPAC are ensured.

6.2.4.1. Trading ban

The offeror, intermediary, related parties involved in planning and holding the OPAC and all personnel employed or engaged by them as assistants or advisors are banned from **trading** in units of the FII or FIAGRO involved in the OPAC and must implement suitable procedures to enforce this ban.

The above **trading** ban does not apply to the following:

I - **Trading** on behalf of and for the account of third parties;

II - **Trades** clearly designed to follow real indices;

III - **Trades** executed by **market makers** in accordance with the rules and regulations issued by CVM;

IV - Discretionary management of third-party portfolios.

This **trading** ban applies from the moment the OPAC notice is filed, the market is notified of the offeror's intent to hold the OPAC or the intermediary is engaged, whichever occurs first, and lasts until the OPAC **auction** is over.

6.2.4.2. Document filing

To request authorization to hold an OPAC, the institution acting as intermediary must file the following documents with B3:

I - The OPAC notice;

II - A copy of the intermediary's service agreement with the offeror;

III - A receipt for payment of the OPAC analysis fee stipulated in the fee policy for **issuers** and public tender offers;

IV - The appraisal report, if the price of the offer is based on an appraisal;

V - The appraisal report of the securities delivered in exchange, in case of exchange or mixed OPAC;

VI - In exchange OPAC, if the price determination criterion was based on an appraisal report, the evaluator must use the same criterion for determining the price and evaluating the securities delivered in exchange or justify the adoption of a different criterion; and

VII - Other documents, depending on the structure of the OPAC.

6.2.4.3. Contents of OPAC notice

The contents of the OPAC notice must include the following:

I - The name of the FII or FIAGRO and the main **assets** held by it, as applicable;

II - The OPAC price, payment conditions and quantity of shares subject to the OPAC;

III - In case of exchange or mixed OPAC, information about the exchange ratio, the quantity, type, and class of the securities delivered in exchange, the rights attributed to them, their trading history over the last 12 (twelve) months, the treatment to be given to any fractions resulting from the exchange ratio, and information about the issuer of the shares;

IV - The name and other details of the offeror and intermediary;

V - The reason for holding the OPAC;

VI - The criteria used to set the price;

VII - The terms and conditions for the offer;

VIII - The procedures for **intervention** or timetable for holding a competing OPAC;

IX - The procedure for accrediting unitholders, including the enrollment deadline;

X - The **auction** procedures, including the rules for registering, modifying and cancelling **orders**;

XI - Details of the FII or FIAGRO in question, including (a) quotations for the past 12 months, if applicable; (b) income; and (c) economic and financial indicators;

XII - A statement by the offeror as to whether any tax benefits will prevail if the OPAC is held;

XIII - The number of units of the FII or FIAGRO in question that are held by the offeror and related parties;

XIV - An undertaking by the offeror to pay unitholders who accept the OPAC any upside difference between the price paid for their fund units, updated in accordance with the provisions of the OPAC notice and the applicable legislation and adjusted for any change in the number of units, and the price per fund unit paid in another OPAC, if any, held by the offeror or related parties one year after the forthcoming OPAC;

XV - Statements by the offeror and intermediary warranting that they are unaware of any facts or circumstances not disclosed to the public that might materially influence the trading prices of the fund units in the OPAC.

6.2.4.4. Intervention or competing OPAC

In the event of a competing OPAC, a notice with the conditions of the offer must be published:

I - Not more than five business days before the **auction** date;

II - Setting a price at least five per cent (5%) higher than the OPAC price;

III - Provided subsequent offers are at least one per cent (1%) higher than the price of the highest offer registered so far;

IV - For at least ten per cent (10%) of the units in the original FII or FIAGRO, unless the purpose of the original offer is to acquire more than two-thirds (2/3) of the FII or FIAGRO units, in which case the competing OPAC must have the same number of units as the original **offer**.

Intervention by other buyers in the **auction** is allowed, subject to the same conditions as those applicable to the competing OPAC, as above, but without the obligation to issue a notice.

Anyone who wishes to intervene in the **auction** must inform the Director of Electronic Trading of their intent and provide information regarding price and number of units, as well as details of the intervening party and intermediary.

6.2.4.5. Timeframe for analysis

B3 has ten business days to analyze the OPAC notice.

The offeror has ten business days to comply with any requirements imposed by B3 as a result of its analysis.

After receiving the OPAC notice with the required alterations, B3 has three more business days to authorize the holding of the OPAC **auction**.

6.2.4.6. Auction authorization

After the documents are analyzed and the final draft of the OPAC notice is approved, B3's Director of Electronic Trading authorizes the holding of the **auction**.

As soon as the OPAC is authorized, the offeror must send the **auction** notice to the administrator of the FII or FIAGRO and the latter must then:

I - Inform unitholders by posting the OPAC notice to the FII or FIAGRO website;

II - Write and publish a reasoned opinion on any and all OPAC, that have as their object FII or FIAGRO issuance quotas, in which it will express an opinion on:

(a) Whether the offer is appropriate and advisable from the standpoint of the unitholders and the liquidity of their units;

(b) The effects of the offer on any tax benefits applicable to the FII or FIAGRO;

(c) The strategic plans disclosed by the offeror for the FII or FIAGRO;

(d) Any other points the administrator considers relevant.

The administrator of the FII or FIAGRO opinion must take a position for or against acceptance of the OPAC, while pointing out that each unitholder is responsible for deciding whether to do so.

The statement regarding the conditions of the **offer** must be made public at least 5 (five) days before the auction takes place, and it is certain that any statement from the manager of the FII or FIAGRO whose shares are subject to the OPAC, as established herein, if made public by the administrator, will fulfill the obligation outlined in this item.

6.2.4.7. Publication of the OPAC notice

The OPAC notice must be published within fifteen (15) business days of B's approval.

The **auction** must be held at least fifteen (15) business days and at most thirty (30) business days after publication of the OPAC notice.

If the offer is altered, the **auction** date may be postponed, provided the alteration occurs seven business days after publication of the OPAC notice.

6.2.4.8. Procedure

At least three business days before the auction, B3 notifies the market that registration of offers for the OPAC is authorized.

During the **auction**, B3 may:

I - Generate **trades**;

II - Generate **trades** after pro-rata matching;

III - Convene an **auction** lasting at least fifteen (15) minutes when there are **offers** above the price established in the OPAC notice in order to give the offeror an opportunity to raise the offered price or to enable sellers with higher prices to lower them;

IV - Submit the **asset** to an **auction** lasting at least fifteen (15) minutes when there are competing **offers**;

V - Refrain from generating **trades** and cancel the OPAC in the event of non-compliance with the conditions stated in the OPAC notice or the applicable legislation and regulations.

For items III and IV, the Director of Electronic Trading may establish a new timetable if the price bid or offered improves before the end of the **auction**.

By the fourth business day after the **auction**, the Director of Electronic Trading notifies CVM regarding the number of **trades** executed, the number of shares settled, and the **auction** price.

6.2.4.9. General provisions

At any time B3 may determine:

I - The disclosure of additional information to that required by this trading procedures manual;

II - Suspension of the OPAC if a remediable irregularity occurs, maintaining the suspension until the irregularity is remedied;

6.2.5. Auctions of assets with trading suspended or when the issuer is declared bankrupt or undergoing out-of-court liquidation

B3 may require an **auction** to be held if **trading** in an **asset** is suspended or the **issuer** is declared bankrupt or undergoes out-of-court liquidation, in order to discover the price to be used to close out **derivatives positions** and exclude the **asset** from B3's index **portfolios**, if any.

6.2.5.1. Auction notice information

The **auction** notice must contain the following information and be published at least one business day in advance:

I – The **asset's** ticker;

II – The **order** entry period;

III – The period for modifying and cancelling **asks**;

IV – The date and time of the **auction**;

V – The parameters for considering **trade** and **bid** prices valid for **position** closeout.

Investors who wish to participate in the **auction** must comply with the requirements and deadlines established in the **auction** notice.

6.2.5.2. Procedure

Asks must be registered with the **trading platform** using the ticker specified in the **auction** notice and must state:

I – The number of shares;

II – The price;

III – The **portfolio** code;

IV – The **custody agent**;

V – The **custody account** holding the **investor's** shares.

In the absence of the information required by this trading procedures manual, **asks** will be cancelled by B3 before the start of the **auction**.

After the **ask** entry period and until the start of the **auction**, **investors** who wish to sell may reduce the quantity, improve the price or cancel their **asks**.

Once the **auction** has begun, all registered **asks** are irrevocable and non-withdrawable.

The date and/or time of the deadline for **ask** entry, alteration and cancellation may be extended or changed in connection with adjustments to B3's systems or other factors.

The **auction** will begin with authorization for **ask** entry. **Asks** may be cancelled or changed in compliance with the rules and characteristics applicable to **auction** price formation.

Once the **auction** price has been defined, a new period will begin for alterations to **asks** registered with the **trading platform** for a price above the **auction** price. At the end of this period the **auction** will end.

6.2.5.3. Auctions of securities for repurchase order execution

When required by the Settlement Department, B3 may hold **auctions** of securities for repurchase **order** execution in order to preserve market integrity and liquidity while mitigating systemic risk.

6.2.5.4. Auction notice information

The **auction** notice must contain the following information and be published at least one business day in advance:

I – The **asset's** ticker;

II – The price;

III – The **ask** entry period;

IV – The period for modifying and cancelling **asks**;

V – The date and time of the **auction**;

Holders of **assets** who wish to enter **asks** to participate in the **auction** must transfer their assets to a specific portfolio in B3's **central depository** by the deadline set in the **auction** notice.

6.2.5.5. Procedure

Asks must be registered with the **trading platform** using the ticker specified in the **auction** notice and must state:

I – The number of **assets**;

II – The price;

III – The **portfolio** code;

IV – The **custody agent**;

V – The **custody account** holding the **investor's assets**.

In the absence of the information required by this trading procedures manual, **asks** will be cancelled by B3 before the start of the **auction**.

After the **ask** entry period and until the start of the **auction**, **investors** who wish to sell may reduce the quantity, improve the price or cancel their **asks**.

Once the **auction** has begun, all registered **asks** are irrevocable and non-withdrawable.

The date and/or time of the deadline for **ask** entry, alteration and cancellation may be extended or changed in connection with adjustments to B3's systems or other factors.

The **auction** will begin with authorization for **ask** entry. **Asks** may be cancelled or changed in compliance with the rules and characteristics applicable to **auction** price formation.

Once the **auction** price has been defined, a new period will begin for alterations to **asks** registered with the **trading platform** for a price above the **auction** price. At the end of this period the **auction** will end.

6.3. Auction parameters

6.3.1. Average traded quantity

Asset trades that meet the following average traded quantity criteria in the last thirty (30) **trading sessions** follow the special procedure described below.

Quantity	Duration
Lot starting from twenty times average traded quantity	**Auction** lasting at least five minutes

The above parameter does not apply on the first day of **trading** after a primary or secondary **asset** distribution.

Once an **auction** has been announced because the above average quantity criteria has been reached, the respective quantity becomes the new average quantity for the purpose of submitting **trades** to an **auction** valid for the **trading session** concerned. Transaction volumes from other markets, such as fractional or block trades, will not be considered in the calculation of the average quantity.

6.3.2. Quantity compared with issuer's share capital

Trades that meet the following criteria for quantity compared with the **issuer's** registered share capital, both preferred and common shares, follow the special procedure shown:

Quantity	Duration
Lot between 2% and 4.99% of shares	**Auction** lasting at least fifteen minutes
Lot starting from 5% of shares	**Auction** lasting at least one hour

The **full trading participant** reserves the right to request the holding of a buying, selling or buying and selling **auction**, in quantities lower than those defined above, by means of the publication of the public notice 24 (twenty-four) hours in advance. The duration of the auction must be at least 15 (fifteen) minutes. It is the responsibility of the **full trading participant** to inform B3 if the client is a controlling shareholder.

6.3.3. Specific criteria triggering an auction for quantity

In **trades** involving options on equities, options on BDR and options on Brazilian ETFs, the average traded quantity criterion and the criterion of quantity compared with the **issuer's** registered share capital take into account the quantity of options compared with the registered share capital of the **issuer** of the option **underlying**, in accordance with the parameters used in the cash market.

For **trades** involving **options** on indices, the quantity criteria published on B3's website apply.

The criteria applied to **trades** involving subscription rights or subscription receipts, are average traded quantity and quantity compared with the **issuer's** registered share capital as well as those applicable to the respective shares.

For **trades** in bonus issues or subscription receipts, the percentages used for average traded quantity and quantity compared with the **issuer's** registered share capital are calculated on the quantity of the respective issue of the **assets**.

The following criteria apply to **trades** in BDRs (sponsored and unsponsored):

I - If the quantity of BDRs is equal to or greater than five per cent (5%) of the quantity of shares issued by the foreign company converted into BDRs, the Brazilian market is considered the relevant market and the **trade** is submitted to **auction** in accordance with the quantity criterion (compared with the average quantity traded in the last thirty **trading sessions** and compared with the **issuer's** registered share capital);

II - If the quantity of BDRs is less than five per cent (5%) of the quantity of shares issued by the foreign company converted into BDRs, the Brazilian market is not considered the relevant

market and the **trade** is submitted to **auction** in accordance with the criterion of the average quantity traded in the last thirty **trading sessions** but the criterion of quantity compared with the **issuer's** registered share capital is applied.

The quantity criteria used for shares apply also to **trades** involving investment certificates or closed investment funds.

In **trades** involving units, the percentages used to apply the criterion of quantity compared with the **issuer's** registered share capital are calculated for the share types and classes in the unit, and the most restrictive value is selected for mixed units.

In **trades** involving Brazilian ETFs, average traded quantity is the greater of the following:

I - The average quantity of ETF units traded in the last thirty (30) **trading sessions**; or

II - The quantity of ETF units that corresponds to twenty per cent (20%) of the minimum lot for investment in or withdrawal from the ETF.

In trades involving international ETFs, average traded quantity is the greater of the following:

I - The average quantity of ETF units traded in the last thirty (30) **trading sessions**; or

II - The quantity of ETF units that corresponds to one hundred per cent (100%) of the minimum lot for investment in or withdrawal from the ETF.

Forward funding **trades** that meet the criterion of quantity compared with the **issuer's** registered share capital and require advance publication of an **auction** notice are submitted to an **auction** of at least fifteen (15) minutes.

With regard to forward funding **trades** submitted to **auction** in the **trading system**:

I - B3 sets and announces the ticker for the **auction** and designates the buyer, seller, **asset**, quantity, cash price, expiration and rate;

II - After the **auction**, B3 includes the cash **trade** for the selling **participant** that wins the **auction** at the price and quantity announced in the **auction** notice;

III - The **intervention** criteria are the best rate and the chronological sequence.

6.3.4. Price parameter

To safeguard the process of price formation of assets and derivatives, the mechanism of trading tunnels is used, developed for each product according to its particularities and which is described in a specific item of this trading procedures manual.

For **trades** in **assets** subject to quotation, the quotation parameters and special procedures are available from B3's portal.

6.3.5. Tradability

The following procedures apply to **trades** that meet the tradability criteria listed below:

Tradability	Duration
First **trade** in **asset** on day of admission to **trading**	**Auction** lasting at least fifteen minutes
First **trade** in **asset** if there were no trades on day of admission to **trading**	**Auction** lasting at least fifteen minutes
First **trade** in **asset** after occurrence of **corporate event**	**Auction** lasting at least five minutes

If the **theoretical price** reaches one hundred per cent (100%) above the starting price or fifty per cent (50%) below the starting price, the **auction** is extended for at least fifteen minutes to allow time to notify the market of the new **theoretical price**. For **auctions** held with publication of the **auction** notice, the extension does not apply.

If a **trade** must be submitted to **auction** owing to violation of more than one of the above criteria (price and quantity), the criterion that requires the longer duration prevails.

6.3.6. Splitting of trades

B3's Director of Electronic Trading will carry out a periodic analysis to identify, in the period of up to 5 (five) consecutive trading sessions, situations of concentration of **trades** between two or more **investors** and/or splitting, through one or more **full trading participants**, **trading participants** and/or **foreign participants**. To this end, individuals or legal entities acting on behalf of the same interest are considered to be the same **investor**. Operations carried out in one or more **trading sessions,** that present concentration higher than the constant quantity criterion(s) in this trading procedures manual to which the special procedures have not been applied, will be determined by B3 and reported to CVM for analysis and, if required, will be open a case for the adoption of necessary actions.

In the following situations, there shall be no provision for the adoption of special trading procedures and, therefore, they might not be part of the reporting to CVM:

I - **day trade operations**, which do not show evidence that they were carried out with the intention to transfer positions between two or more **investors**;

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

II - **trades** carried out with **a market-maker** as a counterparty;

III - **trades** involving strategies between **assets** or of **assets** with their derivatives;

IV - situations of increased liquidity of the **asset**, without prejudice to its formation price and market share in the distribution of operations;

V - cross-market financing **operations**;

VI - **trades** whose total financial value is less than R$50,000.00;

VII - **trades** that interacted with the **central order book**, and allowed free possibility interference from other investors, understood as those who were not executed by direct **offers** and did not have the coordinated sending of bids and **offers** to sell with a time difference of less than thirty (30) seconds.

6.3.7. Sale of shares by the controlling shareholder

It will be up to the controlling shareholders to request, from their respective **full trading participant**, **trading participant**, **foreign participant**, the submission of the shares to auction, under the hypothesis that the total to be sold in common shares and/or preferred, including when fractioned in different brokers and within five (5) trading sessions, exceed the parameters of quantity in relation to the company's share capital. The non-compliance with this forecast by the controlling shareholders will be reported to CVM.

Full trading participants or **trading participants**, once triggered by the controlling shareholder of the company to carry out a sale transaction of common and/or preferred shares that exceed the parameters of the percentage of the issuer's share capital, and upon receipt of the before mentioned declaration from the selling **investor**, must request B3 to submit it from paper to auction. Upon receipt of such request, B3 will notify the market by means of a message through their news agency on the sale of shares held by the controlling shareholder, or administrator. The **foreign participant**, once trigegered by the company's controlling shareholder to carry out the transaction, must notify the full **trading participant** so that they can request B3 to submit the share to auction.

In the event of the sale of shareholder control, the controlling shareholder may determine that the operation is carried out by means of an auction with interference only on the buying end, solely for the purchase of the entire lot offered.

6.3.8. General provisions

Full trading participants, **trading participants** or **foreign participants**, when receiving orders that constitute any non-compliance with the assumptions provided for in this manual trading procedures manual, must immediately inform B3 of this fact for the adoption of the measures required in each case.

Regardless of the above criteria, the Director of Electronic Trading may at his sole discretion require a **trade** to be submitted to **auction**:

I - If the lot to be traded is considered atypical;

II - To assure price continuity; or

III - For technical or prudential reasons, in which case the market must be notified in advance.

7. TRADING TUNNELS

Trading tunnels are price or quantity intervals defined by B3 for every **asset** or **derivative**. They apply to both **orders** and **trades**.

B3 uses the following **trading tunnels**:

I - A **rejection tunnel**;

II - An **auction tunnel**;

III - A **protection tunnel** during **auctions** and **calls**.

The parameters for **trading tunnels**, minimum bandwidth, and the list of **assets** and **derivatives** subject to these parameters are available from B3's portal. B3 may alter, revoke or establish new time intervals for recalculation of **trading tunnel** parameters and minimum bandwidth for any **asset** or **derivative**, even during a **trading session**, giving the market advance notice of at least thirty (30) minutes except in the exceptional situations described in this chapter.

7.1. Trading tunnel classification

The **trading tunnels** can be classified as follows:

I - static: limits are static and set in advance by B3, with no change during **trading sessions**;

II - dynamic: limits are dynamic and may change during **trading sessions**; a further subdivision applies:

(a) Synchronous: synchronized with the reference value for the price of a given **asset** or **derivative** in real time during the **trading session**. The reference price is calculated on the basis of (i) the updated last price; (ii) the price of the last **trade**; or in the absence of these, (iii) the closing price or settlement price;

(b) Asynchronous: not synchronized with the price of a given **asset** or **derivative** in real time during the **trading session**. The reference price is based on a calculation methodology adjusted for **trades** in **underlying assets** different from the **asset** or **derivative** concerned.

7.2. Methodology for calculating trading tunnels for markets in options on derivatives and indices, futures, forwards and solutions for block trades

The methodology for calculating **auction** and **rejection tunnels** for **assets** and **derivatives** is based on the reference price for the **asset** or **derivative** with the highest liquidity or the **underlying asset**.

7.2.1. Derivatives auction and rejection tunnel methodology

The methodology uses the prices of actual **trades** in the most liquid contract months as a basis for dynamic updating of the reference price (tunnel center) to calculate **auction** and **rejection tunnels** for the less liquid contract months, as follows:

I - Pivot point: the contract month considered most liquid and used as a basis for updating the other contract months, considered less liquid.

a) Curve Pivot:

The interpolation method will be used as the algorithm for constructing interest rate curves denominated in the local currency of the country of origin, based on net maturities.

