



 nuam

EQUITIES OPERATING MODEL

nuam

final version

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Disclaimer:

This working paper is a proposed operating model for the nuam equities market. It is intended to regulate trading and post-trading by all parties involved in this Single Market.

The information contained herein may be updated, deleted or modified in any way by subsequent nuam publications, and is subject to regulatory approval in each country.

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INTRODUCTION

This final version of the trading model for the nuam equities market was a joint effort by numerous market players.

This third installment contains added details on the following topics:

- Dollar order book and price formation
- Rules for canceling transactions
- Suspended trading
- Updated model for repurchase transactions
- General Market Makers and Securities Lending Model

New and **amended** topics are highlighted in **orange**.

Additional information will be published soon on particular topics such as the general Market Makers and Securities Lending Model.

This new operating model will take effect once the new infrastructure and technology have been **launched**.

Visit our website nuamx.com for more information. Comments may be submitted through your sales representative or by email at implementacion.proyectos@nuamx.com

DEFINITIONS AND ACRONYMS

- **Assignment System:** Functionality of nuam-designated system for assigning the beneficial owner.
- **Beneficial owner assignment:** Process by which nuam-authorized entities identify the beneficial owners who gave the orders for the transactions carried out in the trading system.
- **Bid-offer spread:** The difference between the peak bid price and the peak ask price.
- **BOSI:** Transaction settlement instructions sent from the CCP system to the CSD for delivery to participant-level OSA accounts.
- **CCP:** Central Clearing Counterparty.
- **CCLV (Contraparte Central S.A):** Entity serving as the CCP in Chile.
- **CCP Omnibus Accounts:** Accounts created in the CCPs for clearing.
- **COMBANC:** Sociedad Operadora de la Cámara de Compensación de Pagos de Alto Valor S.A. in Chile.
- **DMA (Direct Market Access):** Direct access to the market for international investors and brokers sponsored by a Single Market intermediary.
- **DVP:** Delivery versus payment.
- **DVP model 3:** Delivery versus net payment in cash and securities.
- **Electronic order routing mechanism:** Communications technology that allows intermediaries and their authorized clients to enter orders to buy and sell securities in nuam Trading Systems.
- **FIX (Financial Information Exchange):** Messaging protocol for financial information and entering trading orders, as well as for pre- and post-trade activities used internationally by different entities. It gives participants a standardized technological language for connecting to and accessing markets.
- **Foreign securities:** Securities listed on international markets and the Unique Market's Global Market Segment that are sponsored by a local intermediary or the Exchange itself.

- **GCM (General Clearing Members):** Members that directly access the CCP and also provide clearing and settlement services to non-clearing members.
- **Global Market:** Segment where foreign securities are available for trading.
- **ICM (Individual Clearing Members):** Members that directly access the CCP for proprietary and third-party transactions.
- **IFU (Investment Fund Units) (certificate of investment or investment certificate):** Equity instruments that represent a fraction of the net assets of an Investment Fund.
- **Institutional Investor:** Entities such as Pension Funds, Insurance Companies, General Fund Administrators, among others, that may access the SMTS through intermediaries using electronic order routing mechanisms and DMA.
- **International Broker:** Entity serving as an intermediary domiciled outside Chile, Peru and Colombia.
- **Intermediary:** Companies authorized by the regulator in their country of registration to act on their own or on behalf of third parties to buy and sell securities. (Brokerage Firms - Colombia, Stockbrokers - Chile, Brokerage Agents - Peru).
- **Lending Agent:** Intermediaries that may participate in the lending market or other entities such as custodians, institutional investors, international lending agents or any other entity authorized by law.
- **Market Maker:** Entities designated to promote the liquidity of one or more securities based on requirements pre-set by the Issuer or the Exchange.
- **NCM (Non-Clearing Members):** Members that access CCP clearing and settlement services through a GCM.
- **Novation:** Situation in which a CCP intervenes between market participants once the trade has been carried out, becoming the sole buyer for all sales and the sole seller for all purchases, extinguishing the bilateral contracts between the parties.
- **Operating Mode:** Classification of the account or resources that will fulfill the obligations arising from a transaction carried out by an intermediary.
- **OSA (Omnibus Segregated Accounts):** Accounts created in the CSDs and

CCPs for settlement. They temporarily consolidate the securities from the beneficial owner (investor account) at participant level, to consolidate the net positions for delivery or receipt.

- **OTC (Over the Counter):** Transactions involving financial instruments carried out directly between two parties.
- **Participants:** Entities that can directly access CSD services, including Intermediaries, Trustees, Custodians, Agents, among others.
- **Paying Agent:** Entity entrusted by the participant to carry out the payment processes with the Central Bank and commercial banks to receive or deliver cash for transactions to be settled in the CSDs and CCLV.
- **Post-trade System:** System that centralizes participant processes for collateral management and segregated account information to settle non-CCP transactions, as well as for reporting and settlement vouchers.
- **Proxy voting:** Exercise of voting rights through a power of attorney granted by the shareholder for representation at a shareholders' meeting.
- **Security's Country of Registration:** Country where the security is registered in the respective public registry.
- **Settlement by differences:** CCP procedure in the event of failure if the asset was not bought back and it is not in possession of the underlying asset or the asset involved in the failed transaction; the CCP may settle by delivering cash equivalent to the difference between the agreed price of the transaction and the reference price defined by the CCP.
- **Short sales:** Sale of securities in which the seller does not own the securities involved in the transaction at the time of the transaction.
- **SI:** Transaction settlement instructions sent from the CCP to the CSD with the net amount per participant in the OSA account.
- **Single Market:** Market where trading, clearing and settlement take place through nuam's systems.
- **Single Market Trading System (SMTS) - nuam:** Single trading platform to be managed by Bolsa de Valores de Colombia S.A., the Lima Stock Exchange and Santiago Exchange, where securities registered in the three countries' public registries and Foreign Securities may be traded.

- **Sponsor (Promoting Agent):** Single Market Intermediary requesting the listing of new securities in the Global Market.
- **Subscription options or Stock subscription rights:** Shareholder right to maintain their interest in the event of a new issue of shares.
- **System Administrator:** Entity responsible for authorizing transactions or requests from Single Market participants per current regulations.
- **TSD:** Theoretical settlement date.

PRINCIPLES OF THE EQUITIES OPERATING MODEL

The following principles outline the key aspects of the new nuam equities market operating model:

- **Harmonized** operating rules based on best practices and international standards for the three countries: Colombia, Chile, and Peru.
- Access to trading for all participants through a **single platform**.
- **Access to the market** through technology for institutional investors and foreign brokers.
- Single risk and **multi-currency** model leading to greater efficiencies in the clearing process.
- Access to clearing and settlement for all participants through an **interoperability model** between the three countries' CCPs.
- **Interconnection between the CSDs** of Peru (Cavali), Colombia (Deceval) and Chile (DCV).
- **Single point of access** for market information.

GENERAL TRADING MODEL

1. The equities market trading model seeks to reflect the best practices of the three participating countries and the leading international markets.
2. The following concepts will govern the specific trading rules to be presented in this document:

Participants¹

3. **Intermediaries²:** Intermediaries in Chile, Peru and Colombia will have direct, integrated access to the three countries' equities through a single platform, with the same trading conditions, according to their current permits. This access can be configured through technical connections (like FIX³ protocols) or the new trading screen to be developed for market participants.

4. **International Brokers⁴:** Access by international brokers will be through DMA⁵. Transactions will be executed by a Single Market⁶ intermediary, depending on the relationship established between the intermediary and the international broker⁷. International brokers may previously specify that their transactions be settled through a Clearing Member other than the intermediary in the CCP⁸.

5. **Investors:** They will access the Trading System using electronic order routing mechanisms⁹ and DMA for institutional investors¹⁰.

Trading Days

6. Securities registered in each country's public registry will be available for trading

¹ **Participants:** Entities that can directly access CSD services, including Intermediaries, Trustees, Custodians, Agents, among others.

² **Intermediary:** Companies authorized by the regulator in their country of registration to act on their own or on behalf of third parties to buy and sell securities. (Brokerage Firms - Colombia, Stockbrokers - Chile, Brokerage Agents - Peru).

³ **FIX (Financial Information Exchange):** Messaging protocol for financial information and entering trading orders, as well as for pre- and post-trade activities used internationally by different entities. It gives participants a standardized technological language for connecting to and accessing markets.

⁴ **International Broker:** Entity serving as an intermediary domiciled outside Chile, Peru and Colombia.

⁵ **DMA (Direct Market Access):** Direct access to the market for international investors and brokers sponsored by a Single Market intermediary

⁶ **Single Market:** Market where trading, clearing and settlement take place through nuam's systems.

⁷ **International Broker:** Entity serving as an intermediary domiciled outside Chile, Peru and Colombia.

⁸ **CCP:** Central Clearing Counterparty.

⁹ **Electronic order routing mechanism:** Communications technology that allows intermediaries and their authorized clients to enter orders to buy and sell securities in nuam Trading Systems.

¹⁰ **Institutional Investor:** Entities such as Pension Funds, Insurance Companies, General Fund Administrators, among others, that may access the SMTS through intermediaries using electronic order routing mechanisms and DMA.

during business days in each country. Order books on foreign securities¹¹, which will be defined by trading currency (COP, PEN, CLP) will be tradeable according to the calendar associated to this currency; for order books in USD, trading will be enable while is a business day in any on the three countries (Chile, Colombia, Perú). For securities traded in U.S. dollars, settlement will follow the calendar of the respective market where the security is settled.

Example: July 28 is the independence holiday in Peru, so securities whose country of registration is Peru **are not eligible for trading on that day**. However, Peruvian intermediaries may continue to trade Colombian and Chilean securities as long as they comply with the Peruvian CCP's collateral requirements.

Settlement Terms

7. Spot equities transactions will be settled T+1. Securities registered in Chile will have the option of additional settlement terms for each instrument, with differentiated order book formation.

Trading Currency

8. Securities may be traded in the currency of the security's country of registration or in U.S. dollars.

9. On the **Global Market**¹², securities will be traded in U.S. dollars and settled in the CSD stipulated for this type of settlement., securities will be traded in U.S. dollars and settled in the CSD stipulated for this type of settlement. Additionally, foreign securities may be traded in each country's local currency (COP - CLP - PEN), in which case they will be settled in the CSD of the trading currency and in Chile in the CCLV¹³.

Securities Registration Requirements

10. A security registered in any of the three jurisdictions is deemed registered and eligible for trading in the Single Market.

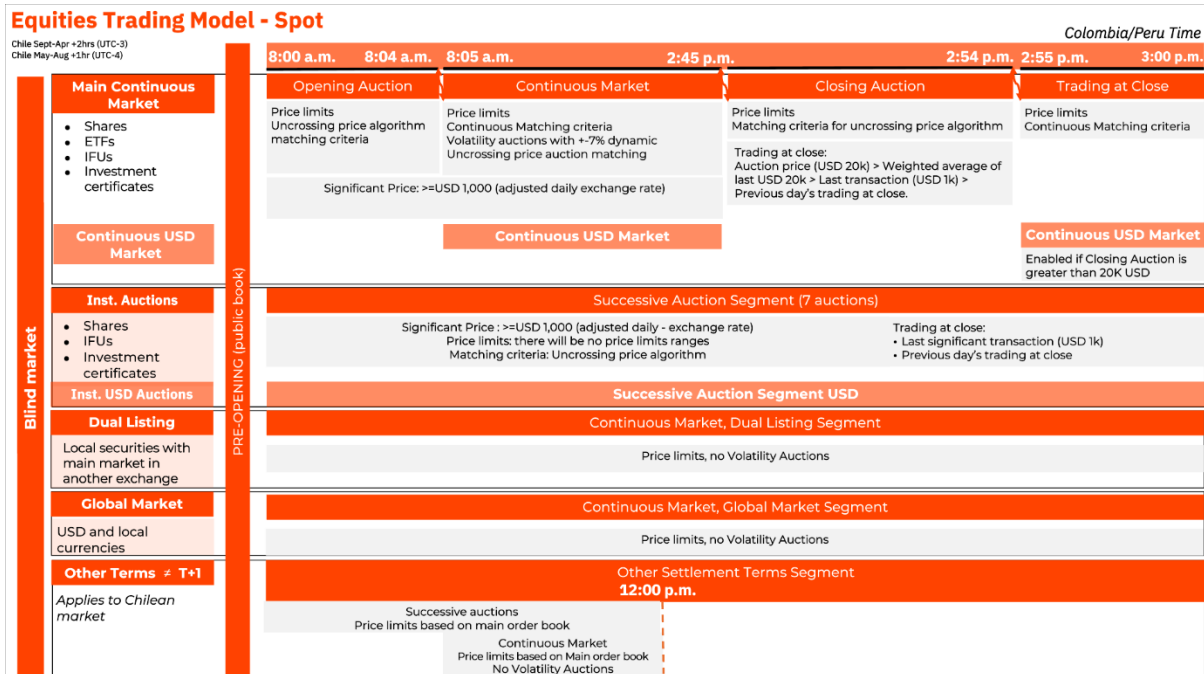
¹¹ **Foreign securities:** Securities listed on international markets and the Unique Market's Global Market Segment that are sponsored by a local intermediary or the Exchange itself.

