Risk

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Argentina Clearing

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1. Introduction

Argentina Clearing y Registro S.A., hereinafter Argentina Clearing or ACyRSA, has the mission to create sustainable value through the offer of services of registration, clearing, settlement, guarantee and custody of marketable securities and Over-the-Counter (OTC) contracts, in an efficient and safe manner, in markets and stock exchanges of Argentina and the region.

As part of the Matba Rofex Group, hereinafter MtR, it offers services of registration, clearing, settlement and guarantee in the capacity of central counterparty (CCP) entity approved by the National Securities Commission (CNV, *for its acronym in Spanish*) over all the derivative operations traded through MtR.

It also conducts the settlement of operations over mutual funds (FCI, *for its acronym in Spanish*) quota shares offered through the Mutual Funds Market (MFCI, *for its acronym in Spanish*).

Additionally, it offers registration, clearing and settlement services over operations of OTC derivatives and marketable securities. Within this service, the clearing and settlement of operations over electronic credit invoices (FCE, *for its acronym in Spanish*) traded through platforms framed within Article No. 13, Law No. 27,440 is outstanding.

On the other hand, within the national system of payments, it acts in its role of financial market infrastructure as manager of Echeqs, authorized as per the Argentine Republic Central Bank (BCRA, *for its acronym in Spanish*).

(Note: In order to view all the offered services, please see Annex I.)

An essential condition for the correct operation of these services is the settlement certainty; that is, the guarantee that operations will be effectively settled on the terms and deadlines established for each market or platform to which the service is provided. To ensure the settlement certainty and the integrity of the participants' rights, as well as to mitigate the risks implicit in operations, is the role of the risk management system.

More precisely, the risks inherent to operations refer to:

Credit risk: is the risk that a counterparty, either a participant or another entity, cannot fully satisfy its financial obligations in due time and proper form.

Market risk: consists in the risk of losses derived from the variation of the price of assets and contracts in a value higher than that of guarantees.

Liquidity risk: is the risk that a counterparty, either a participant or another entity, does not have enough funds to satisfy its financial obligations in due time and proper form, even if it can do it in the future.

Legal risk: is the risk that a law or regulation may be unexpectedly applied; thus, generating a loss. Legal risk may also arise if the application of pertinent laws and regulations is unforeseeeable. In turn, legal risk also includes the risk of a loss as a consequence of a delay in the recovery of financial assets or a freezing of positions.

Operational risk: is the risk that the faults in the information systems or internal processes, human mistakes, management errors or the disruptions caused by external events originate a reduction, a deterioration or an interruption in the services provided by ACyRSA, thus generating delays, losses or liquidity problems.

Custody risk: is the risk that a loss affects the securities kept in custody due to the insolvency, negligence, fraud, misadministration or the inappropriate maintenance of a custodian's (or sub-custodian's) records.

Physical delivery risk: (also known as principal risk), it refers to the risk to which futures contracts settled by delivery (in opposition to the ones settled by difference) are exposed to lose all the securities/goods delivered or the funds transferred to a failed counterparty for receiving nothing in return.

The main source of risk for ACyRSA, within the context of the CCP service in the settlement of operations, is the possibility of the participants' default or delayed compliance with the obligations derived from their operations. This situation exposes ACyRSA to credit risk; that is, to the risk of losses related to not receiving the expected funds, as originally defined.

In the absence of a default event, ACyRSA is not directly exposed to market and liquidity risks, as it does not have long or short net positions in the contracts admitted for its registration in its systems (a zero-sum game). On the contrary, in a default situation, it assumes direct exposure to market and liquidity risks. In case of default, it is Argentina Clearing's main role to activate its safeguard mechanisms to protect the correct settlement of operations, in due time and proper form.

Also, services provided by ACyRSA, as any other business activity, are exposed to legal and operational risks.

On the other hand, the participants in their different levels are exposed to the custody risk which implies the deposit of collateral. Also, the operations settled by physical delivery of the underlying product expose operators to the principa lrisk.
It is the role of the risk management system to mitigate those risks to ensure the correct settlement of operations. The purpose of this handbook is to describe this system, by detailing its rules, procedures and management criteria as regards the operations whose settlement is ensured by ACyRSA. This is why the handbook will address the different components of the risk management system, namely: good governance, risk monitoring, risk calculation models, collateral management process, chain of responsibilities in the settlement process, safeguard system structure and recovery plan.

In the good governance section, the set of relations among the ACyRSA shareholders, its Board of Directors, senior directors and other interested parties, including participants, authorities and other groups of interest (such as indirect participants, participants' clients and the market in general) will be addressed as regards risk management. Particularly, there will be a detail of the roles of the Clearing System Risk Committee, which is responsible for the assessment and proposal of improvements to the system policies of risk management and control, as well as for advising the Board of Directors.

The risk monitoring process will refer to the intraday risk follow-up through which it assesses, during the times of trading and registration of operations, the risk of each participant and its impact at the level of guarantees, the compliance with operating limits assigned to participants and the control of the concentration limits established through the open position limits (LPA, *for its acronym in Spanish*). There will also be a detail about the follow-up matrix of the operational and credit risk which participants represent to ACyRSA.

As regards the risk calculation models, there will be a list of the ones used to quantify the potential losses in case of a participant's default.

On the other hand, the section about the collateral management process will deal with the rules and procedures related to their acceptance and safeguard in guarantee, movement, valuation and execution.

Regarding the chain of responsibilities in the settlement process, reference will be made to the set of relations among the different classes of participants and ACyRSA, and their responsibility for the compliance with the obligations emerging from operations.

In the section about the safeguard system, the mechanisms of loss mitigation due to the default with obligations in the transactions settlement process will be detailed as per the scheme of responsibilities defined in the affectation order of guarantees in case of default.

In turn, the Recovery Plan will deal with the mechanisms to be adopted by Argentina Clearing in order to guarantee the continuity of its critical services in such a way to mitigate the systemic risk occurring when there is a stress scenario and once all the mechanisms foreseen in the safeguard system have been exhausted.

Finally, in the last section of the document, a glossary is included.

2. Good governance

Good governance states the processes through which an organization sets its goals and the means to achieve them, and controls the performance as regards the set goals. Good governance also provides the appropriate incentives so that the Board of Directors and senior directors make an effort to achieve goals which are beneficial to the diverse interested parties and support the public interest.

Particularly as regards risk management, the ACyRSA Board of Directors is responsible for the margins system and the CCP stress tests frame (as key elements of the CCP risk management general frame) to be designed so as to establish and continuously keep the required level of the safeguard system financial resources and to determine both its own financial resources amount as well as their characteristics to absorb potential losses.

It is also responsible for establishing a dissemination and feedback mechanism to interact with direct and indirect participants and other parties interested in the mentioned areas of their risk management.

Therefore, in accordance with the CNV General Resolution No. 817 which requires clearing houses and markets to have a Risk Committee to assess and propose improvements to the system policies of risk management and control, the ACyRSA Board of Directors has constituted the Clearing System Risk Committee composed of 6 directors (4 permanent and 2 deputy members), a General Deputy Management, a Risk Management and a Corporative Legal Management.

Clearing System Risk Committee

Its most important roles are:

- To assess and propose the clearing system policies of risk management and control, as well as to advise the corporation's Board of Directors about all the measures that may affect the Clearing House's risk management
- To establish and watch the role of risk management and strategy, and the most relevant decisions about risks
- To ensure the development and maintenance of the risk management within a control environment
- To highlight and report the system risk items which may require the Board of Directors' attention
- To revise at least every three months the stress tests conducted in order to assess the appropriateness of financial resources, to estimate the needs for liquidity and to know the volume of losses that the Clearing House may suffer
- To periodically revise the models and parameters adopted to calculate the contributions to guarantee funds and other risk control mechanisms

On the other hand, this Committee ensures the adoption of the best practices as regards risk management. In this sense, to achieve the excellence of our business and reduce the risks which both the company and our participants may face, Argentina Clearing's risk management procedures are based on the applicable Principles for Financial Market Infrastructures (PFMI) published by the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commission (IOSCO). Argentina Clearing is the only Financial Market Infrastructure (FMI) in the country which complies with the CPMI-IOSCO requirements as for rules disclosure, main procedures and market data, including:

- Qualitative self-assessment of applicable PFMIs
- Disclosure of quantitative information for CCPs (Public Quantitative Disclosure, PQD)

It is also worth mentioning ACyRSA's participation as a member of the CCP12 organization where it works actively in the subgroup of quality assurance and expansion of the model template for the PQD, whose goal is to ensure the highest possible quality in the information provided in the PQDs as well as the standardization and expansion of the use of the model template developed ad hoc by CCP12.

Also, to date, ACyRSA is the only FMI in the scope of the CNV selected by the CPMI-IOSCO's group of implementation and permanent monitoring
(Information Management System Group, IMSG) to be part of its regular monitoring exercises, thus showing its full commitment with the compliance of PFMIs.
These achievements contribute to the strengthening and development of MtR, as they enable our current and potential clients, especially international financial entities, to understand and analyze the risks associated to the CCP, to extend the investment quotas authorized to operate in MtR, to decide more quickly to participate in the market and mitigate the risk for penalties due to not operating in CCPs complying with the IOSCO principles.

To access to the information published in self-assessments, please visit here (http://www.argentinaclearing.com.ar/compliance/mejores_practicas).
To access to financial statements, please visit here (http://www.argentinaclearing.com.ar/institucional/estados_financieros).

3. Risk monitoring

In order to mitigate the risks associated to the settlement of operations conducted in the market, ACyRSA monitors, throughout the trading day, its exposure to the participants' credit risk, by following-up in real time the risk derived from operations.
This constant supervision allows for the reduction of its exposure to risk, through requests for intraday margins and other guarantees, by assuming a central role in the provision of risk containment mechanisms ensuring the stability of the settlement structure in the case of one or more participants' default. The risk monitoring process also includes the control of the compliance with concentration limits established through LPAs. Additionally, the post-trade risk vigilance also refers to the risk matrix that consists in an individualized analysis at ALyCs' level in order to measure operational and credit risk of each ALyC through two scorings.

ACyRSA daily requires funds in concept of margins and Market-to-Market (MtM) to its ALyCs for own and third-party operations. The actual collection of these funds is conducted as per the following rules:

1. The debit balances of differences, results and premiums (DRP) must be hedged on the following day they were generated (t+1).
2. The margins must be integrated on the same day when they are generated (t) in any of the assets accepted by ACyRSA.

Exposures to the market risk of each portfolio (margin and DRP) are recalculated daily and in real time by means of the Risk Management System.

3.1. Operation acceptance

ACyRSA acts as the CCP in guaranteed operations and through a novation process, it becomes the buyer for each seller and the seller for each buyer, thus guaranteeing the settlement. By this mechanism, the concentrated bilateral credit risk of each transaction is diversified and becomes administrated by the risk management system and supported by the safeguard system.

3.2. Daily operating limit (LOP)

During a trading day, no ALyCs can open contracts which generate margins higher than the balances of their operating accounts, as the ALyCs have a daily operating limit (LOP, *for its acronym in Spanish*) which is given by the sum of their available balances:

- Balance of the Clearing and Settlement Account (CCL, *for its acronym in Spanish*)
- Balance of the margins integration account
- Balance of the initial guarantee account: contributions to the Guarantee Fund for the Clearing Member's Default (FGIMC, *for its acronym in Spanish*) (Fund II)

The ACyRSA Risk Management System calculates and controls in real time the compliance with the set limits. If, during the day, an ALyC exceeds its LOP, it must integrate the collateralsindicated in the request for intraday margins (please, see item 3.4. Requests for intraday margins).

3.3. Expanded operating limit (LOA)

ACyRSA may grant an expansion to the daily operating limit, based on the results obtained in one of the parameters included in the ALyCs' risk matrix. The goal of these expansions will be to facilitate a greater efficiency in the processes and to do without requests for intraday margins when the amount of generated margins and the risk associated to the ALyC justify so.

The parameters of the risk matrix to be considered for the determination of the LOP expansions will be: the compliance index, technology, financial resources and leverage (please, see item 3.10. Risk matrix).

ACyRSA states the following risk categories in which an ALyC may be framed, in increasing order to the risk they represent: Category A, Category B, Category C, Category D and Category E. These categories define if an ALyC will be granted expansions or not to its operating limit and its amount.

For Category E there will be no expansions, whereas for the rest three levels or limits of expansions will be granted.

The limits of each category will be calculated based on the ACyRSA's guarantee fund resources stated by Law No. 26,831, Article No. 45 and the Guarantee Fund II (FGIMC). The sum of both funds will represent the total resources which the Clearing House has available on a first instance to respond a default [please see the resources cascade, (https://argentinaclearing.com.ar/en/docs-category/default-waterfall/]; therefore, it will be used as a parameter to determine the expansions to the operating limits of its ALyCs. The less risky categories will receive higher expansions and, within each category, these expansions will be distributed in an equitable manner among the ALyCs integrating it.

Also, for each risk category, three limits are determined in the assignment of expansions based on the generated margins (LOA1, LOA2 and LOA3) which will work as alerts for the Risk Department and from which different actions to be taken are defined (please, see item 3.4. Requests for intraday margins).

3.4. Requests for intraday margins

When the margins generated during the trading day exceed the LOA, a guarantee requirement is originated for an amount higher than the limit emerging from the sum of the mentioned balances. ACyRSA will issue a communication demanding the collateralintegration of the margins corresponding to new contracts to be integrated in the day, at the established time, without detriment to ACyRSA's legal authority to adopt the measures stated in the Internal Rules and other complementary regulations of this

Clearing House. There will be a deviation alert to those users of the ALyC's AP.5 who have demanded so and, if appropriate, from the email address riesgo@argentinaclearing.com.ar a request for intraday margins will be sent to the involved ALyC(s), AN(s) or Special Settlement Account(s) [CEL(s), *for its acronym in Spanish*] for the total generated margins.