The derivatives indicated as pivots will be those with maturities in the first two months, as well as those maturing in January, April, July, and October that show high liquidity according to B3's analysis. Starting from the first contract considered a pivot, exponential interpolation of maturities will be performed until the next pivot maturity. When the term structure of interest rates does not cover the entire time horizon to be analyzed, it will be necessary to extrapolate the constructed curve.

The definitions of the maturities that will actually be used as pivots, as well as the interpolation and extrapolation formulas for calculating the reference price for other maturities, are available on B3's website.

b) First Maturity Pivot or Most Liquid Maturity:

The calculation method based on the adjustment price differential between maturities uses the first maturity as the pivot or the maturity(ies) considered most liquid by B3.

First, the difference between the adjustment prices of each maturity and the pivot maturity's adjustment price ("adjustment differential") is calculated. For each update of the pivot maturity's tunnel center, the tunnel centers of the other maturities are recalculated by adding the adjustment differential to the new pivot tunnel center.

The definitions of the maturities that will actually be used as pivots are available on B3's website.

II - Update period: the period during which the system updates the tunnel center, regardless of fluctuations in the price of the **asset** or **derivative**.

III - Update percentage: the percentage that triggers a tunnel center update, calculated on the latest calculated price or, failing that, on the settlement price.

IV - Differential: the tunnel center is calculated on the basis of the differential between the settlement prices for contract months of the same commodity.

The methodology for each of the assets and derivatives is available on B3's website.

7.2.1.1. General considerations

If the inputs to the methodology described in this trading procedures manual are unavailable or only partially available, and/or if events of an economic or operational nature might adversely affect synchronization of the prices calculated or application of the corresponding methodology, B3 may at its sole discretion arbitrate the tunnel center.

7.2.2. Methodology for calculating options auction and rejection tunnels

The procedures for determining **auction tunnels** and **rejection tunnels** for options involve the following definitions:

I - Volatility: Volatility surfaces, available from B3's portal, are required to calculate **auction tunnels** and **rejection tunnels** for options contracts. Volatilities may be updated during a **trading session** by the Director of Electronic Trading. The list of contracts that fall under this methodology is available on B3's website

II - Underlying price: Underlying price highs and lows in the current **trading session** are tracked for a period for the purpose of calculating tunnels. This interval for each **underlying** is available on B3's website. Options on instruments belonging to the cash equities market use the traded price of their respective **underlying** during the trading session.

Depending on the option, the calculation of the **underlying** price may consider:

i. the differential between the settlement prices of the longest and shortest maturities;

ii. a synthetic settlement price using interpolation between the settlement prices of the maturities available for trading;

iii. for options whose maturity has the **underlying** defined as the pivot, the prices traded during the **trading session**; for other maturities, the sum of the settlement price differentials and the price at which the pivot **underlying** was traded;

iv. for some interest rate options, the DI1 and OC1 rates traded in the current trading session and the spot index;

v. percentage values defined by B3 on the option premiums disclosed on B3's website;

vi. for the calculation of the underlying of the interest rate decision option, the variation of the target rate defined in the meetings of the competent Committees of each Central Bank and disclosed by these committees;

vii. Index Options.

The methodology for calculating the underlying price is similar to the methodology for calculating the underlying price for options on futures contracts, in which the difference

between the settlement prices of the indices and the pivot index (most liquid month) is calculated and this difference is added to the last traded price of the pivot index.

To calculate the underlying price of an index with an odd-month maturity or weekly maturity, the settlement prices between the two indices with the closest maturities must be interpolated to find its value and apply the methodology described in the paragraph above. Interpolation applies to all weekly options whose underlying has already expired in the current month.

The definitions of the maturities that will effectively be used as pivots are available on B3's website.

III - Volatility shock: An absolute value or percentage added to or subtracted from the volatility of an option. Volatility shocks for the upper and lower tunnel limits may differ.

IV - Minimum bandwidth (MB): An absolute value added to and subtracted from the tunnel center (calculated on the basis of volatility shock).

The **underlying's** price low for a given period is inserted into the call option pricing formula to determine the lower limit of the **auction tunnel**. Analogously, the **underlying's** price high for a given period is inserted into the put option pricing formula. The volatility inserted into the call and put option pricing formulas is subjected to a downside volatility shock.

The same method determines the lower limit of the **rejection tunnel**, using a different volatility percentage from that used for the **auction tunnel**.

The **underlying's** price high for a given period is inserted into the call option pricing formula to determine the upper limit of the **auction tunnel**. Analogously, the **underlying's** price low for a given period is inserted into the put option pricing formula. The volatility inserted into the call and put option pricing formulas is subjected to an upside volatility shock.

The same method determines the upper limit of the **rejection tunnel**, using a different volatility percentage from that used for the **auction tunnel**.

For options with single-scenario exercise and continuous exercise options, the price high of the upper limit of the **rejection tunnel** and the lower limit of the rejection tunnel will be 100 points, considering the characteristics of the product.

The tunnels used are the calculated tunnels with the greatest difference between minimum bandwidth (MB) and volatility shock.

The parameters used as well as the list of contracts that fall under the methodologies above are available from B3's portal.

If the inputs to the methodology described in this trading procedures manual are unavailable or only partially available, and/or if events of an economic or operational nature might adversely affect synchronization of the prices calculated or application of the corresponding methodology, B3 may at its sole discretion arbitrate the parameters for tunnel calculation during a **trading session** without advance notice to the market.

Underlying asset prices are determined by different methodologies in accordance with the type of instrument, as described in the contracts of the products.

7.2.2.1. General considerations

If the inputs to the methodology described in this trading procedures manual are unavailable or only partially available, and/or if events of an economic or operational nature might adversely affect synchronization of the prices calculated or application of the corresponding methodology, B3 may at its sole discretion arbitrate the parameters for tunnel calculation during a **trading session** without advance notice to the market.

7.2.3. Rejection tunnel methodology for market in forwards

The methodology for calculating **rejection tunnels** for the market in forwards is based on the criteria described below.

The reference rate is found by interpolating the previous day's DI x fixed rate calculated by B3 between the dates nearest to the forward's expiration date.

Rejection tunnel parameters are checked when declarations are registered.

7.2.3.1. Price parameter validation

Applies to the value entered in the declaration's price field, which reflects the value of the instrument on the cash market before the forward's interest rate is added.

Price limits can be configured automatically or manually:

I - Automatic: Price high and low parameters automatically follow **trading** in the **underlying** on the cash market.

II - Manual: Price high and low parameters are defined by B3, regardless of the **underlying's** price high and low values.

The expirations used as pivots and the formula for calculating price highs and lows are available from B3's portal.

7.2.3.2. Rate parameter validation

Applies to the previous day's DI x fixed rate interpolated between the nearest dates to the forward expiration date.

After definition of time to expiration, upper and lower tunnel limits are calculated using the premium and discount values allowed by B3.

The formula for calculating maximum and minimum rates using declared time to expiration and DI x fixed rate variation is available from B3's portal.

7.2.3.3. General considerations

If the inputs to the methodology described in this trading procedures manual are unavailable or only partially available, and/or if events of an economic or operational nature might adversely affect synchronization of the prices calculated or application of the corresponding methodology, B3 may at its sole discretion arbitrate the tunnel center.

7.2.4. Methodology of auction and rejection tunnels for trading in the block trades solution

All solutions for trading block trades will receive the **closing price** of their **underlying**.

The auction and rejection tunnels for trading in Midpoint's block trade solutions, Request For Quote (RFQ) and Book of Block Trade (BBT) will be applied as follows.

7.2.4.1. Auction and rejection tunnel methodology for Midpoint order

The following definitions will apply to the **assets** traded through the Midpoint **order**:

I - The **assets** will not have their own **auction** and rejection tunnels. The tunnels of the **underlying** will be respected.

II - **Orders** whose limit price set by the **participant** violates the rejection tunnels of the **underlying** will be automatically rejected by the **trading system**.

7.2.4.2. Auction and rejection tunnel methodology for the Request For Quote (RFQ) solution

The following settings will apply to **assets** traded in the Request for Quote (RFQ) solution:

I - The traded **assets** are not subject to auction tunnels.

II - **Assets** will have their own rejection tunnels, based on the **reference price** of the **underlying** and the parameters published on B3's website.

7.2.4.3 Auction and rejection tunnel methodology for the Book of Block Trade (BBT) solution

The following settings will apply to assets traded in the Book of Block Trade (BBT) solution:

I - The traded **assets** are not subject to auction tunnels.

II - **Assets** will have their own rejection tunnels, based on the reference price of the underlying and the parameters published on B3's website.

7.2.5. Methodology for calculating auction and rejection bands for user-defined strategies in the market

The calculation of user-defined strategy bands will be executed upon creation of the strategy or when there is a variation in the value of the constituent contracts. The procedures for determining **auction** and rejection bands for user-defined strategies include the following definitions:

I - Individual components - buy: total quantity of individual components with a buy **operation** nature, which are defined at the time of the user-defined strategy creation.

II - Individual components - sell: total quantity of individual components with a sell **operation** nature, which are defined at the time of the user-defined strategy creation.

III - Upper and lower limit values (**auction** and rejection) for each individual component (buy and sell).

IV - Tick size value for each individual component (buy and sell).

V - Ratio value for each individual component (buy and sell): determined at the time of the user-defined strategy creation, representing the proportion of each individual component's quantity in relation to the total quantity of the strategy.

VI - Minimum bandwidth (MB): an absolute value defined for the **auction** and rejection bands, which will be added and subtracted from the center of the band to adjust the minimum bandwidth.

For the upper bands of the user-defined strategy's **auction** and rejection, the differential is calculated between (i) the sum of the upper limits of each leg with a buy **operation** nature, subtracting the value of the leg's tick size, multiplied by its respective ratio, and (ii) the sum of the lower limits of each leg with a sell **operation** nature, adding the value of the leg's tick size, multiplied by its respective ratio. At the end of this calculation, the value of a minimum price variation is added.

For the lower bands of the user-defined strategy's **auction** and rejection, the differential is calculated between (i) the sum of the lower limits of each leg with a buy **operation** nature, adding the value of the leg's tick size, multiplied by its respective ratio, and (ii) the sum of the upper limits of each leg with a sell **operation** nature, subtracting the value of the leg's tick size, multiplied by its respective ratio. At the end of this calculation, the value of a tick size is subtracted.

7.3. Rejection tunnels

Rejection tunnels are price or quantity variation intervals established by B3 to prevent registration of **asks** above a certain price and **bids** below a certain price.

For **assets** traded on the **exchange market**, B3 may change or revoke **rejection tunnels**, or establish a new interval for recalculation of their parameters and minimum bandwidth, even during the course of a **trading session** or **auction**. The market may be forewarned five minutes in advance of such changes.

The parameters for **rejection tunnels** are available from B3's portal.

There are five types of **rejection tunnel**, as follows:

I - **Type 1 rejection tunnel** (based on closing price, reference price or settlement price): designed to control price variation above or below a preset value;

II - **Type 2 rejection tunnel** (based on last price, updated last price, reference price or price of the option's **underlying** and volatility shock): prevents **registration** of **asks** at or above a certain price and **bids** at or below a certain price;

III - **Type 3 rejection tunnel** (based on the price of the last **trade** in the option's **underlying**): applicable to options on an underlying asset listed in the equity cash market prevents exercise of call **options** priced above a certain limit and exercise of put **options** priced below a certain limit;

IV - **Type 4 rejection tunnel** (based on quantity for a single **order**): rejects **orders** for more than a specified quantity;

V - **Type 5 rejection tunnel** (based on price of **underlying** and remuneration rate): rejects forward declarations for equities with a remuneration rate or price above a certain limit.

7.3.1. Type 1 rejection tunnel (based on closing price, reference price or settlement price)

The type 1 **rejection tunnel** is applied during **trading sessions**, and its center is determined as follows:

I - During a regular **trading** period and **after-market** period, the center of the type 1 **rejection tunnel** is the **assets** or structured transactions adjusted closing price or reference price, or the **derivative's** settlement price in the previous **trading session**;

II - During an **after-hours** period, the center of the type 1 **rejection tunnel** is the settlement price;

III - For forwards, the center of the type 1 **rejection tunnel** is the **asset's** adjusted closing price in the previous **trading session**; and

IV - For Trade at Settlement structured transactions, the center of the type 1 rejection tunnel is equivalent to zero reference price.

When necessary, the lower limit of the type 1 **rejection tunnel** may be rounded up to decimal places for **assets** traded on the exchange market. For **derivatives**, the rounding criterion is based on tick size.

The following **order** types are automatically rejected by the **trading system** because they violate the limits of the type 1 **rejection tunnel**:

I - Valid **asks** at a higher price than the upper limit;

II - Valid **bids** at a lower price than the lower limit;

III - Day **orders** priced above the upper limit or below the lower limit;

IV - Day stop **orders** priced above the upper limit or below the lower limit.

When the trigger price is reached, registered GTC and GTD **orders** priced outside the type 1 **rejection tunnel** are automatically adjusted by the **trading system** as follows:

I - **Asks** have their price adjusted to the upper limit of the tunnel;

II - **Bids** have their price adjusted to the lower limit of the tunnel;

III - If the **auction tunnel** limits overlap with the type 1 **rejection tunnel** limits, the **trading system** automatically applies the type 1 **rejection tunnel** limits.

The type 1 **rejection tunnel** is applied individually to each **asset** and **derivative**.

The type 1 **rejection tunnel** limits for **derivatives** do not apply only in the last **trading session** of the contract month, except in the case of: (i) Trade at Settlement structured transaction; (ii) commodity **derivatives**, for which the limits are suspended from the third business day prior to the expiration date, and the agricultural **derivatives** with **settlement** by physical **delivery**, Anhydrous Fuel Ethanol, and Corn Price Basis Futures CTM (Triângulo Mineiro, MG), COP (Cascavel, PR) and CRV (Rio Verde, GO), for which the limits are suspended from the third business day prior to the first day of the **delivery notice** presentation period and (iii) further commodity derivatives, for which the limits are suspended from the third business day prior to the settlement date.

7.3.2. Type 2 rejection tunnel (based on last price, last updated price, reference price or price of the option's underlying and volatility shock)

The type 2 **rejection tunnel** is applied during **trading sessions**. The tunnel is not applied during opening **calls**, closing **calls** and **auctions**.

For **derivatives** for which the first **trade** of the day is submitted to **auction**, the type 2 **rejection tunnel** is applied only after execution of the first **trade**.

The center of the type 2 **rejection tunnel** is determined as follows.

During the regular **trading** period, the **after-market** period (extended hours) and the **after-hours** period, the center of the type 2 **rejection tunnel** is defined in accordance with the **asset** and/or **derivative**, complying with these criteria:

I - For **assets**, the tunnel center is the adjusted closing price before execution of the first **trade** of the day, and the price of the last **trade** thereafter;

II - For **derivatives** referenced in indices, rates, foreign currencies, commodities and swaps, the tunnel center is the settlement price or reference price, or the closing price in their absence, before execution of the first **trade** of the day, and thereafter it is the price of the last **trade** or the reference price, whichever is more recent;

III - For **derivatives** referenced in indices, rates, foreign currencies, commodities and swaps, if the first **trade auction** rule is not activated the tunnel center is the settlement price before execution of the first **trade** of the day or the best **bid** or **ask** if either is better than the settlement price, and thereafter it is the price of the last trade or the best **bid** or **ask** if either is better than

the price of the last **trade**, except for foreign currencies and USD futures (standard and mini contracts) with medium to low liquidity;

IV - For ETFs, the tunnel center is the IOPV referring to the adjusted closing price in the **trading session** prior to execution of the first **trade** of the day. After execution of the first **trade**, it is the price of the last **trade** or the IOPV, whichever is more recent, the IOPV being updated whenever positive or negative variation of pre-established percentage published on the B3 website, applied to the last baseline price occurs;

V - For unsponsored BDRs, the tunnel center before execution of the first **trade** of the day is the adjusted price of the **underlying**, equivalent to the price of the last **trade** in the BDR's **underlying** on its market of origin divided by parity. Because the price of the **underlying** is quoted in the currency of the origin country B3 uses the spot quotation of the currency of the origin country to translate into Brazilian Reais (BRL) the price of the last trade in the **underlying** on its home market. After execution of the first **trade** of the day, the tunnel center is the adjusted price of the **underlying** or the price of the last **trade** in the unsponsored BDR, whichever is more recent. If positive or negative variation of pre-established percentage published on the B3 website, applied to the adjusted price of the **underlying** occurs, this adjusted price is recalculated and used as a base price for ensuing **trades**;

VI - For the options market, the type 2 **rejection tunnel** is calculated using the procedures described in item 7.2.2 of this trading procedures manual;

VII - For contracts referenced in exchange rates, except US Dollar futures (standard and mini contracts), the tunnel center for the first **trade** of the day and the first contract month is the **observed market price** (obtained by the parity between the USD and each **foreign currency** available for **trading**, with the same exception, using the spot quotation in accordance with the international convention for the currency concerned) translated into BRL at the exchange rate observed in the most liquid US Dollar futures contract month; and for all other contract months, the price of the first contract month plus the adjustment difference between the contract month in question and the first US Dollar futures contract month. For other **trades** during the day, the tunnel center is the **observed market price** or the price of the last **trade**, whichever is more recent;

VIII - For futures contracts on **assets** belonging to the equity cash market, the tunnel center before execution of the first **trade** of the day is the **observed market price** or in its absence the settlement price. After execution of the first **trade** of the day, the tunnel center is the price of the last **trade** or the **observed market price**, whichever is more recent. The calculation model of the **observed market price** for these contracts is defined by the price of the last **trade** in the **underlying,** the previous day's fixed DI interest rate and the registered lending rate

disclosed by B3. The **observed market price** is updated whenever positive or negative variation in the price of the **underlying occurs,** following the parameters available on B3's portal;

IX - For U.S. Dollar "Casado", the type 2 **rejection tunnel** center will be, before execution of the first **trade** of the day, the reference price, available on B3's portal, calculated for the BRL/USD U.S. Dollar "Casado" indicator;

X - For futures contracts referenced in cryptocurrency index, the type 2 **rejection tunnel** center will be, for the first **trade** of the day, the observed market price, given by the price of the USD translated into BRL, for all maturities authorized for trading at the exchange rate observed in the most liquid US Dollar futures contract month. For other **trades** during the day, the type 2 rejection tunnel center will be the observed market price or the price of the last **trade**, whichever is more recent; and

XI - For futures contracts referenced to cryptocurrency indices quoted in United States dollars, the rejection tunnel center type 2 will be, for the first **operation** of the day, the observed market price, given by the reference index price in United States dollars. For the remaining **operations** of the day, the rejection tunnel center type 2 will be the most recent price between the observed market price and the price of the last **operation**.

Whenever necessary, the upper limit of the type 2 **rejection tunnel** is rounded up and the lower limit rounded down to two decimal places for **assets** traded on the exchange market. The rounding method used for **derivatives** is based on tick size.

The following **order** types are automatically rejected by the **trading system** because they violate the limits of the type 2 **rejection tunnel**:

I - **Bids** priced at or above the upper limit of the tunnel;

II - **Asks** priced at or below the lower limit of the tunnel;

III - Stop **bids** for which the difference between the price limit and the trigger price is equal to or higher than the difference between the upper limit of the type 2 **rejection tunnel** and the price of the last **trade**;

IV - Stop **asks for which** the difference between the price limit and the trigger price is equal to or higher than the difference between the lower limit of the type 2 **rejection tunnel** and the price of the last **trade**.

For **assets** and **derivatives** traded on the exchange market, B3 may change or revoke the type 2 **rejection tunnel** or establish a new interval for recalculation of its parameters and minimum bandwidth, even during the course of a **trading session**. Changes may be made without advance notice to the market, in which case they are communicated after implementation.

7.3.3. Type 3 rejection tunnel (based on the price of the last trade in the option's underlying)

The type 3 **rejection tunnel** is applied during **trading sessions** to the exercise of options on equities, options on BDRs and options on ETFs. The tunnel center is determined as follows.

I - Before execution of the first **trade** of the day in the option's underlying, the tunnel center is the adjusted closing price of the option's underlying in the previous **trading session**;

II - After execution of the first **trade** of the day in the option's **underlying**, the tunnel center is the price of the last trade in the option's **underlying**.

The following exercise requests are automatically rejected by the **trading system** because they violate the limits of the type 3 **rejection tunnel**:

I - Requests to exercise call options on equities, BDRs and ETFs with price fluctuations above a certain percentage of the tunnel center;

II - Requests to exercise put options on equities, BDRs and ETFs with price fluctuations above a certain percentage of the tunnel center.

7.3.4. Type 4 rejection tunnel (based on the quantity of a single order)

The type 4 **rejection tunnel** is applied during **trading sessions**.

Bids and **asks** for quantities that violate the limits of the type 4 **rejection tunnel** are automatically rejected by the **trading system**.

7.3.5. Type 5 rejection tunnel (based on price of underlying and remuneration rate)

The type 5 **rejection tunnel** is applied during **trading sessions** in the market for forwards, except **derivatives** of swaps. It has the following characteristics:

I - With regard to price: The upper limit of the tunnel is the price high of the forward's **underlying** and the lower limit is the price low of the forward's **underlying**;

II - With regard to the remuneration rate: The tunnel center is the settlement price of the One-Day Interbank Deposit Rate Futures Contract (DI1) with the expiration date closest to the expiration of the forward, plus a percentage spread set by B3 and available on its portal.