¹² **Global Market:** Segment where foreign securities are available for trading.

¹³ **CCLV (Contraparte Central S.A):** Entity serving as the CCP in Chile.

TRADING SPOT TRANSACTIONS

11. The following chart outlines the trading model for spot transactions:



The following concepts are associated with spot transactions:

Operating Mode¹⁴

12. Intermediaries will enter orders after selecting the client type and the system will check that there is no crossover between proprietary positions and between funds of the same intermediary. Orders will be entered and assigned by default according to the operating mode:

- Proprietary
- Third party
- Institutional/ Funds

¹⁴ **Operating Mode:** Classification of the account or resources that will fulfill the obligations arising from a transaction carried out by an intermediary.

13. As indicated in the "Transaction Modifications and Cancellations" section, these assignments may be modified if the conditions set by nuam are met.

Counterparty Anonymity

14. The market will be blind for trading counterparties (orders and transactions), clearing and settlement.

Securities Segments

15. Segments are trading groups used to classify equities in the Trading System based on set criteria. The spot market will be divided into the following segments, which differ by trading sessions, matching methodology and settlement terms:

- **Continuous Segment:** This segment is for trading shares, exchange-traded funds (ETF), investment certificates and IFUs¹⁵ of issuers registered publicly in any of the three countries with T+1 settlement.

The following sessions will be available for the main currency trading book (local currency):

- Pre-opening
- Opening auction
- Continuous market with volatility auctions
- Closing auction
- Trading session at closing prices

The following sessions will be available for the U.S. dollar trading book:

- Pre-opening
 - Continuous market without volatility auctions
 - If the main book uses the Trading session at closing prices, the Continuous market without volatility auctions will be opened for the same period.
- **Auction Segment:** This segment is for trading shares, investment certificates and IFUs that meet regulatory classification criteria. They are set apart because they have lower liquidity in historical trading versus instruments traded in the continuous market segment. The list of

¹⁵ **IFU (Investment Fund Units) (certificate of investment or investment certificate):** Equity instruments that represent a fraction of the net assets of an Investment Fund.

instruments traded under this mode will be updated quarterly.

The following sessions will be available for the local and U.S. dollar books for successive auctions:

- Pre-opening
- Successive auctions

Dual Listing Segment: Locally issued instruments whose main liquidity is in a foreign market. The following sessions will be available for this book:

- Pre-opening
- Continuous market without volatility auctions

Global Market Segment: For trading foreign instruments. The following sessions will be available for the Global Market segment:

- Pre-opening
- Continuous market without volatility auctions

Segment of different terms, continuous: Instruments registered in Chile and traded by Chilean intermediaries may be settled other than T+1 using automatic matching without volatility auctions and price control with respect to the T+1 book.

The sessions for this segment are:

- Pre-opening
- Continuous market without volatility auctions

Segment of different terms, auctions: Instruments registered in Chile and traded by Chilean intermediaries may be settled other than T+1 using successive auctions with price control with respect to the T+1 book.

The sessions for this segment are:

- Pre-opening
- Successive auctions

16. Trading Sessions

- **Pre-opening (applies to all segments):** In this pre-trade session, intermediaries prepare for trading by managing their orders, but cannot generate matches in the system.

- **Opening auction (applies to Continuous Market segment):** Session lasting a minimum of four minutes with an additional random closing of up to one minute, where buy and sell orders are gathered without automatic matching. Matching takes place at session close at the equilibrium price, which maximizes the amount awarded.
 - **Continuous market with volatility auctions (applies to Continuous Market segment):** The session will have an automatic matching methodology and volatility auctions lasting a minimum of three minutes with an additional random closing of one minute if there are potential transactions that exceed $\pm 7\%$ with respect to the last significant trading price (price that set the last transaction greater than or equal to USD 1,000).
 - **Continuous market without volatility auctions (applies to Global Market segment):** The session will have an automatic matching methodology with no volatility auctions.
 - **Closing Auction (applies to Continuous Market segment):** The session will last a minimum of nine minutes, with an additional random closing of up to one minute and an equilibrium price, equivalent to the method used in the Opening Auction.
 - **Trading session at closing price (applies to Continuous Market segment):** The session will last a minimum of five minutes for instruments meeting minimum trading amounts of 20 thousand U.S. dollars during the closing auction. This session's transactions will be matched to the closing auction price.
 - **Successive auctions (applies to successive auction segment):** Session of 58-minute auctions with random additional closing of up to two minutes.
17. All trading sessions will use price control for offer entry to minimize the risk of significant error, except for instruments traded on successive auctions.

Transaction Modifications and Cancellations

- **18. Modifications:** The trading characteristics (price, quantity, type or security) may not be modified. Changes to the characteristics associated with the operating mode will be allowed, as well as to move up the settlement term of the transaction. All of this is done in the Post-trade

Systems¹⁶ prior to the time of fulfillment.

- **19. Cancellations:** The system administrator¹⁷ will allow cancellations in the spot market due to significant or material errors.

The intermediary must request cancellation from the Exchange no more than 15 minutes after the transaction is matched via the systems indicated by the Exchange, by written communication, email sent to the address indicated by the Exchange, a duly recorded telephone call or another means that allows the Exchange to record the request received.

Cancellation is governed by the variation of the last significant trading price (price that set the last transaction greater than or equal to USD 1,000), according to the following criteria:

1. When the variation is strictly less than 3.00%, the transaction cannot be canceled.
2. When the variation is equal to or greater than 3.00% and strictly less than 5.00%, and it is an agreed transaction, cancellation will only proceed if the counterparty intermediary expressly agrees. Cross transactions may not be canceled.
3. When the variation is greater than or equal to 5.00%, the transaction can be canceled upon request of one of the parties, without counterparty approval. In any case, transactions being followed closely by the market cannot be canceled, followed transactions are those which fulfill: i) that after the match in cancellation process and before the cancellation request, other transactions are generated ii) that prices on those transactions are between -/+2% in relation to the transaction in cancellation process and iii) that those transactions sum a significant amount (equivalent to the one that establish the significant price)

20. The Exchange may authorize cancellations due to quantity error, for which purpose it will consider the quantity traded on the instrument in the last quarter, as of the last business day of each calendar quarter (March, June, September and December). The cancellation will be effective regardless of the counterparty confirmation if the amount of the

¹⁶ **Post-trade System:** System that centralizes participant processes for collateral management and segregated account information to settle non-CCP transactions, as well as for reporting and settlement vouchers.

¹⁷ **System Administrator:** Entity responsible for authorizing transactions or requests from Single Market participants per current regulations.

transaction subject to cancellation is equal to or greater than the median of this amount.

21. In addition, the Exchange may cancel a trade *ex officio* if it becomes aware at any time that the system is malfunctioning or has malfunctioned or that a material error may affect or has affected the normal course of the trading process.

Market Circuit Breaker at Jurisdiction Level

22. In addition to a regional index, local indexes (one per country) will also be maintained. Should any of these local indexes drop by more than 10%, trading will be suspended for 30 minutes for that country's securities. In the event of an additional 5% drop the suspension will be extended for the remainder of the trading day.

23. Suspended Trading

Securities will be suspended on the local Exchange under the following circumstances:

- Suspension in the market of registration or main trading market.
- When the sponsor¹⁸ is subject to intervention, bankruptcy or liquidation measures by the competent authority.
- When the issuer is subject to intervention, bankruptcy and liquidation measures by the competent authority.
- When the supervisory body orders or recommends suspension.

24. The Exchange may suspend trading of one or more securities when special circumstances arise that seriously alter or may seriously alter the normal course of equities transactions, or that make suspension necessary or reasonable to protect investors or the securities market, or due to the effects of a special transaction.

25. Short Sales¹⁹

- **There will be no** uptick rule.
- "Short sale" **does not have to be marked** on orders.
- Short sale hedging **will be allowed** until the settlement day of the

¹⁸ **Sponsor (Promoting Agent):** Single Market Intermediary requesting the listing of new securities in the Global Market.

¹⁹ **Short sales:** Sale of securities in which the seller does not own the securities involved in the transaction at the time of the transaction.

transactions.

Hours

26. Depending on the time differences throughout the year, trading hours will be as follows:

Equities Trading Hours – Spot

Colombia and Peru: UTC-5
Chile Sept-Apr UTC-3: **+2 hours**
Chile May-Aug UTC-4: **+1 hour**

Time presented in UTC-5									
Segment	Currency	Pre-opening	Opening auction	Continuous market				Closing auction	Closing prices
Continuous	Local currency	7:45 a.m. – 8:00 a.m.	8:00 a.m. – 8:05 a.m.	8:05 a.m. – 2:45 p.m.				2:45 p.m. – 2:55 p.m.	2:55 p.m. – 3:00 p.m.
	USD	7:45 a.m. – 8:00 a.m.	Suspended	8:05 a.m. – 2:45 p.m.				Suspended	Continuous market 2:55 p.m. – 3:00 p.m.
Auction	Local currency US dollars	7:45 a.m. – 8:00 a.m.	Auction 1 8:00 a.m. – 9:00 a.m.	Auction 2 9:00 a.m. – 10:00 a.m.	Auction 3 10:00 a.m. – 11:00 a.m.	Auction 4 11:00 a.m. – 12:00 p.m.	Auction 5 12:00 p.m. – 1:00 p.m.	Auction 6 1:00 p.m. – 2:00 p.m.	Auction 7 2:00 p.m. – 3:00 p.m.
Dual listing		7:45 a.m. – 8:00 p.m.		Continuous market					
				8:05 a.m. – 3:00 p.m.					
Global Market		7:45 a.m. – 8:00 a.m.		8:05 a.m. – 3:00 p.m.					
Other settlement terms (Chile only)		7:45 a.m. – 8:00 a.m.		8:05 a.m. – 12:00 p.m.					

Closing Price Determination

27. The closing price in each case will be determined based on the main book (local currency) with the following prioritizing of rules, i.e., if the first condition is not met, move on to the next condition, as described below for each methodology:

- **Continuous Segment:**

- Closing auction price, if it reaches at least USD 20 thousand traded.
- Weighted average of the day's last transactions totaling USD 20 thousand.
- Last significant transaction (greater than or equal to USD 1 thousand).
- Closing price from the previous day.

- **Auction Segment:**

- Last significant auction (greater than or equal to USD 1 thousand).

- Closing price from the previous day.

The closing price for order books on foreign securities will follow the following priority of rules regardless of the currency in which they are traded (CLP, COP, PEN or USD). In other words, it will be reported as many closing prices as trading currencies enabled.

- **Global Market Segment**

- Last significant transaction (greater than or equal to USD 1 thousand).
- Closing price from the previous day.

FUNDING OR FINANCING TRADES

Repos

28. Repos are financing or funding transactions through a spot sale/purchase of financial instruments, carried out jointly and in parallel with a forward repo agreement on the same instruments, where the transaction's embedded value is available in the recipient's portfolio.