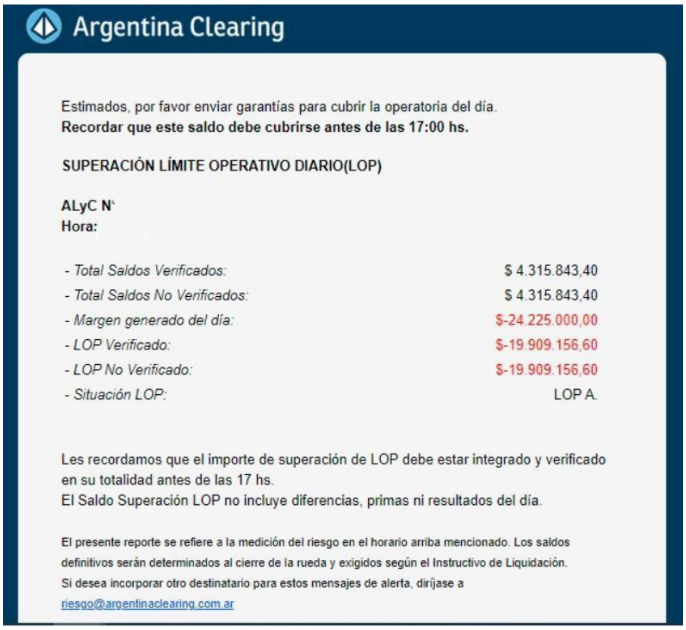
The request for intraday margins details the balances in the operating accounts, the generated margins and the excess. The time granted for its integration will depend on the applicable LOA, as per its risk category described in the previous item. The higher the risk level, the shorter the deadline granted for the integration of the required guarantees.

When the first expanded operating limit (LOA1, *for its acronym in Spanish*) is exceeded, the risk system will only alert to the deviation. Once the second expanded operating limit (LOA2, *for its acronym in Spanish*) is exceeded, the Risk Department will send the request for intraday margins, granting time until close or the latest time established by the Risk Department to comply with the integration of the requested guarantees. The total balance to be integrated will be the one that appears in the non-verified LOP.

The email will list several concepts, namely:

> **Total verified balances**: Balance of the CCL converted into pesos + Balance of the margins integration account + Initial guarantee (contributions to the FGIMC).
> **Total non-verified balances:** Total verified balances + Deposits/withdrawals pending of verification and/or accounting.
> **Day generated margin**: Margins variation generated by the operations during the day. If margins have been released, this is expressed in a positive amount. Otherwise, when generating margins, it is expressed in a negative amount.
> **Verified LOP:** Total verified balances + Day generated margin.
> **Non-verified LOP:** Total non-verified balances + Day generated margin.

Example of notice due to a LOA2 excess


Argentina Clearing

Estimados, por favor enviar garantías para cubrir la operatoria del día.
Recordar que este saldo debe cubrirse antes de las 17:00 hs.

SUPERACIÓN LÍMITE OPERATIVO DIARIO(LOP)

ALyC N°
Hora:

- *Total Saldos Verificados:*	$ 4.315.843,40
- *Total Saldos No Verificados:*	$ 4.315.843,40
- *Margen generado del día:*	$-24.225.000,00
- *LOP Verificado:*	$-19.909.156,60
- *LOP No Verificado:*	$-19.909.156,60
- *Situación LOP:*	LOP A.

Les recordamos que el importe de superación de LOP debe estar integrado y verificado en su totalidad antes de las 17 hs.
El Saldo Superación LOP no incluye diferencias, primas ni resultados del día.

El presente reporte se refiere a la medición del riesgo en el horario arriba mencionado. Los saldos definitivos serán determinados al cierre de la rueda y exigidos según el Instructivo de Liquidación.
Si desea incorporar otro destinatario para estos mensajes de alerta, diríjase a riesgo@argentinaclearing.com.ar

If the third expanded operating limit (LOA3, *for its acronym in Spanish*) is exceeded, the integration must be conducted within 30 minutes after the notice. The total balance to be integrated will be the one that appears in the non-verified LOP.

Example of notice due to a LOA3 excess


Argentina Clearing

Estimados, por favor enviar garantías para cubrir la operatoria del día.
Recordar que este saldo debe cubrirse dentro de los 30 minutos posteriores a la recepción del mail

SUPERACIÓN LÍMITE OPERATIVO DIARIO(LOP)

ALyC N°:
Hora:

- *Total Saldos Verificados:*	$ 219.053.641,95
- *Total Saldos No Verificados:*	$ 220.472.139,60
- *Margen generado del día:*	$-279.956.000,00
- *LOP Verificado:*	$-60.902.358,05
- *LOP No Verificado:*	$-59.483.860,40
- *Situación LOP:*	LOP B.

Les recordamos que el importe de superación de LOP debe estar integrado y verificado en su totalidad dentro de los 30 minutos posteriores a la recepción del mail.
El Saldo Superación LOP no incluye diferencias, primas ni resultados del día.

El presente reporte se refiere a la medición del riesgo en el horario arriba mencionado. Los saldos definitivos serán determinados al cierre de la rueda y exigidos según el Instructivo de Liquidación.
Si desea incorporar otro destinatario para estos mensajes de alerta, diríjase a riesgo@argentinaclearing.com.ar

In case of the ALyC's default with the request for intraday margins, ACyRSA may take one of the following courses of action:

a) To apply a preventive measure, depending on the market circumstances
b) To assign a zero (0) amount in the trading system until the owed balance is cancelled
c) To assign a zero (0) amount in the trading system, take control of the debtor ALyC's open position, and settle it, if appropriate

3.5. Intraday Mark to Market (MtM), results and premiums (DRP)

On high volatility days, ACyRSA has the power to demand the DRP on the same day when they are being generated.
Based on the last traded prices and/or price simulations conducted to address price variations in positions not traded during the day, the new DRPs are calculated.

ACyRSA defines a hedge ratio given by the relation between the negative intraday DRP and the total of integrated guarantees plus available balances.
When, during the day, an ALyC's hedge ratio falls below 0.5, the Clearing House may temporarily authorize the guarantee breachor request the ALyC to cancel the debtor balance before the closure of the ongoing day. That is, when losses consume the 50%

of the guarantees plus other available balances, there could be an anticipation of the cancellation of the negative MtM to (t), not to (t+1) as the rule states.
This ratio is only calculated if the DRPs are against the ALyC and for an amount higher than the released margins (if any).

$$\text{Hedging ratio} = \quad 1 - \frac{\text{abs (negative DRP)} - \text{Max. (released margins; 0)}}{\text{Verified balance}}$$

Where:

$$\text{Verified balance} = \quad \text{FGIMC} + \text{CIM balance} + \text{CCL balance.}$$

Thus, Argentina Clearing ensures the collection of the against differences on the same day when they are generated, preventing possible defaults.
The amount to be integrated will emerge from the difference between total verified balances and the current DRP.

Example of a notice due to intraday DRPs


Argentina Clearing

SOLICITUD DIFERENCIAS + RESULTADOS + PRIMAS INTRADIARIOS.

ALyC N°:
Hora: 13:33

- Total Saldos Verificados: $ 1.314.843,61
- DRP Actual: $ - 9.836.775,00
- Ratio: 6,48
- Notificado: No

Les recordamos que el importe debe estar integrado en su totalidad antes del cierre de rueda.

El presente reporte se refiere a la medición del riesgo en el horario arriba mencionado. Los saldos definitivos serán determinados al cierre de la rueda y exigidos según el Instructivo de Liquidación.

3.6. Open positions limits (LPA)

LPA means the maximum concentration of open positions which a clearing house imposes on the allowed size of the exposure of only one counterparty to only one contract and/or product. LPAs constitute an important tool for controlling and reducing three kinds of risks which it implies: (i) liquidity risk, (ii) credit risk and (iii) price manipulation risk.

- Reduction in the liquidity risk: A position whose size is much larger than a certain percentage of the market average daily volume may only be neatly settled, in a longer period of time. Neat settlement means that it does not significantly impact on the market prices. Thus, when establishing the concentration limits per position, ACyRSA ensures to be able to settle the ALyC's position in case of its default.

- Reduction in the credit risk: The diversification of the positions among different clients decreases the credit risk faced by ACyRSA by assuring its financial capacity to comply with its potential obligations.
- Reduction in the price manipulation risk: The concentration of a market in a few participants may lead to their empowerment for manipulation of prices. For example, in a market with only one buyer and several sellers, there may be no exit for the sellers or, if any, it may be in exchange for a distorted price. When setting limits to the concentration, ACyRSA prevents any participants from concentrating a hegemonic share in the market, thus generating opportunities to generate unhealthy practices which may derive in unjustified price fluctuations.

3.7. LPA determination

ACyRSA determines the limit to the concentration of positions of each product based on each one's liquidity. In its Notice No. 8 – Limits to open positions (http://www.argentinaclearing.com.ar/AbrirArchivo/?id=1864) ACyRSA lists the limits set for each of them and their application criteria. A summary of these limits may be seen in: Open position limits (http://argentinaclearing.com.ar/upload/LIMITESALASPOSICIONESABIERTAS.pdf).

Limits are set per account, or per group of accounts (if they form part of an economic group or if they act jointly) for each expiration of a futures and options position of each product. These limits are defined in terms of:

- Total number of contracts (or its equivalent in deltas deltas in the case of options) which a client may have
- As a percentage of the total of a position or underlying product open contracts (or deltas, in the case of options)

On the other hand, based on the product market (e. g., physical delivery products), concentration limits may also be set at the level of the added product.

It is also important to point out that these limits must be satisfied intraday. This means that the accounts must be placed along all the trading daywithin the set limits.

It is also worth mentioning that, depending on the depth of the market of the position/product in question, ACyRSA may set different limit levels. Nowadays, there are up to 3 limit levels defined: general limit, expanded limit and maximum limit.

In order to exceed the general or the expanded limit, the account must have an express authorization by ACyRSA to do so. This authorization will depend on the counterparty's credit quality (please, see item 3.10.2. Credit scoring) and its market strategy (hedge/speculation). The excess of certain limit levels may imply the integration of additional margins (please, see item 3.9. Additional margins). No account may exceed the maximum limit.

The detail of the set limits may be seen in the above mentioned notice.

3.8. LPA excesses

Every time a client's position size is higher in absolute or percentage values than the assigned limit, one of the following courses of action may be taken:

a) To authorize the LPA excess and request additonal margins. This authorization will be effective after a risk analysis which will address the account credit quality and its market strategy, as mentioned before.

Notificación de Límites a las Posiciones Abiertas "A" -

R

Riesgo Argentina Clearing y Registro <riesgo@argentinaclearing.com.ar>
para riesgo, e-rofex,

FO 7.01.08 "A"

Comunicamos a Uds. que el comitente abrió -197.000 contratos y está superando el límite general de 125.762 contratos abiertos en la posición DLR102021.

ArgentinaClearing otorga autorización para extender el límite hasta 35% del Interés Abierto de esa posición o 300.000 contratos, de ambos el mayor, debiendo depositar márgenes extraordinarios de $ 8.750,00 por contrato excedido.

b) To not authorize the excess and request the ALyC to cancel the number of contracts which it considers convenient for each excess position.

Notificación de Límites a las Posiciones Abiertas "A" -

R

Riesgo Argentina Clearing y Registro <riesgo@argentinaclearing.com.ar>
para riesgo, e-rofex,

FO 7.01.08 "A"

Comunicamos a Uds. que la cuenta .... abrió XXX contratos y está superando el límite general de 120.000 de contratos abiertos en futuros y opciones sobre DLR122021.

Argentina Clearing, de acuerdo a las facultades que le confiere su Reglamento Interno en el TITULO III "DE ARGENTINA CLEARING" - CAPITULO I. DERECHOS Y OBLIGACIONES DE ARGENTINA CLEARING - Punto 3.1.11, solicita que arbitre los medios necesarios para adecuarse al monto máximo de 5.000.000 contratos. Caso contrario, podrá dictar y ejecutar medidas preventivas previstas en el TITULO VIII "DE LAS MEDIDAS REGLAMENTARIAS." - CAPITULO I. MEDIDAS PREVENTIVAS de dicho Reglamento.

If the ALyC holder of the account involved does not comply with what is requested, one of the following courses of action may be taken, as they are stated in the operating procedures of the Risk Department and ratified by ACyRSA's regulatory powers:

1. To assign a zero (0) amount in the trading system until the excess of contracts is cancelled.

2. To assign a zero (0) amount in the trading system, take control of the ALyC's open position, so that it is the Clearing House itself which cancels the excess. This will be considered an instance of serious non-compliance and may lead to the application of the default process (please, see item 8. Procedure in case of default).

3.9. Additional margins

When an account receives a special authorization to exceed any of the set limit levels, ACyRSA may require the deposit of additional margins for the exceeded contracts in order to mitigate the generated credit risk. These additional margins are established in the previously mentioned notice and may be integrated into any of the assets accepted by ACyRSA.

3.10. Risk matrix

The risk matrix consists in an individualized analysis at the level of ALyCs intended to measure the operational and credit risk of each ALyC through two scorings. The combination emerging from both scorings will indicate a certain risk level.

Every two months, the ALyCs presenting the highest deviations will be informed by email about the matrix results. Additionally, a meeting is coordinated to elaborate an action plan.

In graphic terms:

3.10.1. Operational scoring

The operational scoring is intended to capture the occurrence probability of an operational fault understood as that emerging from human mistakes, errors of processes, systems or the ones caused by external events.

For such purpose, the following parameters are considered:

Suitability	Technology & Services
2 variables ● Compliance index ● Supervision index	**5** variables ● Application Programming Interfaces (APIs) consumption ● Payment system ● Pre- and post-trade system ● 2nd level participants (ANs, CELs, settling agents + NOR) + number of clients ● Offered services

Below, each of the parameters is described.

Suitability

- **Compliance index**

  This parameter measures the operating and process non-compliances/inconsistencies managed from Risk Compliance and included in the monthly compliance matrices; it includes a mobile window of the last 3 months.

