

August 16, 2022
098/2022-PRE

CIRCULAR LETTER

Listed B3 Participants

Re.: **Change to the Risk Calculation Methodology of the B3 Clearinghouse and to the B3 Clearinghouse Risk Management Manual**

We hereby inform you that as of **August 29, 2022**, the following change will be made to the risk calculation methodology of the B3 Clearinghouse: an optimized style closeout strategy will be used for determining groups of contracts and agreements.

According to the CORE methodology, closeout strategy definition is the first step in risk calculation and consists of establishing the set of procedures to be executed every day to completely close out a determined portfolio, considering its positions and collateral.

The closeout strategy defines the speed at which positions and collateral are closed out. A “naïve” closeout strategy, for example, establishes that the closeout occurs as quickly as possible, given the available liquidity to close out each instrument.

Once the closeout strategy has defined the number of days by which a portfolio’s positions and collateral are closed out, risk is calculated by applying price

variation scenarios to open positions and to closeout transactions, which allows calculation of the closeout cost of each portfolio.

The optimized style of closeout strategy seeks to increase the efficiency and precision of risk calculation, minimizing the portfolio's exposure to determined risk factors during the closeout process through the identification and maintenance of existing hedges in the portfolio, or by executing new transactions with a view to generating new protection for these risk factors.

Among the principal changes introduced by the optimized style of closeout strategy is the power to perform the following procedures:

1. minimization of exposure to the principal risk factor: positions in the portfolio are closed out as a set in a way that minimizes exposure to the selected principal risk factor
2. use of immunization: transactions are introduced with instruments that might not underlie positions that belong to the portfolio, so as to reduce exposure to selected risk factors

The optimized closeout strategy may entail, therefore, the need for transactions with instruments that are not part of the defaulting investor's portfolio.

Non-execution of the transactions described in the closeout strategy, together with unfavorable market conditions, may lead to a closeout cost for the portfolio that is higher than the value of the investor's margin requirement.

The optimized closeout strategy will be used for calculation of the margin requirement, in accordance with the CORE methodology, for a selected set of

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contracts and instruments whose principal risk factor is the U.S. Dollar to Brazilian Real exchange rate (spot dollar).

The list of selected instruments will be made available when the change goes into production, at www.b3.com.br/en_us/, Products and Services, Clearing and Settlement, Clearing, Risk management, Intraday risk management structure, Parameters of the risk model.

Information, supporting material and updates about the project are available at clientes.b3.com.br/en_us/, Roadmap, Projects, All projects, FPRs Optimization – U.S. Dollar.

B3 Clearinghouse Risk Management Manual

The new version of the B3 Clearinghouse Risk Management Manual (Manual), with changes regarding the new optimized closeout strategy type in Chapter 7 (Risk calculation), described in the Annex hereto, will come into effect on **August 29, 2022** and will be available at www.b3.com.br/en_us/, Regulation, Regulatory Framework, Regulations and manuals, Clearing, settlement and risk management, Access the documents, B3 Clearinghouse.

The changes to the Manual aim to introduce:

1. new closeout transactions to minimize risks incurred during the closeout process
2. new parameters associated with the closeout transactions
3. a closeout strategy named “optimized closeout strategy”

4. groups of positions eligible for liquidity resource provision

Furthermore, throughout Chapter 7 corrections have been made to numbering, to the formatting of terms in boldface or italics, and to parameter names.

Further information can be obtained from the Risk Management Department by telephone on +55 11 2565-5032.

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Annex to CIRCULAR LETTER 098/2022-PRE

Description of the Changes – B3 Clearinghouse Risk Management Manual

CHAPTER 7 – RISK CALCULATION

We have made the following changes:

1. introduction of new closeout transactions to minimize risks incurred during the closeout process
2. introduction of new parameters associated with the closeout transactions
3. introduction of the “optimized closeout strategy” denomination
4. definition of groups of positions eligible for the provision of the liquidity resource
5. correction, throughout the chapter, of the numbering of formulas, of the formatting of terms in boldface or italics, and of parameter names

Change 1. Enables the execution of structured transactions and of immunization in the defaulter’s portfolio closeout process. The structured transactions seek to: **(i)** minimize risks due to the low liquidity of instruments belonging to the portfolio **(ii)** maintain a hedge during the closeout process, or **(iii)** mitigate exposure to secondary risk factors. Immunization procedures, for their part, aim to reduce exposures to the principal risk factors of the selected set of instruments and assets.