29. **Initial transferor or originator:** The party needing resources that provides securities in consideration (subject to prior eligibility, according to CCP risk criteria).

30. **Initial acquirer or recipient:** The party covering the originator's need for resources in exchange for receiving the interest (premium) and who will receive the securities involved in the transaction. The recipient may dispose of the securities received since ownership has been transferred. Any economic rights that may arise between the initial and final transactions must be recognized for the originator.

31. **Trade:** When submitting the order, it will establish the quantity, the security involved in the transaction, the financing or funding rate, the term for the final transaction and the recall condition (Prepayment/Advance). The methodology will be matched automatically.

32. **Counterparty Anonymity:** The market will be visible for counterparties in terms of trading (orders and transactions), clearing and settlement. The CCP will be the counterparty to such transactions.

33. **Cancellations:** The intermediary may request cancellation of the Transaction through the Systems designated by the Exchange. This may be done up to 15 minutes after the close of trading in writing, by email to the address indicated by the Exchange, by a duly recorded telephone call or another means that allows the Exchange to record the request received. The cancellation will only proceed if the counterparty intermediary expressly agrees, provided that the initial transaction has not been fulfilled.

34. **Eligible securities:** Eligible securities, as well as eligible collateral, will be determined by the CCP based on its risk model.

35. **Sessions:** Continuous automatic matching with no price control and no opening or closing auctions.
36. **Settlement terms:** Outbound term T+0 and return term up to T+365.
37. **Hours:** Trading hours will be aligned with the spot market hours.
- For T+0 settlement, continuous market from 8:00 - 12:00 (UTC-5)
38. **Trading days:** If the security involved in the transaction is not available for trading in the spot market, the **repo** on this security will not be available either.
39. Intermediaries in a country on holiday may trade **repos** on securities of countries where it is not a holiday.
40. **Repos** cannot have settlement dates falling on a holiday in the security's country of registration.
41. **Advance/Prepayment/Recall:** The advance/prepayment/recall condition will be indicated when the trade order is submitted. If this condition was agreed, any of the parties may request advance payment of the forward transaction and it will be resettled based on the effective days of the loan.
42. If the advance/prepayment/recall condition has not been checked, the prepayment may be requested by mutual agreement, and the amount returned will be resettled based on the effective days of the loan.
43. The advance/prepayment/recall may be requested based on the conditions associated with the business days or terms of the securities traded. In the case of corporate events, the Exchange will coordinate with the CCP to ensure prepayment of these transactions.

GENERAL POST-TRADE MODEL

CLEARING AND SETTLEMENT THROUGH CCPs

44. Post-trading envisions a unified clearing and settlement model with CCP interoperability and CSD participation through interconnection.

45. The CCPs are responsible for the following processes:

- Accept transactions based on its risk model.
- Multilateral clearing and netting.
- Manage the risk and request collateral.
- Send settlement instructions to the settlement entity, whether a CCP or a CSD, based on the country

46. The equities to be cleared and settled through the CCPs include those registered in the public registries of any of the three countries, as well as dual-listing foreign securities that are eligible for trading in the Single Market System.

- Local stocks
- ETFs
- IFUs
- Stock/unit subscription options²⁰ (subscription rights)
- Dual-listing foreign securities

47. CCPs must clear and settle both spot and repo equity **transactions**.

48. Securities lending transactions and special transactions will not be cleared or settled by the CCPs (e.g. primary and secondary public offerings).

CCP Interoperability

49. The interoperability model will allow market members to clear and settle transactions in the Single Market Trading System²¹ through their local CCP.

²⁰ **Subscription options or Stock subscription rights:** Shareholder right to maintain their interest in the event of a new issue of shares.

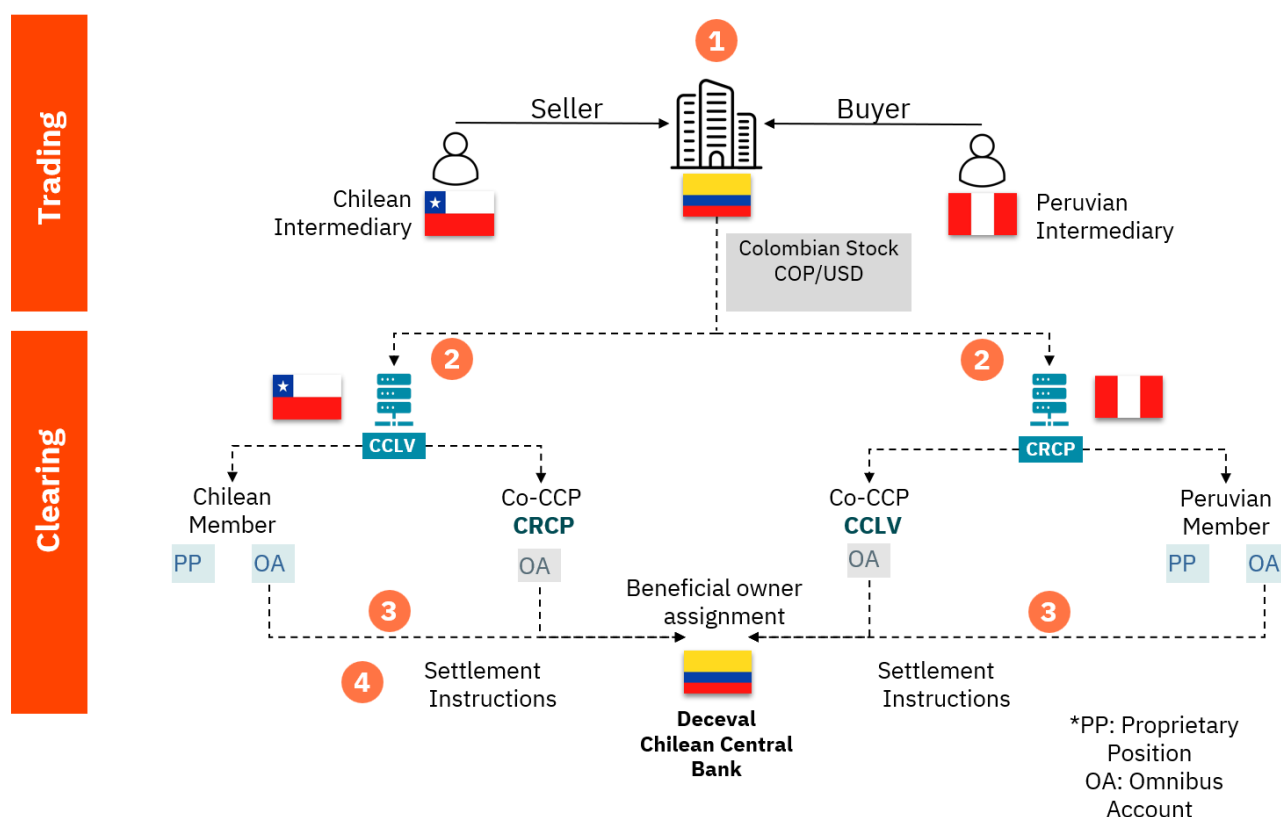
²¹ **Single Market Trading System (SMTS) - nuam:** Single trading platform to be managed by Bolsa de Valores de Colombia S.A., the Lima Stock Exchange and Santiago Exchange, where securities registered in the three countries' public registries and Foreign Securities may be traded.

50. To facilitate the process and harmonize operating rules, the CCPs in the three countries will use a unified technological system.

51. Each CCP will represent its members in the other CCPs. For example, the Peruvian CCP will represent its members vis-à-vis the Colombian and Chilean CCPs for its members' transactions.

52. Steps of Clearing Process

Illustrative Example



Step 1: Transactions will be matched in the **SMTS**, and the buy and sell sides of the deal will be forwarded to the CCPs in the intermediary's country of registration, regardless of the security's registration.

Step 2: Transactions must pass the CCP's acceptance filters. Once accepted, they will be recorded in either proprietary or third-party accounts, depending on the operating mode used for the trade.

Step 3: Beneficial owner assignment²² and assignment of transactions to custodians may take place from the transaction date to the settlement date. On the settlement date, and other times defined by the CCP, this information will be used to generate the final net amounts by participant,

²² **Beneficial owner assignment:** Process by which nuam-authorized entities identify the beneficial owners who gave the orders for the transactions carried out in the trading system.

account, security, currency, trade date and settlement date.

Step 4: Settlement instructions will be sent to the CSDs for Colombia and Peru and to CCLV for Chile, which will make the necessary arrangements to settle in cash at central and/or commercial banks.

53. The clearing process for foreign securities will follow the same process explained in the previous section.

Characteristics of the CCP Interoperability Model

54. The three CCPs will have the following membership structure:

- o **General Clearing Members - GCM²³:** will directly access the CCP and will also provide clearing and settlement services to non-clearing members.
- o **Individual Clearing Members - ICM²⁴:** will have direct access to the CCP for proprietary and third party transactions.
- o **Non-Clearing Members - NCM²⁵:** will access the CCP's clearing and settlement services through GCMs.

55. The account structures in the CCPs for each member will include the proprietary position account, third-party Omnibus²⁶ accounts and third-party individual accounts. The classification, whether the transaction is proprietary or for third parties, will come from the trade.

²³ **GCM (General Clearing Members):** Members that directly access the CCP and also provide clearing and settlement services to non-clearing members.

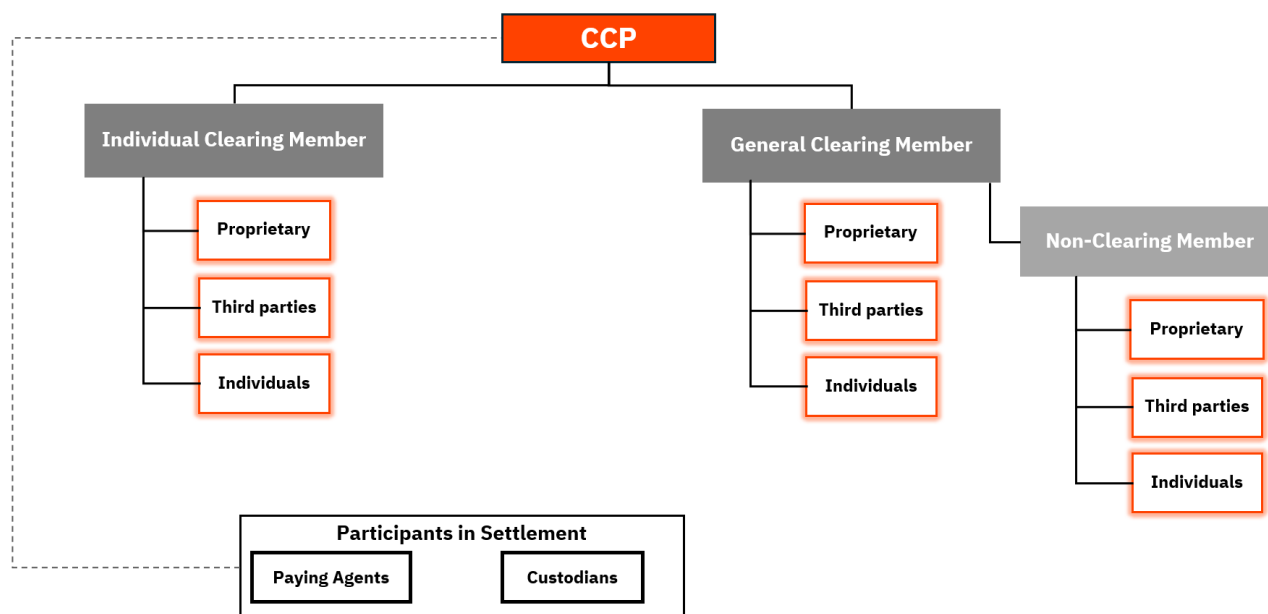
²⁴ **ICM (Individual Clearing Members):** Members that directly access the CCP for proprietary and third-party transactions.

²⁵ **NCM (Non-Clearing Members):** Members that access CCP clearing and settlement services through a GCM.

²⁶ **CCP Omnibus Accounts:** Accounts created in the CCPs for clearing.