Forward declarations that violate the limits of the type 5 **rejection tunnel** are automatically rejected by the **trading system**. B3 may at its sole discretion allow registration of forward declarations that do not comply with the tunnel limits.

7.4. Auction tunnels

There are four types of **auction tunnel**:

I - **Type 1 auction tunnel** (based on opening price): triggers an **auction** when an **order** that is being matched reaches a tunnel limit based on opening price;

II - **Type 2 auction tunnel** (based on the price of the last **trade**, updated last price, settlement price or reference price): triggers an **auction** when an **order** that is being matched infringes a tunnel limit based on the price of the last **trade**, updated last price, settlement price or reference price;

III - **Type 3 auction tunnel** (based on the weighted average price): triggers an **auction** when an **order** that is being matched infringes a tunnel limit based on the weighted average price of **trades** recalculated for a time interval set by B3;

IV - **Type 4 auction tunnel** (based on average traded quantity or **issuer's** share capital): triggers an **auction** when an **order** that is being matched infringes a tunnel limit based on average traded quantity or quantity compared with the **issuer's** registered share capital.

The parameters of **auction** tunnels are available from B3's portal.

If a **trade** is about to be matched outside the **trading** tunnel in the market for options on **assets** or **derivatives**, it is submitted to an **auction** lasting at least two minutes.

Whenever necessary, the upper limit of an **auction** tunnel is rounded up and the lower limit rounded down in accordance with tick size for the **asset** or **derivative** concerned.

7.4.1. Type 1 auction tunnel (based on opening price)

The type 1 **auction tunnel** has different limits for the **regular trading period** and the **after-market** period. The tunnel is not applied during **opening calls**, **intermediate calls**, **closing calls**, and **auctions**.

The center of the type 1 **auction tunnel** is determined as follows.

I - Before execution of the first **trade** of the day, the tunnel center is the **asset's** adjusted closing price, and thereafter it is the opening price;

II - If an **auction** is held during the **regular trading period** because tunnel limits are violated, the tunnel center is the price resulting from the **auction** held;

III - During the **after-market period**, the tunnel center is the price of the last **trade** in the **asset** executed in the **regular trading period**.

If a **trade** is about to be matched (i) at a price equal to or above the upper limit of the type 1 **auction tunnel** or (ii) at a price equal to or below the lower limit of the type 1 **auction tunnel**, an **auction** is automatically triggered.

The minimum bandwidth of the tunnel for **assets** traded on the cash market (round lots and odd lots) corresponds to twice the tick size available from B3's portal.

During the **after-market period**, if the price of an aggressing **order** violates the type 1 **auction tunnel** (at the moment of matching the **trade** based on the price of the aggressed **order**), the aggressing **order** is rejected. If the price of the aggressing **order** does not violate the type 1 **auction tunnel**, the aggressing **order** is registered and the status of the asset changes to **order** cancellation. Cancellation is permitted only if the **order** concerned is not participating in the formation of the **theoretical price** of the **auction**.

7.4.2. Type 2 auction tunnel (based on last trade price, updated last price, settlement price or reference price)

The type 2 **auction tunnel** is applied during trading **sessions**. The tunnel is not applied during **opening calls**, **intermediate calls**, **closing calls**, and **auctions**.

For **derivatives** for which the first **trade** of the day is submitted to **auction**, the type 2 **auction tunnel** is applied only after execution of the first **trade**.

The center of the type 2 **auction tunnel** is determined in accordance with the **asset** or **derivative**, observing these criteria:

I - Before execution of the first **trade**, the tunnel center is the **derivative's** settlement price and thereafter it is the price of the last trade in the **derivative**;

II - Before execution of the first **trade**, the tunnel center is the **derivative's** settlement price, or the best **bid** or **ask** if this is better than the settlement price. After execution of the first **trade**, the tunnel center is the price of the last **trade** in the **derivative**, or the best **bid** or **ask** if this is better than the price of the last **trade**;

III - The tunnel center is the price of the last **trade**, or in its absence the **asset's** adjusted closing price in the previous **trading session**;

IV - For **options**, the tunnel is calculated in accordance with the procedure described in item 7.2.2 of this trading procedures manual;

V - For ETFs, the tunnel center is the IOPV before execution of the first **trade** and thereafter the price of the last trade in the ETF or the IOPV, whichever is more recent, with the IOPV being updated whenever a positive or negative variation of pre-established percentage published on the B3 website, applied to the last price occurs;

VI - For unsponsored BDRs, the tunnel center before execution of the first **trade** is the **underlying's** adjusted price, equivalent to the price of the last **trade** in the BDR's **underlying** on its market of origin divided by parity. After execution of the first **trade**, the tunnel center is the **underlying's** adjusted price or the price of the last **trade** in the unsponsored BDR, whichever is more recent. If positive or negative variation of pre-established percentage published on the B3 website, applied to the **underlying's** adjusted price occurs, this adjusted price is recalculated and used as a baseline price for ensuing **trades**;

VII - For contracts referenced in exchange rates, except US Dollar futures (standard and mini contracts), the tunnel center for the first **trade** of the day and the first contract month is the **observed market price** (obtained by the parity between the USD and each **foreign currency** available for **trading**, with the same exception, using the spot quotation in accordance with the international convention for the currency concerned) translated into BRL at the exchange rate observed in the most liquid US Dollar futures contract month; and for all other contract months, the price of the first contract month plus the adjustment difference between the contract month in question and the first US Dollar futures contract month. For other **trades** during the day, the tunnel center is the **observed market price** or the price of the last **trade**, whichever is more recent;

VIII - For futures contracts on **assets** belonging to the equity cash market, the tunnel center before execution of the first **trade** of the day is the **observed market price** or in its absence the settlement price. After execution of the first **trade** of the day, the tunnel center is the price of the last **trade** or the **observed market price**, whichever is more recent. The calculation model of the **observed market price** for these contracts is defined by the price of the last trade in

the **underlying**, the previous day's fixed DI interest rate and the registered lending rate disclosed by B3. The **observed market price** is updated whenever positive or negative variation in the price of the **underlying** occurs, following the parameters available on B3's portal;

IX - For U.S. Dollar "Casado", the type 2 **auction tunnel** center will be, before execution of the first **trade** of the day, the reference price, available on B3's portal, calculated for the BRL/USD U.S. Dollar "Casado" indicator;

X - For futures contracts referenced in cryptocurrency index, the type 2 rejection tunnel center will be, for the first **trade** of the day, the observed market price, given by the price of the USD translated into BRL, for all maturities authorized for trading at the exchange rate observed in the most liquid US Dollar futures contract month. For other **trades** during the day, the type 2 rejection tunnel center will be the observed market price or the price of the last **trade**, whichever is more recent; and

XI - For futures contracts referenced to cryptocurrency indices quoted in United States dollars, the rejection tunnel center type 2 will be, for the first **operation** of the day, the observed market price, given by the reference index price in United States dollars. For the remaining **operations** of the day, the rejection tunnel center type 2 will be the most recent price between the observed market price and the price of the last **operation**.

If a **trade** is about to be matched at a price equal to or above the upper limit of the type 2 **auction tunnel**, or at a price equal to or below the tunnel's lower limit, an **auction** is automatically triggered.

Registered stop **orders** whose trigger price is reached during an **auction** are activated immediately after the **auction** ends. However, if at the end of the auction the **trading** phase or **asset's** status does not permit **order registration**, all stop **orders** eligible for activation are canceled.

Stop **orders** that are activated after an **auction** follow the chronological sequence in which they were registered.

The minimum amplitude parameters of the type 2 auction tunnel for assets traded in the spot market (standard lot and fractional lot) and for option tunnels are available on the B3 website.

7.4.3. Type 3 auction tunnel (based on weighted average price)

The type 3 **auction tunnel** is applied during **trading sessions.** The tunnel is not applied during **opening calls**, **intermediate calls**, **closing calls**, and **auctions**.

The type 3 **auction tunnel** center will be defined by the weighted average price of **trades** in the **asset** or **derivative** recalculated for the time interval set by B3, observing the following criteria:

I - The price of the last **trade** if no **trades** are executed during the recalculation period;

II - The closing price or settlement price of the **asset** or **derivative** if no **trades** are executed during the **regular trading period** and **after-hours period**;

III - For **derivatives** without a settlement price:

(a) The first **trade** is submitted to **auction**; or

(b) The tunnel center is the reference price arbitrated by B3.

If B3 deems it necessary, it may use an external reference price to update the center of the **tunnel**. In this case, the center of the type 3 **auction tunnel** would be the most recent value between the weighted average price of **trades** in the **asset** or **derivative**, recalculated in the time interval(s) defined by B3, and an external reference price captured from the market of origin of the **asset** or **derivative** periodically, respecting the following specificities regarding the external reference price:

I - for ETFs, IOPV is used, applied to the center of the **tunnel** whenever a positive or negative variation by a pre-established percentage published on the B3 website applied to the last price is observed;

II - for non-sponsored BDRs, the price of the BDR's **underlying asset** in its market of origin is used, adjusted by parity, being applied to the center of the **tunnel** when a positive or negative variation occurs by a pre-established percentage published on the B3 website applied to the last price;

III - for contracts referenced in foreign currencies, is used the parity between the USD and each foreign currency available for trading, with the same exception, using the spot quotation in accordance with the international convention for the currency concerned) translated into BRL (when required by the contract specification) at the exchange rate observed at maturity most liquid commercial real-dollar exchange rate futures contract. The value is applied to the center of the **tunnel** when there is a positive or negative variation of 0.5% (half percent). Future contracts for the exchange rate of reais per commercial dollar do not fall under this rule, such as the mini futures contract for the exchange rate of reais per commercial dollar;

IV - for the futures contract on **assets** belonging to the equity cash market, is used a price based on the last transaction carried out on the **underlying** asset, at the prefixed DI interest rate of the previous day and at the registered loans, disclosed by B3, being applied to the center of the **tunnel** whenever positive or negative variation occurs 0.5% (half percent).

If a **trade** is about to be matched at a price equal to or above the upper limit of the type 3 auction tunnel, or at a price equal to or below the tunnel's lower limit, an **auction** is automatically triggered.

7.4.4. Type 4 auction tunnel (based on average traded quantity or quantity compared with issuer's share capital)

The type 4 **auction tunnel** is applied during **trading sessions.** The tunnel is not applied during **opening calls**, **intermediate calls**, **closing calls**, and **auctions**.

Type 4 **auction tunnel** limits are calculated considering the lower of these two values: (i) the average traded quantity for **assets** or options **derivatives** referenced in **assets** belonging to the equity cash market in the last thirty (30) **trading sessions**; or (ii) quantity compared with the **issuer's** registered share capital.

Trades in **assets** or options referenced in equities, on **assets** belonging to the equity cash market that violate type 4 **auction tunnel** limits immediately trigger an **auction**, except forward declarations, which are rejected.

7.5. Protection tunnels during calls and auctions

Protection tunnels are based on the price of the last **trade**, closing price, reference price, settlement price or updated last price before the start of an **auction** or **call** (opening **calls** and closing **calls**), and on average traded quantity, the **issuer's** registered share capital, the sum total of **bids** and **asks**, or the maximum quantity for participation by a **full trading participant** after the start of the **auction**.

B3 postpones the end of a **call** or **auction** and informs the market of the new closing time if either of the following situations occurs during a **call** or during an **auction** of **assets** or **derivatives**:

I - If the **theoretical price** of the **asset** or **derivative** is above the upper limit or below the lower limit of the **protection tunnel**; or

II - If theoretical quantity exceeds the **protection tunnel** parameter.

The tables with the parameters used to calculate **protection tunnels** are available from B3's portal. If B3 changes these parameters, it will inform participants in an external communication.

B3 may alter, revoke or establish new parameters for the **protection tunnel** during the course of a **trading session** without notifying the market in advance.

8. BLOCK TRADES OF SECURITIES

The trading of **assets** in block trades is carried out based on buy and sell **orders** or based on quotation requests to the market registered in B3's **trading system** by the authorized **participants**, in compliance with the provisions contained in this trading procedures manual.

The list of **assets** admitted to trading in block trades and corresponding minimum lots of trading are available on the B3 website. This relationship will comply with the criteria set out in the CVM Resolution number 135/22 regarding the assets that can be traded in operations with block trades and respective minimum lots, which will be disclosed periodically by CVM, which may complement or amend the list of **assets**, as well as their respective minimum lots.

The trading of in block trades must comply with the provisions of special procedures for provided for in this trading procedures manual. Therefore, if the volume to be transacted exceeds the parameters once established, the trade shall be submitted to auction on the instrument traded in the central book of offers.

8.1. Midpoint order

The Midpoint **order** has the following features:

I - the Midpoint **order** can match and be matched by **orders** exclusively of the same type (Midpoint);

II - the coding of the **assets** follows the format of the **underlying** plus the letter M at the end of the trading code, as described in Chapter I (Stock Exchange Market) of Title III (Markets Organized) of this trading procedures manual;

III - the Midpoint **order** price is calculated by the **trading platform**, continuous and automatically, to reflect the arithmetic mean of the price of the best buy **order** and the price of the best sell **order underlying** visible in the **central order book**. In absence of the information of such prices for the calculation of the arithmetic mean, the Midpoint **order** is disabled;

IV - the **participant** must set a limit price for closing deals, which will be used exclusively as a reference for the validity of the Midpoint **order**;

V - the Midpoint **order** can only be registered with validity for the day;

VI - the minimum execution lot of the Midpoint **order** corresponds to the minimum quantity of trading disclosed on B3's website, in accordance with CVM's guidelines, regarding assets that can be traded in operations with block trades and respective minimum lots. In case of partial execution

of the Midpoint **offer** with a remaining balance smaller than the minimum lot, the balance will be canceled;

VII - considering the prices of the best buy **order** and the best sell **order** of the **central offer book** for calculating the price of the Midpoint **order** and the entry of an aggressive Midpoint **order**:

a) Midpoint **orders** are eligible for matching in situations where that the arithmetic mean of the prices of the best **bid** and the best **ask** of the **central order book** respect the price limit set by the participant, that is, Midpoint buy **orders** with an execution price lower or equal to the limit price or Midpoint sell **orders** with an execution price greater or equal to the limit price;

b) The execution priority considers the chronological order of the **orders**; and

c) If the arithmetic average of the prices of the best buy **order** and the best sell **order** (Midpoint) from the **central order book** is not a multiple of the minimum variation of outcry, two trades will be executed, with half of the quantity traded at a price immediately below the Midpoint and multiple of the minimum tick size, and the other half of the quantity traded at a price immediately above the Midpoint and multiple of the minimum tick size.

IX - the Midpoint **order** is not displayed in the Market Data in the **central order book**. Disclosure of information via Market Data occurs immediately after the closing of the **operations**. Trades made will be disclosed immediately after closing of the operation, accompanied by the information of instrument, price, quantity, side of the operation and intermediary.

X - For Midpoint **orders**, it will not be possible to send cross **orders** within the scope of the Chapter III, Section 4.3.3.

8.2. Request for Quote (RFQ)

The RFQ solution allows a full **trading participant** to request buy or sell quotes for a specific **asset**. The **trading participant** who wishes to use this feature must make the request through the **full trading participant** to whom they are linked.

The coding of the **assets** follows the format of the target asset, plus the letter 'R' at the end of the trading code, as described in Chapter I (Exchange Market) of Title III (Organized Markets) of this trading procedures manual.
The request for quotation occurs as follows:

I - The **full trading participant** sends to B3 the request for quotation, necessarily containing the instrument, limit price for closing, nature of the **operation** and quantity. For each quote request, a unique identifier is automatically generated on the trading date. The **asset** information is disclosed to the market and the other request information is optionally disclosed. B3 can change the list of mandatory information, with prior notice to the market and update on its website. The acceptance of the quote request is subject to the rejection tunnel rules, available on the B3 website;

II - The other **full trading participants** are informed, through the **trading platform**, about the quote request received as per item I above, with the instrument, the identifier and the time limit of the quote request necessarily disclosed in this communication;

III - Full trading participants can submit responses to the quote request, necessarily informing the identifier, the instrument, the price, the quantity and the nature of the operation of the quote request. The acceptance of the response to the quote request is subject to the rejection tunnel rules described in this manual and available on the B3 website;

IV - The RFQ will receive responses from **participants** within the time determined by the requesting **participant**, respecting the minimum and maximum limits defined and available on the B3 website;

V - At the end of the response submission period, the possible deal will be executed in order to include the quantity informed by the requesting **participant**, observing the following rules:

a. The deals will be executed considering the best price up to the limit price and the duration time indicated in the quote request;

b. The execution priority considers the price and the chronological order of entry of requests; and

c. The quotes will not depend on the prices practiced in the **central order book** of the **underlying** of the quote request, with the possibility of premium or discount.

VI - The deals made will be announced immediately after the closing of the operation, via Market Data, accompanied by information on the instrument, price, quantity, side of the operation and intermediary.

VII - For RFQ quote requests and responses, it will not be possible to send direct offers within the scope of Chapter III, Section 4.3.3.

8.3. Book of Block Trade BBT

The Book of Block Trade constitutes a book separated from the respective market order book, with its own instrument code.

The encoding of the **assets** follows the format of the **underlying** plus the letter 'Q' at the end of the trading code, as described in Chapter I (Stock Market) of Title III (Organized Markets) of this manual of operational trading procedures.

I - B3 can determine that trading occurs, for certain **assets**, informing on its website, in the following way:

a. Non-continuous trading, with the holding of one or more auctions with a minimum term defined by B3 and available on its website;

b. trading in a continuous manner, with the possibility of B3 determining the holding of an auction or closing call, with its start time and duration defined by B3 and available on its website.

II - BBT orders are not displayed on Market Data in the **central order book**. Information dissemination via Market Data occurs immediately after the closing of **operations**. The trades made will be announced immediately after the closing of the operation, accompanied by information on the instrument, price, quantity, side of the operation and intermediary.

III - The execution priority considers the chronological order of the **orders.**

IV - For BBT **orders**, it will permitted to send direct offers within the scope of Chapter III, Section 4.3.3.

V - The minimum execution lot in the BBT corresponds to the minimum tradable quantity disclosed on B3's website, in accordance with CVM guidelines regarding **assets** eligible for trading in large-lot **operations** and their respective minimum lots. In the event of a partial execution in the BBT resulting in a remaining balance smaller than the minimum lot, the remaining balance will be cancelled.

9. CORRECTION, CANCELLATION AND INCLUSION OF ORDERS AND TRADES IN THE TRADING ENVIRONMENT

B3 will authorize the correction, cancellation and inclusion of **orders** and **trades** in the **trading system**, provided the requirements and procedures established by B3's trading rulebook and this chapter of B3's trading procedures manual are observed.

If B3 cancels a **trade** or **cross trade** that fails to comply with the provisions of its trading rulebook and this trading procedures manual, the **full trading participant**, **trading participant** or **foreign participant** concerned must **register** a new **order** to activate an **auction**, or B3 will do so in the event of refusal by the **full trading participant**, **trading participant** or **foreign participant**.

9.1. Requests for trade correction, cancellation or inclusion due to operating error

A request for a **trade** or **cross trade** to be extraordinarily corrected, canceled or included owing to an operating error must be requested by the **full trading participant**, **trading participant** or **foreign participant** concerned to B3 by telephone within thirty (30) minutes of the **trade's registration** for correction or cancellation, or within thirty (30) minutes of the end of the **trading session** for inclusion.

The request for a **trade** or **cross trade** to be extraordinarily corrected, canceled or included must be formalized using a form supplied by B3 within thirty (30) minutes of B3's acceptance of the request by telephone.

The form must be completed by a representative of the requesting **full trading participant** and also by the **full trading participant** that acts as counterparty to the **trade** if it is not a **cross trade**. The completed forms must be sent to B3's Electronic Trading Department by email and copied to the compliance department of each participant involved if the **trade** in question is not a **cross trade**.

B3 may ask the requesting parties for additional information such as recordings of telephone conversations, screen captures and/or data logs, to be sent by the **full trading participant** within thirty (30) minutes.

B3 may exceptionally authorize correction, cancellation or inclusion of **trades** within a different time frame from that specified above, if properly justified by the **participant**. Such exceptions will be periodically reported to BSM and CVM.

9.2. Extraordinary order correction, cancellation and inclusion due to operating error

Requests for extraordinary order correction, cancellation or inclusion due to operating error must be communicated to B3 by telephone. The **full trading participant** concerned may be asked to formalize any such request.

Full trading participants, **trading participants** and **foreign participants** should preferably use the tools provided by B3 to cancel **orders**.

Order cancellation by B3 is dependent on the existence of sufficient time until the **order** is matched. B3 makes best efforts to carry out cancellation requests but will not be held liable for the execution of **orders** that cannot be canceled.