Change 2. This introduces three important parameters that restrict the execution of closeout transactions and help assure the viability of the closeout strategy in adverse conditions. They are:

- liquidity transition, which designates, for each contract, how many days before its first expiration date that the transfer of daily liquidity begins into the instrument with the next expiration
- number of expirations with liquidity transition, which designates, for each contract, the number of instruments that have a daily liquidity limit changed in accordance with the liquidity transition
- rollover date, which designates, for each futures contract, how many days before its front month expiration that the rollover structured transaction may be executed

Change 3. This is due to the inclusion of a new section in the Manual, named “Optimized closeout strategies”.

The new section details the general guidelines applicable to the definition of an optimized closeout strategy, summarizes the procedures for defining this type of strategy and provides an example of the procedure’s application. The following are the principal guidelines:

- (i) closeout transactions are selected regardless of the choice of risk scenario by which the portfolio is closed out
- (ii) the strategy is defined by a determined risk factor

- (iii) the strategy applies to closing out positions in a determined set of instruments and assets with a significant exposure to the risk factor referred to in (ii), selected as principal risk factor for this set of instruments and assets
- (iv) the selection of closeout transactions seeks to minimize the portfolio's exposure to the principal risk factor derived from the positions in instruments and assets defined in item (ii), throughout the portfolio closeout process

Change 4. This enables the creation of groups of positions eligible for the provision of a liquidity resource. The CORE methodology's risk calculation considers the provision of liquidity resources to cover temporary needs for resources to close out positions, and the collateral eligible for this liquidity resource.

The set of instruments and assets that are eligible for this provision will be divided into different groups in order to separate positions in accordance with significant exposures to different risk factors. In this way, liquidity provision will solely apply to future negative financial flows and future positive financial flows that result from positions belonging to the same group.

Liquidity provision, considering all the groups, remains subject to the maximum available value available as a liquidity resource for the investor.

Change 5. This consists of the following corrections throughout chapter 7:

- (i) correction to the numbering of the formulas
- (ii) text changed in Portuguese to say “minimum time *for execution*”
- (iii) change to the boldface of “transactions” and “transaction”
- (iv) change to the italics format of the names of parameters

Section 7.4 – Closeout strategy

Section 7.4.1 – Definition of the closeout strategy under the CORE methodology

We have made the following changes to this section:

- introduction of new closeout transactions
- introduction of new parameters associated with the closeout transactions

Section 7.4.2 – Closeout strategies for different sets of positions

Section 7.4.2.7 – Optimized closeout strategy

This section has been included to introduce the “optimized closeout strategy”.

Section 7.6 - Determining risk measures

7.6.2 Transitory loss

7.6.2.1 Temporary liquidity needs

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This change aims to introduce different groups of positions eligible for the liquidity provision without clearing between them. The list of instruments belonging to each group of eligible positions will be published on the B3 website.

Section 7.7 - Module CORE0 – Risk calculation of allocated positions under the collateralization made by investors

Section 7.7.1 - Investor’s risk – Worst aggregate loss and worst risk scenario

We have made the following changes to this section

- change to the text and calculation formula for the liquidity resource, to include different groups of positions eligible for the liquidity provision
- change to the text of the example to reflect the inclusion of groups of positions eligible for the liquidity provision

Section - 7.7.5 Potential liquidity resource

We have made the following changes to this section

- correction to the equation for calculating the potential liquidity resource
- correction to the name of the metric in the text prior to equation 7.22, substituting “permanent gain” with “gain of eligible positions”