Members and Accounts

Structure of Participants



56. The CCPs will carry out the netting of cash and securities for each member using the following criteria:

- Type of account (proprietary or third party)
- Same transaction date
- Same settlement date
- Same security or instrument
- Same trading currency

57. Interoperability between CCPs will allow participants from different countries to trade with each other, while maintaining clearing and settlement at their local CCPs.

58. The clearing and collateral management processes will take place simultaneously in the three CCPs.

59. Securities collateral will be managed in the CCP's accounts in the CSDs and cash collateral will be managed through the CCP's accounts in central and/or commercial banks.

60. On the settlement day, the CCPs will send settlement instructions—SI²⁷—to the CSDs of the traded security's country of registration (in securities and cash for Colombia and Peru and securities for Chile), along with the BOSI²⁸ (instructions for moving securities at beneficial owner level) for settlement to take place in

²⁷ **SI**: Transaction settlement instructions sent from the CCP to the CSD with the net amount per participant in the OSA account.

²⁸ **BOSI**: Transaction settlement instructions sent from the CCP system to the CSD for delivery to participant-level OSA accounts.

Colombia and Peru.

Transaction Acceptance Model

61. Transactions will be received in the SMTS and accepted by the CCPs, using the following criteria:

Transaction Type	Acceptance Criteria
Spot	Automatic, with validation of trading rules
Repo	Initial margin validation

Assignment of Beneficial Owner and Custodian

62. The entities designated to assign the beneficial owner and the transactions to custodians (where applicable) will do so using the Assignment System²⁹ before settlement.

63. Beneficial Owner Assignment Hours

Timetables for assigning beneficial owner and securities and funds to custodian

Colombia and Peru: UTC-5
Chile Sept-Apr UTC-3: **+2 hours**
Chile May-Aug UTC-4: **+1 hour**

Transaction	Theoretical Settlement Date	Colombia/Peru UTC-5	Chile Summer UTC-3	Chile Winter UTC-4
Final beneficiary assignment hours				
Spot and Repos T+1	TSD-1	8:00 a.m. – 4:00 p.m.	10:00 a.m. – 6:00 p.m.	9:00 a.m. – 5:00 p.m.
	TSD	8:00 a.m. – 3:00 p.m.	10:00 a.m. – 5:00 p.m.	9:00 a.m. – 4:00 p.m.
Spot and Repos T+0		8:00 a.m. – 12:00 p.m.	10:00 a.m. – 2:00 p.m.	9:00 p.m. – 1:00 p.m.
Timetables for assigning securities and funds to custodian				
Spot and Repos T+1	TSD-1	8:00 a.m. – 4:00 p.m.	10:00 a.m. – 6:00 p.m.	9:00 a.m. – 5:00 p.m.
	TSD	8:00 a.m. – 12:00 p.m.	10:00 a.m. – 2:00 p.m.	9:00 a.m. – 1:00 p.m.

²⁹ **Assignment System:** Functionality of nuam-designated system for assigning the beneficial owner.

Steps of Beneficial Owner Assignment Process

64. Once the transactions have been novated³⁰, the CCP will confirm them and make them available for the assigned entity to perform the assignment process in the designated systems.

65. If a transaction has a custodian or agent settling both securities and cash, the transaction must be approved or rejected in the CCP's system according to the timetables.

66. In Colombia, transactions carried out by collective investment funds and voluntary pension funds must be settled through a custodian. This process takes place in the CCP's System.

67. The CCPs in Colombia and Peru will validate that a beneficial owner has been assigned to all transactions. If a transaction does not have an assigned beneficial owner, it will be automatically assigned to the omnibus third-party account created by the member.

68. The Chilean entities must also perform the assignment process for securities traded in the Colombian or Peruvian market to comply with the regulations of those jurisdictions.

Beneficial Owner's Settlement Instructions (BOSI)

69. For Colombia and Peru, the **Beneficial Owner will net positions** using the following information:

- o Type of account (proprietary or third party)
- o Same transaction date
- o Same settlement date
- o Same security or instrument
- o Same trading currency

Holidays for Clearing and Settlement

70. Clearing and settlement will take place on the day agreed upon in the trade, bearing in mind that the Trading System will calculate the days according to the holidays in the security's country of registration, regardless of the country of the intermediary entering the orders.

³⁰ **Novation:** Situation in which a CCP intervenes between market participants once the trade has been carried out, becoming the sole buyer for all sales and the sole seller for all purchases, extinguishing the bilateral contracts between the parties.

Example: July 20 is the independence holiday in Colombia, so Colombian securities are not eligible for **trading, clearing or settlement**. However, Colombian participants must fulfill transactions made on Peruvian or Chilean securities with a settlement date of July 20.

Settlement Hours

71. Clearing and settlement hours are as follows:

Settlement hours

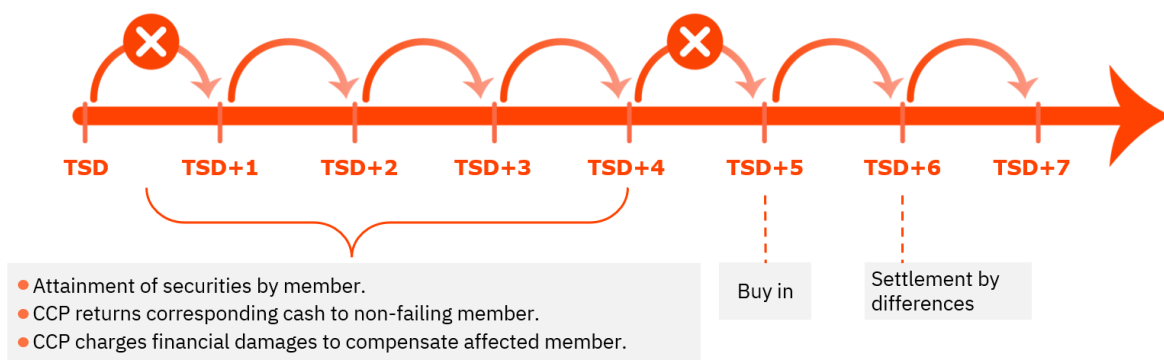
Colombia and Peru: UTC-5
 Chile Sept-Apr UTC-3: **+2 hours**
 Chile May-Aug UTC-4: **+1 hour**

Transaction	Colombia/Peru UTC-5	Chile Summer UTC-3	Chile Winter UTC-4
T+1 Spot and Repos	8:00 a.m. – 3:00 p.m.	10:00 a.m. – 5:00 p.m.	9:00 a.m. – 4:00 p.m.
T+0 Spot and Repos (new and prepayments)	8:00 a.m. – 12:00 p.m.	10:00 a.m. – 2:00 p.m.	9:00 a.m. – 1:00 p.m.
Net settlement			
<ul style="list-style-type: none"> T+1 spot transactions Repo exit transactions with T+1 settlement term Spot and repo exit transactions with T+0 settlement term Repo maturities 	Until 12:00 p.m.	Until 2:00 p.m.	Until 1:00 p.m.
Prepayments with T+0 settlement date that are accepted by the CCP	Until 12:00 p.m.	Until 2:00 p.m.	Until 1:00 p.m.

72. The Single Market model does not call for extending settlement hours at the request of participants, intermediaries and/or members.

Managing Settlement Failure

73. In the event of a member's failure to settle in the CCP (netting of spot and repos), the CCP will manage a process known as Settlement Failure. When the failure occurs at the **security** level on the settlement date, the member will have up to four days to obtain these securities to fulfill the transaction at the CCP. The flow is illustrated below:



74. If the member does not comply on the fourth day after the theoretical settlement date (TSD+4), the CCP will buy in the member by buying the securities back and settle on TSD+5.

75. If the security cannot be bought back by the CCP, settlement by difference³¹ will take place on TSD+5 or, at the latest, TSD+6, after CCP assessment, delivering the cash equivalent to the affected member on the same day the process takes place.

76. A penalty will be applied to the failing member, based on the amount and days of the failure. This penalty aims to compensate the affected party for the failure

77. If a member fails to meet cash obligations on the theoretical settlement date, the default will be declared, and notifications will be issued in accordance with the rules of the relevant CCP.

Cancelling Transactions

78. Transactions accepted by CCPs will be canceled exceptionally upon request of the Exchange on which the transactions were made and as mentioned in paragraph 19 of this document, using an automatic registry between the respective Exchanges and the CCP.

³¹ **Settlement by differences:** CCP procedure in the event of failure if the asset was not bought back and it is not in possession of the underlying asset or the asset involved in the failed transaction; the CCP may settle by delivering cash equivalent to the difference between the agreed price of the transaction and the reference price defined by the CCP.

Margin Management Using H-VaR

79. The CCPs will use the historical VaR (H-VaR) approach to determine the initial margin requirement. This approach stands out for its ability to adjust to changing market conditions and more closely reflect the nature of asset returns.

Key Aspects of the H-VaR Methodology

Scenario Generation and Profit/Loss Calculation:

80. H-VaR involves a meticulous scenario generation process, followed by calculating potential profit and losses. This approach ensures a thorough, realistic understanding of how different market conditions can affect portfolios. It is a very powerful combination of asset history and simulation of extreme, but plausible, scenarios.

Filtration Process Using EWMA Model

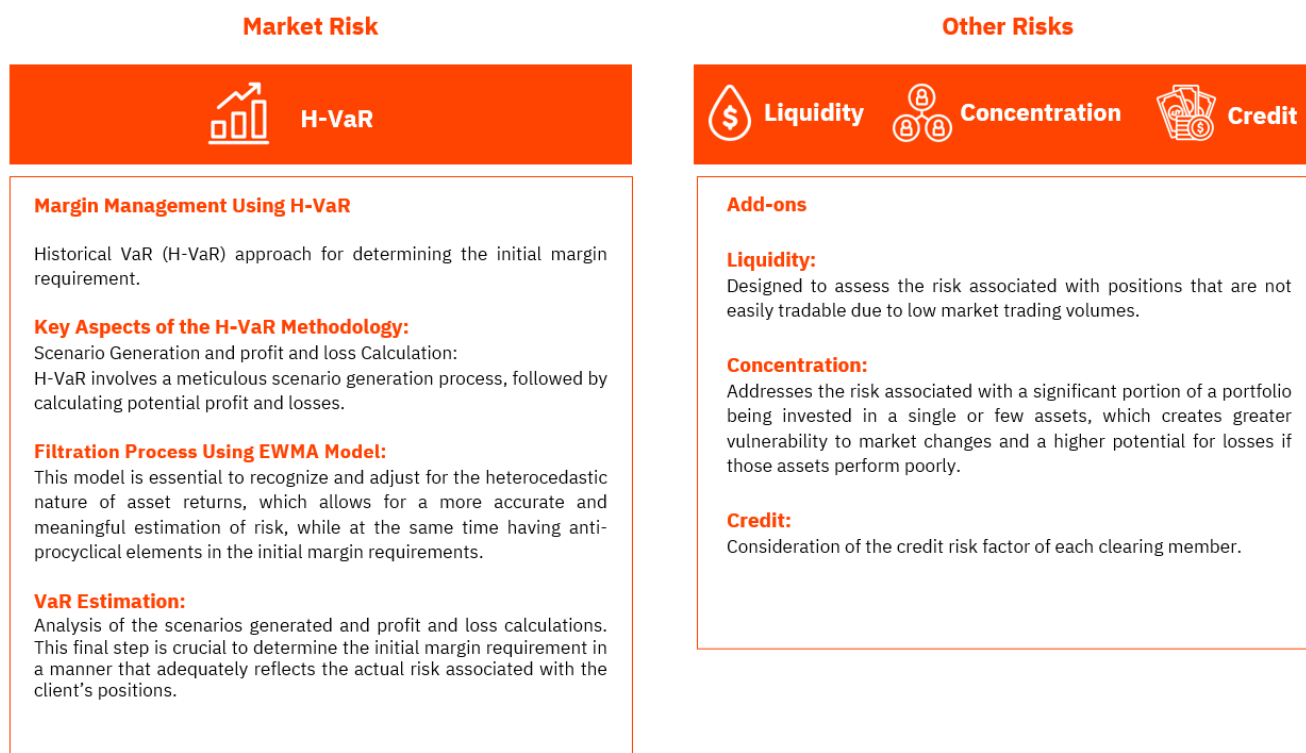
81. Filtration is an integral part of the H-VaR in the CCPs. Like the leading global CCPs, it uses a volatility adjustment strategy based on an EWMA model. This model is essential to recognize and adjust for the heteroscedastic nature of asset returns, which allows for a more accurate and meaningful estimation of risk, while at the same time having anti-procyclical elements in the initial margin requirements, which is very useful in moments of high market volatility. In addition, the risk model can be straightforwardly replicated for customers, which is essential to the transparency of the methodology.