9.3. Unilateral trade cancellation requests due to severe operating error

A unilateral request to cancel a **trade** due to severe operating error must be communicated to B3 by telephone by the **full trading participant**, **trading participant** or **foreign participant** concerned not more than ten (10) minutes after registration of the **trade** and formalized using a form provided by B3 by the end of the trading session by the **full trading participant**, **trading participant** or **foreign participant** concerned.

Apart from situations specified in its trading rulebook, B3 may cancel a **trade** due to severe operating error ex officio or at the request of a **full trading participant**, **trading participant** or **foreign participant** only if the **trade** in question incurs an actual or potential financial loss equal to or exceeding ten million Brazilian Reais (BRL 10,000,000.00).

If B3 decides to cancel a **trade** at the request of a **full trading participant**, **trading participant** or **foreign participant**, B3 will make best efforts to do so for twenty (20) minutes after receiving the cancellation request.

B3 may fine the **full trading participant**, **trading participant** or **foreign participant** responsible for a trade cancelled at its request or cancelled ex officio by B3. The amount of the fine will be at least twenty per cent (20%) of the actual or estimated loss incurred by the **trade** and at most fifty million Brazilian Reais (BRL 50,000,000.00), and will be determined in accordance with (i) the principle of proportionality, (ii) the financial capacity of the **full trading participant**, **trading participant** or **foreign participant**, (iii) the gravity of the infringement, (iv) the loss incurred by cancellation of the **trade**, and (v) whether an identical infringement was previously penalized by a decision not open to appeal.

If the **full trading participant**, **trading participant** or **foreign participant** is unable to prove that an operating error occurred, B3 may impose a fine equivalent to up to 200% of the loss incurred.

B3 will use the funds obtained from payment of fines, whenever possible, as a priority (i) to compensate fully or partially any third parties directly harmed by cancellation of **trades**, prorating payment to **full trading participants** in proportion to the financial loss incurred, so that the latter will be responsible for transferring the funds to **trading participants**, **foreign participants** and **investors**, if any; or otherwise (ii) in activities associated with regulatory and institutional improvements to the securities market.

B3's Chief Operating Officer – Eletronic Trading and CCP through its respective Boards of Directors and/or superintendencies will decide whether to impose fines and how to use the funds received thereby.

To mitigate risk and assure adequate market functioning, in duly justified exceptional cases B3's Chief Operating Officer – Electronic Trading and CCP or Chief Executive Officer (CEO) may authorize total or partial cancellation of **trades** after a longer period than that specified above.

Cancellations of a trade due to severe operating error requested by a **full trading participant**, **trading participant** or **foreign participant** will be communicated by B3 to CVM, BSM and the other participants involved.

10. MASS CANCEL

The functionality enables **full trading participants**, **trading participants**, **foreign participants** or **investor** to mass cancel orders subject to cancellation.

When the functionality is used, the **trading system** send the mass cancel request for orders available for cancellation under two possibilities: (i) cancellation of **orders** from a specific connection, a configuration through which the **full trading participant**, the **trading participant**, the **foreign participant** or the **investor** can trigger the command to cancel all **orders** available under his responsibility in that connection, regardless of its type; or (ii) cancellation of **orders** from different connections (mass cancel on behalf), a configuration whose command can only be executed by the **investor**, through a connection originating from the **investor**, specifying the **investor**'s identifier (ID), to cancel all his **orders** available on all direct market access connections that contain the **investor** identifier (ID). This command can only be sent by connections to binary gateways and does not allow the cancellation of **orders** sent through the trading desk connection.

The selection of **orders** is based on the filters stipulated by the **full trading participants**, **trading participants**, **foreign participants** or **investor**. **Orders** with Good-till-cancel (GTC) or Good-till-date (GTD) qualifier will not be subjected to mass cancel functionality.

The functionality also allows, through a specific indication in the mass cancellation message, to block and unblock the connection or the **investor** identifier (ID) after canceling the **orders**.

For **orders** participating in the theoretical price of the **auction,** the use of mass cancel functionality will only be permitted during the free cancellation period. After that, the **order** cancel will follow the procedures established in the previous section of this trading procedures manual.

The functionality allows the combined use of the following filters for canceling **orders** from the same **connection** and same **participant**:

I - Merchandise (asset): in a unitary form per request, allowing the cancellation of all **orders** of instruments of the same commodity;

II - Trading instrument: individually per request, allowing the cancellation of all active **orders** for the indicated trading instrument;

III - Order side: individually per request, allowing the cancellation of all bid or ask **orders**;

IV - Identifier: numerical identification for **participant** control, between 1 and 254, indicated individually per request, allowing the cancellation of all **orders** with this identification.

For mass cancellation of **orders** from multiple **connections** (mass cancel on behalf), it is mandatory to use the **investor** identifier (ID) filter. In this case, it will also be possible to select the filter by commodity, trading instrument or identifier, individually or in combination.

Once the mass cancel request of the orders allowed for cancellation is carried out, the connections through which orders were entered receive confirmation of order cancellation in an execution report message with the identification of the type of cancellation, whether in a specific connection or in all connections of all participants, as well as a unique identifier for the last case, through which each participant can identify that there was a cancellation commanded by the investor, as well how to identify which orders were canceled by each command. To do this, participants must keep this information recorded in their systems. Cancellation rejections are communicated to the connections that requested cancellation.

11. IMPLIED

Functionality that consists of creating synthetic **orders** in strategies from **orders** registered individually in two or more maturities of the same product (Implied IN). A synthetic **order** is considered one that replicates the effects of an **order**. In Implied, the creation of synthetic **orders** observes the following rules:

I - The synthetic **order** is created automatically from one or more active real **orders** at the best price level in the **order** book, with specific identification in the Market Data in the **central order book**;

II - The synthetic **order** can only be created from limited **orders**:

(a) Market **orders** will be considered for the creation of synthetic orders when they become limited;

(b) Stop **orders** will be considered after being triggered;

(c) Orders identified as retail clients will be considered when directed to the **order book**.

III - A synthetic **order** can only be executed against an **orders**;

IV - The synthetic **order** will have lower priority than **orders** at the same price;

V - The synthetic **order** will never be created at a better price than the **orders** on the opposite side of the strategy **order** book, only at an equal or worse price. If there is no **order** in the strategy, the price will be calculated based on the price difference between the related **orders**;

VI - The synthetic **order** will not be created if it violates any auction or rejection tunnel, or quantity limit;

VII - Multiple synthetic **orders** can be created from one **orders**;

VIII - The synthetic **order** will only be created when the strategy and the respective maturities are in an open state;

IX - In the case of an **order** with disclosed quantity, the quantity to be considered for the calculation of the synthetic **order** will be the disclosed quantity of the **orders**;

X - The Self Trade Prevention (STP) functionality does not apply to synthetic **orders**;

XI - If the price or quantity of one of the **order** is changed or the **order** is partially executed, the synthetic **order** will be updated;

XII - Synthetic **orders** will be canceled if the state of the strategy or related maturities change from open;

XIII - If one of the related **orders** is fully executed or canceled, the synthetic **order** is automatically canceled.

Derivatives eligible for the Implied functionality will have specific identification in the instrument registration messaging.

Operations arising from Implied will have specific identification in execution confirmation messages and in Market Data.

12. SUSPENSION OF TRADING

B3's Director of Electronic Trading, by delegation of its Chief Executive Officer (CEO), is empowered to suspend **trading** in **assets** and **derivatives** admitted to **trading** on organized markets in the situations specified by B3's rules and other normative documents.

B3 may use special **trading** procedures for **assets** and **derivatives** referenced in suspended **assets** in order to close out open positions in **derivatives**, informing the market of the procedures to be used in notices.

12.1. Suspension of trading due to material fact notice

If **trading** in an **asset** or option on equities is suspended due to the publication or imminent publication of a material event notice during a **trading session**, in accordance with the provisions of B3's trading rulebook, issuer listing and securities admission for trading rulebook and issuer manual, the following procedures will apply.

Communication of material event notice publication by Issuer Regulation Department	Specific procedures	Trading session periods impacted
By 9:14:59 a.m.	No procedure necessary.	No impact.
9:15:00-9:29:59 a.m.	Postponement of **order** cancellation phases for twenty (20) minutes, followed by: • **Order** cancellation phase lasting five minutes • Opening **call** lasting at least five minutes	• **Order** cancellation phase • Opening **call**
9:30:00-9:59:59 a.m.	Interruption of **order** cancellation phases and opening **call** for twenty (20) minutes, followed by: • **Order** cancellation phase lasting five minutes • Opening **call** lasting at least five minutes	• **Order** cancellation phase • Opening **call**
10:00:00 a.m.-4:09:59 p.m. or 10:00:00 a.m.-5:09:59 p.m.*	Suspension of **trading** for twenty (20) minutes, followed by: • **Order** cancellation phase lasting five minutes • **Auction** for reopening, lasting at least five minutes	**Regular trading period**

4:10:00-4:49:59 p.m. or 5:10:00-5:49:59 p.m.*	Suspension of **trading** for twenty (20) minutes, followed by: • **Order** cancellation phase lasting five minutes • **Auction** for reopening, lasting at least five minutes Regardless of its duration, if the **trading** suspension lasts beyond 4:50 p.m. (or 5:50 p.m. during daylight saving time), a five-minute **order** cancellation phase will be held, followed by the closing **call**.	**Regular trading period**
4:50:00-4:54:59 p.m. or 5:50:00-5:49:59 p.m.*	Closing **call**.	**Regular trading period**
4:55:00-5:00:00 p.m. or 5:55:00-6:00:00 p.m.*	No procedure necessary	Closing **call**
After-market	**Auction** throughout the period	**After-market**

(*) During daylight saving time.

B3 may permit extensions to the above **auctions** in accordance with the provisions of this trading procedures manual, in which case it will take steps to assure smooth operations and normal **trading** activities during the extensions.

12.2. Asset trading suspension due to suspension of underlying assets abroad

B3 may suspend **trading** in **assets** or **derivatives** if **trading** in their **underlyings** is suspended on the organized market on which they are traded abroad.

In this case B3 uses its regular communication channels to announce the time and date on which **trading** in the **assets** or **derivatives** will resume, and convenes a limited-duration **auction** if deemed necessary.

12.3. Other cases of asset and derivative trading suspension

In other situations in which **trading** in **assets** and **derivatives** is suspended in accordance with B3's trading rulebook and this trading procedures manual, B3 is empowered to determine the duration of the suspension, the **assets** and **derivatives** affected and the reasons for the suspension, using its regular communication channels to announce the suspension.

After the **trading** suspension ends, B3 may convene an **auction** for a limited period, if deemed necessary.

13. CIRCUIT BREAKER

The **circuit breaker** is an operating procedure that interrupts all **trading** in **assets,** options on equities, BDRs, the Bovespa Index (Ibovespa), Ibovespa B3 BR+, Brazil 50 Index (IBrX-50), the Small Cap Index (SML) and EFTs, and private fixed-income instruments at times of abnormal market movements with excessive volatility.

The following rules apply in sequential order:

I - If the Ibovespa announced by B3 falls ten per cent (10%) or more from its closing level on the previous day, all **trading** in **assets, derivatives** and private fixed-income instruments is interrupted for thirty (30) minutes;

II - When **trading** resumes, if the Ibovespa announced by B3 falls fifteen per cent (15%) or more from its closing level on the previous day, all **trading** in **assets, derivatives** and private fixed-income instruments is interrupted for one hour;

III - When **trading** resumes, if the Ibovespa announced by B3 falls twenty per cent (20%) or more from its closing level on the previous day, B3 will determine an interruption of **trading** in **assets, derivatives** and **private fixed-income instruments** for a certain period to be announced by B3. In this case, it informs the market using its regular communication channels.

13.1. General conditions for triggering circuit breaker

I - The rules in items (i), (ii) and (iii) above do not apply in the last thirty (30) minutes of a **trading session**.

II - If the **circuit breaker** is triggered in the last hour of a **trading session**, the end of the session will be postponed for at least thirty (30) minutes to allow time for a resumption of uninterrupted **trading** in **assets** and **derivatives**.

III - When the **circuit breaker** is triggered, **trading** in **assets**, **derivatives** and **private fixed-income instruments** resumes with an opening **auction** lasting the time determined by B3.

14. LEVERAGE CONTROL FOR DAY TRADE OPERATIONS

B3 determines on its website which products **full trading participants** or **trading participants** must require at least the minimum margin amount per contract disclosed by B3, in order to ensure leverage

control for **investors** in day trade operations in the event of placing an order for opening, increasing, or reversing a position. **Full trading participants** and **trading participants** must disclose on their website the margin required per contract.

In order to ensure compliance with the minimum margin requirement, B3 will monitor the automatic liquidations commanded by **full trading participants** and **trading participants**.

14.1. Methodology for calculating the minimum margin

To determine the value of the minimum margin, B3 uses the following procedure:

- Intraday prices are observed over the last 6 (six) months;
- The data is sorted by day and time in ascending order and divided into windows of 1 minute, 2 minutes, 3 minutes, 4 minutes, 5 minutes, 10 minutes, 20 minutes, 30 minutes, 1 hour, and 2 hours;
- Monthly, the absolute maximum variation between the maximum and minimum prices of each window and the last available price of the immediately preceding window is calculated, and this variation is multiplied by the contract size to convert the variation in price to the variation in reais for each contract;
- The 99th percentile of the variations in reais is determined for each time window for each month.

The minimum margin will be given by the average value of the 99th percentile of the variations in reais observed over six months for futures contracts of gold and of stock indices in the 10-minute window, and for other contracts, in the 5-minute window.

These values will be reviewed quarterly by B3 in order to, if necessary, adjust the required margin to the levels of notional exposure and volatility of the contracts.

When launching products, due to the lack of trading data in the B3 environment, a simplification in the calculation described above is applied, using minute-by-minute quotes collected from a data provider. In the periodic review of minimum margins, B3 will begin to use the described methodology, based on the actual trading data.

14.2. Sender locations for automatic liquidations

Full trading participants or **trading participants** must use specific sender locations when sending orders for liquidation or reduction of their clients' positions automatically, as detailed below:

- Compulsory liquidation: occurs only when the **full trading participant** or **trading participant**, in their responsibility for risk control and management, reverses or reduces their client's position when the loss limit established by the **full trading participant** or **trading participant** is reached. In

this case, when using a system for automatic liquidation, the Sender Location with the prefix 'ZER' must be used. Liquidation **operations** commanded by the trading desk or the risk management area of the **full trading participant** or **trading participant** must use the Sender Location with the prefix 'MES';

- Assisted liquidation: liquidation performed automatically by the **full trading participant** or **trading participant** based on parameters defined by the **investor** instead of the **participant**, which may be an allocated limit for day trade, the maximum financial loss stipulated, or any other controls that may act in reducing or liquidating the position based on parameters determined, optionally or mandatorily, by the **investor** on their platforms. In this case, the Sender Location with the prefix 'ZAS' must be used. In the case of offering assisted liquidation, if the **investor** does not choose to configure a value different from that previously set by the **participant**, the Sender Location 'ZER' must be used;

The use of a stop order, for each operation performed, as a mechanism for reversing positions by the **investor** will not be considered by B3 for the purpose of monitoring as automatic liquidation, and the Sender Location of the client's connection method must be used.

14.3. Monitoring of Liquidations

B3 will monitor indicators regarding the trading of individual clients, calculated by **participant**, that may identify non-compliance with the obligations required regarding the use of minimum margin by retail clients.

The indicators monitored by B3 will be calculated daily and accumulated over the calendar month and consist of the percentage of automatic liquidations commanded by the **participant** where the client's time in the position is less than 60 (sixty) seconds from the moment of opening the position, relative to the total of automatic liquidations commanded by the **participant**. Indicators will be calculated by commodity and for compulsory liquidations, as well as for assisted liquidations, separately.
The indicators calculated by B3 will be shared with the **participants** daily, with a delay of up to 3 (three) business days.

At the end of the calendar month, if the automatic liquidations commanded by the **full trading participant** or **trading participant** violate the parameters disclosed by B3, B3 will notify the **full trading participant** or **trading participant** within 3 (three) business days to present an action plan within 10 (ten) business days.

It is the responsibility of the **full trading participant** or **trading participant** to take the necessary

measures to ensure compliance with the limits described in this subsection, including the requirement for margin to be higher than the minimum margin stipulated by B3, if necessary.

B3 will share with BSM the notifications and indicators presented to the **participants**, as well as the initiation of the sanction process and any measures taken.

14.4. Sanctions Applied in Case of Non-Compliance with the Automatic Liquidation Indicator

After the deadline established in the previous item, if the **participant** fails to send the action plan, does not comply with the presented plan, or if it does not have the expected effect, or presents an unaccepted justification by B3, the **participant** will be notified. From this notification, it will be the responsibility of B3's Electronic Trading Department to apply a daily penalty until the participant fulfills their obligation, with the penalty being determined according to the contract in question:

• Contracts for which the RLP trading functionality is offered: the higher amount between (i) R$10,000.00 (ten thousand reais), or (ii) 2.5% (two and a half percent) of the number of contracts traded via RLP during the entire calculation month (the month of non-compliance) multiplied by half of the minimum variation of the contract's quotation

• Other contracts: up to R$50,000.00 (fifty thousand reais).

Even if the liquidation indicator falls below the threshold established in the previous item, if a non-compliance with the minimum margin is identified, B3 will impose a fine of up to R$50,000.00 (fifty thousand reais), and in the case of offering trading via RLP, the **participant** will be prohibited from conducting RLP operations for a minimum period of 30 (thirty) days. The **participant** may only resume RLP operations after proving compliance with the minimum margin required per contract.

Regardless of the imposition of a daily penalty, B3 may apply the sanctions provided for in B3's Trading Rulebook, noting that recurrence will be considered an aggravating circumstance in the application of the fine and the sanctions provided for in the regulations, including for the purpose of determining the penalty.

The **participant** may appeal against the decision imposing a penalty directed to the Vice President of Operations - Electronic Trading and CCP, without suspensive effect. Appeals received by B3 concerning penalty payments will be fully redirected to the execution of educational measures for **investors**.

B3 will inform BSM of all communications with **participants** and actions taken by B3 regarding the imposed sanctions.

Without prejudice to B3's authority to impose the penalties mentioned above, it is the responsibility of BSM, within its sphere of action, to investigate and punish violations of the provisions of B3's trading regulations, the complementary norms, or the legislation and regulations in force, applying, as appropriate, the penalties provided for in its bylaws, according to its procedural regulations.

CHAPTER IV – TECHNOLOGICAL RISK CONTROL

1. PRE-TRADING RISK CONTROL

1.1. Mandatory use of pre-trading risk control tool

To mitigate the operational risk associated with execution and counterparties, use of the pre-trading risk control tool developed by B3 is mandatory for all **orders** sent to the trading platform.

Full trading participants, trading participants, **foreign participants** and **settlement participants** must ensure that the limits defined in their risk policies are adequately configured in B3's pre-trading risk control tool for their **investors**. If additional controls are needed, **participants** must develop and implement them without prejudice to the use of B3's tool.

2. MESSAGING CONTROL

B3 maintains a messaging control policy involving the application of monthly thresholds and ratios to the **messages** sent to the **trading system**, with the aim of preventing practices that may impair the availability, integrity and proper functioning of the **trading system**.

For this purpose, B3 keeps count of all registered, modified and canceled **orders**, comparing them with numbers of **trades** and **trading** volume. Rejected **messages** are not included in this count.

This control is based on the individual account specified in the **message**. If no account is designated, the message and **trade** executed are assigned to the account of the **full trading participant**, **trading participant** or **foreign participant** responsible for the **connection**.

B3 publishes the parameters for maximum numbers of **order messages** sent compared with numbers of **trades** (Ratio A) and **trading** volume (Ratio B) in each group of **assets** or **derivatives**, as well as thresholds (F) and reduction factors (C), which are published on B3's website and frequently reviewed to analyze the need for adjustments to these variables.

Exceeding the **message** flow beyond the parameters set by B3 to the **full trading participants** responsible for **connections**, results in charges in accordance with the **messaging** control methodology.

2.1. Trading messages control

2.1.1. Messaging control methodology

Message control consists of monitoring excessive **messages** sent to the trading platform and applying a monthly charge, if any,calculated per account and per **asset** or **derivative** using the following formula:

Value of monthly charge = A or B, whichever is greater, if positive

where:

I - A = (number of messages sent in period – Ratio A x number of **trades** executed in period – F) x C

II - B = (number of messages sent in period – Ratio B x volume traded in period – F) x C;

III - Ratio A = ratio of messages to **trades**

IV - Ratio B = ratio of messages to volume

V - F = monthly message threshold

VI - C = 0.01 for equities and futures, or 0.001 for options

The values of the parameters used in this calculation can be obtained from B3's website.

Criterion A reflects the **account** efficiency in terms of sent **messages** versus executed **trades**. A charge is applied if the number of orders is higher than Ratio A times the number of trades plus the established thresholds (F) for the **asset**.

Criterion B reflects the account efficiency in terms of sent **messages** versus financial volume. A charge is applied if the number of orders is higher than Ratio B times the number of trades plus the initial daily threshold for **messages** relating to the **asset** (F) established for the **asset**.

For **assets** or **derivatives**, volume traded according to charge B is computed as shown below.