  To make the index, the deviations from rules/processes are typified by assigning them risk levels.

  The main breaches per risk level are described below:

- **Supervision and control index**

  This index includes the results of the last audit carried out as regards:

  - Found observations
  - Number of made reports
  - Audit length

Technology and Services

This parameter assesses the ALyC's information consumption automatically from ACyRSA in order to satisfy the business functional needs, as well as the risk associated with the payment systems used and the availability of pre- and post-trade risk systems.

In order to measure the process automatization level through the information consumption via APIs, an ALyC can be classified in three possible defined profiles (advanced, intermediate and basic) based on:

- The number of active accounts kept and if it has second-level participants (ANs, CELs, settling agents, NOR) or not
- The offered services

For each ALyC's profile, a minimum consumption of methods is defined and the risk for each ALyC is assessed as per the profile in which it has been classified.

The main methods to be consumed are the following, as per each profile:

Type of query	Need	API method	Profile
Consultative	To consume **operations, cancelled operations and portfolios**	Position report	Basic
		Position maintenance	Basic
		Trade capture report	Basic
	To consume **reference prices**	Market data	Basic
	To consume **required margins**	Delivery margin requirement report	Basic
		Margin requirement report	Basic
	To consume **integrated guarantees and their**	MT506	Basic

	movements	MT536	Basic
	To consume **contracts parameters**	Security list	Basic
	To consume **accounting balances**	MT940	Intermediate
		Account balance	Intermediate
	To consume **assets accepted in guarantee and their corresponding haircuts**	Collateral list	Intermediate
	To consume **process times of closures**	Closing processes	Intermediate
	To consume **accrued fees and proofs**	Accrued fees	Intermediate
		Invoices	Intermediate
Transactional	To make **payment reports, requests for withdrawal, balance transfers, guarantee instructions, distribution of assets, etc.**	Balance transfer	Advanced
		New collateral report	Advanced
		Collateral assignment	Advanced
	To conduct enrollments, cancellations and modifications of **client accounts**	Account registration	Advanced
		Account update	Advanced

Note: Every profile level includes the needs of the previous levels. For further information about the available methods, please see the API-BO Handbook (http://apihub.primary.com.ar/assets/docs/PrimaryAPI-BO.pdf).

According to the consumption percentage of each method for each associated profile, a risk level will be assigned:

a. High risk level: lower than 33%
b. Intermediate risk level: between 33% and 66%
c. Low risk level: higher than 66%

As an example, for the case in which an ALyC is classified in the intermediate profile (due to its number of active client accounts and the variety of additional services offered to the ALyC), the consulting needs will be taken as methods to be consumed, leaving aside the transactional ones.

Example: Considering that we have 9 consulting needs available to date, if the ALyC in question consumes methods to satisfy two needs (2/9 = 23%), its associated risk will be high. If, on the other hand, it satisfies four needs (4/9 = 45%), its associated risk will be intermediate. Finally, if it satisfies at least six needs (6/9 = 67%), its risk will be low.

3.10.2. Credit scoring

This scoring aims at weighing up the ALyC's credit quality and addresses the following parameters:

Financial resources	Leverage
3 variables ● Nosis Bureau ● Net worth vs. theoretical net worth ● Equity evolution and DRP	**3** variables ● Leverage to third parties ● Own leverage ● Working capital (WC) ratio

Financial resources

This parameter assesses the ALyC's available resources in order to face its obligations by analyzing solvency and liquidity.

For such purpose, the following variables are considered:

1. **Nosis Bureau** on a date, which measures the default probability through a certain credit scoring for Nosis ranging from 1 to 999, 1 being the highest default risk. The following levels are applied:

    a. High risk level: equal to or lower than 200
    b. Intermediate risk level: between 200 and 500
    c. Low risk level: higher than 500

2. **Net worth vs. theoretical net worth**: the latest accounting balances submitted to the CNV are assessed, by comparing them to a theoretical net worth which will emerge of the higher between:

    a. The minimum net worth required by the CNV
    b. The resulting from the sum of the 100% of the average of own margins and the 8% of the average of third-party margins within the last three months

    These percentages arise from the application of the best practices of international markets. The following risk levels are applied:
    a. High: when the required theoretical net worth is not achieved
    b. Intermediate: when the theoretical net worth is exceeded by less than 150%
    c. Low: when the theoretical net worth is exceeded by more than 150%

3. **Equity evolution and DRP:** The equity evolution is measured based on the comparison of the latest available accounting balances, whereas the analysis of DRPs is calculated every two months. The equity evolution addresses the following variables:

    a. Net worth
    b. Return on Equity (ROE): result over the net

    worth For each variable, its risk threshold is set:

    a. Net worth variation: -30% / +150% (*)
    b. ROE variation: -70% / +200% (*)

    On the other hand, in the DRP analysis, the following risk thresholds are assigned as per each case:

    a. Third-party's portfolio negative DRP/net worth: +100% (*)
    b. Own portfolio negative DRP/net worth: +20% (*)
    c. Own portfolio negative DRP/current account: +40% (*)

    (*) It may vary at the discretion of the Risk Department.

From the combination of equity variables and DRP, an associated risk level is obtained.

Leverage

In this item, the leverage level is analyzed per the ALyC's own operations and its clients' by considering the percentages arising from the application of the international markets best practices.

1. **Leverage to third parties:**

    <u>Net worth / third-party margins (*)</u>

    a. High risk level: equal to or lower than 8%
    b. Intermediate risk level: between 8% and 12%
    c. Low risk level: higher than 12%

2. **Own leverage:**

    <u>Net worth / (Own margins (*) + Required initial guarantee)</u>

    a. High risk level: equal to or lower than 100%
    b. Intermediate risk level: between 100% and 150%
    c. Low risk level: higher than

    150% <u>Net worth / Integrated own</u>

    <u>guarantees</u>

a. High risk level: equal to or lower than 100%
b. Intermediate risk level: between 100% and 150%
c. Low risk level: higher than 150%

3. **Working capital ratio:** It is calculated based on the current assets over the current liabilities.
    d. High risk level: equal to or lower than 100%
    e. Intermediate risk level: between 100% and 140%
    f. Low risk level: higher than 140%

(*) It corresponds to average margins, by using a mobile window of the last three months.

Risk calculation models

Risk calculation models mean the calculation models used to quantify the potential losses in case of a participant's default. In this sense, the main risk management problem of a CCP, in the case of one or more participants' default, consists in the capacity to have the necessary available resources to close the positions kept by participants in arrears in adverse market conditions.

4.1. Requirement of margins per account

ACyRSA uses a scenario simulation system developed on its own which determines the maximum expected loss of a portfolio overnight with a 99% confidence level, given the market normal conditions, by indicating a final requirement of margins in pesos (the system margins currency) by the netting account[1]. This requirement indicates the amount demanded by the sum of all the scenario groups where this account has open positions. At this point, it is a good idea to make it clear that ACyRSA groups the contracts of different products as per its underlying asset in product groups. In turn, these product groups are categorized into scenario groups as per certain common characteristics which allow to assess risk by using one same model.

For a netting account, the total values per scenario group are cleared among them. In turn, within each scenario group, the total values per product group are cleared among them; the total sum per scenario can be positive or negative. At the account level, when adding the total of requirements of the different scenarios, the total requirement of margins is always negative or equal to 0 (if the final sum is positive, the system counts it as 0).

It is worth mentioning that each scenario group has its own risk model.

1 It is important to distinguish between the concepts of registration account and netting account. Whereas a registration account is the account used for the purposes of registration to segregate, in accounting terms, number, type, size, operation, price, time and date, among other elementos, of each client's operations; a netting account is the one used for the purposes of risk measurement at the level of a portfolio which may be composed of one or more associated registration accounts.

4.2. Scenario groups

Nowadays, the risk system works with 5 scenario groups, namely:

Financial, Agricultural, Currencies, Delivery, PAF

As an example, the products included in each of the scenario groups and the different components of their risk model are listed below.

Financial: Used for the RFX20, GGAL, PAMP, YPF, ORO and WTI products.

Margin per netting account = Margin per scenario + Spread charge + Spread discount + Additional margins per LPA

Agricultural: Used for the SOJ, SOJ Mini, SOJ CME, TRI, TRI Mini, MAI, MAI Mini and CRN CME products.

Margin per netting account = Margin per scenario + Spread charge + Spread discount + Additional margins per LPA

Currencies: Used for the DLR and CNH products.

Margin per netting account = Margin per scenario + Spread charge + Spread discount + Temporary charge + Additional margins per LPA

Delivery: Used for the covers in delivery process.

Margin per netting account = Margin per scenario + Extraordinary margins + Analysis + Differences + Advances

The calculation methodology is as follows:

Margin per Scenario:

Applies to all trades with covers, excluding: PAF operations, special surpluses on new covers, fully anticipated purchase operations.

Available operations of the same condition (operation type - product - port - client - currency) are compensated.

Margin per Scenario = (margin value * denominator tonnage) * ((kilos traded/ denominator kilos - TRUNC(kilos delivered / denominator kilos ;0)) / denominator tonnage)

Examples:

Product	Currency	Initial kilos	Kilos delivered	Margin Value	Denominator Tonnage	Denominator Kilos	Margin per scenario
Soy	Pesos	270.000		1.600	30	1.000	432.000
Soy	Dollars	500.000		20	100	1.000	10.000
Soy	Dollars	700.000	459.640	20	100	1.000	4.820

Analysis:

When invoicing the last installment, a "Withholding on possible bonuses" is also generated. This amount is retained as a guarantee. After submitting the quality agreement, or the analysis and processing the "Final" invoice, it is returned to the corresponding operator.
They are calculated at 1% of the contract value, except for Sunflower buyers who apply 8% and Soybean buyers who are not withheld.

Analysis = - ((invoiced kilos * bonification price) / denominator tonnage) * percentage)

Examples:

Product	Side	Currency	Invoiced Kilos	Bonification price	Denominator Tonnage	%	Analysis
Corn	Long	Pesos	270.000	40.500	1.000	1%	- 109.350
Soy	Short	Dollars	1.000.000	397,50	1.000	1%	-3.975
Soy	Long	Dollars	1.000.000	397,50	1.000	0%	0

Differences:

Applies to all operations with covers, excluding: PAF operations, special surpluses on new covers, fully anticipated purchase operations.

Difference = ABS (trade price - settlement price) * (Initial kilos / denominator kilos - TRUNCAte(kilos delivered/ denominator kilos ;0))

Where,

Purchases with operation price >= at adjustment price

o Sales with operation price <= at adjustment price

They pay differences

Opposite case

Charge Differences

Examples:

Product	Currency	Initial kilos	Kilos delivered	Trade price	Settlement price	Denominator Kilos	Dif
Soy	Dollars	100.000	64.020	397,50	461,00	1.000	2.285

Soy	Pesos	1.200.000		78.000	66.000	1.000	9.600.000

Advances:

Applies to all trades with purchase covers, which are with full or partial advance of merchandise.

Advances = - (Initial kilos - Invoiced kilos) / denominator kilos * (Cover price + Cover base price))

Ejemplos:

Product	Moneda	Initial Kilos	Invoiced Kilos	Trade price	Trade base price	Denominator Kilos	Advance
Soy	Dollars	1.000.000	0	436.60	115,50	1.000	- 451.100
Pesos	Dollars	500.000	417.640	399.00	0	1.000	-32.861,64

As the kilos of a cover are invoiced, the margins, differences and Advances (if any) corresponding to those kilos invoiced are returned.

PAF: Used for guaranteed PAF contracts. Risk model based on 2 scenarios:

- PAF issuer: requires an 110% over the notional value of the delivered goods.
- PAF bearer: grants a 60% discount over the notional value of the delivered goods.

The 4 first scenario groups (Agricultural, Financial, Currencies and Delivery) share the same logic as regards the first margin component called “Margins per scenarios”. By understanding that the future price of a contract is a role of risk factors to which it is exposed, (please, see item 4.3. Risk factors), portfolios are exposed to a simulation based on 16 scenarios that suppose different variations in spot price and volatility. The other risk factors are considered as constants in the simulation.

Scenario	Price variation	Volatility variation	Range
1	=	↑	Constant
2	=	↓	Constant
3	+ 33%	↑	Constant
4	+ 33%	↓	Constant
5	- 33%	↑	Constant
6	- 33%	↓	Constant
7	+ 66%	↑	Constant
8	+ 66%	↓	Constant
9	- 66%	↑	Constant
10	- 66%	↓	Constant
11	+ 100%	↑	Constant
12	+ 100%	↓	Constant
13	- 100%	↑	Constant
14	- 100%	↓	Constant
15	+ 200% * 40%	=	Constant
16	- 200% * 40%	=	Constant

4.3. Risk factors

Our risk management system is aimed at determining the maximum loss that an open position may suffer overnight. For such purpose, it sets out different scenarios. In each of them, the open position is valuated by looking for the one where the highest loss is produced. The required margins emerging from the worst scenario simulated by the risk system are calculated so as to cover with a 99% confidence the future exposure during the portfolio closure period.

These scenarios are based on the risk factors to which the contracts included in the open position are exposed. Each client's open position may be composed of bought and sold futures and options, each of which is exposed to specific risks, namely:

- Long and short future positions are exposed to a single risk factor: the price of the future. The movements in the price of the future will generate results in the bought and sold futures.
- Options are exposed to different factors affecting their value. As per the Black-Scholes model, these factors are: underlying price, exercise price, time to expiration, volatility and interest rate. However, the system goal is to manage the risk factors of the bought and sold options, in which case it is convenient to conduct the following analysis:

    - **Underlying price:** The movements in the price of the future will generate long and short options; therefore, the underlying price is a risk factor.
    - **Exercise price:** options have a fixed strike which does not constitute a risk factor.
    - **Time to expiration:** As the system is aimed at determining the maximum loss that may be produced overnight, it needs to assess the open position in the different scenarios based on the following day. Since it is always known how long remains until the expiration of the different positions, the time to expiration is not a risk factor.
    - **Volatility:** As the system assesses the open position in each scenario at market prices, it is the implicit or market volatility the one considered to valuate the options of the open position. The movements in the implicit volatility will generate results in options; therefore, the implicit volatility is a risk factor.
    - **Interest rate:** The movements in the interest rate will generate variations in the options premium; therefore, the interest rate is a risk factor. However, the influence of this factor on the premium of the options over futures is relatively insignificant; therefore, it is not considered a risk factor.