VaR Estimation:

82. The methodology concludes by estimating VaR by analyzing the scenarios generated and making profit and loss calculations. This final step is crucial to determine the initial margin requirement in a manner that adequately reflects the actual risk associated with members' positions. This model generates efficiencies in collateral requirements compared to parametric models by calculating risk at the portfolio level, allowing for trade-offs between the different assets in the portfolio.

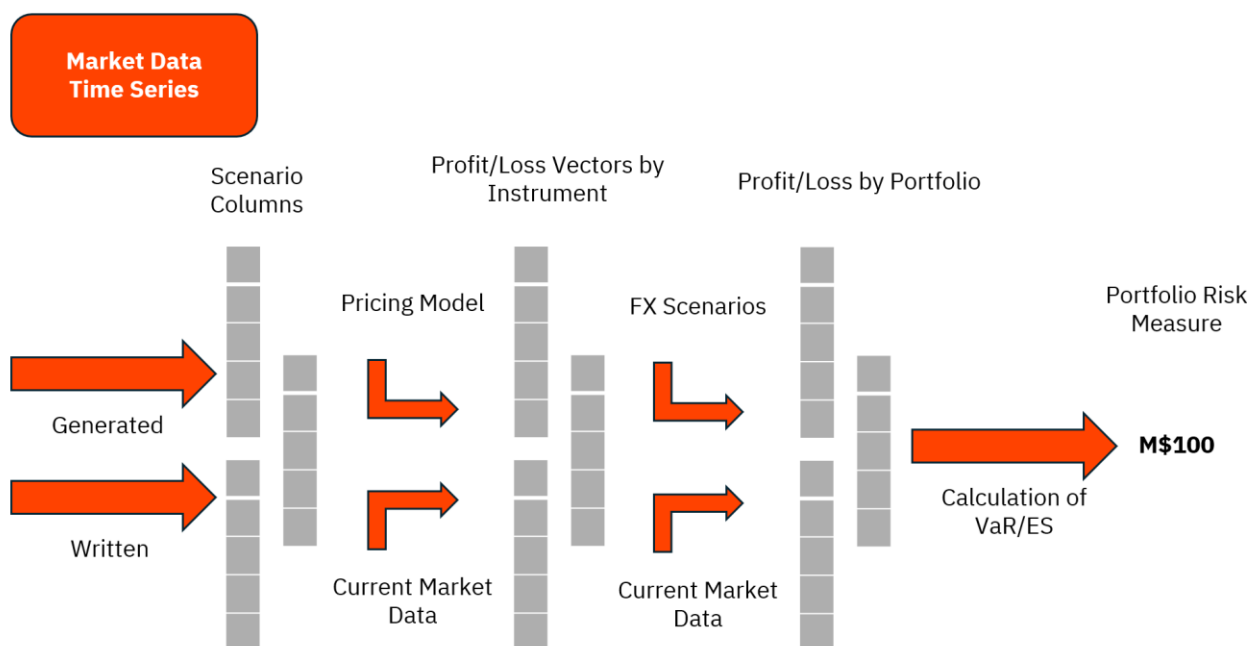
Margin Model Diagram

83. The model is summarized as follows:



84. A scenario-based risk calculation is used to calculate initial margin requirements based on Value-at-Risk (VaR) or Expected Shortfall (ES), as well as to perform stress tests to determine the size of the collateral pools. The two cases differ by how the scenarios are described and how the portfolio profit and loss vectors are processed, but the main processing steps are identical.

85. The following diagram illustrates the traditional process for calculating risk at the portfolio level:



Market Data Scenario Columns

86. A scenario column contains scenarios that apply to one or more market data inputs. An example of a scenario column for a Single Market data input is "scenarios for ABC stock price." An example of a scenario for a group of market data inputs is "scenarios for prices of all agricultural sector stocks."

87. The scenarios in a column can be scalar, containing a number that is added to or multiplied by the current value of the market data, or term-structured, containing a set of points (time, value) that form a curve that is added to or multiplied by the current value of the market data.

88. Scenarios can be designed from scratch (such as what-if scenarios), based on historical time series or generated from a Monte Carlo simulation model. For initial margin calculations, scenarios are often based on historical time series or generated from a Monte Carlo model configured using historical data. For initial margin calculations, a large number of scenario columns are often used, each with a large number of scenarios.

89. Scenario columns representing the same set of scenarios are grouped into a scenario matrix. All columns of a scenario matrix must have the same number of scenarios. A system usually contains several matrices used for different purposes. For example, one matrix may be based on historical time series used for initial margin calculations, while another matrix may contain handwritten scenarios and is used for stress testing the collateral pool.

Calculation of Profit/Loss Vectors by Instrument

90. A profit/loss (P/L) vector for each instrument is created from a scenario matrix along with a pricing model for the instrument (if applicable) and the updated market data required by the model.

Step 1: To calculate a profit/loss vector for an instrument, the first step is to select a pricing model. The pricing model defines what market data is needed to calculate the price of the instrument. The pricing model can be trivial, ranging from the simplest, which only requires the market price of the instrument itself, to the most complex like the Black-Scholes option pricing model, which requires market data for the underlying price, interest rate and volatility.

Step 2: The next step is to obtain updated market data.

Step 3: We now apply the scenarios to the updated market data, which we could call market capture. We search the scenario matrix for columns that match the market data we want to impact.

Step 4: This generates a scenario matrix that considers market capture within its distribution.

Calculation of Profit/Loss Vectors by Portfolio

91. The portfolio's profit/loss vector is simply the weighted sum of the profit/loss vectors of all instruments in the portfolio, weighted by the amount of each position.

92. In the following example, the portfolio has a position in instrument 1 with a net amount of 10 and a position in instrument 2 with a net amount of -15. The profit/loss vector for a position in instrument 1 is [110, -30, 200] as calculated in the previous example, and for a position in instrument 2 [80, -40, 150].

Net quantity

$$\begin{array}{rcl}
 \begin{array}{c} \text{10} \times \\ + \\ \text{-15} \times \end{array} & \begin{array}{|c|c|c|} \hline 110 & -30 & 200 \\ \hline \end{array} & \text{Profit/loss Instrument 1} \\
 & + & \begin{array}{|c|c|c|} \hline 80 & -40 & 150 \\ \hline \end{array} & \text{Profit/loss Instrument 2} \\
 \hline
 = & \begin{array}{|c|c|c|} \hline -100 & 300 & -250 \\ \hline \end{array} & \text{Profit/loss Portfolio}
 \end{array}$$

93. The profit/loss vector for instrument 1's position in isolation would be:

$10 \times [110, -30, 200] = [1100, -300, 2000]$ and the profit/loss vector for instrument 2's position would be $-15 \times [80, -40, 150] = [-1200, 600, -2250]$

94. However, when the two positions are combined into a portfolio, the resulting profit/loss vector becomes [-100, 300, 250], which shows how the two positions hedge each other, since the losses in the combined portfolio are smaller than in the sum of the combined positions.

Exchange Rate Conversion

95. When calculating the profit/loss vector for the portfolio, the exchange rate should be included as an additional risk factor if necessary. The instrument's profit/loss vectors can be expressed in a different currency since the instruments can be denominated in different currencies based on how they are denominated in the transaction. Therefore, the portfolio's profit and losses must be converted to the respective CCP's currency using exchange rate scenario vectors.

Value at Risk or Expected Shortfall Calculation

96. Once we have calculated a profit/loss vector for the portfolio, we already have the inputs to perform the calculation using either Value-at-Risk (VaR) or Expected Shortfall (ES). Both algorithms use a percentile as an input parameter, for example 95%. Next, they both rank the portfolio's profit/loss vector in increasing order of losses and then find the scenario index that represents the selected percentile. For example, for a profit/loss vector with 1000 inputs, the algorithms would select scenario 950.

97. The VaR algorithm takes the profit/loss of the selected scenario and returns it as a result. The ES algorithm forms the average value of the selected scenario and all worst-case scenarios.

98. The calculation of VaR or ES for the initial margin is done individually for each portfolio. Depending on the positions in each individual portfolio, different scenarios will produce the worst loss.

Collateral at the CCP

99. **Collateral per Position:** Requested from members to cover open positions resulting from securities trades. The same calculation methodology will be used by the three countries.

Eligible assets: Cash, sovereign debt and shares (subject to liquidity criteria)

100. **Link margin element:** Requested from members to cover cross-border open positions under the interoperability model. The same calculation methodology will be used by the three countries. This component operates under the following assumptions:

- In the event of cross-border transactions involving any member, the link margin element will be calculated for all participants in the equities segment, considering a prorated initial margin for each member. Therefore, all members contribute a percentage based on the risk generated for the segment. This logic is based on the fact that every member at risk of being matched in the Trading Systems with a foreign Member and, therefore, this practice reduces the arbitrariness of this concept.

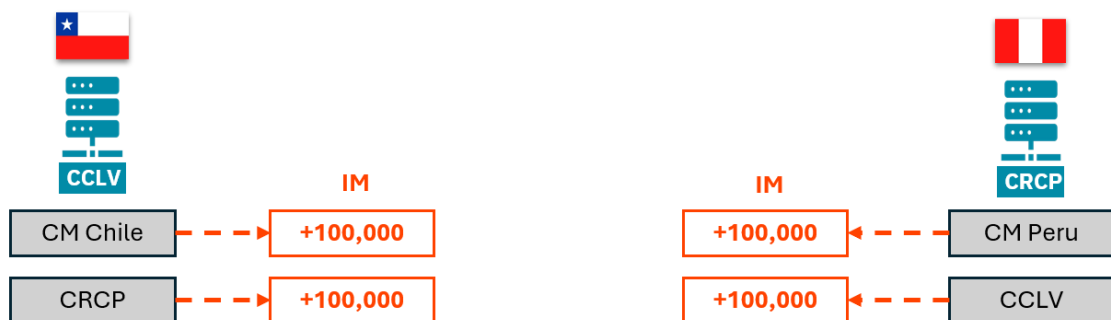
Eligible assets: Cash and sovereign debt.

101. Example calculation:

- 1 Each CCP performs its own initial margin calculation for the respective CM (Clearing Member), in its own entities



- 2 Both CCPs are missing the counterparty of the respective transaction. For this purpose, a Co-CCP can serve as a representative. This Co-CCP will be called to margin in the CCP where it acts as a sponsor for its clients



- 3 To manage the initial margin received by the CCP for representing its CMs, there is an add-on for LME and prorated management.