Group of assets or derivatives	Volume traded
Equities and forwards	Financial value
Options on **assets** belonging to the equity cash market	Financial value of premium

Derivatives	Number of contracts

For the purposes of calculating charges A and B, different contract months of the same **derivative** are considered jointly, as are different contract months and strike prices for call and put options with the same **underlying**.

The total charge, if any, for sending an excessive number of **messages** is given by the sum of the charges for each account in the **full trading participant** concerned, and for each **asset** or **derivative**, and determined by the maximum value among charges A and B.

Each **asset** or **derivative** is measured independently on a monthly basis. In other words, if both option and its **underlying** are traded, two thresholds are applied to the respective account in the **full trading participant**, one for the option and another for the **underlying**.

3. MARKET PROTECTION

Market protection functionality enables **participants** that use **connections** to set protection parameters which, when reached in a given time interval, trigger automatic cancellation of the **orders** available in the **central order book** (provided their cancellation does not infringe any **trading** rules) and prevent **registration** of new **orders**.

Instrument protection parameters and the respective intervals are applied by **participants** via Application Programming Interface (API) or by B3.

B3 may at its sole discretion disable this functionality for specific instruments, giving the market advance notice of any such changes.

3.1. Types of protection available

The following types of protection are available:

I - Total **order** execution – activated on the basis of the number of fulfilled **orders**;

II - Number of executions – activated on the basis of the number of **trades** executed (fully or partially);

III - Quantity traded – activated on the basis of the sum of quantities executed (purchases or sales) per module;

IV - Buy/sell – activated on the basis of an imbalance between buy and sell quantities, with purchases raising and sales lowering the count;

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

V - Delta – activated on the basis of aggregate delta for options considering all **series** with the same **underlying** regardless of expiration.

Participants can choose all forms of protection or combine specific forms in accordance with their **trading** strategies.

3.2. Characteristics

I - Protections are activated only when their parameters are reached or exceeded within the interval defined by the **participant**, and cancel only **orders** that the rules allow to be canceled and that do not participate in the theorical price of the **auction**.

II - If after activation of a protection the **participant** concerned wishes to reset the counter and register new **orders**, the **participant** must notify the **trading system** by appropriately completing a specific field in the **order** message.

III - The protection counters are automatically reset at the end of each interval if no parameters are reached or exceeded.

IV - Protections cannot interrupt an execution event, so if a single aggressing **order** matches multiple resting **orders** in the **central order book**, the **trading system** allows infringement of the protection parameter concerned.

V - Whenever the protection parameters defined for a **connection** are updated, the protection counters are automatically reset. **Orders** entered before the update are disregarded in the next cancellation event and remain active for counting purposes if execution occurs.

VI - All counters are automatically reset at the end of each **trading** day.

VII - Any **order** rejection or cancellation due to use of protection functionality is communicated in an execution report message issued by the **trading system** and specifying activation of protection as the reason for rejection or cancellation.

The list of products eligible for market protection functionality is available from B3's portal.

4. THROTTLING

Throttling functionality enables B3 to limit the number of **order** messages per second sent to the **trading system** by each **connection**.

The limits are set by B3 for each **connection** in accordance with the profile of the **participants** linked to it, and reviewed whenever necessary to assure the availability, integrity and proper functioning of the **trading system**.

B3 allows the **full trading participant**, **trading participant** or **foreign participant** responsible for a **connection** to opt for rejection or queuing of messages received after the limit is exceeded.

5. INTENTIONAL SELF-TRADING

Self-trading means **trades** involving the same investor on both sides (buy and sell), regardless of whether the purchase and sale are intermediated by the same **participant** or by two different **participants**.

5.1. Self-trade prevention functionality (STP)

Self-trade prevention functionality (STP) prevents matching between buy and sell **orders** for the same **asset** or **derivative** from the same **investor**, regardless of the brokerage house responsible for the two parties to the **trade** (on both the buy side and sell side of the same **trade**).

STP is optional and may be used only by **participants** and **investors** who use the Entrypoint **order** entry interface. **Trading** desk **connections** can therefore access this functionality only if they use a trading screen that supports STP.

B3 may at its sole discretion disable STP for one or more specific groups of instruments, with advance notice of this change to the market.

5.2. Unique customer identifier

STP applies only to **orders** containing an unique customer identifier (ID), as shown in the table below.

Type of investor	Unique customer identifier (ID)
Legal entity domiciled in Brazil	Numerical prefix, from 100 to 199, linked to the basic federal taxpayer number, which corresponds to the first eight digits of **investor**'s CNPJ, without special formatting characters filled with a zero left. Examples: 100012345678, 199012345678.
Individual domiciled in Brazil	Numerical prefix, from 200 to 299, linked to the first nine digits of **investor**'s federal taxpayer number (CPF), without special formatting characters. Examples: 200123456789, 299123456789.

Non-resident **investor** in Brazil with CVM trading code	Numerical prefix, from 300 to 499, followed by 3 any numbers, linked to the individual six-digit code for NRI. Such code is given by CCCCCC portion of NRI CVM trading code, which is formatted AAAAA.BBBBBB.CCCCCC.X-Y. Examples: 300123123456, 499123123456.
Non-resident investor in Brazil without CVM trading code	Numeric prefix, from 500 to 899, followed by 1 any number, linked to the eight-digit code for NRI. Such code is provided BBBBBBBB portion of your 88 code generated by B3, whose format is 880000.BBBBBBBB-Y. In total, you must have 12 characters. Examples: 500112345678, 899112345678.

Note that:

I - The ID is not the same as the **investor** account;

II - An **investor** who has several accounts and/or is linked to more than one **full trading participant**, **trading participant** or **foreign participant** must always use the same ID to identify the **orders** subject to STP.

III - An **investor** who has several accounts and/or is linked to more than **one full trading participant**, **trading participant** or **foreign participant** who deems it necessary to use more than one ID for the execution of different trading strategies may do so by adding a single numeric character, between 1 and 9, at the beginning of the value indicated in the table above.

5.3. Functioning of STP

STP prevents matching of buy and sell **orders** with the same ID during the continuous **trading** phase. The main aspects of its functioning are described below.

I - STP has no effect on **orders** that do not contain IDs.

II - A buy **order** and a sell **order** with the same ID remain on the **central order book** simultaneously provided there is no possibility of matching them.

III - In the event of potential matching between buy and sell **orders** with the same ID, the following cancellation actions can be performed, according to the participant's choice, identified at the aggressing order:

(a) the aggressing **order** is eliminated from the **central order book** and the aggressed **order** remains there (default option).

(b) The aggressed **order** will be cancelled, and the aggressing order will continue the matching process in the book with other **orders**, if any.

(c) Both the aggressing **order** and the aggressed **order** will be cancelled in **the central order book**.

(d) In case of the identification of a potential match between the same **investor**, in which the **order** only contains the unique customer identifier (ID), but does not identify the cancellation action, the aggressing order will be cancelled in the central order book and the aggressed order will remain there (default option).

IV - An **order** containing the **investor's** ID results in a **trade** only if it is matched with **orders** that do not contain the same ID (**orders** with no ID and **orders** with a different ID).

V - If an **order** is modified to result in an **order** containing an ID and potential matching with an **order** with the same ID, the **trading system** will cancel the **orders** following the instructions of the modified aggressing **order**.

VI - If an **order** with an ID is modified to result in an **order** without an ID, STP does not apply to the modified **order**.

VII - **Orders** with a minimum quantity qualifier and fill-or-kill (FOK) **orders**: before a **trade** is matched the **trading system** analyzes the **central order book** and will carry out STP cancellations accordingly to the aggressing **order** instructions. In case the aggressing **order** has not been cancelled by the STP after the cancellations, the trading system will analyze the **central order book** again to see if the minimum quantity or the total quantity (FOK) can be executed without resulting in a self-trade. If execution of the minimum quantity or the total quantity (FOK) is not reached the aggressing **order** is entirely eliminated.

VIII - An **order** with an ID that would result in partial matches against a queue of **orders** is eliminated (or its remainder is) when it meets an **order** with the same ID in the queue, will trigger the STP cancellation as instructed by the aggressing **order**.

IX - If an aggressing **order** with an ID would result in the convening of an **auction**, STP is not activated.

X - STP is not activated during an **auction**, so that the **auction** is allowed to result in the matching of **orders** from the same **investor**.

XI - Whenever an **order** is cancelled owing to STP, this is communicated in an execution report message issued by the **trading system**. The reason given for the cancellation in the message is prevention of the matching of **orders** from the same **investor**.

5.4. Monitoring of Self-Trading

STP prevents self-trading, however, the use of this functionality is optional, therefore, self-trading operations will be monitored by B3, which may, at its discretion, request from the **full trading participant** additional information or clarification regarding evidence of self-trading **operations**.

The process of monitoring implement by B3 consists of gathering evidence that differentiates **operations** of a non-systematic and unintentional nature due to the dynamics of the market structures, from those of a systematic and intentional nature that create artificial conditions market.

The evidence of systematic and intentional nature of self-trading **operations**, whenever applicable, will be forwarded by B3 to BSM and CVM, for appropriate actions to be taken.

6. CANCEL ON DISCONNECT (COD)

Cancel-on-disconnect (COD) functionality automatically cancels an **order** sent to the **trading system** if the **connection** fails.

When a **connection** failure is detected, this triggers a request to cancel all **orders** available in the **trading system** and linked to the failed **connection** except **orders** that are participating in an **auction** or when the status of the instrument makes cancellation impossible. Furthermore, **orders** associated with the **connection** that have been registered by B3 in the **participant's** name are also cancelled if COD functionality has been enabled for the **connection**, in accordance with the following alternatives:

I - Do not cancel **orders** in the event of disconnection (default);

II - Cancel **orders** only in the event of involuntary disconnection;

III - Cancel **orders** only in the event of voluntary disconnection;

IV - Cancel **orders** in the event of involuntary or voluntary disconnection.

COD functionality allows a time interval to be set to enable the **participant** to reconnect before an **order** is cancelled. The value of the interval in milliseconds is also set by the **participant** using a specific field. The counter starts as soon as a disconnection is detected. If the field is not completed, the system assumes the value zero (0).

Upon reconnection, the **participant** receives confirmation of **order** cancellation in an execution report message.

The purpose of COD functionality is to mitigate the operational risks caused by **connection** failure. However, only **orders** that can be canceled in compliance with the **trading** rules and market conditions are effectively canceled, except for the orders that are participating in an **auction**.

CHAPTER V – EMERGENCY AND CONTINGENCY MEASURES

1. EMERGENCY MEASURES OF AN OPERATIONAL NATURE

The following procedures apply when emergency measures of an operational nature occur in accordance with B3's trading rulebook:

I - If a situation that represents a threat to the adequate functioning of the markets operated by B3 occurs, B3's Chief Operating Officer – Electronic Trading and CCP or Director of Electronic Trading, by delegation of the Joint Board of Officers, is authorized to change trading hours and price calculation periods, in which case the market and regulatory authorities will be given due notice;

II - If the **trading system** is totally or partially suspended for technical reasons, or owing to unforeseen circumstances or force majeure, B3 may suspend **trading** or restore **trading** using contingency systems;

III - When **trading** resumes after a total or partial suspension, B3's Director of Electronic Trading may convene a pre-opening **auction**, and **orders** sent to the **trading system** before the suspension may be canceled or altered;

IV - If **trading** is totally suspended within thirty (30) minutes of the end of a **trading session**, B3 may postpone the end of the session.

2. OPERATING PROCEDURES IN RESPONSE TO FAILURE OF CRITICAL COMPONENTS OF THE TRADING SYSTEM

B3 may take the emergency measures described below in the event of failure of critical components of the **trading system** with partial impacts on **participants** in its markets.

Component	Market affected	Failure scenario	Procedure
Market surveillance tools	**Assets** or **derivatives**	Failure in matching engine management system	Market notified and **trading** in all **assets** suspended for thirty minutes without **auction**

Component	Market affected	Failure scenario	Procedure
Order entry gateways	**Assets** or **derivatives**	Failure in gateways accounting for over thirty per cent of total trading volume	Market notified and five-minute **auction** held thirty minutes later for all **assets**. Trading in all assets suspended after **auction**
		Failure in gateways accounting for under thirty per cent of total trading volume	None
Trading desk **connections**	**Assets** or **derivatives**	Impact on over thirty per cent of volume traded via trading desk **connections** without backup	Market notified and five-minute **auction** held thirty minutes later for all **assets**. Trading in all assets suspended after **auction**
		Impact on under thirty per cent of volume traded via trading desk **connections** without backup	None
Matching engine	**Derivatives**	Failure in one or more matching engines	Immediate suspension of **trading** in contracts and options affected. No change to **trading** in unaffected contracts.
	Assets	Failure in matching engines accounting for over thirty per cent of trading volume	Thirty-minute **auction** held immediately for **assets** not affected. Continuous **trading** in these assets resumes after **auction**
		Failure in matching engines accounting for under thirty per cent of trading volume	None
Market data feed	**Derivatives**	Failure in futures channel	Immediate suspension of **trading** in contracts and options affected
	Derivatives	Failure in options channel	Immediate suspension of **trading** in options affected

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

Component	Market affected	Failure scenario	Procedure
	Assets	Impact on over thirty per cent of trading volume	Immediate suspension of **trading** in affected **assets**, options and forwards. Thirty-minute **auction** held for **assets** not affected. Continuous **trading** in these assets resumes after **auction**
	Assets	Impact on under thirty per cent of trading volume	Immediate suspension of **trading** in affected **assets**, options and forwards. No procedure for **assets** not affected
Instruments	**Derivatives**	Specific instrument	Immediate suspension of **trading** in contract months and options affected. No procedure for **assets** not affected
	Assets	Specific instrument	Immediate suspension of **trading** in **assets**, options and forwards affected. No procedure for **assets** not affected
Calculation of settlement amounts to be collected by B3's clearinghouse	**Assets** or **derivatives**	Failure in overnight processing by B3's clearinghouse before **trading session** opens	Opening of **trading** session postponed

B3 may at its sole discretion consider other factors, include new scenarios and take additional or different measures to those described above, informing the market as far in advance as possible.

3. BUSINESS CONTINUITY PLAN

B3 has the necessary technological infrastructure and business continuity plan to assure the functioning of the **trading system** in the event of a disaster, breakdown or emergency.

The **trading system** operates with high availability and constant redundancy of resources in its primary and secondary data centers.

In the event of a total or partial **trading system** interruption, **trading** will be resumed via the primary data center in the following conditions:

I - Periods will be established for **order** cancellation and pre-opening before the **trading session** resumes;

II - Possible postponement of the end of the **trading session** if the interruption occurs within thirty (30) minutes of the close.

If the primary data center should become unavailable, **trading** will resume via the secondary data center in accordance with the procedures described below.

I - Announcement of the operating procedures to be used by **participants** in the affected market.

II - Establishment of a pre-opening period before the **trading session** resumes.

III - Will be considered valid **trades** processed by the clearinghouses and **trades** carried out in the **trading system** within 1 (one) minute after the switch from the primary data center to the secondary data center.

IV - **Orders** with validity on the **central order book** will be discarded.

V - **Connections** will not receive messages confirming the elimination of **orders** when **trading** resumes via the secondary data center.

If the **trading system** is totally interrupted at the primary and secondary data centers during a **trading session** with no possibility of a resumption on the same day, B3 may use alternative mechanisms to match **orders** and send **trades** to post-**trading**.

These mechanisms will be designed to reduce **positions** and mitigate the associated risks under the conditions described below.

I - **Full trading participants** send data regarding **trades** for which the buying and selling **investors** are on their **trading** premises (**cross trades**) to a web address specified for this function and announced by B3.

II - **Full trading participants** send data regarding **trades** for which only the buying or selling **investor** is on their **trading** premises, including the code for the **full trading participant** that will act as counterparty to each **trade** (**registered trades**), to a web address specified for this function and announced by B3.

III - **Full trading participants** send data regarding **trades** for which only the buying or selling **investor** is on their **trading** premises, but for which they do not have a counterparty, to a web address specified for this function and announced by B3.

IV - **Full trading participants** send data until a time set by B3, which may reject data sent after the time limit in question.

V - Data are accepted for **cross trades** and **registered trades** in the **assets** and **derivatives** admitted to **trading** in the **trading system**.

B3 may exceptionally establish different conditions from these, with advance notice to the market.

Full trading participants are required to participate in testing of the business continuity plan. No such test can be completed without validation and use of the respective web address. B3 issues a test calendar, giving advance notice to the market.

TITLE III – ORGANIZED MARKETS

CHAPTER I – EXCHANGE MARKET

1. CASH EQUITIES MARKET

The equities **traded** on the cash market are subject to the **trading**, **auction** and **trading tunnel** procedures described in this trading procedures manual.

Tickers for equities traded in round lots on the cash market are alphanumeric, as exemplified below.

Type of security	Number	Example
Common stock subscription rights	01	ABCD1
Preferred stock subscription rights	02	ABCD2
Common stock	03	ABCD3
Preferred stock	04	ABCD4
Class A preferred stock	05	ABCD5
Class B preferred stock	06	ABCD6
Class C preferred stock	07	ABCD7
Class D preferred stock	08	ABCD8
Common stock subscription receipts	09	ABCD9
Preferred stock subscription receipts	10	ABCD10
Other securities, such as units, investment fund subscription receipts, investment fund units, credit rights investment funds, credit rights funds of funds and fixed-income ETFs	11-30	ABCD11
Level 1 sponsored BDRs	31	ABCD31
Level 2 sponsored BDRs	32	ABCD32
Level 3 sponsored BDRs	33	ABCD33
	35	ABCD35
	36	ABCD36
Level 1 unsponsored BDRs	34	ABCD34
Sponsored and unsponsored BDRs	35-40	ABCD35

Tickers for equities traded in odd lot on the cash market are the same as the tickers for equities traded in standard lots on the cash market except that they end with the letter F (for fraction), as exemplified below.

Type of security	Number	Example
Common stock	03	ABCD3F
Preferred stock	04	ABCD4F
Class A preferred stock	05	ABCD5F

The encoding of assets traded through Midpoint order, Request for Quote (RFQ) or Book of Block Trade (BBT) follows the encoding of assets traded in standard lots, with the addition, respectively, of the letter 'M', the letter 'R' or the letter 'Q' at the end of the code, as exemplified below.

Type of securtiy	Number	Example
Common stock	03	ABCD3M
Preferred stock	04	ABCD4M
Class A preferred stock	05	ABCD5M
Common stock	03	ABCD3R
Preferred stock	04	ABCD4R
Class A preferred stock	05	ABCD5R
Common stock	03	ABCD3Q
Preferred stock	04	ABCD4Q
Class A preferred stock	05	ABCD5Q

1.1. Special rules for trading in subscription rights and subscription warrants

Trading in subscription rights is allowed between the date set for subscription to start and the third business day prior to the end of the period designated by the company for exercising subscription rights.

Trading in subscription warrants is allowed between the date set by the company and the third business day prior to the end of the period designated by the company for exercising the rights granted by subscription warrants.

1.2. Special rules for trading in subscription receipts

Trading in subscription receipts is allowed, provided they relate to fully paid up shares in accordance with the applicable legislation and regulations.

Trading in subscription receipts occurs only during the period that precedes execution of the respective capital increase or, in the case of investment funds, until the end of public distribution.

Any rights to outstanding subscription receipts belong to the original subscribers in accordance with the applicable legislation and regulations.

If the capital increase is not executed, buyers of subscription receipts are only entitled to receive from the **issuer** a refund of the amount actually paid by the original subscriber.

New securities issued by **issuers** are traded separately from existing securities only if the **issuer** expressly establishes in the act of approving the respective issue or in its constitutional documents that future dividends and other entitlements arising from the new securities will be distributed separately from future dividends and other entitlements on its existing securities.

If an **issuer** establishes pro-rata rights at different percentages, B3 may at its discretion require the securities to trade via different instruments.

1.3. Special rules for trading in securities affected by distribution of entitlements

Any change in the form of **trading** in securities due to the distribution of dividends and other entitlements must follow the procedures established in B3's issuer listing and securities admission to trading rulebook and issuer manual. In the event of non-compliance with the provisions of these normative documents, B3 may suspend trading in the affected **assets** in accordance with the applicable regulations and this trading procedures manual.

Trading in securities without rights to dividends and other entitlements begins on the business day subsequent to the cutoff date set by the **issuer**, as defined in B3's issuer manual, and the instruments concerned are quoted "ex-" for eight consecutive **trading sessions**.

If required by its internal operating procedures, B3 may create an update **corporate event** that entails a new distribution on a **security** without in any way affecting **investors** financially.

2. CASH PRIVATE FIXED-INCOME MARKET

The private fixed-income **assets** traded on the cash market are subject to the **trading**, **auction** and **trading tunnel** procedures described in this trading procedures manual.

Tickers for private fixed-income **assets traded** on the cash market, except fixed-income ETFs, are structured as follows: the first four characters designate the **issuer**, the fifth character is fixed (-), the sixth, seventh and eighth characters designate the type of **asset**, the ninth and tenth characters designate the issue and **series**, and the eleventh and twelfth characters designate the **settlement** mode.