It is concluded that movements in futures prices and implicit volatilities which generate variations in option premiums.

4.4. Risk parameters

Argentina Clearing sets the following parameters that are used by the Risk Management System to determine the margins:

Variation range

In order to determine the price variation range of each product and position, the value-at-risk technique is used. It is the statistical measure which estimates the maximum probable loss for an open position in a certain time interval and with a given confidence level. This parameter is revised at least monthly.

Volatility

Maximum, intermediate and minimum volatilities are determined for the options contracts; they are daily updated based on the market implicit volatilities.

Spread charges between months

The Risk Management System supposes in each scenario the same price variations for all the portfolio contracts; therefore, it is considering that the prices of the futures of the different positions move in a perfectly correlated manner; that is, with correlation 1. However, the prices of the different positions of a product do not generally show a perfect correlation.

This is why the Risk Management System adds a spread charge between months to hedge the variations risk in the time spread existing in the portfolios that include futures and options with different expiration dates. It is a necessary complement for the 16 scenarios that solves the perfect correlation supposition among the different positions on the same product.

For the calculation of the spread charge, levels are defined. For such purposes, an analysis is conducted within each product, where the position correlations are assessed. They are divided into groups as per their correlation and different levels are set.

Also, for the products with grain physical delivery, these levels are set based on their harvest due to the justification of their prices valuation.

Once the levels are determined, priorities within each level are defined to be used in the spread charge calculation. These priorities depend on the correlation between levels. The spread charge is easy to calculate when only futures contracts are available; this is not the case when options contracts are added. In this case, the system converts options into their equivalent in futures contracts, by using the option delta as measure. The delta measures the number of the underlying asset units to which the option is equivalent.

Spread discount between products

The prices of the related prices tend to move with a certain correlation. Thus, the profits obtained from the position in a product may compensate the losses produced by the contrary position in another related product. In this way, in order to recognize the lowest risk of the portfolio which has contrary positions in related products (spread inter-commodity), when the correlation exceeds the 75%, the Risk Management System can calculate a credit which is subtracted from the margin total requirements that the system calculates separately for each product.

The Risk Management System identifies the net delta for each position per product and then calculates the spread formed for keeping positions in different related products. ACyRSA is responsible for determining the correlation degree among the products, as well as the credit amount recognized for keeping this kind of spread.

Time charge The time charge is a complement addressed for those products in which the transfer cost in time is determined by the domestic and foreign rate differential. Basically,

$$PF = PC * \frac{(1 + i_d)^n}{(1 + i_e)^n}$$

where:

PF = Price of the future
PC = Cash price
id = domestic interest rate
ie = foreign interest rate
n = time to expiration

The time charge is determined at the level of each position and collects the variation of the rates differential in time.

For instance:

Posición	Rango Fijo	Cargo Temporal
1°	12.500	0
2°	12.500	700
3°	12.500	1.500
4°	12.500	2.100
5°	12.500	2.800
6°	12.500	3.650
7°	12.500	4.300
8°	12.500	5.500
9°	12.500	6.500
10°	12.500	6.900
11°	12.500	7.500
12°	12.500	7.900

Thus, a linear portfolio composed of 1 bought contract of the 1st position will be required $12,500, whereas a linear portfolio composed of 1 bought contract of the 6th position will be required $16,150 ($12,500 + $3,650).

Options style The option style refers to the settlement manner of the premiums and the options margins system. MtR has two option styles:

- Matba Rofex. It is an own style which is similar to the equity style, where the premiums are paid at the beginning but daily differences are counted as from the options intrinsic value.
- Equity style. In this option style, the premiums are paid at the beginning and there is no MtM. As regards the margins, the liquid net value of the options (credit for buyers and debit for sellers), which can be compensation within each portfolio, is addressed.

Nowadays, only Matba Rofex option styles are listed.

In the following chart, the application of each style is shown as per the moneyness option both for the buyer and for the seller:

	Moneyness	OTM		ATM		ITM	
		Long	Short	Comprador	Vendedor	Comprador	Vendedor
Matba Rofex	Margin requirement		✓	✓	✓	✓	✓
	Mark to Market					En CCL ✓	En CCL ✓
Equity-style	Margin requirement		✓		✓		✓
	NLV (Net Liquidation Value)	En CIM ✓	En CIM ✓	En CIM ✓	En CIM ✓	En CIM ✓	En CIM ✓

Interest rate

For financial products, interest rates are estimated for the different currencies to be incorporated into the algorithm used by the system to assess the risk generated by the open portfolios of futures and options. Banking rates, government securities and BCRA bills are considered.

4.5. Margin components - Calculation sequence

The margin final requirement calculation is conducted at the level of the netting account, by applying the following methodology:

1) For each contract (e. g., DLR07202X) its value is calculated in the 16 scenarios with the combinations of variation of futures prices and volatilities of each scenario. The portfolios composed only of futures are not affected by the variations in the implicit volatility.
2) For each product, (e. g., DLR) it adds the values of **1)** in each scenario and selects the worst; that is, the one with the highest loss.
3) The spread charge between months is calculated.

   This charge is to reflect the spread base risk existing in the portfolios that contain futures and options of the same product, with different expiration dates.

   The calculation formula is as follows:

   a) List all the positions and their corresponding delta.
   b) Pre-cancel bought deltas with sold deltas starting with the most distant positions on both sides until all possible cancellations are exhausted. A remaining delta may arise from the positions that were not offset. This remaining delta corresponds to the non-compensated portfolio.
   c) Discount from the original position the remaining delta arising from b). This is the netted portfolio. Divide the positions of the netted portfolio according to their level.

d) Within each level, add the bought deltas on one hand and the sold deltas, on the other.
e) Calculate the inter-level spread. In order to do so, select the lowest **c)** value and multiply it by the determined amount as spread charge corresponding to that level.
f) Calculate the remaining deltas for the intra-level spread. To do so, determine the remaining net delta per level.
g) Determine if there are intra-level clearable positions. If yes, compensate as per the priorities assigned to each level combination. In order to do so, select the lowest **e)** value for the first priority feasible of compensation. Next, multiply this amount by the determined amount as spread charge corresponding to that combination of levels.
h) Repeat from **e)** until the possible clearing combinations are exhausted.

4) If appropriate, calculate the time charge. This charge is added to reflect the transfer cost in the time determined by the differential of domestic and foreign rates. For the calculation of this component:
   a. Calculate the non-cleared net delta per position (futures and options contracts are grouped on the same expiration). That is, the deltas which intervened in the spread charge calculation, do not form part of this estimation.
   b. Multiply **a)** by the amount set for each position.
5) Calculate the discounts among products.

   The prices of the related prices tend to move with a certain correlation. Thus, the profits obtained from the position in a product may cancel the losses produced by the position in another related product. In this way, to recognize the portfolio lowest risk with contrary positions in related products (spread inter-commodity), the system calculates a credit which is subtracted from the margins requirements estimated by the system.

   The calculation formula is as follows:
   a) Calculate the net delta for each related product.
   b) Compare the bought delta of a product on one hand and the sold delta of the correlated product, on the other.
   c) Select the lowest **b)** value.
   d) Multiply the amount determined in **c)** by the discount percentage set by ACyRSA for the scenario amount + time charge of each correlated product.
6) Calculate the additional margins requirement, if appropriate. When a client exceeds the LPAs, the system requires additional margins for the exceeded contracts in each position.

   In order to determine this additional guarantee requirement:
   a) List all the positions with their corresponding delta.

b) Compare **a)** to the limits set by ACyRSA.

c) If **a)** is higher than **b)**, calculate the excess.

d) Multiply the determined amount in **c)** by the additional margin set by ACyRSA.

7) Calculate the total margin per netting account: **2)** + **3)** + **4)** – **5)** + **6)**.

4.6. Methodology for the revision of parameters

We list the applied methodology to estimate the main parameters of the risk system:

Price variation range

Determination of the VaR

a) Define a time interval of three years[1]. In case of not having a history, the available time or similar assets will be considered at ACyRSA's discretion.

b) Obtain the historic series of the prices of the underlying assets and the adjustment prices of the futures contracts which are the object of analysis.

c) Define a confidence level of at least 99%.

d) Determine the daily relative variations of the prices defined in **b**).

e) Calculate the percentage historic VaR.

f) Calculate the percentage parametric VaR.

g) Select the higher of the VaRs (point **e** and **f**) and the minimum floors established by contract in order to consider the procyclicality of the margin requirement.

Complementary variables

h) Complementary variables are applied:

a. Stress add-on. For this purpose, historical stress episodes are included in order to consider the procyclicality of the margin requirement.

b. Liquidity add-on

Range determination

i) The price variation range for each underlying product and futures contracts is equal to: **g)** x the analysis day quotation (price of the underlying asset or futures contract adjustment price) x their trading unit x the square root of (t being the number of days to be hedged by the range as per the product, which can vary from 1 to 2 days) * (h.a + h.b)

Interest rate

In order to estimate the interest rates (in pesos and in dollars) to be incorporated into the algorithm used by the system and to assess the risk generated by the open portfolios of futures and options, the weighing up of the current local and international banking rates are considered, as well as those derived from debt securities.

Spread charge between months

At least once a month, the spread charge will be revised for each product defined by underlying asset, by preferably following the steps listed below.

[1] It was contemplated increasing the retrospective period to capture countercyclicality measures.

If the product has different levels, the positions integrating each level must be previously defined as regards the correlation among them.
The following calculations will be conducted as per the product or the levels defined:

a) Define a time Interval of one year and a confidence level of at least 99%.
b) Obtain the daily maximum spread for each product among all the open positions, which emerges from the adjustment prices.
c) Obtain the natural logarithm for every day (ln t/t-1) of the spreads obtained in **b)**.
d) Calculate the arithmetic average of the series obtained in **c)**.
e) Calculate the standard deviations of the series obtained in **c)**.
f) Multiply the values obtained in **e)** by the sigma corresponding to the defined confidence level and add the average calculated in **d)**.
g) The spread charge for each product, as defined in their quotation currency, will be determined by the multiplication of the values obtained in **f)** and the sum of the average of the spreads determined in **b)**.

Spread credit between products

At least once a month, the spread credit for each pair of contracts which have been defined is revised, by preferably following the steps listed below:

a) Define a time interval of one year and a confidence level of at least 99%.
b) Calculate for each day the maximum adjustment spread among all the combinations of pairs of open positions.
c) Determine the daily absolute variations of the variables defined in **b)**.
d) Calculate their arithmetic average.
e) Calculate their standard deviation.
f) Calculate the maximum spread variation estimation among products by multiplying **e)** by the sigma defined in **a)**.
g) The discount per spread for each contract, as defined in its quotation currency, will be determined by the sum of the values obtained in **d)** and **f)**.

By considering the values thus obtained, if the market circumstances indicate so, please determine and establish the new discounts among products to be incorporated into the system.

Volatilities

Daily, the MtR trading floor sets the volatility values as per the following procedure.

a) Verify the volatilities of the day: for each traded options contract, consider its operated volatility and volume.
b) From the values obtained in **a)**, calculate the average weighed up for the volume corresponding to each operation for each of the exercise prices of each position.
c) Determine the amounts of volatilities: maximum, intermediate and minimum of the options as per the value obtained in **b)**.
d) Based on the observed values, establish the maximum, intermediate and minimum volatility values for all the exercise prices of all the options contracts. In the case of not operated strikes, the value is determined by estimating the smile

portion corresponding to the curve.

Validation of risk models

As per the General Resolution No. 817, the clearing houses and markets complying with this role must conduct stress testing at least every three months in order to assess the appropriacy of the financial resources, estimate the needs for liquidity and know the loss volume they may suffer.

The adopted models and parameters, as well as the contributions to the guarantee funds and other risk control mechanisms, must be periodically revised in order to assess their resistance to extreme but realistic market conditions, and will conduct retrospective tests to validate the reliability of the adopted methodology.

As per what has been stated before, ACyRSA conducts daily tests about the required margins:

- Back testing: consists in comparing the daily margins requirement per client account, including all the add-ons, against the daily differences generated for these accounts by using the t+1 prices.
- Stress testing: consists in stressing the adjustment prices by calculating new daily differences and comparing them against the margins requirement per account to analyze the resources sufficiency.
  The used scenarios are designed by Risk Management and approved by the Clearing System Risk Committee. The risk critical variables, their maximum historic volatilities and scenarios of multiple defaults are therein addressed.
  On the other hand, once every three months two stress tests are conducted to calculate the potential need for financial resources and to compare it against the available resources:

- Backward looking: sum of the two highest debits for against-differences, suffered by the ALyCs in the analysis of the low period (the last year).
- Forward looking: projection of the sum of the worst value that the two largest portfolios may have overnight, by supposing a price estimated variation equivalent to the range suggested by risk.

Also, every three months stress tests are conducted over the FGIMC (Guarantee Fund II) so as to ensure that it is enough to support the compliance with: i) the agent as regards the one which is most exposed or, ii) the sum of the second and the third agent who is most exposed; the higher of both.

The obtained results are reported to the Clearing System Risk Committee, which will validate them and their courses of action. This committee yearly validates the risk management model and reports the results to the ACyRSA Board of Directors.

5. Collateral management process

The collateral management process is linked to the rules and procedures related to their acceptance and safeguard in guarantee, movement, valuation and execution.
ACyRSA requires guarantees from ALyCs for the open positions in order to manage its own credit exposure or its participants'.