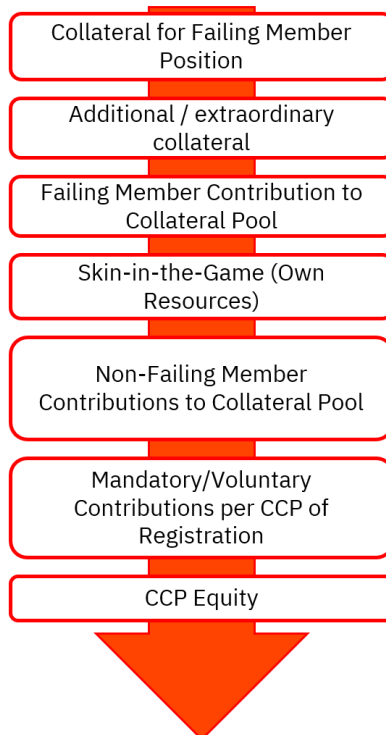
4 Prorated LME, considering the initial margin of each CM



	IM	%	LME		LME	%	IM	
LV Chile	100,000	50%	+37,500		+24,998	33.33%	100,000	LV Peru
CM2	25,000	12.5%	+9,375		+37,500	50%	150,000	CM2
CM3	50,000	25%	+18,750		+7,500	10%	30,000	CM3
CM4	5,000	2.5%	+1,875		+5,002	6.67%	20,000	CM4
CM5	20,000	10%	+7,500		+75,000	100%	300,000	TOTAL IM
TOTAL IM	200,000	100%	+75,000					

Default Waterfall

102. The default waterfall will provide a detailed list of the resources that the CCP will use to attempt to recover losses arising from member failures. The stages of the collateral waterfall to be used in the CCPs are:



SETTLEMENT MODEL

103. Settlement Characteristics

- The CSDs will settle securities and cash in Colombia and Peru. In Chile, the CCP will settle cash and the DCV securities. Settlement instructions will be fulfilled as per the security's country of registration.
- Securities will settle in the trading currency, which may be the currency of registration (local) or U.S. dollars.
- Securities and cash will settle using DVP Model 3³² (delivery versus net payment in securities and cash including the SI received from the CCPs).
- The settlement process will consider partial delivery of securities after attempting complete delivery of a given position.

104. Settlement Participant Obligations

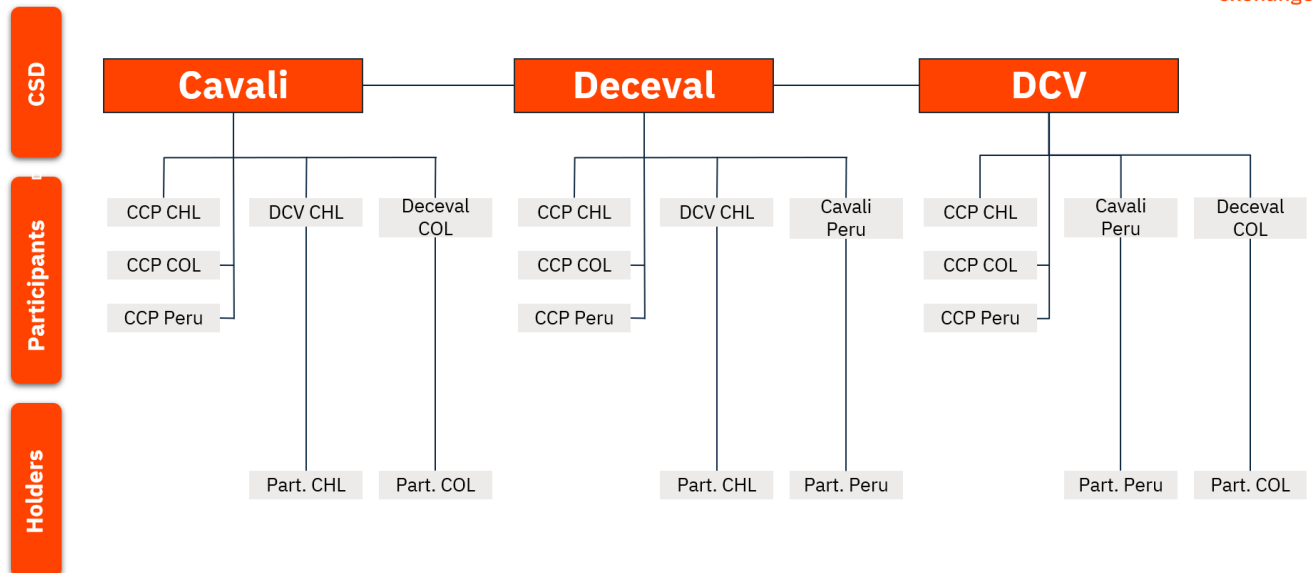
- To complete the settlement, the participant must be linked to the CSD where the Intermediary conducting the trade is registered.
- The settling participant must have accounts with the Central Bank or have a Paying Agent³³ to represent it.
- Colombian participants settling in U.S. dollars must have a U.S. dollar account in the Central Bank or a foreign commercial bank, or settle through a Paying Agent.
- Participants must register securities collateral as owned by and in favor of their respective CCP in the CSD System.
- In Peru and Colombia, the beneficial owner and/or custodian must be assigned using the assignment system.

³² **DVP model 3:** Delivery versus net payment in cash and securities.

³³ **Paying Agent:** Entity entrusted by the participant to carry out the payment processes with the Central Bank and commercial banks to receive or deliver cash for transactions to be settled in the CSDs and CCLV.

- The participant should receive the pre-assigned transactions that will subsequently be settled in the respective System.

105. CSD Account Structure



- The Peruvian and Colombian CSDs will register the beneficial owner, while Chile will maintain the Omnibus account scheme.
- The CCPs will have Omnibus accounts in the Peruvian, Colombian and Chilean CSDs.
- The CSDs will be interconnected via Omnibus accounts in the other CSDs segregated at participant level. Peru and Colombia will register the beneficial owner using a mirror account model.
- Mirror accounts will be used in the Colombian and Peruvian CSD applications to register the beneficial owner of the settlement instructions that the CCP has sent to the CSD of registration for the security where the settlement will take place. This process, called " Deliveries and Receipts," is designed to record the information provided in the assignment process to reflect balances held in custody in the issuer's market of registration.

106. Example

A Colombian participant sells 1,000 shares of Volcan (Peruvian ISIN PEP7272001) to a Peruvian participant.

- The Colombian CCP sends the sale SI to the CSD at the Omnibus account level
- After assigning the beneficial owner, the Colombian participant issues the detailed sale BOSI in the Post-trade System.
- From the Assignment System, the Colombian CSD receives the **"Deliveries and Receipts"** for the transactions with the beneficial owners who have sold or purchased Volcan shares.

The figure below illustrates the above example:

Cavali				
Participant	Investor	Isin	Security	Transaction
Peruvian Participant	Investor 4	PEP727201001	2000	Buy
Deceval	Deceval-Colombian Participant	PEP727201001	2000	Sale
Deceval-Mirror				
Participant	Investor	Isin	Security	Transaction
Colombian Participant	Investor 1	PEP727201001	1000	Buy
	Investor 2	PEP727201001	2000	Sale
	Investor 3	PEP727201001	1000	Sale
		Net Participant	-2000	Sale

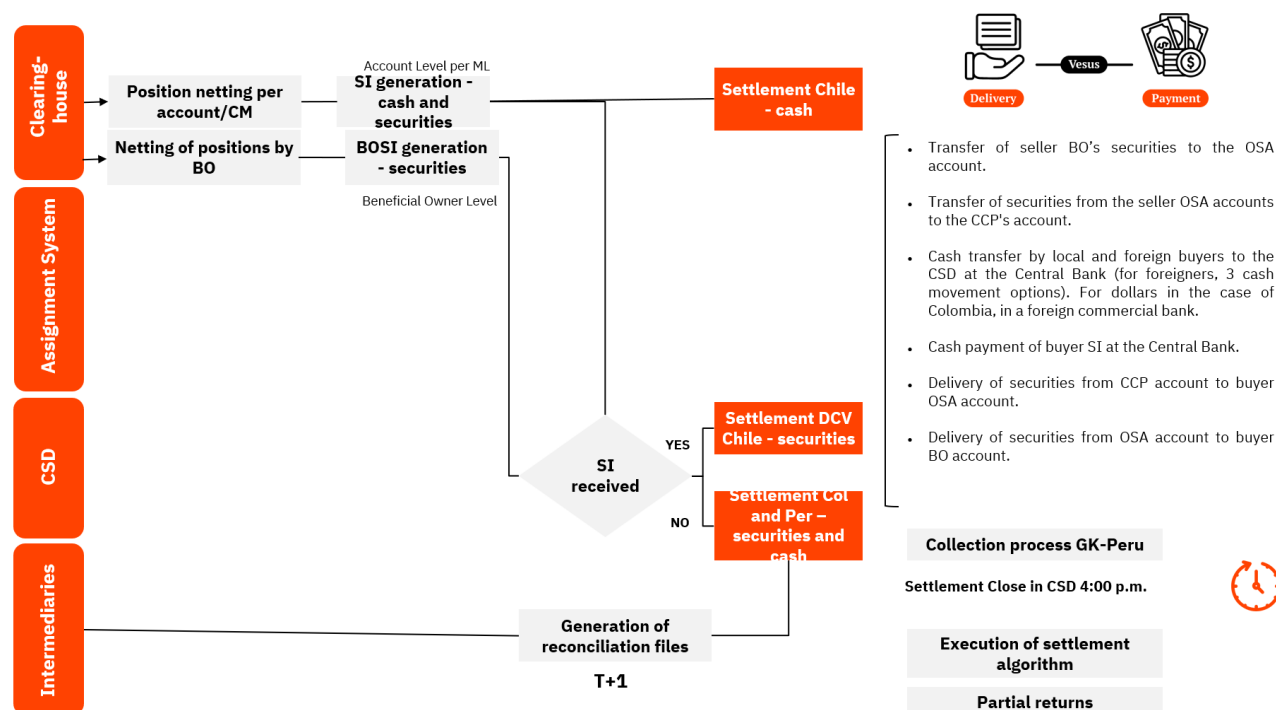
Generation of Settlement Vouchers

107. Once the beneficial owner has been assigned in the Assignment System, intermediaries can request settlement vouchers in Colombia or information to generate by the participant the voucher in Peru. In Chile intermediaries will bear this responsibility.

108. In Colombia and Peru, information related to vouchers will be available for generation in the Post-trade System.

109. Receipt of SI (Settlement Instructions) sent by CCPs to CSDs

Settlement Model - Clearing and Generation of BOSI



Flow Explanation

110. In Colombia and Peru, once the beneficial owner assignment deadline has passed, the Settlement Instructions (SI) sent from the CCPs to the CSDs will be carried out. This will initiate the settlement based on the netting of positions on behalf of the participant authorized to settle. In this process, the CCP will be in charge of unifying positions and netting securities and cash, according to the account scheme created by each agent. In Chile, the CCLV will settle by sending the respective securities instructions to the Chilean CSD and managing the cash with the Central Bank.

111. Beneficial owner assignment will be available until 12:00 p.m. Colombia/Peru time (UTC-5) on the day of fulfillment.

112. Securities and cash settlement will be carried out in parallel, ensuring DVP³⁴ with delivery from the selling beneficiaries, passing through the respective Omnibus segregated accounts (OSA)³⁵ and finally delivering the securities to the buyer and the cash to the seller, in sync with the central and/or commercial banks

³⁴ **DVP:** Delivery versus payment.

³⁵ **OSA (Omnibus Segregated Accounts):** Accounts created in the CSDs and CCPs for settlement. They temporarily consolidate the securities from the beneficial owner (investor account) at participant level, to consolidate the net positions for delivery or receipt.

and/or paying agents.

Cash Settlement

113. For cash collection and payment, the Colombian and Peruvian CSDs will have an account in their respective country's central bank or commercial banks, which must be authorized by their local CCP to manage the settlement. In Chile, the CCP will liaise with the Central Bank, ensuring that cash moves between debtor and creditor participants in the settlement.

114. In Colombia, cash settlement by participants will continue to take place through the CSD with the respective automatic debit authorizations. In Peru and Chile, the participants or the Paying Agents will make the corresponding transfers to CAVALI (Peru) and CCLV (Chile).

115. To meet the deadlines stipulated in the model, extended closing hours will be requested at Central Banks, commercial banks and COMBANC³⁶ in Chile.

116. A Paying Agent will be used for cash settlement. Participants will have the option of opening accounts directly with the Peruvian and Chilean Central Banks for settlement.