Example: **AAAA-BBBCCDD**

Component	Description
AAAA	**Issuer** of the **asset**
-	Fixed character
BBB	Type of **asset**
CC	Issue and **series**
DD	**Settlement** mode

Ticker	Asset
CRA	Agribusiness receivables certificates
CRI	Real estate receivables certificates
DCA	Convertible debentures
DEB	Debentures
LFI	Financial bonds
NPR	Promissory notes

Settlement mode	Description
B0	Gross settlement T+0
L0*	Netting on T+0
L1*	Netting on T+1
L2**	Netting on T+1

* Not available for CRI, CRA or FID.

** Only for private fixed-income ETFs.

Tickers for fixed-income ETFs are structured as follows: the first four characters designate the fund name, and the fifth and sixth characters correspond to the number of the **security**, in this case the ETF fund.

Example: **AAAAXX**

Component	Description
AAAA	Name of ETF fund
XX	Number of ETF fund

2.1. Trading groups

Trading groups are organized according to the characteristics of fixed-income **assets** and the modes and times for **settlement**, as shown in the table below.

Settlement mode	Group
Gross settlement T+0	0B
Netting on T+0	0L

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

Settlement mode	Group
Netting on T+1	1L
Netting on T+1	2L

3. DERIVATIVES MARKET

The **derivatives** market involves standardized futures and options contracts admitted to **trading** on B3 and settled in accordance with B3's clearinghouse rulebook and operating procedures manual.

All **orders** and **trades** registered in the **trading system** for agricultural **derivatives** are disclosed anonymously, i.e. without identifying the participant by trading code, in the market data feed and execution report messages.

3.1. Futures contract

The structure of the futures contract **trading** instrument is as follows: the first three characters designate the contract, the fourth character designates the contract month, and the fifth and sixth characters designate the contract year.

Example: **AAABCC**

Component	Description
AAA	Futures contract
B	Contract month
CC	Contract year

The codes for the fourth character designating the contract month are shown in the table below.

Contract month	Code	Contract month	Code
January	F	July	N
February	G	August	Q
March	H	September	U
April	J	October	V
May	K	November	X
June	M	December	Z

3.1.1. Futures contract referenced in assets belonging to the equity cash market

The structure of the futures contract **trading** instrument referenced in **assets** belonging to the equity cash market is as follows: the first four characters designate the futures contract on **assets** belonging to the equity cash market, the fifth character designates the type of **equity** or **unit**, the sixth character designates the contract month, and the seventh and eighth characters designate the contract year.

Example: **AAAABCDD**

Component	Description
AAAA	Future contract referenced in **assets** belonging to the equity cash market
B	Type of **assets** belonging to the equity cash market
C	Contract month
DD	Contract year

3.1.2. Rules on entitlement distribution

Whenever bonus shares are issued or any other payout is made in the form of new shares, the minimum quantity and round lot for trading in single stock and unit futures is adjusted as applicable for contract months with open **positions**. The minimum quantity and round lot for all other contract months, including those registered after the payout event, remain unchanged, i.e. as specified in the respective contract.

The minimum quantity and round lot parameters are updated, where necessary, for the **trading** session subsequent to that in which the payout occurs.

3.1.3. Rollover Structured Transaction

The structure of the rollover trading instrument is as follows: (i) the first three characters designate the **underlying**, the fourth through sixth characters designate the first contract month (short leg), and the seventh through ninth characters designate the second contract month (long leg), except for the **assets** belonging to the equity cash market futures rollover trading instrument, which is structured as follows: (ii) the first four characters designate the **underlying**, the fifth character designates the type of equity or unit, the sixth through eighth characters designate the first contract month (short leg), and the ninth through eleventh characters designate the second contract month (long leg).

Example: (i) AAABCCDEE

Component	Description
AAA	**Underlying asset** of futures contract rollover
B	Month of first contract month (short leg)
CC	Year of first contract month (short leg)
D	Month of second contract month (long leg)
EE	Year of second contract month (long leg)

Example: (ii) AAAABCDDEFF

Component	Description
AAAA	**Underlying asset** of **assets** belonging to the equity cash market futures contract rollover
B	Type of **underlying**
C	Month of first contract month (short leg)
DD	Year of first contract month (short leg)
E	Month of second contract month (long leg)
FF	Year of second contract month (long leg)

The types of **assets** belonging to the equity cash market, as well as the products authorized for **trading**, are available from B3's portal.

3.1.4. U.S. Dollar Futures and U.S. Spot Dollar Structured Transaction (U.S. Dollar "Casado")

U.S. Dollar "Casado" creates an inverse nature **execution** in the first contract month available of the U.S. Dollar Futures (DOL) exchange rate, **traded** on the **trading platform**, and another **execution** of the same nature in the U.S. Spot Dollar with T+2 settlement, settled at the B3 Foreign Exchange Clearinghouse.

The U.S. Dollar "Casado" structured transaction is allowed by an operational strategy for **full trading participants** qualified to **trade** in the **derivatives market** and authorized by the **investor** (institution authorized to trade in a foreign exchange market, qualified as an agent at the B3 Foreign Exchange Clearinghouse B3and as a client of a **full trading participant** at the B3 Clearinghouse), subject to the operational rules described below:

I – U.S. Dollar "Casado" **trades** do not trigger U.S. Dollar Futures (DOL) exchange rate stop **orders** and do not affect the price of the last trade, calculation of the settlement price or the price statistics of the legs created;

II – for the last trading session of the month, the U.S. Dollar Futures (DOL) exchange rate leg is changed to the second available contract month; and

III – only **orders** that contain the identification of the **investor** will be allowed.

Considering the characteristics mentioned above, the **trade** automatically created in U.S. Dollar Futures (future leg) exchange rate will be processed at the electronic **trading platform** and

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

forwarded to the B3 Clearinghouse and the **trade** automatically created in U.S. Spot Dollar will be processed at the B3Foreign Exchange Clearinghouse.

The structure of the **trading** instrument for U.S. Dollar "Casado" comprises four letters, which indicate the U.S. Dollar Futures (DOL) exchange rate and an inverse **trade** of the same amount in U.S. Spot Dollar with T+2 settlement (Spot).

Example: **CSD2**

Component	Description
CS	U.S. Dollar Futures Exchange rate **underlying**
D2	U.S. Spot Dollar with T+2 settlement **underlying**

3.1.5. Neutral DV01 or PU Structured Transaction of one-day DI average rate futures contracts (DI1), IPCA coupon futures contract (DAP) or foreign exchange coupon forward rate agreement (FRC) structured operations

The structured transaction of DV01 Neutral or PUA Neutral allows the simultaneous **trading** of two DI1, DAP or FRC maturities, in inverse nature (sell or buy), in quantities that neutralize the DV01 or PU measures of each of the two maturities of these contracts.

The quantities that neutralize the measures of DV01 and PU are periodically updated, as defined in the **trading** terms of the instrument of the respective transaction.

The trade of the structured transaction (composed of two maturities) automatically generates (i) an inverse trade in the first maturity of the futures contract (short side); and (ii) a same nature trade in the second maturity of the future contract (long side).

The structure of the DV01 Neutral or PU Neutral structured transaction trading instrument is as follows: (i) the first three characters designate the **underlying** as an indicative of PU Neutral or DV01 Neutral, (ii) the fourth through sixth characters designate the first contract month (short leg), and (iii) the seventh through ninth characters designate the second contract month (long leg).

Example: AAABCCDEE

Component	Description
AAA	**Underlying** of futures contract
B	Month of first contract month (short leg)
CC	Year of first contract month (short leg)

D	Month of second contract month (long leg)
EE	Year of second contract month (long leg)

The DV01 Neutral or PU Neutral structured transaction does not trigger stop orders on the DI1, DAP and FRC futures contracts and does not affect the price or the last trade, the calculation of the settlement price, the price statistics of the legs and the market protections of the generated legs.

3.1.6. One-day DI average rate futures contracts Trade at Settlement Structured Transaction (DIT)

The one-day DI average rate futures contract Trade at Settlemente Structured **Transaction** is characterized by the **trading** of a DI1 future contract maturity at the settlement price published on the **trading** day, plus a differential expressed as a negative rate, positive or zero.

The **trading** of the structured operation automatically generates a position in the DI1 futures contract of the same quantity and nature and price equal to the adjustment rate of the DI1 futures, on the trading day, plus the spread traded in the structured **transaction** Trade at Settlement.

The structure of the DI future contract Trade at Settlement **trading** instrument is as follows: (i) the first three characters designate the **underlying** of the DI future contract Trade at Settlement structured transaction, (ii) the fourth character designates the DI1 future contract month and (iii) the fifth to sixth characters designate the DI1 future contract year.

Example: **AAABCC**

Component	Description
AAA	Underlying
B	Contract month
CCC	Contract year

The Trade at settlement structured transaction does not trigger stop orders at the DI1 future contracts and does not affect the last traded price, settlement price calculation, the leg statistics, and the leg market protections.

3.2. Options market

The options market involves **trading** in the rights granted to holders of call and put options on **assets** belonging to the equity cash market the indices, futures and spot, or to holders of continuous exercise options or option with single-scenario exercise.

Orders in the options market must mention quantity, **series** and premium.

3.2.1. Call and put options on assets belonging to the equity cash market

The structure of the **trading** instrument for call and put options on **assets** belonging to the equity cash market indices comprises five letters, the first four of which designate the **issuer's** ticker, with the fifth corresponding to the contract month and option type, as shown in the table below, followed by one or more numbers representing the option **series**.

Example: **AAAABCCC**

Component	Description
AAAA	Ticker
B	Contract month and option type
CCC	Option **series**, one to three characters

Contract month	Option type	
	Call	Put
January	A	M
February	B	N
March	C	O
April	D	P
May	E	Q
June	F	R
July	G	S
August	H	T
September	I	U
October	J	V
November	K	W
December	L	X

3.2.1.1. Weekly-expiring options

The structure of the trading instrument for call and put **options** on **assets** belonging to the equity cash market with and indices with weekly expiration compromises 5 (five) letters, the first four being indicative of the issuer's trading code or index, the 5th (five) letter corresponding to the expiration month and type of option, followed by one or more numbers representing the option series, accompanied by the letter indicating the expiration day of the week and by the indicative number representing the order and expiration week, as per the table below.

Example: **AAAABCCCXN**

Component	Description
AAAA	Ticker
B	Contract month and **option** type
CCC	Option **series**, 1 (one) to 3 (three) characters
X	A - indicates that the option expires on Monday
	B - indicates that the option expires on Tuesday
	C – indicates that the option expires on Wednesday
	D – indicates that the option expires on Thursday
	E – indicates that the option expires on Friday
	X – indicates that the weekly option expires on the same day of the week as the monthly option on the same underlying asset
N	Number from 1 (one) to 5 (five) indicating the order of the expiration week. Example: If the option expires on Mondays, "1" indicates that it expires on the 1st Monday of the month, "2" indicates that it expires on the 2nd Monday of the month, and so on.

Expiration	Option type	
	Call	Put
January	A	M
February	B	N
March	C	O
April	D	P
May	E	Q
June	F	R
July	G	S
August	H	T
September	I	U
October	J	V
November	K	W
December	L	X

3.2.2. Call and put options on futures and spot contracts

The structure of the **trading** instrument for call and put options on futures contracts and spot contracts is as follows: the first three characters designate the name of the contract, the fourth character designates the contract month, the fifth and sixth characters designate the contract year, the seventh character designates the option type (C for call and P for put), and the eighth through thirteenth characters designate the strike price.

Example: **AAABCCDEEEEEE**

Component	Description
AAA	Contract
B	Contract month
CC	Contract year
D	Option type
EEEEEE	Strike price

3.2.3. Option with single-scenario exercise

The structure of the trading instrument for option with single-scenario exercise is as follows: the first three characters designate the name of the contract, the fourth character designates the month of the meeting, the fifth and the sixth characters designate the year of the meeting, the seventh character designates the type of meeting held by the Monetary Council or Committee, responsible for defining the rate for each country ordinary meeting (C) or extraordinary meeting (P), and the eighth to thirteenth characters designate the strike price.

Example: **AAABCCDEEEEEE**

Component	Description
AAA	Contract
B	Meeting month
CC	Meeting year
D	Type of meeting held by the Monetary Council or the Committee responsible for setting the rate for each country
EEEEEE	Strike price

3.2.4. Continuous Exercise Options

The structure of the trading instrument for options continuous exercise is composed as follows: the first three (3) characters (AAA) refer to the contract name; the 4th (fourth) and 5th (fifth) characters (BB) indicate the option's expiration time; the 6th (sixth) and 7th (seventh) characters (CC) represent the option's expiration day; the 8th (eighth) character (D) indicates the expiration month; the 9th (ninth) and 10th (tenth) characters (EE) indicate the expiration year; the 11th (eleventh) character (F) indicates the type of option, namely, call (C) or put (P); finally, the 12th (twelfth) to the 17th (seventeenth) characters (GGGGG) refer to the designated strike price.

Example: **AAABBCCDEEFGGGGGG**

Component	Description

AAA	Contract
BB	Expiration time
CC	Expiration day
D	Expiration month
EE	Expiration year
F	Option type
GGGGGG	Strike price

3.2.5. Option writing

Options may be written only in expressly authorized **series** by means of their sale during a **trading session**.

The obligations that arise from option writing are extinguished:

I - By closeout of the position;

II - By exercise of the position; or

III - By expiration of the option if it is not exercised before expiration.

3.2.6. Option style and exercise

Options may be American-style or European-style.

Owners of American-style **options** can exercise them at any time until expiration, as of the **trading session** subsequent to acquisition, except for **options** on **assets** belonging to the equity cash market acquired on the expiration date, which can be exercised on the same day. However, if they do not exercise their American-style **options** by the expiration date, they lose the right to exercise them.

Owners of European-style options can exercise them only on the expiration date. If they do not exercise on the expiration date, they lose the right to exercise.

Options are exercised via a writer's (seller's) position, chosen preferably by a drawing among covered positions or uncovered positions after all covered positions have been used.

Option exercise may be manual or automatic, in accordance with the option contract specifications, as follows.

I - Manual exercise: Requested expressly by the owner if the strike price of a call option **series** is lower than the cash price of the **underlying or** if the strike price of a put option **series** is

higher than the cash price of the **underlying**. Even if these conditions are not the case, exercise is allowed if the difference is not material to the **underlying's** price continuity.

II - Automatic exercise: Available for options series on **assets** belonging to the equity cash market and performed automatically by B3 using the following criteria:

(a) Call options: if the **underlying's** price on the cash market is higher than the strike price;

(b) Put options: if the **underlying's** price on the cash market is lower than the strike price; and

(c) When the above conditions are not met, automatic exercise can still be performed, provided an automatic exercise request is submitted by the **participant** and the price difference is not relevant to the continuity of the **underlying asset** prices and remains within the maximum variation value defined by B3.

The **underlying asset** price that will be used as a reference for the automatic exercise of **options series** on **assets** belonging to the equity cash market will be the last price of the **underlying asset** traded in the regular **trading session** on the expiration date. If no trades occur on that date, the price to be used will be the closing price of the last **trading session** in which the **asset** was traded.

For **options** on futures and spot, **assets** belonging to the equity cash market, the holder can choose not to exercise at expiration and hence block automatic exercise.

Manual exercise performed before the time set by B3 and individually or in aggregate equivalent to the **investor's** total position results in immediate expiration of the exercise request.

Writers (sellers) of options on futures and spot may perform purchases for blocking purposes in order to close out their positions by the date specified in the futures or spot contracts concerned.

Times for exercise and blocking purchase, as well as products grouped in terms of the above functionality, can be found on B3's portal.

3.2.6.1. Daily-Expiring Options

The structure of the **trading** instrument for daily-expiring **options** is composed as follows: the first three (3) characters (AAA) refer to the contract name; the 4th (fourth) and 5th (fifth) characters (BB) indicate the day of the month, in numeric format, of the option's expiration; the 6th (sixth) character (C) indicates the expiration month; the 7th (seventh) and 8th (eighth) characters (DD) indicate the option's expiration year; the 9th (ninth) character (E) indicates the option type, namely call (C) or put (P); finally, the 10th (tenth) through the 15th (fifteenth) characters (FFFFF) refer to the strike price.

Example: **AAABBCDDEFFFFF**

Component	Description
AAA	Contract
BB	Day of the month
C	Expiration month
DD	Expiration year
E	Option type
FFFFFF	Strike price

3.2.6.2. Exercise of options with single-scenario exercise

Exclusively for the Copom **option**s with single-scenario exercise, the exercise will be automatic for the expiring series whenever the traded strike price is equal to the fixing price, according to the contract's technical specification.

3.2.7. Registration and settlement of trades

Exercise entails **registration** or cash settlement of buy and sell **trades** in the **underlying** at the strike price, in accordance with the contract specifications.

In the case of options on indices, exercise is automatic, i.e. commanded and processed by B3 as soon as the index concerned has been calculated if:

I - The index is higher than the strike price, for call options;

II - The index is lower than the strike price, for put options.

B3 calculates settlement indices daily as the arithmetic average of the values of the index (which are published by B3 every thirty seconds) observed in the last three hours of **trading**, excluding the closing **call**.

If **trading** is interrupted on the expiration day of options on Index during the calculation period of the settlement index, a new weighting factor will be assigned to the values of the indices published after the interruption. In this case, the weighting factor used for the calculation of the settlement index is the ratio between the number initially foreseen for the calculation period minus the quantity already executed before the interruption and the number of publications that can be executed after trading returns. Once calculated, the factor will be applied to the weighting of the indices published based on the trading return. This process is repeated for each trading interruption event. Therefore, the sum of all published and weighted values divided by the number of publications that occur in three hours results in the settlement index value.

The settlement value of an exercise **trade** is equivalent to the difference in local currency between the settlement index and the strike price.

3.2.8. Options contract months

Contract months for **options** vary according to the **underlying asset** and are described in each contract and on B3's website.

3.2.9. Rules on entitlements distribution

In the event of entitlement distribution, the strike price of options on equities admitted to trading, whether or not there are open positions, is adjusted on the day the **underlying** stock begins trading ex- on the cash equity market, in accordance with the following procedures:

I - In the case of cash entitlements, the strike price is adjusted on the day the stock begins trading "ex-" on the cash equity market by deducting the net value of the dividend from the strike price, and **settlement** is performed at the **underlying** "ex-" price;

II - In the case of subscription or the exercise of any other preemptive right, the strike price is adjusted on the day the stock begins trading "ex-" on the cash equity market by deducting the theoretical value of the right. Calculation of the right is based on the last price prior to the "ex-" date, and settlement is performed with "ex-" stock;

III - In the case of bonus issues or any payout in new shares, the quantity, round lot and strike price, as applicable, are adjusted in proportion to the percentage payout. The round lot does not change in series created after the payout event.

3.3. Instrument registration

3.3.1. Options on equities, BDRs indices and ETFs

B3 permits **trading** in option **series** according to the following criteria:

I - With regard to style, call options on equities, BDRs and ETFs may be American- and European-style but puts must be European-style. All options on the Index are European-style.

II - The interval between strikes prices for option **series** admitted to **trading** is based on their structure, respecting the table of standard intervals for strike prices and the criteria available from B3's portal.

III - Option **series** can be registered automatically or on request, in accordance with the criteria available from B3's portal.

IV - B3's Central Counterparty Risk Internal Committee must approve all requests to register option **series** that are not referenced in the equities in the IBrX-100 theoretical portfolio, ETFs, the Ibovespa or the IBrX-50, as well as requests to register **series** with longer tenors than those permitted by this trading procedures manual.

V - B3 may deregister option **series** that:

(i) Were admitted to **trading** at least one month previously;

(ii) Have no open interest;

(iii) Have not been traded in the past month;

(iv) Have a delta of less than 0.01 or more than 0.99.

VI - B3 may at its discretion exclude a **series** with no open interest and reuse its ticker to register a new **series**.

3.3.2. Automatic series registration

The rule on automatic registration of option series is available from B3's portal.

3.3.2.1. Registration of option series by participant request for trading on next day

The maximum tenor for new **series** of options on equities in the theoretical portfolio of the IBrX-100, on ETFs, BDRs and on indices are available on the B3's website.

New registration requests must be justified and may be accepted or denied by B3 depending on its assessment.

B3 will accept requests to create options at its sole discretion, provided they comply with the minimum intervals for strike prices.

Requests to create options for **trading** as of the next day must be submitted by 6:00 p.m.

The maximum deadlines for requests to create option **series** expiring in the same week are available on the B3 website.

3.3.2.2. Registration of option series by participant request for trading on same day

Registration of option **series** for **trading** in the current **trading session** is allowed if duly justified by the requesting **participant**.

B3 will accept requests to create options at its sole discretion, provided they comply with the minimum intervals for strike prices, in accordance with the criteria available from B3's portal.

Requests to register new options will be accepted if the need to trade on the same day is justified for at least one **series** (call or put) for each strike price requested.

The time limit for requesting the creation of options for **trading** on the same day is one hour before the end of the **trading session**.

The creation of **series** for **trading** on the same day is announced in two (2) notices to the market published with a five (5) minute interval, so that there is a period of at least ten (10) minutes between the creation of the **series** and its release for **trading**.