Before an ALyC's case of default, both the portfolio liquidation and the guarantee settlement may not be conducted in one day(liquidity risk), and also guarantees may get devalued (market risk) and thus, originate costs; therefore, the collateral management is one of our critical processes.

ACyRSA publishes a list of the accepted collateral (https://argentinaclearing.com.ar/en/docs/accepted-collateral/) with their corresponding haircutsand limits, if appropriate.
Also, it reserves the right to modify the eligible assets or the applied haircuts, which will be immediately substituted or hedged. Additionally, ACyRSA reserves the right to refuse any of the assets based on the following, among others: portfolio concentration limits, assets prices, volatility or liquidity of secondary markets where these assets are traded.
At the request of an ALyC, ACyRSA may consider the incorporation of a new asset, or excess to a certain set limit, having previously complied with the application of the eligibility criteria.

5.1. Eligibility criteria

At least once a month, Argentina Clearing analyzes the ability of those assets which are included or may be incorporated by following the "liquid asset" criterion and considering, among other factors, the behavior of the following variables, as appropriate.

- Analysis of volatilities based on the different models by considering a one-year window: o mobile average of 22 and 44 days
    - Exponentially Weighted Moving Averages (EWMA) Model which weighs up in a different manner each observation so as to assign a greater weight to volatilities and the most recent asset yields
    - Standard deviation of 1 and 6 months
- Daily volumes traded during the last 6-12 months
- The instrument seniority
- Market risks associated to the asset received in guarantee, including the exchange risk for those designated in other currencies
- Duration, being understood as the average of the expirations of all the cash flows of the analyzed species
- Credit risk of the corresponding issuing institution, including the country risk
- Risks associated to the acceptance of assets in foreign jurisdictions, including the applicable rules as regards repatriation of currencies At the closure of each day, ACyRSA daily valuates all the assets accepted in guarantee

5.2. Assets valuation

- Securities, shares, marketable obligations and Argentinian Deposit Certificates (CEDEARs, *for its acronym in Spanish*): the 48-hour Bolsas y Mercados Argentinos (ByMA) adjustment / closure prices are used.
- FCI: prices contributed by manager companies or consumed by the Argentine Chamber of Mutual Funds (CAFCI, *for its acronym in Spanish*).
- Letter of Credit: based on the margins requirement. In AP.5, the collateral assigned total will be displayed (not the collateral submitted total), based on the following rules established in the list of accepted collateral https://argentinaclearing.com.ar/en/docs/accepted-collateral/).

Leter of credit amount	% of use	Requirement	Assigned in AP.5
USD 1,000,000	100%	USD 500,000	USD 500,000
		USD 3,000,000	USD 1,000,000

- MtR dollar: the average quotation of the dollar traded in Mercado Abierto Electrónico (MAE, *for its acronym in Spanish*) up to the moment of its determination.
- Deposits in dollars and instruments designated in dollars: are valued as per the Market Statistics Center (CEM, *for its acronym in Spanish*) CCL index of the MtR web site.

If, for any exceptional circumstances, there is no reference market price for any assets in particular, the following may be used:

- Price of the asset traded in immediate ByMA cash or in the MAE
- Prices vector
- Valuation models previously defined by the Risk Department

5.3. Limit of assets acceptance

ACyRSA determines the integration limits and specific haircuts for the eligible assets, (- https://argentinaclearing.com.ar/en/docs/accepted-collateral/), whose goal is to mitigate the concentration of integrated guarantees.

Haircut determination

The haircuts established for each asset do not only depend on the current volatility of each one, but are determined in such a way so as to avoid pro-cyclical adjustments in cases of market extreme situations.
For the determination of haircuts, volatilities, liquidity and duration are analyzed.
On a monthly basis, the established haircuts are revalidated for each of the assets.

Determination of limits

The concentration policies and practices are established in the list of assets accepted in guarantee, are weekly monitored by the Risk Department and yearly revised by the Risk Commission within the general revision of its management.

Other restrictions

Apart from limits and haircuts, there are other restrictions applied to mitigate the wrong way risk (or unfavorable correlation risk).

- Prohibition against the integration of shares issued by the participant or members of its economic group.
- When the ALyC is a manager company administrating funds, it may not integrate FCI quota shares in order to guarantee operations of the fund own portfolio or companies of the same economic group.
- Prohibition against the integration of collaterals and fixed-term deposits to guarantee the issuer's own portfolio or companies of the same economic group.
- No SGR may submit collaterals for an amount higher than the 25% of the Risk Fund.

Internal alerts

ACyRSA supervises that no ALyC exceeds its limits, by addressing the peculiarities of each asset. Apart from the general established limits and the particular stipulated restrictions in the List of accepted in collateral (https://argentinaclearing.com.ar/en/docs/accepted-collateral/), ACyRSA conducts a global analysis of certain assets based on their individual characteristics by establishing internal monitoring criteria.
Also, limits are established at the participant's level. In this sense, no participant (ALyC, CEL, etc.) may have a concentration of the same species higher than 85% of the total of its deposited assets.

Likewise, no ALyC may have collaterals exceeding the 40% of the third-party margins requirement.

In case of deviations, an analysis is conducted to consider if a special authorization may be granted or, if appropriate, their immediate replacement is requested.

5.4. Procedure of deposits and guarantee withdrawals

The operating aspects related to the integration of guarantees, such as clearing and settlement of the operations in ACyRSA are regulated in the Settlement instructions (https://argentinaclearing.com.ar/en/docs/settlement-instructions/).

Both the entry of assets in guarantee (deposits) and the removal of guarantees (withdrawals) are performed from/to the ALyCs' depository accounts, and from/to the Matba Rofex S.A. trustee's depository accounts.
In the case of marketable securities deposited in Caja de Valores, they must have on origin and a destination in an ALyC's depositing account and client accounts of the holders of such assets.
For the withdrawals of guarantees, an express authorization by ACyRSA is required.

The CELs have an exceptional regime and manage guarantees directly with MtR and ACyRSA.

The main characteristics of the management of assets in guarantee are:

- Authorization of MtR's trustee accounts for the integration of guarantees.
- Messenger system, payment reports, withdrawal requests, balance transfers, etc.
- Definition of rules, times and special instructions for certain assets.
- Daily revaluation of assets which generates balances for or against each client's account; the agents must conduct replacements when there are any faults to hedge their open positions or being able to withdraw excesses.
- Operating and technological capacity: use of the safest and most efficient means of the Argentine financial system, Payment Electronic Means (MEP, *for its acronym in Spanish*) accounts in the BCRA, custody accounts in Caja de Valores and Registration and Settlement Center (CRyL, *for its acronym in Spanish*), banking accounts in Argentina in first-line entities, etc. All of them are managed with the applications and/or interfaces with the best available performance.
- ACyRSA and MtR operating departments work in coordination for the management of guarantees to ensure the efficiency in the process where the technology plays a fundamental role:

  MtR Treasury: responsible for the custody of assets, it exercises movements, and controls the integrity of guarantees.

  ACyRSA Guarantees: responsible for the correct assignment of guarantees in the accounts declared by agents.

  ACyRSA Risks: responsible for the release of guarantees and the replacement orders.

  Audit and Processes: responsible for the control of the correct segregation of guarantees in its role of supervisor for the investor's interests.

ACyRSA Compliance: responsible for enforcing the settlement rules.

5.5. Treatment of corporate events

Some assets, such as shares and debt securities, are subject to corporate events which imply the collection of cash and/or the change in the number of assets kept by the holder. Among the most usual events, we can mention:

- Payment of dividends
- Payment of interests and depreciations
- Capital increase and shares or bonds repurchase programs
- Splitting of shares into several shares per each existing one
- Non-integral splitting of shares or dividends in shares
- Consolidation of shares (reverse split)
- Exchanges of species
- Reprofiling

Each event has its impact on stocks and the valuation of the possession of the ALyCs' assets and their clients, and it depends on each issuer's decision and what is stipulated on the issuing conditions of each asset.

5.6. Segregation of guarantees

By following international guidelines, ACyRSA has implemented the segregation of guarantees at the client level, which is the safest structure as regards the protection of guarantees and is based on three essential requirements which ALyCs must satisfy:

1. To keep, at all times, the individualization of each of its clients' assets updated in the AP.5.
2. This segregation must be the faithful reflect of the ALyC's economic reality and applicable legal accounting records, and it will be considered an affidavit which may be audited at any time, at ACyRSA's or MtR's request.
3. A client's guarantees may only ensure the margins requirement of its own position. If a client has a margin requirement higher than its guarantees, such a shortage must be hedged with the ALyC's excess guarantees. However, it is recommended that each client integrates its own guarantees for the margins demanded for its operations.

In order to strengthen the guarantee system, by contributing safety and transparency, clients have the MyPortfolio application which allows them to consult online their possessions of assets registered in ACyRSA and their operations conducted in MtR, thus contributing to a more transparent market.

The application is published on the Google and Apple official stores and there is also the web version available from [www.miportafolio.com.ar](https://miportafolio.com.ar/) (https://miportafolio.com.ar/).

6. Chain of Responsibilities

The chain of responsibilities in the operations settlement process refers to the set of relations and duties among the participants' different levels. In this sense, the chain of responsibilities involves the Clearing House itself, its integral and agro-industrial integral ALyCs, its own and direct own ALyCs, ANs of the adhered markets which have entered into a contract with an integral ALyC, CELs and clients.

As per what is stated in the Clearing House Internal Rulebook, and other complementary rules, the following rights and obligations are established for the diverse links of the chain.

ACyRSA responsibilities

It is important to point out that ACyRSA acts as a CCP in each guaranteed operation conducted by its ALyCs in their adhered markets and registered within its context. In this sense, ACyRSA is responsible for exclusively guaranteeing before the ALyCs the settlement of the resulting obligations of these operations. Its duty before the ALyCs ends at the time of confirming the debit in their bank account. It is worth mentioning that the means used for such purpose, both the settlement through the MEP System and the settlement via Interbanking by means of commercial banks guarantee that settlements are definite and irrevocable as from the moment they are sent. On the other hand, it is also important to mention that Interbanking, as a payment system of systemic importance, is covered by the CPMI-IOSCO principles, being the BCRA its comptroller entity. Also, the funds sent to the ALyCs are credited into their banking accounts in an intraday manner within the times set in the Settlement instructions (https://argentinaclearing.com.ar/en/docs/settlement-instructions/).

By considering that ACyRSA only has a direct relation with the ALyCs, and through this with the ANs and their clients or CEL possessors, it is also important to mention that it is exempted from liabilities for the credit risk existing between:

(i) Integral ALyCs and ANs

(ii) Integral ALyCs or ALyCs and clients; (iii) integral ALyCs or ALyCs and CEL possessors; (iv) ANs and clients

As it will be explained below, this implies that in no case the obligations which arise from the guaranteed operations registered to ANs, clients and CEL possessors are settled between these and ACyRSA. They will be governed purely and exclusively as per the terms and conditions of the agreement which each of them has entered into with their intermediaries.

It is also worth mentioning that in the process of delivery of those operations which are settled by physical delivery of the underlying product, ACyRSA acts as a mere intermediary between the buyer and the seller. Therefore, it is understood that it does not assume the principal risk, also known as physical delivery risk, which is shared by both parties of the transaction. However, in order to mitigate the risk of total loss of the delivered values/goods or transferred funds to the failed counterparty when receiving nothing in return, ACyRSA requests guarantees both to the buyer and to the seller, in order to hedge the price risk

while it acts as intermediary between both parties during the process of collection and payment of the goods by ensuring the price differential. Additionally, if the seller ALyC wishes to ensure the compliance with the delivery versus payment criterion, it must request the payment in advance of the goods, as per what is stipulated in the Instructions Delivery of goods (https://www.argentinaclearing.com.ar/AbrirArchivo/?id=534irArchivo/?id=534viewer.html?pdfurl=https%3A%2F%2Fwww.argentinaclearing.com.ar%2FAbrirArchivo%2F%3Fid%3D534&clen=1357702).
It is important to point out that this intermediation is always made through the ALyCs, unless one of the clients is the possessor of a Direct Delivery Account (CED, *for its acronym in Spanish*), defined as per what is stated in the Instructions Delivery of goods (https://argentinaclearing.com.ar/AbrirArchivo/?id=534irArchivo/?id=534viewer.html?pdfurl=https%3A%2F%2Fwww.argentinaclearing.com.ar%2FAbrirArchivo%2F%3Fid%3D534&clen=1357702). These instructions also establish a series of rules with operating purposes which detail how the delivery of goods procedure must be conducted.

On the other hand, when it provides the OTC operations registration and guarantee service, its responsibility is limited to the maximum amount of the effectively integrated guarantee. ACyRSA will have no responsibilities when these operations are registered under the modality without guarantee or when the default in the settlement arises from that party to whom no guarantees are demanded based on the terms and conditions of the registered bilateral contract.

The ALyC's and the Integral ALyC's responsibilities

Both ALyCs and integral ALyCs will be responsible for:

- Hedging any debtor balances existing in their margins integration accounts.
- Hedging any net debtor balances existing in their CCLs. These balances must be paid in due time and proper form by the Settlement instructions (https://argentinaclearing.com.ar/en/docs/settlement-instructions/) without the need for any summons or requirements. The default is automatic. What has been mentioned before is without any detriments to ACyRSA's power to determine the accounts balances and to demand the guarantee integration for such balances during the development of the trading day; that is, intradaily. In case of doubts about the funds income, ACyRSA may request the ALyC the documents which, at its discretion, proofs the compliance. Without detriment to that, Argentina Clearing may demand the integration of guarantees which hedge the amount in question.
- Complying with the delivery of funds, marketable securities, goods or other margins required at the settlement moment of expiration of an operation which results at their charge, as per what is established in the contract in question.
- Collecting from and paying to its clients, as well as the ANs with whom it has entered into an agreement and the clients of those ANs as regards the sums of money, securities, other goods or contributions resulting at its charge.