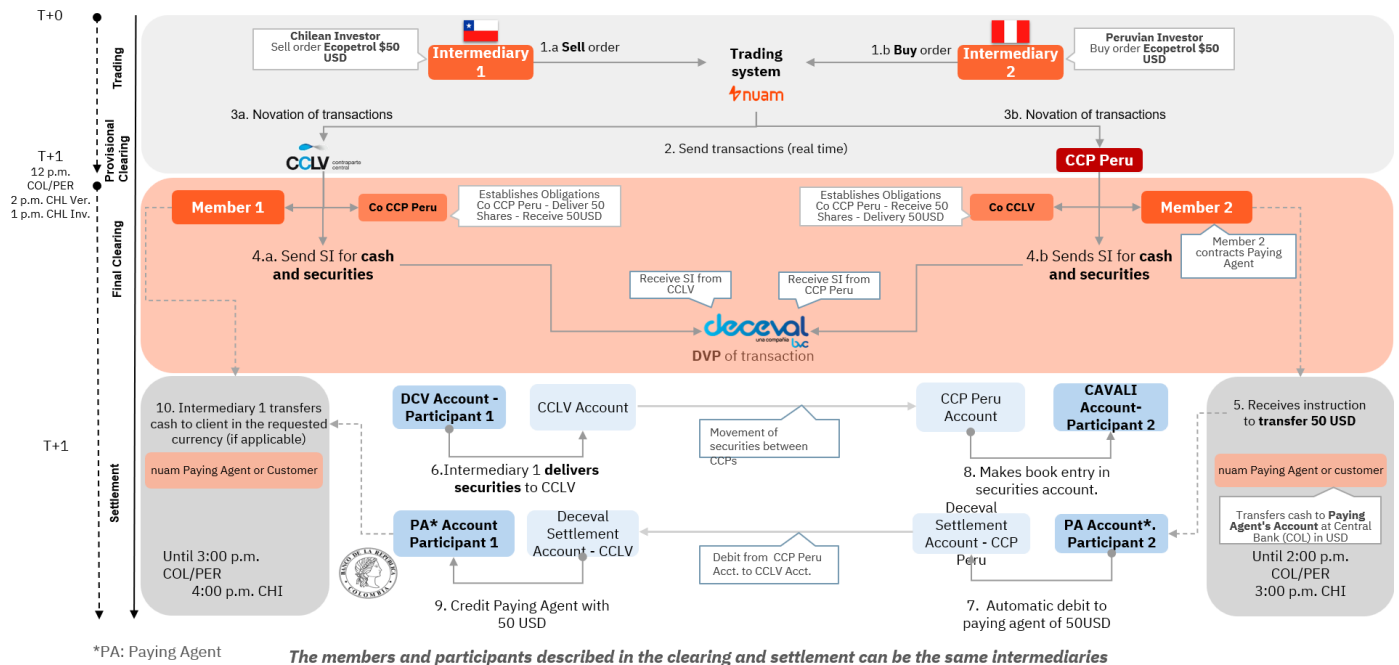
117. In Colombia, foreign commercial bank accounts may be used for settling transactions denominated in U.S. dollars. In Peru and Chile, settlement in U.S. dollars between local participants will still be allowed.

³⁶ **COMBANC:** Sociedad Operadora de la Cámara de Compensación de Pagos de Alto Valor S.A. in Chile.

118. For example:

Example Compliance Flow

Trading of Colombian security in USD – Sell Chilean & Buy Peruvian



Explanation

- **Step 1a and 1b:** Order generation of buy and sell orders.
- **Step 2:** The Trading System sends the transactions to the CCPs for novation
- **Step 3a and 3b:** Novation between the trade and the CCPs is performed
- **Step 4:** Each Clearing Member's CCP receives the transactions, clears the transactions and sends the settlement instructions to the respective CSD.
- **Step 5:** The participant instructs its respective Paying Agent to transfer the cash.
- **Step 6:** The Colombian CSD delivers the securities from the selling participant's account (Chilean) at the DCV to the account at the respective CCP.
- **Step 7:** The Paying Agent credits the funds to the settlement account made available by the CCP for the settlement.
- **Step 8:** The Colombian CSD delivers the securities.

- **Step 9:** The Colombian CSD pays the Paying Agent representing the seller of the securities.
- **Step 10:** Participant 1 (Intermediary 1), which has sold the securities, requests delivery of the cash from the Paying Agent in its local currency or in U.S. dollars.

Settlement of Foreign Securities

119. Settlement of foreign securities comprises assets issued outside the Single Market (Colombia, Peru and Chile) that are bought or sold by Single Market intermediaries.

120. These instruments can be settled in COP, CLP, PEN and USD. The currency will determine the CSD for settlement, as follows:

- COP: Settlement by Deceval.
- PEN: Settlement by Cavali.
- CLP: Settlement by DCV for securities and CCLV for the cash component.
- **USD: Settlement by the CSD designated by the Exchange**

121. Foreign securities can circulate through the three CSDs and participants may trade in any of the mentioned currencies. To settle, a transfer between CSDs via OTC (sending and receiving securities between CSDs) must be made to fulfill the obligations acquired in securities and cash.

122. At the end of the day, the CSDs will conduct a reconciliation process to validate that the transactions have been correctly replicated in the systems at both participant and beneficial owner level.

Corporate Events

123. Corporate events involving dividend payments in shares or cash will be executed depending on the conditions informed by the issuer to the respective local CSDs and each country's regulator. The event will be included in the local CSD's System and replicated via interconnection in the other two systems.

124. Payment will be made by the issuer to the CSDs and the infrastructure will be in charge of the respective reconciliations and payments to each participant depending on the positions and the Omnibus account system segregated at the beneficial owner level.

125. For each corporate event of instruments held in custody in the foreign CSDs, the local CSD will choose from the following options to make the payment:

- **Payment in local currency:** The CSD receiving payment from the issuer will deliver the funds to a paying agent authorized by the participant in the local currency, without any currency exchange.
- **Payment in foreign currency:** The CSD receiving payment from the issuer will receive the dividend in local currency and exchange it for delivery in U.S. dollars to the destination CSD where the participant is located for exchange and delivery in its local currency.

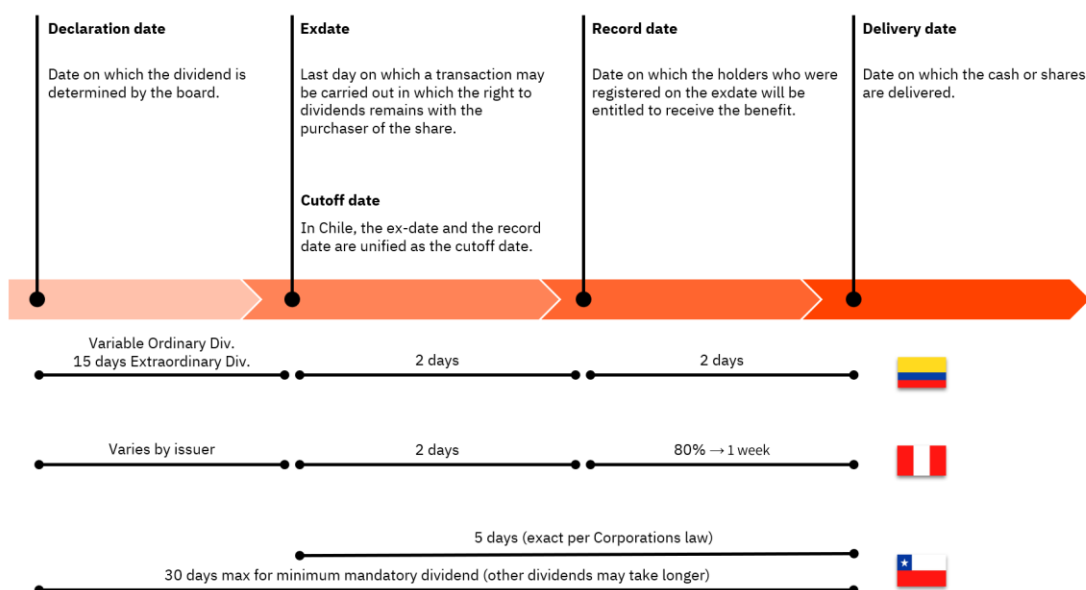
126. Corporate events will abide by the following rules to define the holders receiving the rights.

Colombia: Holders as of the start of the ex-dividend period (four days before the payment date). The Colombian CSD will update the rights over exchange transactions two days after the beginning of the ex-dividend period.

An update will be made for non-exchange transactions up to one day before the payment date.

Peru: Holders listed as of the Record Date after exchange transactions have been settled.

Chile: Holders as of the cut-off date. The rights over the exchange transactions will be delivered by the Chilean CSD.



Corporate Rights

127. The CSDs will have the following mechanisms for addressing corporate rights:

Exercising Rights at the In-Person Meeting

128. **Direct participation:** Investors accredited by the respective CSD (CAVALI, Deceval or DCV) may exercise their rights by attending the Meeting.

129. **Participation by proxy:** The CSD's only role is to channel information between Single Market investors and issuers. Around the time of the shareholders' meeting, the issuer will notify the local CSD in advance of the voting options.

130. Each local CSD will communicate the instructions to the participants holding a position, by means of proxy voting³⁷; the intermediaries of each country are responsible for informing the investor and conveying its decision to the respective CSD.

³⁷ **Proxy voting:** Exercise of voting rights through a power of attorney granted by the shareholder for representation at a shareholders' meeting.

GENERAL INFORMATION ON THE SPECIAL TRANSACTIONS TRADING MODEL

The following concepts are related to special equities transactions:

131. **Special transactions:** Transactions involving equities entered into through electronic or *viva voce* mechanisms, such as: initial public offerings and registration, tender offers, Public Equity Offering for Increased Accessibility, Auction Operations, share buybacks and subsequent disposal, buyback of investment certificates issued by Collective Investment Funds, Private Equity Funds, Separate Estates and/or securitization processes and their subsequent handling, privatization or democratization transactions, and other corporate transactions or events permitted by law in each country and for which services may be offered within the framework of a special transaction.

132. Each transaction type is described generally below:

- **Initial Public Offerings (IPO):** Primary placements made by issuers of securities through public offerings.
- **Tender Offer (TO):** A tender offer aimed at acquiring a significant stake in a listed company's outstanding securities, in compliance with each country's regulations.
- **SPO/Auction/Disposal:** Public Sale Offering designed to transfer registered securities to the public through their sale, either generally or specifically, in compliance with each country's specific regulations.
- **TOD/Delisting Tender:** Tender Offer for Delisting by delisting registered securities, as permitted by each country's regulations, which allow certain holders to sell their securities before the security is delisted.
- **PEO:** Public Exchange Offering where securities are accepted as a means of payment.
- **Other Special Transactions:** Public Offerings or corporate events permitted by regulation that can be executed through a Special Transaction on nuam.
- **Repurchase/Buyback:** Buyback of securities issued by the issuer.
- **State Disposal:** Privatization of state-owned entities. This transaction has particular regulatory characteristics that differentiate it from a regular disposal.

Scope of Service

133. The Special Transactions service will allow Chilean, Colombian and Peruvian companies registered in each Regulator's "Securities Issuer Registry" and listed on any Single Market Exchange to publicly offer securities and will provide the necessary nuam Systems to do so.

134. The Trading Systems for these transactions will be automatically connected to the Post-trade System for registration, position and collateral management, and settlement. Cash and securities will be settled based on each country's infrastructure.

135. The settlement process for Special Transactions will take place outside the CCPs using the settlement systems managed by the CSDs in Chile, Colombia and Peru. Special Transactions will have their own collateral model managed through the Post-trade System.

136. nuam will provide issuers with standardized and tailor-made solutions as long as they abide by regulations for this type of transaction.