3.3.2.3. Registration of option series on futures, spot and with single-scenario exercise

Call and put options on futures, spot and with single-scenario exercise are admitted to trading on B3, which allows registration of new **series** according to the criteria detailed below.

Requests to create **series** of call and put options on financial **derivatives** are accepted only if the options concerned are European-style, except in the case of call and put options on S&P futures.

Requests to create **series** of call and put options on spot contracts are accepted only if the options concerned are European-style.

Requests to create call and put options on agricultural **derivatives** are accepted only if the options concerned are American-style.

The option with single-scenario exercise will only be created in the European- style.

3.3.3. Registration of option series on U.S. Dollar (DOL), mini U.S. Dollar with monthly expirations (WDO) and weekly expirations (DS1, DS2, DS3, DS4), and U.S. Dollar volatility structured transactions (VTC)

For options on U.S. Dollar (DOL), mini U.S. Dollar with monthly expirations (WDO) and weekly expirations (DS1, DS2, DS3, DS4), and U.S. Dollar volatility structured transactions (VTC), the following criteria are used:

I - For call and put options with expirations that coincide with the first three futures contract months, **series** will be authorized with strike prices at intervals of BRL 25.00/USD 1,000 regardless of the option deltas;

II - For call and put options with different expirations from the first three contract months, **series** will be authorized with strike prices at intervals of BRL 50.00/USD 1,000 regardless of the option deltas. The strike price of a **series** will always be a round multiple of BRL 50.00/USD 1,000.

3.3.4. Registration of option series on one-day interbank deposit rate futures (IDI)

For call and put options on one-day interbank deposit rate futures (IDI), the following criteria are used:

I - **Series** with expiration dates that coincide with the first three calendar months of DI1 will have minimum intervals of twenty-five (25) index points, and new creation requests will be accepted only on demand with justification by the **participant**;

II - All requests for the first three contract months will be analyzed by B3 considering the technical and commercial aspects, and if approved will be available for **trading** on the day after approval;

III - For all other contract months the minimum interval will be one hundred (100) index points.

3.3.5. Registration of option series on one-day interbank deposit rate futures, European style (D11, D12, D13, D14, D15, D16, D18 or D19)

For call and put European-style options on one-day interbank deposit rate futures (D11, D12, D13, D14, D15, D16, D18 or D19), the intervals are 0.25 or multiples thereof.

3.3.6. Registration of option series on S&P futures

For call and put options on S&P futures (ISP), **series** will be authorized with strike prices at intervals of five (5) points and American-style only.

3.3.7. Registration of option series referenced in futures contracts of agricultural derivatives

For call and put options on agricultural derivatives the following criteria are used:

Call and put **series** will be created simultaneously for the same strike price and expiration. Expiration of an option (call or put) will be authorized only if the contract month of the underlying futures has already been admitted to **trading**.

For call and put options on the index of the average rate of one-day repurchase transactions (ITC) referenced in federal government bonds, **series** will be authorized only if there are registered OC1 futures contract months. Otherwise B3's Central Counterparty Risk Internal Committee will analyze the request. The minimum interval for registration of these **series** is one hundred (100) index points.

For contract months in **series** that have already been created, the following rules apply:

I - New **series** of strike prices may be created, respecting the minimum interval established in the parameters detailed below for creating option **series** on agricultural futures between two strike prices;

II - **Series** of strike prices already created can be preserved even if they do not comply with the rule in the previous item;

III - If a structured or arbitrated transaction with the international market requires the creation of a **series** that does not comply with the above criteria, the **full trading participant** concerned must apply to B3 to create the **series**, and B3 is empowered to analyze the request and decided at its sole discretion whether to accept it;

IV - If an agricultural **derivative** displays an atypical price, B3 may authorize the creation of **series** besides those defined in the parameters for creating option **series** on agricultural futures.

The parameters for opening **option series** on agricultural futures contracts are available on B3's website.

3.3.8. Registration of option series with single-scenario exercise

The following criteria are used for the option with single-scenario exercise:

I - Two (2) contract months will be automatically created by B3;

II - The other contract months will be created upon approval of B3's Central Counterparty Risk Internal Committee.

The list of registered series is available on B3's portal.

3.4. Criteria for creating and excluding derivatives contract months

The criteria for creating new contract months of **derivatives** vary according to the type of **derivative** and its **trading** characteristics and are available from B3's portal.

Series and contract months are available for trading only on the next day after creation (T+1).

Authorized **series** and contract months are divided into two categories:

I - Automatic registration;

II - Pre-approval, with registration on request by the **full trading participant**, **trading participant** and **foreign participant**, depending on B3's analysis.

Contract months in the first category are created automatically by B3 with no need for requests by market **participants**. The quantity must be the minimum necessary to guarantee efficient **trading** dynamics and must be concentrated in the most liquid contract months, such as nearby expirations for U.S. Dollar and Ibovespa futures, the start of the year for interest rates, and harvest periods for agricultural contracts, among others.

The second category comprises contract months previously approved by B3 and with trading potential assessed in response to requests from market participants. This entails assessing technical aspects such as the liquidity of the requested contract months and **underlyings**, seasonality and trading characteristics, among others. The list of pre-approved contract months is available from B3's portal.

For requests not covered by the list of pre-approved contract months, B3 may authorize the creation of new contract months based on an analysis of such technical aspects as liquidity, concentration, seasonality and trading history, among others.

3.4.1. Criteria for distributing contract months across trading groups

B3 may classify the contract months in a given **series** into different **trading** groups based on liquidity, so as to distinguish the values used as parameters for **trading tunnels** and activate the **auction** rule for the first **trade**.

Trading groups are divided into three categories:

I - Low liquidity

II - Medium liquidity

III - High liquidity.

Contracts may be configured as a single group, as two groups, or if necessary, as three groups. The classification of contract months into different **trading** groups and the respective **trading tunnel** parameters, as well as activation of the **auction** rule for the first **trade**, can be found on B3's portal.

4. STRATEGY TRADES

Trades may be executed by means of **trading** strategies on the markets for **assets** and **derivatives** in compliance with the **trading** rules described below.

I - Strategies devised by **investors** are allowed and are automatically priced by the **trading system**, as follows:

(a) Determination of the strategy's fair value, understood as the value of the strategy calculated on the basis of the reference price for each of its individual components (the price of the last **trade**, closing price, or reference price in the case of options);

(b) Verification of the difference between traded price and fair value;

(c) Price adjustments for each of the strategy's individual components.

II - The prices of options in the **trading system** are calculated using the pricing model defined by B3.

III - **Orders** originating in strategy **trades** have matching priority even if the price of each of the strategy's individual components is equal to or lower than the price of the best registered **bid** or equal to or higher than the best registered **ask**.

IV - Strategy **trades** using **assets** in which **trading** has been suspended are not allowed.

V - Strategy **trades** are publicized using specific **trading** codes and are not subject to **rejection tunnels**.

VI - Strategy **trades** do not trigger stop **orders** and do not affect the price of the last **trade**, the calculation of indices or **asset** statistics.

VII - If a strategy **trade** spread leads to prices outside the **trading tunnel** limits for the strategy's individual components, B3 defines the duration of the **auction** at its sole discretion.

The list of strategies is available from B3's portal.

4.1. Procedures

Strategy **trades** must comply with the following procedures:

I - All strategy **trades**, which the **auction** tunnel does not apply, are submitted at an **auction** lasting at least five minutes.

II - **Orders** at the opening price are not accepted;

III - Spread **auction** taking **orders** for at least one round lot;

IV - Box **auction** taking orders for the smallest exposed lot (quantity);

V - Strategy **trades** can be executed only if **orders** are registered not less than thirty minutes before the end of the **trading session**.

Strategy trades resulting from spread **orders**, which the **auction** tunnel does not apply, are submitted to an **auction** lasting at least five minutes, taking orders for at least one round lot. The time limit for **trades** resulting from spread **orders** is thirty (30) minutes before the end of the **trading session**.

Strategy **trades** may be executed with outstanding **series** up to the business day prior to expiration.

Forward funding **trades** meeting the criterion of quantity compared with the **issuer's** registered share capital and requiring prior publication of an **auction** notice are submitted to an **auction** lasting at least one hour.

5. FORWARD MARKET

5.1. Trading instrument for forwards

Forwards on **assets** admitted to trading on B3 are allowed, for tenors agreed between the parties within the range provided by B3.

The list of **assets** admitted to **trading** on the forward market, as well as the maturities, can be found on B3's website.

Forward funding **trades** must be registered at a rate equal to or better than the best rate offered by the market at the time of their registration on the cash market.

Trades that do not comply with this rule will be canceled and submitted to **auction**.

Forwards must be registered with the name of the **underlying**, quantity, price, rate and expiration date, by direct declaration or a declaration sent to the counterparty.

Renewals of forwards cannot be registered with price variations exceeding three per cent (3%) of the price of the last **trade** executed on the cash market.

A forward funding **auction** cannot be held if the **asset** concerned has not been traded on the cash

market for at least five **trading sessions** or has a **theoretical price** after paying an entitlement.

Forward funding **trades** are permitted in accordance with the provisions of this trading procedures manual.

Information on minimum and maximum rates, weighted averages and arithmetic means in the forward market are published by B3 in its market data feed and trading bulletin.

5.1.1. Trading instrument structure

The structure of the forward **trading** instrument is the same as the cash market ticker followed by the letter T:

Forward	Character	Example
Regular	T	ABCD4T

5.2. Cash market forward structured transaction (TV)

Forward structured transactions in the cash market (TV) are executed to raise cash and renew already registered forwards. The procedures are detailed below.

I - A **full trading participant**, **foreign participant** or **trading participant** C_1, acting on behalf of its **investor**, registers a declaration of purchase in the **trading system** on T_0, specifying:

(a) The counterparty, **underlying**, quantity and price of the **trade** on the cash market;

(b) The tenor and interest rate for the **trade** to be registered on the forward market.

II - The **trading system** validates the price of the **trade** on the cash market with the spread agreed on T_0. This price must be equal to or higher than the best **bid** or equal to or lower than the best **ask** registered for the **underlying** on the cash market.

III - A **full trading participant**, **foreign participant** or **trading participant** C_2, acting on behalf of its **investor**, registers in the **trading system** on T_1 a declaration of sale opposite to the declaration registered by the **full trading participant**, **foreign participant** or **trading participant** C_1, specifying the same characteristics of the trade listed in item (i).

IV - The **trading system** validates the purchase and sale declarations registered, and then (assuming they are validated) registers:

(a) A cash market **trade** N_1 that reverses the buying and selling **full trading participants**, **trading participants** or **foreign participants**, i.e. in which the buyer and seller are **full trading participants** or **trading participants** C_2 and C_1 respectively;

(b) One or more **trades** on the forward market with **full trading participants**, **foreign participant** or **trading participants** C_1 and C_2 as the buyer and seller respectively and the same specifications as in the purchase and sale declarations registered on the forward market.

V - **Full trading participants**, **foreign participants** or **trading participants** C_1 and C_2 can be the same.

VI - If the validation procedure performed by the **trading system** detects any divergences in the specifications contained in the registered purchase and sale declarations, the **trading system** does not register the spot market and forward market **trades**.

5.3. Structured transaction involving forward and already registered cash market trade (TVR)

This transaction (TVR) is used to convert a registered cash market **trade** into a forward market **trade**.

After a cash market **trade** N_0 is executed on T_0, with **full trading participants**, **foreign participants** or **trading participants** C_1 and C_2 as buyer and seller respectively, acting on behalf of their respective **investors**, **full trading participant**, **foreign participant** or **trading participant** C_1 decides to convert it into a forward market **trade**. This entails a TVR, which is executed as follows:

I - The buying **full trading participant**, **foreign participant** or **trading participant** C_1 registers a purchase declaration in the **trading system on** T_1 (subsequent to T_0) specifying:

(a) The **trade** N_0 to be converted, the **underlying** and the price;

(b) The quantity of the **asset** (equal to or less than the quantity of the **trade** N_0), the tenor, the interest rate, the selling **full trading participant**, **foreign participant** or **trading participant** C_3 and the **investor** for the forward to be registered (the same as N_0).

II - The **trading system** validates the conversion by verifying:

(a) Whether the **trade** N_0 and the respective **allocation** have been registered;

(b) Whether the **full trading participant**, **foreign participant** or **trading participant** that registered the purchase declaration is the buying **full trading participant**, **foreign participant** or **trading participant** C_1 for the **trade** N_0;

(c) Whether the buying **investor** in the purchase declaration is the buying **investor** for the trade N_0.

III - **Full trading participant**, **foreign participant** or **trading participant** C_3, acting as buyer of the **trade** N_1 to be registered on the cash market and as seller of the **trade** to be registered on the forward market (funder), registers in the **trading system** on T_2 (subsequent to T_1) an opposite declaration to the purchase declaration registered by **full trading participant**, **foreign participant** or **trading participant** C_1, i.e. a sale declaration.

IV - The **trading system** validates the purchase and sale declarations registered on the forward market by **full trading participants**, **foreign participants** or **trading participant** C_1 and C_3.

V - If no inconsistencies are detected, the **trading system** registers:

(a) One or more **trades** on the forward market, with **full trading participant**, **foreign participant** or **trading participant** C_1 and C_3 as buyer and seller respectively, in accordance with the specifications in the declarations registered on the forward market;

(b) A **trade** N_1 on the cash market with the same characteristics as N_0 but opposite to it, and with **full trading participant**, **foreign participant** or **trading participant** C_3 and C_1 as buyer and seller respectively. This **trade is** not disclosed via the market data feed.

VI - If divergences are found between the specifications in the purchase and sale declarations registered on the forward market by **full trading participants**, **foreign participants** or **trading participants** C_1 and C_3, the **trades** mentioned in (i) and (ii) are not registered by the **trading system**.

VII - **Full trading participants**, **foreign participants** or **trading participants** C_1, C_2 and C_3 can be the same.

The following table sums up the **trades** associated with a TVR (PNP= **full trading participant**; PN = **trading participant**).

Trade	Buyer	Seller
N_0 – cash market	PNP or PN C_1 **Investor** X	PNP or PN C_2 **Investor** Z
N_1 – cash market	PNP or PN C_3 **Investor** Y	PNP or PN C_1 **Investor** X
Forward	PNP or PN C_1 **Investor** X	PNP or PN C_3 **Investor** Y

5.4. Trading instrument for forwards on foreign-exchange swaps

The structure of the **trading** instrument for forwards on foreign-exchange swaps comprises the first three characters of the name of the **underlying**, followed by a fourth character designating the expiration month, a fifth character consisting of the last digit of the expiration year, and a sixth and seventh character corresponding to the day on which the contract expires.

Example: **AAABCDD**

Component	Description
AAA	**Underlying** with periodic adjustment based on one-day repurchase commitments (repos)
B	Expiration month
C	Last digit of expiration year
DD	Day on which contract expires

The creation of new foreign-exchange swap instruments is established by BCB.

CHAPTER II – ORGANIZED OVER-THE-COUNTER MARKET AS CENTRALIZED MULTILATERAL TRADING SYSTEM

1. GENERAL PROVISIONS

Trading in **assets** on the **organized over-the-counter (OTC) market** via the **trading system** must observe the applicable **trading** procedures described in Title III of this trading procedures manual, in accordance with the type of **asset** traded.

Order entry and **trade** registration on the OTC market is permitted for **orders** and **trades** with quantities equal to the round lot or multiples thereof, although **order** entry and **trade** registration of odd lots is allowed in the case of certain **assets**.

2. TRADING IN EQUITIES

2.1. Trading instrument

The structure of the **trading** instrument for **equities** traded in round lots on the cash market is shown below. The letter B at the end of the ticker shows that the security is admitted to **trading** on the OTC market.

Type of security	Number	Example
Common stock subscription rights	1	AAAA1B
Preferred stock subscription rights	2	AAAA2B
Common stock	3	AAAA3B
Preferred stock	4	AAAA4B
Class A preferred stock	5	AAAA5B
Class B preferred stock	6	AAAA6B
Class C preferred stock	7	AAAA7B
Class D preferred stock	8	AAAA8B
Common stock subscription receipts	9	AAAA9B
Preferred stock subscription receipts	10	AAAA10B

Tickers for securities **traded** in odd lots are the same as those for the securities traded on the cash market plus the letter F at the end, as shown below.

Type of security	Number	Example
Common stock	3	ABCD3BF
Preferred stock	4	ABCD4BF
Class A preferred stock	5	ABCD5BF

2.2. Ordinary auctions

Ordinary **auctions** held on the OTC market follow the price formation (fixing) rules established by this trading procedures manual.

An **auction** will be held if a **trade** meets the quantity, quotation or tradability criterion. The quality criterion is subdivided into average traded quantity and quantity compared with the **issuer's** registered share capital.

2.2.1. Quantity

2.2.1.1. Average traded quantity

Asset trades that meet this average traded quantity criterion in the last thirty (30) **trading sessions** follow the special procedure described below:

Quantity	Duration
Lot from twenty times average traded quantity	**Auction** lasting at least fiveminutes

Once an **auction** has been announced because the above average quantity criterion has been reached, the quantity announced becomes the new valid average quantity for the rest of the **trading session** concerned.

2.2.1.2. Quantity compared with issuer's share capital

The following special procedures apply to **trades** that meet these criteria of quantity compared with the **issuer's** registered share capital:

Quantity	Duration
Lot between 2% and 4.99% of common or preferred shares	**Auction** lasting at least fifteen minutes
Lot from 5% of common or preferred shares	**Auction** lasting at least one hour

In this case, even if an **auction** is held, the quantity of **assets** compared with the **issuer's** share capital must comply with the above parameters for the rest of the **trading session**.

2.2.2. Price parameter

The price parameters that apply to the **organized OTC market** and the relevant special procedures are available from B3's portal.

2.2.3. Tradability

Trades that meet these tradability criteria follow the special procedures described below:

Criterion	Duration
First **trade** in **asset** on day admitted to **trading**	**Auction** lasting at least fifteen minutes
First **trade** in **asset**, if not traded on day admitted to **trading**	**Auction** lasting at least fifteen minutes
First **trade** in **asset** after occurrence of **corporate event**	**Auction** lasting at least five minutes

During an **auction**, if the theoretical price reaches one hundred per cent (100%) above the starting price or fifty per cent (50%) below the starting price, the **auction** is extended for fifteen (15) minutes for publication of the new theoretical price.

If a **trade** has to be submitted to **auction** owing to more than one criterion (quantity or **quotation**), the criterion that entails the longest time to publication is chosen.

2.2.4. Operation fragmentation

B3's Director of Electronic Trading conducts periodic analyses to detect, in up to five (5) consecutive **trading sessions**, situations in which **trades** are concentrated and/or split among two or more **investors** via one or more **full trading participants**, **trading participants** and/or **foreign participants**. For this purpose, individuals or legal entities acting on behalf of the same interest are considered as the same **investor**. **Operations** carried out in one or more **trading sessions** that show a concentration higher than the quantity criteria set out in this operational procedures manual, to which special procedures have not been applied, will be investigated by B3 and reported to CVM for analysis and, if necessary, case opening for necessary actions to be taken. The following situations will not foresee the adoption of special trading procedures and therefore will not be part of the report to CVM:

I - **Day trade**s that do not display evidence of having been executed with intent to transfer **positions** between two or more **investors**;

II - **Trades** executed by **market makers**;

III - **Trades** involving strategies with **assets** and their **derivatives**;

IV - Situations in which the liquidity of an **asset** increases without impairing its price formation and market participation in the distribution of operations.;

V - Forward funding **trades**;

VI - **Trades** with a financial value of less than fifty thousand Brazilian Reais (BRL 50,000);

VII - **Trades** that interacted with the **central offer book** and allowed the free possibility of interference from other **investors**, understood as those that were not executed through the use of cross **orders** and did not have the coordinated sending of buy **orders** and sell **orders** with a time difference of less than 30 (thirty) seconds.

2.2.5. Share Disposal by the Controlling Shareholder

Controlling shareholders may request their respective intermediaries to submit the shares to **auction** if the total amount to be disposed of in ordinary and/or preferred shares, even when fragmented across different brokers and within 5 (five) trading sessions, exceeds the quantity parameters in relation to the company's share capital. Failure to comply with this provision by controlling shareholders will be reported to the CVM, with a copy to the BSM.

Trading participants, **full trading participants** or **foreign participants**, once requested by the company's controlling shareholder to carry out a sale transaction of common and/or preferred shares that exceeds the percentage parameters of the issuer's share capital, and upon receipt of the client seller's declaration, must request B3 to submit the security to **auction**. Upon receiving such request, B3 will communicate to the market through a **message** from its news agency regarding the sale of securities owned by the controlling shareholder or administrator. The **foreign participant**, once triggered by the company's controlling shareholder to carry out the transaction, must notify the **full trading participant** so that they can request B3 to submit the share to auction.

In the event of a change in control, the controlling shareholder may determine that the transaction be carried out through an **auction** with interference only on the buying side, solely for the acquisition of the entire offered lot.