Relation between the integral ALyC and its ANs

The relation between the integral ALyC and each AN with which it keeps an applicable "ALyC-AN Registration Contract" will be governed by the terms and conditions stated in the contract. From it, at least the following duties related to the operations settlement will arise:

Integral ALyC's responsibilities

- The ALyC's duty to respond before ACyRSA for the obligations arising from the operations registered by the AN and its clients.
- The ALyC's obligation to identify and segregate its own funds from the AN's. In turn, the AN authorizes the ALyC so that, by its own order and on its own behalf, it transfers and withdraws marketable securities and the respective credits.
- The ALyC's right to close the AN's registration account and to settle its open positions, in order to cancel any pending debts, in the case of the AN's default.

The AN's responsibilities

- The AN's responsibility before the ALyC for the collection and payment of the results, differences, premiums, registration rates and other concepts resulting from the operations registered for its own portfolio and/or third-party portfolios, in case of being authorized, as well as the integration and withdrawal of guarantees for these operations.
- The AN's obligation to inform the ALyC every time the AN and/or its clients transfer assets to the ALyC and instruct their integration to the Guarantee Fund II.

It is important to point out that in no case ACyRSA assumes the character of party or is responsible for the validity or obligations emerging from the "ALyC-AN Registration Contract". However, it may demand it with the sole purpose of verifying the compliance with the minimum requirements requested by its rules.

Relation between the integral ALyC, the ALyC and their clients

As a reminder, "client" means any individuals or legal entities, including ANs, with whom the ALyC has entered into an agreement which entrusts the services provided by ACyRSA of: registration and/or clearing and settlement of is operations. The relation between the ALyCs and their clients is governed by the terms and conditions stated in the "client Account Opening Agreement" subscribed by both parties, from which the following responsibilities must emerge as regards the settlement of operations:

The ALyC's responsibilities

- The ALyC's duty to respond before Argentina Clearing for the obligations arising from the operations registered by the client.
- The ALyC's obligation to identify and segregate its own funds from its clients'. In turn, the client authorizes the ALyC so that, by its

own order and on its own behalf, it transfers and withdraws marketable securities and the respective credits.

- The ALyC's right to close the client's registration account and to settle the client's open positions in case of default.

The client's responsibilities

- The client's obligation to constitute the guarantees which correspond to the operations registered in its registration account.
- The duty to instruct the ALyC so that it transfers the guarantees to the Guarantee Fund II and conduct the collections and payments resulting from the processes of clearing, settlement and others services requested to ACyRSA.

It is important to point out that in no case ACyRSA assumes the character of party or is responsible for the validity or obligations emerging from the "client Account Opening Agreement". However, it may demand it with the sole purpose of verifying the compliance with the minimum requirements requested by its rules.

Relation between the integral ALyC, the ALyC and their CELs' possessors

It is important to remember that the CEL is a financial settlement modality brokered by the ALyC between the client and ACyRSA, whose main objectives are to allow a segregation of the client's guarantees in ACyRSA and to allow the client to directly manage the integration of the guarantee margins, thus reducing the exposure to the ALyC's credit risk. Regardless of that, the ALyC continues being responsible for the compliance with the obligations arising from the client's settlement of operations before ACyRSA, as it is stated in the CEL Opening Agreement (https://argentinaclearing.com.ar/en/members/#specialaccount). In this document, the following responsibilities are also established:

The ALyC's responsibilities

- The ALyC must transfer to ACyRSA the amounts enough to hedge the client's CEL CCL balance.

The CEL's responsibilities

- To timely comply with the obligations of depositing the guarantee margins required by ACyRSA. In order to do so, it must transfer directly to it the assets enough to hedge this requirement and it may withdraw from it the exceeding assets.
- To deposit to the ALyC the differences, results, premiums, registration rights and other concepts resulting from the registration of operations in Argentina Clearing.

7. Safeguard system

ACyRSA has a solid infrastructure in legal matters which grants it the maximum level of possible legal safety in Argentina and which is based on:

- Internal Rulebook
- Guarantee funds and guarantee special funds constituted under the trust in guarantee legal concept regulated by the National Civil and Commercial Code, with the scope as stated in Article No. 45, Law No. 26,831, its complements and modifications, and in accordance with what is established by the CNV rules and complementary and/or modifying resolutions
- ALyC-AN registration contract
- Client accountant opening agreement
- CEL opening agreement
- Segregation of guarantees at the client's level

Thanks to this structure, in operating terms, the following is achieved:

- Differentiation of own and third-party funds
- Protection against external aggressions, as the trust's contributions must comply with the obligations in the market
- The ALyC's obligation for all the liabilities, both own and third-party ones
- The clients' protection against the ALyC's default
- The clients' protection against another client's default

On the other hand, the safety system addresses an order of affectation of resources before any participant's default until it manages to completely satisfy the non-complied amount and it was structured in a hybrid manner, by combining the defaulters pay criterion (non-compliant ALyCs pay) and survivors pay (surviving ALyCs pay).

In spite of the adopted criterion, most part of the risk supported by ACyRSA is hedged as per the defaulters pay model, this is by means of the non-compliant ALyC's guarantees.

7.1. Safeguard structure composition

Through General Resolution No. 817, the CNV incorporated tools into the rules of the market infrastructures in order to strengthen and improve the risk management.
As regards the margins and guarantee management applicable to clearing houses and markets with the Clearing House's roles, there must be the constitution of certain specific guarantee funds in order to limit the exposure to credit risk before agents.
As regards the guarantee funds aimed at facing the agents' default in guaranteed operations, it is stated that the market own resources with integrated contributions by the ALyCs must be constituted. Also, they must constitute their order of affectation and their organization under a trustee structure or any other modalities approved by the commission.

The resources (guarantee funds and equities) composing the safeguard system in case of the ALyC's default is detailed below:

1. Fund I

The Fund I is composed of the guarantees for the hedging of margins of the operations integrated by the ALyCs, per own and/or third-party operations.
In the MtR structure, it is equivalent to the following funds framed within the concept of trusts:

- **FGOMC (*for its acronym in Spanish*):** The guarantee fund for the ALyC's operations is integrated by the ALyC's assets, aimed at hedging the non-compliance of the debtor net balance of the own and third-party CCLs.

- **FGOT (*for its acronym in Spanish*):** The guarantee fund for third-party operations is integrated by the ALyC's clients' assets, aimed at hedging the default of third-party CCLs' debtor net balance.

Apart from the CNV rule, ACyRSA offers the possibility to permanent clients of a CEL before ACyRSA which contributes to a Special Guarantee Trust for the Special Settlement Account (FEGCEL, *for its acronym in Spanish*), which is integrated by the CEL's client's guarantees, framed within the trust's concept and is aimed at exclusively hedging the ALyC's default of obligations for the holder client's operations of the CEL and/or the CED.

2. Fund II

As per the General Resolution No. 817, the Fund II is a jointly-owned or several fund and is composed of the ALyC's contributions based on the risk of its operations.
In the MtR structure, it is equivalent to the guarantee fund of the ALyC's non-compliance, framed within the concept of trust (FGIMC), integrated by the ALyC's assets and aimed at hedging any ALyC's pro rata defaults.
The contribution to the FGIMC works as an initial guarantee (not applicable to margins) and is enforceable previously to obtain the authorization of any of the ALyCs categories stated by ACyRSA.

Methodology

The amount of FGIMC's contribution in concept of initial guarantee of each ALyC will be calculated based on the risk of its operations. In this sense, the requirement will emerge as the highest of the following values:

a) A fixed amount which is published by circular

b) The sum of:

- 3% as per the quarterly average of own and third-party margins corresponding to the currency, agricultural and financial scenarios
- 1.5% as per the quarterly average of the margins corresponding to the currency, agricultural and financial CEL's scenarios

- 0.15% as per the quarterly average of margins per PAF operations for the issuers
- The quarterly average of margins emerges from dividing the sum of the margin accounts daily balances by the total number of the quarter calendar days. On non-business days, the balance of the previous day is repeated. The margins in dollars are converted into pesos as per the BCRA reference exchange rate corresponding to each business day. In turn, the average thus calculated is rounded in amounts which are multiples of $10,000, downwards.

In this methodology to determine the contribution to the FGIMC, the compliance with the General Resolution No. 817 is ensured; it establishes that the Fund II must be enough so as to support at least, in extreme but realistic market conditions, the default with: i) the agent as regards the one which is most exposed or, ii) the sum of the second and the third agent who is most exposed; the higher of both.

Periodicity

The contribution which each agent must make to this fund will be recalculated on a monthly basis. The requirement will arise as the quarterly average of the margins corresponding to the immediate previous quarter to the ongoing month. As an example, the requirement of April will be obtained by averaging the January, February and March margins, whereas the requirement of May will be obtained by averaging the February, March and April margins.

Constitution

This requirement will be enforceable by previously having obtained the authorization in any of the agent's categories stated in the notice titled "Participants' registration" – "Rulebook of memberships" (https://www.matbarofex.com.ar/documentos/legales/aviso-nro-516).

Use and re-adaptation

If the total or partial use of the contributions made to the FGIMC is necessary, ACyRSA will inform the ALyCs about the occurrence of a participant's definite default, the affected amounts, and will request the re-adaptation of the requirement previously applicable within the immediately following 5 business days.
If the requirement is not integrated within the stated term, there will be a debit from the CCL.
The contributions made in concept of re-adaptation to the Fund will only be applied to the hedging of new defaults.
Also, ACyRSA will establish a 20-business-day period during which new re-adaptation will not be enforceable, nor the recalculation of the contribution to the Fund. Each ALyC's obligation to readapt its contribution will finish on the resignation acceptance day, as long as it occurs before ACyRSA reports a replacement request.

3. Fund III

The Fund III is composed of the contributions to two own funds: MtR's (1) and ACyRSA's (1). As per Article No. 45, Law No. 26,831, both companies assign at least a

50% of its yearly liquid profits and make them face the potential default of a clearing member originated in guaranteed operations. The integrated assets must be limited to the ones described in the eligible assets list of the General Resolution No. 817.

This contribution complies with the concept known as "skin in the game" (SITG) of the default process present in the PFMI of CPMI-IOSCO, whose fourth principle states that a CCP cascade of resources may "include the defaulter's initial margin, its contribution to the previously financed fund for default, a specific portion of the CCP's own funds and the contributions of other participants to a predetermined agreement previously financed". The SITG purpose is to foster the CCP to keep a robust risk system.

The Fund III must be enough so as to face the default of, at least, the two participants who are most exposed in extreme but plausible market conditions. In order to ensure the compliance with this requirement, ACyRSA and MtR monthly compare the results of the stress tests against the effectively integrated resources. (Please, see item 4.6. Methodology for the revision of parameters.)

4. Special funds

Special funds are the additional guarantee funds or insurances constituted by ACyRSA whose affectation will be specific to certain risks, either needs for liquidity, participants' default, custody risk, or guarantees of certain operations.
Nowadays, there are no constituted funds. If they are constituted, they will be formally informed.

5. ACyRSA equity

It refers to the use of the remaining equity, once the previously mentioned resources are exhausted.

6. MtR equity

It refers to the use of ACyRSA's remaining equity, once the previously mentioned resources are exhausted.

8. Procedure in case of default

A participant's failure to comply with its obligations before ACyRSA constitutes a non-compliance which implies the settlement of portfolios and/or the execution of its guarantees by the operations guaranteed by ACyRSA.
This default implies problems in the participant's equity and financial capacity. In this scenario, the priority is to limit the potential risk of the defaulter's portfolio, by settling both the participant's portfolio and guarantees.
Once the default is submitted, the Default Commission will be constituted.

8.1. Default Commission

The Default Commission is composed of the General Management and the General Deputy Management, a permanent director member of the Risk Committee, the Risk Management, the Operations Management, the Legal Management, and two members of the Auditing and Control Committee.

The following are some of its responsibilities:

a. To determine:
    1) The origin of the default (identify the involved client accounts)
    2) Amount of the default
b. To document the default
c. To inform the ACyRSA Board of Directors and the comptroller authorities about the default

8.2. Default origin

- **Proprietary default**: it is originated by the default in the settlement of operations by the participant's own portfolio or by the non- compliance of obligations arising from its character as such.
- **Third-party default**: it is originated by the participant's non- compliance in the settlement of operations by clients (third parties).

In order to determine the default origin, the participant may inform ACyRSA about it, and this will be verified by ACyRSA. On the other hand, if the participant does not inform the default cause and/or the client, ACyRSA will employ the means so as to identify them.

8.3. Courses of action

The Default Commission may take some of the following actions based on the default origin:

- **Proprietary default:**
    a) To take control of the defaulter's portfolio.
    b) To order the closure of the non-compliant participant's own positions and to settle its own portfolio and guarantees.
    c) To transfer the clients' positions and guarantees to another ALyC, or to make a direct payment of them.
    d) Also, to order an extraordinary audit of the ALyC's records to validate the segregation of guarantees. Before inconsistencies, what is declared by Argentina Clearing will be considered valid.

- **Third-party default:**
    a) To take control of the defaulter's portfolio.
    b) To inform the non-compliant client.
    c) To order the closure of the t defaulter's positions and the settlement of its guarantees.
    d) In case there is a non-complied balance, to request the participant to integrate it. If it does not integrate it, proceed as per the "Own default".

The ALyC's economic group clients will be considered an own portfolio, as per the concept stated by the CNV in the General Resolution No. 622/13 – Title VI – Chapter V - Title VI – Section III – Article No. 6.

8.4. Settlement of portfolios

For the purposes of the non-compliant portfolio settlement, the following actions may be taken:

1. To authorize the self-settlement by the defaulted participant: for low or intermediate amounts, depending on the portfolio complexity
2. To appoint a settling agent: for portfolios of any amounts with intermediate to high complexity
3. To take over the portfolio execution: when **1)** and **2)** are not applicable

In any case, at least the following general guidelines must be considered:

- Type and origin of the default
- Size of the portfolio
- Liquidity of the market

Different settlement strategies may be followed:

1. Cancellation for reverse operation
2. Hedges in the market
3. Hedges in other markets

4. Other strategies

8.5. Transfer of third-party positions and guarantees

The compliant clients kept by the defaulter participant may transfer their positions and portfolios to another participant in which it has an open account in the market, as long as the client has not opted for the direct payment.
If this is not possible, such portfolio must be declared in settlement.