2.2.6. General Provisions

Trading participants, **full trading participants** or **foreign participants**, upon receiving orders that fall under any of the hypotheses provided in this operational trading procedures manual, must immediately inform B3 for the adoption of the required measures in each case.

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

Regardless of the above criteria, and with prior communication to the market, the Electronic Trading Director of B3 may:

a. Determine that a **transaction** be submitted to auction (i) if the lot to be traded is atypical; (ii) to ensure price continuity; or (iii) for technical or prudential reasons, with prior communication to the market; and
b. Determine that an asset be traded in a non-continuous manner, with one or more **auctions** held with a minimum duration of 15 minutes.

The **auction** procedures are subject to extension according to parameters established by B3 and made available on its website.

3. TRADING IN FIXED-INCOME ASSETS

3.1. Trading instrument structure

The structure of the **trading** instrument for private fixed-income **assets,** except fixed-income ETFs, is as follows: the first four characters designate the name of the **asset**; the fifth character is fixed (-); the sixth, seventh and eighth characters designate the **asset** type; the ninth and tenth characters designate the issue and **series**; and the eleventh and twelfth characters designate the **settlement** mode.

Example: **AAAA-BBBCCDD**

Component	Description
AAAA	**Issuer**
-	Fixed character
BBB	**Asset** type
CC	Issue and **series**
DD	**Settlement** mode

Asset name	Description
CRA	Agribusiness receivables certificates
CRI	Real estate receivables certificates
DCA	Convertible debentures
DEB	Debentures
FIC	Credit rights funds of funds
FID	Credit rights investment funds
LFI	Financial bonds

Asset name	Description
NPR	Promissory notes

Settlement mode	Description
0B	Gross OTC on T+0

Tickers for fixed-income ETFs are structured as follows: the first four characters designate the fund name, and the fifth and sixth characters correspond to the number of the **security**, in this case the ETF fund.

Example: **AAAAXX**

Component	Description
AAAA	Name of ETF fund
XX	Number of ETF fund

3.2. Trading group

Given the existence of only one settlement mode (gross OTC on T+0) on the **OTC market**, fixed-income **assets** belong to only one trading group (9F).

3.3. Auction tunnel

B3 may at its sole discretion refrain from applying **auction tunnels** to fixed-income **assets** on the **organized OTC market**.

4. EX-PIT TRADES

Ex-pit trades are not submitted to market intervention as their purpose is to close out **positions** created by forwards in the following cases:

I - **Trades** characterized as hedging;

II - **Trades** executed to arbitrate prices in effect on other organized securities markets, including those located abroad;

III - **Trades** executed to permit closeout of **positions** held by **investors** declared to be in default or with difficulties to settle executed **trades**.

In situations (i) and (iii) above, B3 may authorize the **registration** of **cross trades** in agricultural **derivatives**.

The following procedures are required to register an **ex-pit trade**:

I - The **full trading participants**, **trading participants** and/or **foreign participants** concerned file documents proving the **trade's** existence by the end of the **trading session** prior to execution of the **trade**. If B3 rejects the documentation, it can be rectified by the **full trading participants**, **trading participants** and/or **foreign participants**;

II - The **full trading participants**, **trading participants** and/or **foreign participants** supply details of the **ex-pit trade** on the **registration** date;

III - The **investors** named in the **registration** details must be the contracting parties to the forward contract.

Ex-pit trade financial volume is disclosed in the market data feed, but is not included in the statistics published by the **trading system** and does not affect the settlement prices of **derivatives**. Registered **ex-pit trades** are published in B3's trading bulletin and on its portal, with details of quantity, price, **derivative** and **full trading participant**, **trading participant** and/or **foreign participant**.

CHAPTER III – SPOT FOREIGN-EXCHANGE MARKET

1. GENERAL PROVISIONS

Trades are executed in the spot foreign-exchange **trading environment** via **participants** authorized to provide intermediation services for these **trades** by entering **bids** and **asks** for United States Dollars (USD).

2. TRADING INSTRUMENT

The structure of the **trading** instrument for spot foreign-exchange **trades** is as follows: the first three characters designate the contract name; the fourth character designates the mode; and the fifth through eighth characters designate the time to **settlement**.

Example: **AAABCCCC**

Component	Description
AAA	Market
B	Mode
CCCC	Time to **settlement**

3. TRADING

Trading groups are organized in accordance with the times to settlement established by BCB and can be found on B3's portal.

4. ROUND LOT AND TICK SIZE

The round lot is fifty thousand U.S. Dollars (USD 50,000). **Orders** and **trades** must be in multiples of round lots, limited to twenty-five million U.S. Dollars (USD 25,000,000).

Tick size is available from B3's portal.

5. ORDER TYPES AND DISCLOSURE

Only limit **orders** valid for the same day can be entered and must identify the **investor**.

All **orders** and **trades** registered in the **trading system** for spot foreign-exchange **trades** are disclosed anonymously in the market data feed, i.e. without the **participant's trading** code.

Spot foreign-exchange **trades** are not submitted to **auction** owing to their operational characteristics.

6. REJECTION TUNNEL

Spot foreign-exchange **trades** are subject only to the type 2 rejection tunnel, whose center is defined as follows:

I - The price used is the price of the last **trade**, updated every minute;

II - If no **trades** are executed in a **trading session**, the price used is the closing price for the previous **trading session**;

III - If no **trades** were executed in the previous **trading session**, the price used is the registration price on the **organized OTC market**.

TITLE IV – FINAL PROVISIONS

CHAPTER I – SANCTIONS AND PRUDENTIAL MEASURES

Notwithstanding the sanctions established by B3's trading rulebook, B3 is empowered to apply the following prudential measures.

1. INFRINGEMENT OF PROCEDURES OR INADEQUATE USE OF CONNECTIONS

In the event of infringement of the procedures established by B3 or inadequate use of **connections**, B3 may at its sole discretion:

I - Issue a written warning to the **full trading participant**, **foreign participant** and/or **trading participant** involved;

II - Immediately block the **connections** involved;

III - Limit the flow of **orders** from the **full trading participant**, **trading participant** and/or **foreign participant**;

IV - Review the Execution Broker seal awarded by the Operational Qualification Program (PQO) to the responsible **full trading participant**.

2. INFRINGEMENT OF THE RULES FOR USING THE PRE-TRADING RISK CONTROL TOOL OR INADEQUATE USE OF RISK LIMITS

In the event of infringement of the rules for using the pre-trading risk control tool or inadequate use of the risk limits assigned by **full trading participants**, **foreign participants** and/or **trading participants** to **investors**, B3 may at its sole discretion:

I - Issue a written warning to the **full trading participant**, **foreign participant** and/or **trading participant** involved;

II - Immediately block any **connections** used by **investors** classified as high-frequency traders (HFTs) and not connected to the pre-trading risk control tool;

III - Limit the flow of **orders** from the **full trading participant**, **trading participant** and/or **foreign participant**;

IV - Take other prudential measures to mitigate operational and counterparty risks.

3. DECLARATION OF SPECIAL SITUATION OF FULL TRADING PARTICIPANT, TRADING PARTICIPANT OR FOREIGN PARTICIPANT

Due to the declaration of a **special situation** by the **full trading participant**, **trading participant** or **foreign participant**, B3 may:

I - immediately cancel the **orders** of these **participants** in the central **order** book, regardless of the instructions from the **clearinghouse**, intervener or board of directors, except for those placed by their guidance;

II - block the connections of the traders and conveyors of the **full trading participant**, **trading participant** or **foreign participant**, regardless of the instructions from the **clearinghouse**, intervener or board of directors. The unlocking of the connection occurs only with the instruction from the **clearinghouse**, intervener or board of directors; and

III - block the trading under the responsibility of the **full trading participant**, **trading participant** or **foreign participant**, regardless of the instructions from the **clearinghouse**, intervener or board of directors, via the pre-trading risk control tool.

CHAPTER II – APPEALS AGAINST SANCTIONS

Application of the sanctions called for by B3's trading rulebook and this trading procedures manual is always preceded by written notification sent electronically to the **full trading participant**, **trading participant**, **foreign participant** and **trade registration participant** involved, as applicable, assuring the right to a full adversarial defense.

This notification must set a deadline for the presentation of a defense, which should not be less than fifteen (15) calendar days, except in the case of a market maker as described in Section 2.7 of Title II of this manual, and name the person or entity responsible for the infringement. The defense must be sent electronically to B3.

B3 analyzes the defense and then communicates its decision to the **full trading participant**, **trading participant**, **foreign participant** and **trade registration participant** involved, as applicable, setting a time limit for the infringement to be remedied if it has concluded that an infringement did indeed occur and if the infringement has not already been remedied.

A request for a review containing a clear and reasoned exposition of its rationale must be filed within fifteen (15) calendar days of B3's notification of its decision.

Observing article 101 of B3's trading rulebook, a review request must be filed with suspensive effect, if applicable: (i) with the Chief Operating Officer – Electronic Trading and CCP in the case of a penalty applied by the Director of Electronic Trading; or (ii) with the Chief Executive Officer (CEO) in the case of a penalty applied by the Chief Operating Officer – Electronic Trading and CCP.

The review request is analyzed and a final decision, which must be fully reasoned and cannot be appealed, is communicated to the **full trading participant**, **trading participant**, **foreign participant** and **trade registration participant** involved, as applicable.

A penalty originally applied by the Chief Operating Officer – Electronic Trading and CCP or through its respective Boards of Directors and/or superintendencies in accordance with B3's trading rulebook can be appealed to the instance that applied the penalty by filing a petition that contains a clear and reasoned exposition of its rationale within fifteen (15) calendar days of B3's notification of the original decision.

Application of the sanctions established by B3's trading rulebook takes into account the nature and gravity of the infringement, the harm done to the market and **participants**, advantages gained by the offender, prior infringements of any rules and procedures established by B3's trading rulebook and this trading procedures manual, and any repeated offending, characterized when a **full trading**

participant, **trading participant**, **foreign participant** or **trade registration participant**, as applicable, commits an offense after an unappealable conviction for the same offense.

Penalties imposed in compliance with the provisions of B3's trading rulebook and this trading procedures manual must be communicated to CVM, BSM, BCB, and other regulatory authorities, where necessary.

CHAPTER III – NOTICES TO THE MARKET

B3 publishes news via the **trading platform**, in messages sent to email addresses previously registered by **full trading participants**, **trading participants** and **foreign participants**, via an instant messaging application and on B3's portal.

B3 also publishes a daily bulletin entitled *Boletim de Negociação* containing details of the day's **trades**, options exercised and open interest in the derivatives markets. Data on the following is published separately: box spread **trades**, **ex-pit trades** and **trades** executed during the **after-market** session.

B3 also uses its daily bulletin to publish normative acts and other information it deems useful to the market.

CHAPTER IV – SUPPLEMENTARY RULES

B3's Director of Electronic Trading is empowered to issue rules to supplement this trading procedures manual and to take any measures necessary to assure full compliance herewith.

All rules and regulations published by B3 enter into immediate effect as of their signature or the date established by the publications concerned.

The usages and customs accepted by the market apply subsidiarily to this trading procedures manual.

ANNEX I

MINIMUM CONTENTS OF RULES AND ACTIVITY PARAMETERS FOR FULL TRADING PARTICIPANTS AND TRADING PARTICIPANTS

The rules and activity parameters for **full trading participants** and **trading participants** shall govern at least the following:

I - Accreditation;

II - The types of **order** accepted;

III - **Order** entry times;

IV - The form of **order** issuance, including the accepted instant messaging services;

V - The policy for **trading** by related persons and own portfolio **trading**;

VI - The duration of **order** validity;

VII - The procedures for refusing and cancelling **orders**;

VIII - **Order** registration procedures;

IX - **Order** execution procedures (execution, non-execution and confirmation), including those for **orders** received via "home broker" online trading software;

X - **Trade** distribution procedures, including rules on brokerage and tripartite give-up;

XI - **Trade settlement** procedures;

XII - Risk control;

XIII - **Asset** custody;

XIV - Voice recording;

XV - Communication with **investors** on changes to the rules and activity parameters.

Notwithstanding the above, the rules and activity parameters for **full trading participants** and **trading participants** shall require compliance with the following principles:

I - Probity in the conduct of their activities;

II - Assurance of market integrity, including with regard to the selection of **investors** and compliance with collateral requirements;

III - Capacity to perform the activities concerned;

IV - Diligence in executing **orders** and specifying **investors**;

V - Diligence in controlling **investor** positions in custody, with routine reconciliation of:

(a) Executed **orders**;

(b) Positions shown in account statements provided by the custody service provider;

(c) Positions shown by clearinghouses;

VI - The obligation to provide **investors** with the information required for **order** execution;

VII - Implementation of measures to prevent the execution of **trades** involving conflicts of interest and assure fair treatment of **investors**;

VIII - Timely provision of **trade** documentation to **investors**.

ANNEX II

MINIMUM CONTENTS OF INTERMEDIATION AGREEMENTS OR EQUIVALENT INSTRUMENTS

Full trading participants, **trading participants** and **foreign participants** shall enter into intermediation agreements or equivalent instruments in order to execute **trades** on behalf of **investors**, in accordance with the applicable regulations. Such agreements must contain at least the clauses listed below.

I - The parties to the agreement undertake to comply with the following as and when applicable: the legislation in force; B3's standards and procedures as defined in its bylaws, rulebooks, manuals, and circular letters; the rules and parameters governing the **participant's** activities; and any specific rules issued by government authorities that may affect the terms of the agreement.

II - The **investor** must keep current the registration details it supplies to the **participant** or foreign intermediary, as applicable, and file the information and documents required for this purpose whenever asked to do so.

III - For prudential reasons the **participant** may at its sole discretion refuse to receive or execute all or part of the **investor's orders** and may cancel any **orders** entered but not yet executed.

IV - The **investor** undertakes to maintain its account with the **participant** and keep it in funds, complying with the timeframe established by the **participant** so as to discharge all its obligations or ensure that they can be discharged.

V - The **investor** acknowledges and agrees that if its account contains insufficient funds or if it fails to effect payment for transactions within the timeframe stipulated by the **participant**, the **participant** may use the funds or credits it administers and holds on the **investor's** behalf to pay down or offset the sums owed by the **investor**, regardless of any notification.

VI - In order to discharge the **investor's** obligations regarding which it is a creditor or guarantor, the **participant** may use as it sees fit any of the **investor's assets** and rights it may hold.

VII - In order to discharge the **investor's** obligations, the **participant** may sell or order the immediate sale at the market price of any of the **assets** acquired on the

investor's behalf or posted as collateral by the **investor**, including the positions and **assets** linked to the **investor's** obligations in the markets operated by B3.

VIII - The **investor** acknowledges and agrees that if it fails to settle debts arising from transactions performed on the markets operated by B3, it will be included in the list of defaulting **investors** and be banned from **trading** until said debts are settled, in accordance with the applicable rules issued by B3.

IX - The **investor** will be considered non-defaulting only upon confirmation that the funds in question have been received by (i) the **participant**, (ii) the **participant's clearing member**, and (iii) B3. Notwithstanding the terms of provisions (V), (VI) and (VII) above, the **investor's** collateral may be foreclosed (i) by the **clearing member**, if it does not receive from the **participant** the amount required to settle the transactions performed by the **investor**; and (iii) by B3, if it does not receive from the **clearing member** the amount required to settle the transactions performed by the **investor**.

X - If the **investor** uses a connectivity session for access to the **trading system**, the **investor** declares that it is aware that the password for logging on to the system is personal, non-transferable and for its exclusive use, and that transactions performed via this system using this password will be deemed to have been performed by the **investor**. The **participant** must report any suspicion of improper use of the **investor's** password to B3 and BSM, blocking the password if necessary, until the reason for its improper use is discovered and remedied.

XI - All conversations between the **investor** and the **participant** and its agents (including investment advisors) by telephone, email, instant messaging or the like will be recorded and stored for five (5) years, or longer in the event of administrative proceedings brought by CVM, B3 or BSM, and the stored recordings may be used as evidence to clarify any questions relating to the **investor's** account and transactions.

XII - If there is a relationship between the **investor** and any agents, including investment advisors linked to the **participant**:

(a) The **investor** must not deliver or receive any cash, securities or other **assets** to or from any agents, including investment advisors linked to the **participant**;

(b) The **investor** must not make any payments to agents, including investment advisors linked to the **participant**, for the provision of any services;

(c) No agents, including investment advisors, may act as the **investor's** attorney-in-fact or representative to the **participant** for any purpose;

(d) The **investor** may not engage any agents, including investment advisors linked to the **participant**, to provide portfolio management, consulting or securities analysis services, whether paid or free of charge;

(e) The **investor** may not give passwords or electronic signatures to agents of the **participant**, including investment advisors linked to the **participant**.

XIII - The standard intermediation agreement for **investors** who trade **derivatives** must also contain clauses providing for the following:

(a) The value of open positions is updated every day in accordance with the settlement prices for that day established according to B3's rules. In acting as a buyer in the futures market, the **investor** risks having its position negatively adjusted if prices fall. In acting as a seller in the futures market, the **investor** risks having its position negatively adjusted if prices rise. In either case, daily cash payments will be required to cover such variations in positions, as well as margin calls at the discretion of B3 and/or the **participant**;

(b) The **participant** may at its discretion:

(i) Limit the quantity of open positions held on the **investor's** behalf and close them out if they exceed the limit set;

(ii) Close out all or some of the **investor's** positions;

(iii) Foreclose the collateral posted in the **investor**'s name;

(iv) Sell or buy the contracts required to settle open positions in the **investor's** name.

XIV - At all times the **participant** may at its discretion:

(a) Increase margin requirement, including for positions held on the **investor's** behalf;

(b) Require the **investor** to post advance daily margin calls;

(c) Require any additional collateral deemed necessary;

(d) Require substitution of posted collateral, including for positions already registered and collateralized.

XV - The **investor** must post additional collateral and substitute posted collateral in compliance with the timeframe, terms and conditions established by the **participant**;

XVI - Maintenance under certain circumstances of locked or opposite positions in the same **participant**, whether in the options or futures markets, does not eliminate the market risk associated with such positions.

XVII - An **investor** who buys options risks the following:

(a) As the buyer of a call option, losing all or part of the premium paid if the option's intrinsic value (the difference between the price of the **underlying** and the strike price, if positive) is less than the premium paid for the option;

(b) As the buyer of a put option, losing all or part of the value of the premium paid if the option's intrinsic value (the difference between the strike price and the price of the **underlying**, if positive) is less than the premium paid for the option;

XVIII - An **investor** who writes options risks the following:

(a) As the writer of a call option, taking losses directly associated with a rise in the price of the **underlying** in the cash market;

(b) As the writer of a put option, taking losses directly associated with a fall in the price of the **underlying** in the cash market;

XIX - Open positions in futures and options may be settled by difference, via an equivalent but opposite transaction (purchase or sale) that realizes a profit, limits a loss or avoids exercise. However, liquidity conditions may hinder or prevent performance of an opposite **trade** in the requisite timeframe or at the desired price when linked to a limit order;

XX - In the event of situations not foreseen in derivatives contracts traded by the **investor**, government measures, or any other extraordinary factors that affect the formation, manner of calculation or publication of their variables, or entail their discontinuation, B3 will at its discretion take the steps it deems necessary to liquidate the **investor's** position or maintain it on an equivalent basis.

XXI - The intermediation agreement must highlight the clauses that restrict the **investor**'s rights and that warn about the market risks, such as, those regarding compulsory liquidation and risk of loss equity, among others.

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

XXII - In the event of a **special situation**, the **investor** authorizes, by operation of law and without the need for its prior or specific authorization, in accordance with B3's rules, the indication of the target **participant** by B3 and the transfer of positions held by the **investor** and respective guarantees for the target **participant**.

XXIII - In the event of a **special situation**, the **investor** is aware of the sharing of data and/or information maintained by the **clearinghouse** and/or the B3 **depositary** with the target **participant**, in accordance with B3's regulations.

XXIV - The intermediation agreement for non-resident **investors** who deposit guarantees abroad must additionally contain clauses that stablish that:

(a) The non-resident **investor** is aware of the eligibility criteria, established in the B3 Clearinghouse Risk Management Manual, which the **investor** must satisfy for the deposit of guarantees abroad.

(b) The non-resident **investor** is aware of the contents of the Non-Resident Investor Module applicable to such non-resident **investor**.

(c) The non-resident **investor** who deposits the guarantees abroad (i) declares that it meets the eligibility criteria established in the B3's Clearinghouse Regulations and the B3's Clearinghouse Risk Management; and (ii) indicates the category that the **investor** has the permission to deposit collateral guarantees abroad,

(d) The non-resident **investor** undertakes to notify the participant regarding (i) the occurrence of any event or change in circumstances that may adversely affect its ability to meet the eligibility criteria for the guaranteed deposit abroad; and (ii) cessation of meeting the criteria of eligibility, in any case, on the date on which the relevant event occurs or change of circumstances or assignment, or that such event, change of circumstance or assignment may reasonably occur; and

(e) The non-resident **investor** acknowledges and complies with the terms and obligations arising from the B3 Clearinghouse Regulation, the Risk Management of the B3 Clearinghouse and the Non-resident Investor applicable Module to such non-resident **investor**.