8.6. Direct payment of guarantees

The compliant clients kept by the defaulter participant with freely available guarantees and without an open portfolio may opt for the direct payment of assets to their own accounts.

8.7. Settlement of guarantees

By considering the market circumstances, the Default Commission may:

1. Partially execute the defaulter client's guarantees to the necessary extent of hedging the owed balance plus the execution reasonably foreseeable expenses
2. Execute all the defaulter client's guarantees at the same time in order to proceed immediately, but trying to maximize the product of the transfer of assets

8.8. Compensation

If the result of the guarantees' execution is not enough to hedge the default, the remaining balance will be considered enforceable for the participant. If this is not addressed within the day, without the need for a subsequent requirement, the obligation will be understood as definitely due and default.
In order to hedge the non-complied balance, the Default Commission must apply the order of precedence stated in the Internal Rulebook (please, see item 8.10. Affectation order of guarantees in case of default).

8.9. Cancellation of an ALyC during a default process

If an ALyC is canceled during a current default period, all those guarantees integrated by the ALyC into the FGOMCs and FGOTs must be returned. However, the assets integrated into the FGIMC will be kept until the default process is completed or such assets are exhausted.

8.10. Guarantee affectation order in case of default

In case of an ALyC's default for its own operations or for the operations of one of its clients, the integrated guarantees are affected as per the following order:

1. Defaulter client's guarantees integrated into the FGOT (*) (Fund I)
2. Guarantees integrated by the ALyC into the FGOMC, in case the former ones were not enough or before the ALyC's own default (Fund I)
3. Guarantees integrated by the non-compliant ALyC into the FGIMC (Fund II)
4. Guarantee special funds or insurances constituted ad hoc by ACyRSA, if any

5. ACyRSA Fund, as per Article No. 45, Law No. 26,831 (Fund III)
6. MtR fund, as per Article No. 45, Law No. 26,831 (Fund III)
7. Guarantees integrated by the defaulter ALyCs into the FGIMC, in proportion of the contributions of each of the ALyCs (Fund II)
8. ACyRSA equity
9. MtR equity

(*) In case of the ALyC's own default, please follow item 2.

9. Recovery Plan

The Recovery Plan is aimed at guaranteeing the continuity of ACyRSA's critical services in order to mitigate the systemic risk once all the mechanisms stated in the internal processes have been exhausted and a crisis situation has been declared by the ad hoc Emergency Committee. The plan consists in an illustrative list of tools suggested to be implemented as per the triggering scenario. The Emergency Committee will be based on these guidelines without limiting to them.

9.1. Critical services

ACyRSA's critical services are:

1. **Registration** of guaranteed operations, as per the Internal Rulebook (*)

2. Clearing of **1)** 3. **Settlement** of **2)** 4. **Guarantee** of **2)**

(*) Guaranteed operations, as per the Internal Rulebook.

The Recovery Plan activates when, before a stress scenario of relevant systemic or financial impact, the CCP is not able to achieve the provision of its critical services. In this situation, the Emergency Commission ad hoc appointed will be called; it will be composed of at least 2 ACyRSA permanent directors and the MtR Group Executive Committee. The ALyCs' participation may be stated.

9.2. Emergency Commission

Once the Emergency Commission is called, the actions it must take are the following:

- ○ To declare the emergency
- ○ To notify the regulator, who must determine if he/she supervises the Recovery Plan or if he/she applies the resolution
- ○ To frame the scenario
- ○ To choose the most suitable tool, at its discretion, by considering the context
- ○ To execute the Plan
- ○ To inform the regulator about the results of the Recovery Plan implementation

9.3. Stress scenarios

In an illustrative manner, in this item the possible scenarios of extreme but realistic situations which the CCP may face are listed. These stress scenarios include both the losses caused by a default and the so called non-default losses (NDL).
NDLs mean the losses which are not generated by a participant's default, but which are derived from the CCP's operational risk (*), general business risks, cybernetic risks, legal and fraud risks, which are in no case transferable to the ALyCs.

For example, NDLs may arise, among other reasons from:

- Regulatory and legal effects

- Losses caused by cyber attacks
- Losses caused by fraud, theft or other improper actions by employees and/or third-parties
- Losses due to operating or system faults
- Losses due to the Clearing House's equity investments

(*) Please, see Annex II.

For all these cases, such losses will be absorbed with ACyRSA's own funds and by leaving aside the affectation of resources present in the default cascade (including the SITG, Fund III) because these are aimed at hedging losses originated exclusively by non- compliances. However, once the rest of the own resources are consumed in order to hedge the NDL, the SITG will be taken as the loss absorption source.

Possible stress scenarios:

Stress scenario	Indicator
Participants' defaults	Definite insufficiency of resources: the special funds are consumed, as per Law No. 26,831 (Fund III, SITG) and the Fund II
Liquidity problems	Temporary liquidity insufficiency caused by one or more participants' operating default, once all the resources stated in the liquidity procedure have been exhausted
Losses due to investments and/or incomes related to the main activity	Extreme negative financial results
Problems with custodians	Impossibility to obtain the assets deposited in the custodians (collective deposit agents, banks and custody agents of collective investment products)
Problems with the means of payment	Faults in the payment systems, what prevent the settlement
Problems with the linked FMIs	If appropriate, faults in the links with the related FMIs, what prevent the settlement
Cyber attacks to the settlement system	Cyber attacks to the systems, what prevent the settlement
Impacts of the BCRA's/CNV's actions	Risk that the authorities' actions impact adversely on the CCP
Problems with critical providers	Interruptions in critical services, what prevent the settlement

Legal risks	Risk that the CCP rules are not compatible with the current legislation, which may be contested or revoked
Cases of fraud	Faults in the Code of Ethics and Conduct

If there is any situation of the ones described above or any other which generates the impossibility to provide critical services, ACyRSA will inform the regulator and activate the Recovery Plan. This information will be published on the CNV official web site.

9.4. Stress recovery tools

The tools to be implemented will take into account the application of the "no creditor worse off" (NCWO) principle.

Below, certain tools are mentioned as examples which could be used as per the stress scenario.

In the case of faults originated in the participant's default, the Emergency Commission will coordinate joint tasks with other FMIs and the Supervisory authority, if appropriate, to deal with potential systemic faults.

The decision to adopt any of the recovery measures must be reported to the Board of Directors and regulators for their knowledge and/or conformity, if appropriate, as well as to the affected participants, if appropriate.

Stress scenarios	Tools
Participants' defaults	• **To apply liquid equity funds** • **Cash calls to shareholders (which can be capitalized)** • **Variation Margins Haircutting (VMGH):** (partial or total) postponement of the settlement windows • **Settlement in assets:** to substitute the MtM's settlement to the creditor ALyCs for the defaulter's settlement of assets in guarantee • **To adjust haircuts of collaterals in guarantee** • **Correction of the prices in the contracts**
Impossibility to close the defaulter participant's portfolio (re-establish the matched book)	• **To execute an auction** • **Termination of contracts:** to settle contracts in advance
Replacement of special funds for the participants' default (Fund III, SITG)	• **To apply liquid equity funds** • **To reduce the payment of dividends to shareholders** • **To reduce the directors' fees** • **To sell assets**

Liquidity problems	• **To apply liquid equity funds** • **VMGH:** (partial or total) postponement of the settlement windows
	• **Settlement in assets:** to substitute the MtM's settlement to the creditor ALyCs for the defaulter´s settlement of assets in guarantee • **To postpone the operations settlement**. To postpone the payment to creditor ALyCs • **To adjust the haircuts of assets in guarantee**
Problems with the custodians	• If liquidity problems are generated, please see the detailed tools
Problems with the means of payment	• To allow the intervention of the comptroller • organism To postpone the operations settlement
Problems with the linked FMIs	• To allow the intervention of the comptroller • organism To postpone the operations settlement
Cyber attacks to the settlement system	• To allow the intervention of the comptroller • organism To postpone the operations settlement
The impact of BCRA's or other organisms' actions	• To allow the intervention of the comptroller organism to mitigate systemic faults
Problems with critical providers	• To allow the intervention of the comptroller • organism To postpone the operations settlement
Legal risks	• To allow the intervention of the comptroller organism to mitigate systemic faults
Cases of fraud	• To reduce the payment of dividends to shareholders • To reduce the directors' fees • Cash calls to shareholders
Loss of incomes related to the main activity	• To reduce the payment of dividends to shareholders • To reduce the directors' fees • Cash calls to shareholders

9.5. Resolution

The Resolution applies for situations where the Recovery Plans are not enough (or are not advisable to use) in order to ensure the continuity of the CCP's services.

The regulator is in charge of developing and conducting resolution plans to ensure the continuity of the services of the CCP, which may use some of the described tools.

10. Annexes

Annex I

Offered services						
Contacts	**Registration**	**Clearing**	**Guarantee**	**Others**	**Custody**	**CCP**
Stock exchange derivatives						
Futures	Yes	Yes	Yes		N/A	Yes
Options	Yes	Yes	Yes		N/A	Yes
Others (e. g., PAF)	Yes	Yes	Yes		N/A	Yes
Other marketable securities						
FCI	Yes	Yes	Yes		No	No
E-cheqs	No	No	Yes	Management	No	No
Digital promissory note	No	No	No	Settlement of the marketable security (not of the operation)	Yes	No
Electronic invoices	No	Yes	No		No	No
OTC derivatives						
Forwards	Yes	Yes	Yes		N/A	No
Options	Yes	Yes	Yes		N/A	No
Accumulators	Yes	Yes	Yes		N/A	No

Others (e. g., swaps)	Yes	Yes	Yes		N/A	No

Annex II

a. Operational Risk

Argentina Clearing has an operational risk policy whose goal is to establish the principles, the methodology and the responsibilities which must be observed in the operational risk management process, so as to identify, measure, mitigate, monitor and report the risks inherent to the post-trade activity. Also, some roles tending to prevent operational risks in the value chain (ALyCs' Risk Matrix) are included.

The origin of operating faults may arise from: system providers, depository entities, payment systems, systems for the settlement of marketable securities, other providers, participants and other related entities. Within this category are included human mistakes, system and procedure errors. The different ACyRSA Departments work in coordination to promote risk reporting and mitigation.

b. Methodology

The methodology consists in two approaches:

i. Preventive approach

It is based on a merely qualitative model which seeks to identify those entities or categories of critical faults implying an extent of exposure to operational risk, by also taking into account their probabilities of occurrence.

It implies:

- The preparation of heat maps of the post-trade areas
- The promotion of the risk-oriented

culture Below, the involved processes are

detailed.

Heat maps per areas

Heat maps per areas are prepared based on the following variables:

- Risk identification
- Categorization
- Impact
- Probability of occurrence

The combination of impact and probability of occurrence determines the classification:

Extreme
High
Moderate
Low

For each of the risks identified, a management is assigned which may imply:

- Acceptance
- Mitigation
- Transfers
- Elimination
- Follow-up

Global heat map

From the sum of individual heat maps of each area, the post-trade operational global heat map emerges: there only high and extreme seriousness risks are included.

ii. Measurement approach

This approach is based on the post-trade operational risk quantitative measurement. For this purpose, the resulting registration of cases is taken as the data source; an appropriate gross loss threshold may be stated from which events start being collected.

The registration base of real cases is fed by the following sources:

- Internal reports: faults in the processes, systems, human mistakes reported by the Departments
- Clients' claims: faults in the processes or systems reported by clients

For each record, the following parameters are identified:

- Date of occurrence
- Entity of origin
- Entity category
- Fault
- Cause
- Estimated or real loss

From the results obtained, critical faults which are not incorporated into the Departments' heat maps are identified so as to produce feedback about them.

c. Risk Treatment

The risk treatment process is conducted as follows:

<table>
<tr><th>Risk</th><th>Organ of treatment</th><th>Actions</th></tr>
<tr><td>Extreme</td><td>Clearing System Risk Committee</td><td rowspan="4">Acceptance / Mitigation / Transfer / Elimination</td></tr>
<tr><td>High</td><td>General Management and Deputy Management</td></tr>
<tr><td>Moderate</td><td rowspan="2">Managements (risk owners)</td></tr>
<tr><td>Low</td></tr>
</table>

d. Responsibilities

i. Clearing System Risk Committee

- To approve the operational risk policy
- To approve the treatment of risks classified as “high” and “extreme”,

  proposed by the General Management and Deputy Management

ii. General Management and Deputy Management

To propose a treatment of the risks classified as “high” and “extreme”, so that it can later be approved by the Clearing System Risk Committee

iii. Managements

Within each Department, their responsibility is to:

- Immediately report unmapped risks, either new or not
- Monitor the risks under their responsibility Implement mitigating

actions Specifically, the Compliance Department also has the responsibilities to:

- Conduct the daily registration of events and weekly inform to the managements
- Jointly prepare with the ACyRSA Departments the individual heat map

- Prepare the company’s global heat map
- Inform the General Management and Deputy Management about the global map heat with the high and extreme risks registered

e. Value Chain

In order to stimulate the mitigation of operational risk in the value chain, operating aspects of the ALyCs stated in the risk matrix are monitored (please, see item 3.10.1. Operational scoring).

11. Glossary

Adhered market: market authorized by the CNV, with the main purpose of organizing the operations trading and which has entered into an agreement with ACyRSA for the registration and/or clearing and settlement of its operations.

Agents (AN): the individuals and/or legal entities authorized by the CNV for their registration within the due records created by the mentioned commission, in order to cover the activities of trading, placement, distribution, brokerage, clearing and settlement, custody and collective deposit of marketable securities; management and custody of collective investment products; risk rating and all those activities that, at the CNV's discretion, must be registered for the development of the capital market.

It is possible to access to the capital market through the following agents: trading agents, brokerage agents, and clearing and settlement agents.

RUCA agent : the legal entities registered in the RUCA, which is kept by the National Ministry of Agriculture, Livestock and Fishing; or the application authority that in the future results the continuing organism for all its purposes and included in the Fiscal Registry of Grains and Pulses Operators as per the terms of the Federal Administration of Public Revenue (AFIP, *for its acronym in Spanish*) General Resolution No. 2300/2007 that intend to register operations of futures, options and other derivatives whose underlying products are included in their operation under the RUCA within the competence scope of the above mentioned Ministry.

Argentina Clearing: the company whose main object is to act as clearing house in order to register and/or clear and settle operations with marketable securities or other instruments. For such purposes, it will act as a central counterparty in each guaranteed operation conducted by the participants in the adhered markets. It may also act as a mere intermediary between the buyer and the seller when it does not guarantee the operation in the process of delivery of those operations which are settled by physical delivery of the underlying product, operations over marketable securities or other assets.

Board of Directors: the ACyRSA Board of Directors.

Brokerage agents: legal entities registered before the CNV to relate two or more parties for the completion of business over marketable securities, without being linked to any of them in terms of collaboration, subordination or representation relations [first part of Subsection a), Article No. 34, Annex I, Law No. 25,028].

Business days: the stock exchange working days when Argentina Clearing is active and in operation.

Business days for grain trade: the working days when the country main grain markets regularly operate. In case of doubts, the Board of Directors' decision will prevail.

Clearing and Settlement agent (ALyC, *for its acronym in Spanish*): the agents registered before the CNV and authorized by Argentina Clearing or an adhered market to request the service of registration and/or clearing and settlement of operations, as well as other complementary services for which it has been authorized. In turn, every ALyC will be considered an AN and its subcategories are:

Integral Clearing and Settlement Agent (Integral ALyC, *for its acronym in Spanish*): when they intervene in the clearing and settlement of operations (primary placement and secondary trading), registered both for the own portfolio and for their clients', and also decide to offer the service of clearing and settlement of operations to other registered ANs, having previously entered into a clearing and settlement agreement. In these cases, the ALyCs are responsible for compliance before the markets and/or the clearing houses as regards their own obligations, their clients' and also the ANs' (for their own portfolio and third party clients') with whom they have entered into an agreement.

Agro-Industrial Integral Clearing and Settlement Agent (Agro-Industrial Integral ALyC, *for its acronym in Spanish*): the integral ALyCs that develop - in a complementary manner - grain brokerage, agricultural and livestock, and agro-industrial activities in general, and also similar and accessory to these activities.

Own Clearing and Settlement Agent (Own ALyC, *for its acronym in Spanish*): when they only intervene in the clearing and settlement of operations (primary placement and secondary trading) registered by them, both for their own portfolio and for their clients'. That is, they do not offer the clearing and settlement service to third-party ANs. In these cases, the ALyCs are only responsible for compliance before the markets and/or the clearing houses as regards their own obligations and their clients'.

Clearing and Settlement Agent – Direct Participant (Direct Participant ALyC, *for its acronym in Spanish*): when their performance is exclusively limited to register operations in futures contracts and options contracts over futures, traded in markets under the supervision of the CNV for their own account and with their own funds. The agents registered in this subcategory cannot offer intermediation services nor proceed to the opening.

Clearing House: the entities registered before the CNV to conduct registration and/or clearing and settlement activities, by acting as a central counterparty in the case of guaranteed operations.

Collective investment products: mutual funds, financial trusts and other vehicles of the capital market, as defined by Law No. 26,831 and its modifications.

Communication: the means by which the General Management, or an officer appointed by it, informs the participants about the operating or functional decisions, either general or particular.

Client: the individual or legal entity, including ANs with whom the participant has entered into an agreement, which entrusts its participant with the request for services of registration and/or clearing and settlement of its operations, provided by ACyRSA.

Contract: the instrument where the standardized terms and conditions are set for operations over marketable securities or other assets previously authorized by the CNV and conducted in an adhered market.

Custody risk: the possibility to suffer losses in the registered securities due to the insolvency, negligence, embezzlement of assets, misadministration or inappropriate maintenance of records.

Depository entities: the entities and/or agents registered and authorized for such purpose, with which ACyRSA establishes a business relation.

Differences: the amounts daily or eventually determined in an intraday manner by ACyRSA which the participants must deliver or have the right to receive, as appropriate, for the operations pending to be cancelled, by taking into account the original price of the operation and the adjustment price of each operation.

Direct Delivery Account (CED, *for its acronym in Spanish*): a registration account intended to be used in the goods delivery process to enable the settlement of the fund flows resulting from it directly between the holder of CED and MtR and/or the Clearing House.

DRP (*for its acronym in Spanish*): differences, results and premiums.

Eligible assets: the funds, marketable securities and other goods which result acceptable for ACyRSA and which it may modify at any moment, to the best of its knowledge, stating not only the kind of assets but also their requirements including, among others, the applicable haircuts, currency and issuers.

Expiration date: the business day when the deadline to register operations expires.

Futures contract: the contract guaranteed by the Clearing House whose terms and conditions have been previously standardized as regards its underlying product, number of underlying products, months of trading enabled for its expiration, among others, and by means of which the parties commit themselves to buy and sell an underlying product at the agreed price and whose settlement will be made on a future date.

Guaranteed operation: the operation in which ACyRSA acts as a central counterparty, by partially or fully guaranteeing its compliance.

Guarantees: the funds, marketable securities or any other assets approved by the Board of Directors which must be delivered by the participants to guarantee the compliance with the margin balances and guarantees required by ACyRSA. This concept includes personal guarantees, such as the commercial bail and/other payment undertaking, surety or another instrument constituted by the participant and/or the client to guarantee their open position, as far as they are accepted by the Board of Directors.

Guarantee funds: the guarantee funds where there is accumulation of the guarantee contributions of the ALyCs and other subjects stated by the Board of Directors to comply with the guaranteed operations registered in their registration accounts.

Guarantee Fund for the Clearing Member's Default (FGIMC, *for its acronym in Spanish*): guarantee fund for the ALyCs' default, framed within the concept of trust (please, see item 7.1).

Guarantee Fund for the Clearing Member's Operations (FGOMC, *for its acronym in Spanish*): guarantee fund for the ALyC's operations (please, see item 7.1).

Guarantee Funds for Third-Party Operations (FGOT, *for its acronym in Spanish*): all the assets which are integrated in guarantee by the operations in MtR are deposited in a trust called Guarantee Fund for Third-Party Operations, which is under the custody and safeguard of the Clearing House, ACyRSA.

Handbooks or instructions: the procedural decisions that regulate aspects related to operations, systems of trading and/or clearing and settlement or other services addressed in the Internal Rules, which will be informed by the General Management to participants, published on the web site and on the media the Management considers pertinent, moment from which they will become effective.

Initial guarantee: the minimum amount of guarantees required by ACyRSA to be authorized as a participant.

Internal Rules: thisi nternal rulebook, by-law, notices, communications, handbooks or instructions and/or resolutions by the Board of Directors.

Liquid balance: the money remaining under an agent's custody without being invested or affected in guarantee for a particular market.

LOA (*for its acronym in Spanish*): expanded operating limit (please, see item 3.3).

LOA1 (*for its acronym in Spanish*): first expanded operating limit (please, see item 3.3).

LOA2 (*for its acronym in Spanish*): second expanded operating limit (please, see item 3.3).

LOA3 (*for its acronym in Spanish*): third expanded operating limit (please, see item 3.3).

Logbook: the digital support where own and/or third-party portfolio operations, conducted in the adhered markets and/or in OTC operations and registered before ACyRSA, are chronologically recorded.

LOP (*for its acronym in Spanish*): daily operating limit (please, see item 3.2).

LPA (*for its acronym in Spanish*): limit to open positions (please, see item 3.6).

Margin: the guarantee minimum amount required by ACyRSA to ensure the operations pending to be canceled.

Market: business corporation authorized by the CNV with the main purpose of organizing operations with marketable securities having public offering. Similar and complementary activities compatible with the development of this goal remain under the CNV's competence.

Marketable securities: bonds issued in a cartulary manner and all the securities incorporated into a record of notes including, particularly, credit values or representing credit rights, shares, quota shares of mutual funds, debt securities or certificates of financial trust share or of other collective investment vehicles and, in general, any securities, investment contracts or credit rights which are homogenous and fungible, issued or grouped in series and marketable in the same manner and with similar effects as bonds, which due to their configuration and transmission regime are capable of generalized and impersonal traffic in financial markets. Also, this concept includes futures, options and derivative contracts in general which are registered as per the CNV regulation, and the deferred payment cheques, admissible certificates of fixed-term deposits, credit invoices, deposit certificates, warrants, promissory mortgage notes, bills of exchange and all the bonds capable of secondary trading in markets.

MtR Guarantee Trust (FGR, *for its acronym in Spanish*): the ordinary guarantee trust structured by the Clearing House, which acts as a beneficiary, to constitute the guarantee funds where the guarantees contributed by ALyCs and other subjects appointed by the Board of Directors will be kept to constitute guarantees for the compliance of the guaranteed operations registered in their registration accounts.

MyPortfolio: an online application which allows users to verify all their operations conducted in MtR and their possessions registered by ACyRSA.

For example, the following information can be viewed there:

- Portfolio and differences in open positions
- Assets possessed and in guarantee
- Subscriptions and rescues of mutual funds (FCI, *for its acronym in Spanish*)

In order to log in, the user is the email address that your agent has declared before MtR and ACyRSA. For further information, please visit miportafolio.com.ar (https://miportafolio.com.ar/).

National Securities Commission (CNV, *for its acronym in Spanish*): a self-sufficient organism which operates within the scope of the Ministry of Economy and is in charge of the promotion, supervision and control of the capital market.

It was created in 1968 by the Public Offering Law No. 17,811 and is currently governed by the regulatory framework granted by the Law of Capital Market No. 26,831 and the modifications introduced by the Law of Productive Financing No. 27,440. The CNV's mission is to protect investors and to create a regulatory framework that fosters a federal, transparent, inclusive and sustainable capital market which tends to channel savings towards investment, thus contributing to the strengthening of the country diverse economic activities.

Non-guaranteed operation: the operation in which ACyRSA operates by registering and/or settling it, but in no case it guarantees its compliance. Thus, ACyRSA acts as an intermediary, being the buyer and the seller responsible for the compliance with the settlement by delivery. This expression also includes the settlement operations with the product physical delivery.

Notices: the means by which all the resolutions issued by the Board of Directors or an officer appointed by it and related to ACyRSA's operations become known. They will become effective with the CNV's previous approval.

Open contract: the operation over a futures or options contract conducted in an adhered market, which is not overdue, nor it has been cancelled by a reverse operation and, therefore, is considered effective.

Open position: the number of open contracts kept by participants and/or their clients on a certain date.

Operating limit of positions: the maximum number of operations of the same kind which a participant and/or a client may have.

Operation: entering into a contract whose underlying product is a marketable security or another asset, conducted within or outside the context of an adhered market.

Trading day: the electronic context where operations are traded, at the times and on the days authorized by the adhered markets to which Argentina Clearing provides its services.

Options contract: the standardized contract in which the buyer, through the payment of a premium, acquires from the seller the right but not the obligation to buy (CALL) or sell (PUT) an underlying product at an agreed price (exercise price) on a future date, and the seller commits itself to sell or buy, as appropriate, the agreed underlying product (exercise price).

Order: the instructions given by a client to a participant and/or an AN.

Over-the-Counter (OTC) operation: the operation over marketable securities or other assets conducted outside the context of an adhered market in which the parties bilaterally agree the terms and conditions of each operation.

Own portfolio: the operations registered by the participant by its own order, on its behalf and at its own risk.

Participants: the agents registered before the CNV and authorized by ACyRSA to act within its context.

Party: each of the participants in an operation.

Producing agents: the individuals and/or legal entities registered before the CNV to develop activities of dissemination and promotion of marketable securities under a registered AN's responsibility as per the regulation stated ad hoc by the CNV in 1.2.6.

Replacement of margins: the replacement of the losses determined by the fluctuation in the quotation of the operated species in relation to the agreed price, as per the percentage and/or amount stated by the ACyRSA Board of Directors or the adhered market, according to what is established in the agreement between both parties. The price fluctuation coming exclusively from the exercise of subscription rights will not determine the replacement.

Result: the profit or loss produced when canceling an operation.

Settlement by physical delivery: the physical delivery of the underlying product and the payment of the agreed price.

Settlement by price difference: the delivery of funds equivalent to the difference between the price agreed in the operation and the final settlement price.

Settlement date: the business day when the provisions derived from a registered operation in ACyRSA are enforceable.

Special Settlement Account (CEL, *for its acronym in Spanish*): the special settlement account opened before ACyRSA by a client, through an ALyC.

Third-party portfolio: the operations registered by the participant by order of its clients, on their behalf and at their own risk, as well as by the order of the ANs with whom they have entered into an agreement, and by the order of such ANs' clients.

Trading Agent (AN, *for its acronym in Spanish*): the financial entities authorized to operate as such as per the terms of Law No. 21,526, and the legal entities regularly constituted in the Argentine Republic that request the authorization to operate and enroll in the Registry as trading agents, to operate as market intermediaries authorized by the CNV, including (under the organism jurisdiction) any activities conducted within this context.

Trustors: the ALyCs and all the subjects that, due to their activity in the adhered markets and/or ACyRSA, must integrate guarantees into the FGR.

Underlying products: the physical or financial assets which are the object of a contract or whose price serves as reference to determine the value of a contract or marketable security. The price may emerge from a market (index), may be informed by an authority (such as the BCRA) or a third party, may emerge from a business transaction or from a certain set of business transactions.

Value at Risk (VaR): a statistical measure that estimates the probable maximum loss for a portfolio within a certain time interval and with a given confidence level.