137. As part of its value offering, nuam can assist with:

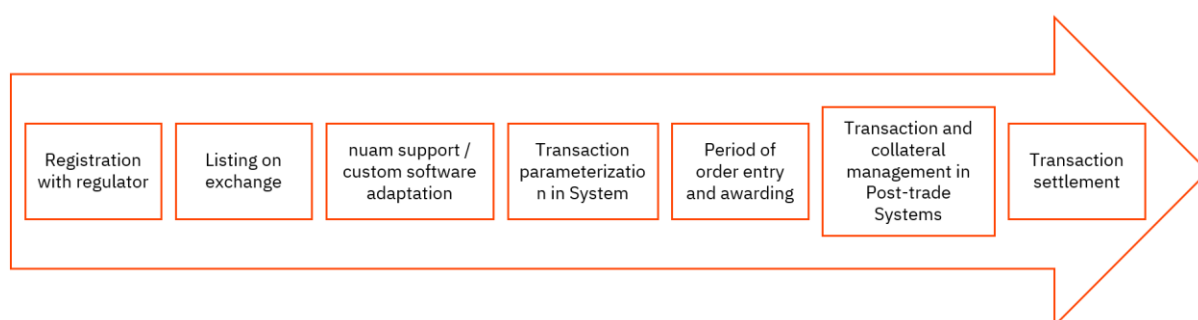
- Reviewing Offering documents (prospectus, booklet, notice of offer and other documents applicable to each transaction and jurisdiction).
- Coordinating and assisting with meetings with the issuer and its advisory team during the structuring and start-up.
- Implementing and adapting the operational process based on the transaction's needs.
- Adapting systems through customization services required by customers to meet the offering's specific needs.
- Coordinating the process jointly between the Exchange and CSD teams, preparing a timeline of activities to outline the road map needed to develop and complete the transaction.
- Generating and delivering access codes for participating entities to the system set up for the transaction.
- Training participating entities how to use the systems.
- Publishing the notice of offer and process information in the official publication media provided by nuam.

- Creating, publishing and/or disseminating the operating instructions provided by the respective Exchange for the offering, per each country's regulations.
- Ready the system to receive orders, which involves preparing the system to function and managing the technological infrastructure.
- Awarding the securities, following the rules defined for the transaction.
- Registering transactions in the Post-trade System, where participating entities can generate vouchers, reports and follow-up on the settlement process.
- Managing transaction fulfillment.
- Supporting users as the transaction develops.
- Arranging event press conference if required or other promotional services for issuers.

Operating Mode

Special Transactions in primary and secondary markets

138. Special Transactions involving equities may be carried out on nuam using the following operating flow:



139. Securities Registration

- **Registration with the Regulator:** any company that meets the requirements to be listed on the Exchange must initially register with the Regulator. Chilean, Colombian and Peruvian companies will have to register directly with the Financial Market Commission (CMF), the Colombian Financial Superintendency (SFC) or the Securities Market Superintendency (SMV), respectively.
- **Listing on the Exchange (nuam):** After being approved by the regulator, to be listed on nuam the Issuer must submit the required documentation (based on each country's requirements and the requirements set by the regulator). Next, nuam will review the background information and either approve the registration or request additional information from the issuer.

Once registered with the respective Exchange, it will be authorized for trading on nuam and for Special Transactions, creating a ticker for the registered security to be traded in the transactional systems (primary and secondary market).

Once the securities are registered with nuam, the Issuer is subject to the potential and periodic reporting obligations of the country of registration.

140. **Special Transactions**

- **Authorization for Public Offerings:** To promote Public Offerings, issuers must submit the background information to their respective regulator for approval and may begin to structure the Special Transaction through the Exchange where the Public Offering will be carried out.
- **Structuring the Transaction:** Given the particularities of each Special Transaction, nuam will provide personalized support and advice to the client to structure the operational and technology processes, helping meet the objectives set for each transaction. This support will involve defining a joint work plan and validating the documentation supporting the transaction. It will also clarify issues regarding the operational process and the systems supporting special transactions, ensuring that the rules set forth in the offer are correctly followed.

nuam will have standard processes and methodologies for clients to carry out offers in compliance with regulations and market practices. It will also offer technology customization services to adapt systems to a given transaction's particular conditions.

Special Transactions will abide by the participation and trading rules of the country where the Public Offering process is being carried out, and the applicable regulatory framework must be followed.

nuam will authorize direct participation by market agents from Chile, Colombia and Peru subject to approval by the respective regulators.

- **Developing the Transaction:** nuam will prepare the system based on each transaction's conditions, giving participants access and providing the required support to use the system or carry out the process.
- At the end of the offer period, nuam will award the securities per the rules set forth for each transaction.
- **Completing the Transaction:** The special transaction will be completed outside the CCPs, considering the points listed below:
 - **Registering and Managing transactions and collateral in the Post-trade System:** Transactions will be recorded in the Post-trade System to manage positions and collateral. Called and paid collateral will be valued using the Value at Risk (VaR) methodology.
 - **Settling transactions:** Transaction settlement will be bilateral between the parties. Positions will be settled in the CSD of each jurisdiction, while cash settlements will be carried out between the transaction participants' bank accounts.

GENERAL INFORMATION ON MARKET MAKER MODEL

141. The Market Maker³⁸ model seeks to improve the quality of the Single Market, boosting its liquidity by reducing the bid-offer spread³⁹ and optimizing price formation. Intermediaries, investment vehicles and companies specialized in market making, among other entities, may be Market Makers, committing to trade one or more securities on an ongoing basis and complying with the requirements set by the Issuer or the Exchange.

142. The Market Maker model for the Single Market will be structured into two segments:

- **Registered Market Makers (RMM):** They may carry out liquidity programs autonomously or under contracts with Issuers, as is the case of Market Makers that act per General Rule (NCG) 327 in Chile or as 'Liquidity Formers' in Colombia.
- **Assigned Market Makers (AMM):** They will act according to the program designed by nuam to guarantee the liquidity of a specific set of securities.

143. To be selected as an AMM, intermediaries or other agents must register with the Exchange as a Registered Market Maker (RMM). This process will not require a liquidity program to be in place, but they must comply with all the set requirements.

144. All instruments listed on the Single Market may be subject to multiple liquidity programs, regardless of the Market Maker assigned to them. Likewise, more than one Market Maker may be assigned to the same instrument.

Assigned Market Maker Program (AMM)

145. The nuam liquidity program will assign each AMM a group of securities with different levels of liquidity. The requirements to participate in the program and access the associated compensation and benefits will vary based on the liquidity of each group of securities. The program's main guidelines are detailed below.

1. Classifying Securities

146. Securities listed in the continuous segment, such as shares, fund units and investment certificates, will be classified into three levels of liquidity:

- Level 1: Securities with high trading volume.
- Level 2: Securities with moderate trading volume.
- Level 3: Securities with low trading volume

147. **Note:** Exchange Traded Funds (ETFs) and foreign securities will not be considered in this classification.

³⁸ **Market Maker:** Entities designated to guarantee the liquidity of one or more securities based on requirements pre-set by the Issuer or the Exchange.

³⁹ **Bid-offer spread:** The difference between the peak bid price and the peak ask price.

148. Classification by liquidity levels will be a dynamic process, subject to semi-annual reviews by nuam to reflect market conditions.

2. Constructing Instrument Groups

149. Based on the classification by liquidity levels, groups of financial instruments will be formed. The groups will have at least one security from each level presented above, to guarantee the characterization of the different liquidity levels in each group.

3. Compliance Requirements

150. AMMs will be subject to the following minimum technical requirements:

- On-screen presence
- Minimum amount per peak
- Maximum bid-offer spread

151. Technical requirements will be adjusted based on the security's liquidity, so more liquid instruments (Level 1) will have stricter standards than less liquid instruments (Level 3).

152. Each liquidity level will set a trading range, allowing Market Makers to manage risk flexibly. AMMs must maintain narrow trading at least 75% of the time, giving them the flexibility to extend the range in no more than 25% of the measurement period.

153. During periods of high volatility, such as volatility auctions or when circuit breakers are activated or trading is suspended, nuam will temporarily suspend measurement of program requirements.

4. AMM Compensation

154. The AMMs assigned to the same group of securities during the measurement period that the minimum technical requirements in the previous section will be eligible for a fixed monthly payment.

155. In addition, AMMs that exceed the minimum “spread” targets set—the amount per peak and the number of orders exposed—may be eligible for an additional bonus calculated based on their contribution to market liquidity

5. Other Aspects

156. To encourage participation by local and international Market Makers, nuam will offer a new type of orders that will allow participants to enter multiple buy and sell orders simultaneously, at the same price and at different levels, thus allowing for more sophisticated strategies.

SECURITIES LENDING MODEL

157. Securities Loans will be traded OTC⁴⁰. This is defined as the transaction carried out to obtain the securities loan, by means of a spot transfer, in which the traded security remains available in the receiver's portfolio and the inverse movement is carried out at the end of the loan term.

158. Specific master agreements will be established for participation by lending agents⁴¹ and their clients; additionally, the Participating Institutions, as Lending Agents, will have to sign a registration and authorization agreement to access the Securities Lending Market.

Securities Lending Registration

159. Transactions may be completed using the Request for Quote (RFQ) System or may be registered directly on the Post-trade platform.

160. Counterparties may choose between the "Collateral Lock" or "Collateral Transfer" models. The first involves locking collateral in nuam's account in the corresponding CSD and the second transferring the collateral from the Borrower's account to the Lender.

161. **Initial borrower or recipient:** The party who needs the assets and puts up collateral plus interest (premium) as consideration. *(Subject to prior eligibility, according to nuam risk criteria).*

162. **Initial lender or originator:** The party who supplies the need for assets in exchange for receiving the interest (premium) and, failing that, use of the collateral in the event that the "Collateral Transfer" model is chosen, since there is a transfer of ownership.

163. **Quote:** When the order is entered, the interest rate (premium), the instrument of the transaction, the collateral model and the advance/prepayment/recall condition will be established. The quote could be directed privately to selected counterparties or through an open request on the OTC market.

164. **Collateral and Settlement:** Collateral and settlement will be managed in the Post-trade System, using the DVD 1 model. Delivery versus Gross Delivery.

165. **Cancellation:** This begins with a request from one of the participants and

⁴⁰ **OTC - (Over The Counter):** Transactions involving financial instruments carried out directly between two parties.

⁴¹ **Lending Agents:** Intermediaries that may participate in the lending market or other entities such as custodians, institutional investors, international lending agents or any other entity authorized by law.

requires confirmation from the counterparty involved. The process ensures that all parties agree and understand the implications of such an action. Cancellation can only occur before the collateral is provided or before the transaction is completed.

166. **Eligible securities:** Eligible securities, as well as eligible collateral, will be determined by nuam based on its risk model. Notwithstanding, the lender may determine which collateral it will accept for the transaction.

167. **Settlement terms:** Outbound term from T+0 to T+2 and return term up to T+365. *(T+2 applies only to Chile)*

168. **Hours:** RFQ and Registration hours will be aligned with spot market trading hours plus one additional hour.

169. **Trading days:** As long as the security involved in the transaction is not eligible for trading in the spot market, the loan on this security will not be eligible either.

170. Intermediaries in a country on holiday will have the option of registering loans on securities of the countries where it is not a holiday.

171. Loans cannot be registered with settlement dates that fall on a holiday in the security's country of registration.

Loan Assignment

172. The Lending Agents may assign the beneficial owner intermediaries.

173. The assignment allows for a detailed assessment of the risks involved in the loan, considering the profile of the beneficial owner intermediary and the nature of the assets lent.

174. Associate the loan with a unique customer ID: Each loan can be linked to a beneficial owner intermediary using a unique identifier, simplifying monitoring, risk management and compliance with regulatory requirements.

Risk and Collateral Model

175. The Borrowing Lending Agents must provide nuam with collateral for stock loans to repay the borrowed shares. This collateral must be equal to 100% of the market value of the shares borrowed plus a required margin, which will be the value of the loan multiplied by its value at risk calculated using the Value at Risk (VaR) methodology. The market value corresponds to the initial value of the shares

plus daily differences.

176. Additional collateral may be required at any time during the trading day, based on market conditions, in the event of high volatility conditions, significant trading volumes in certain instruments, or any information or news related to the national or international financial system that could represent a Financial Risk.

177. The borrower's collateral requirement will be the product of the instrument risk, the current market value of the borrowed instruments and the amount of the order.

178. The collateral required from each institution involved will be calculated and reported at least once a day. Collateral delivered by the clients to the institutions must be deposited during the set hours.

Loan Settlement

179. After the loan's maturity date, the Post-trade System will send settlement instructions to the CSDs. Cash settlement will be made through CUD accounts in the central banks of each of the security's countries of registration. In addition, depending on the agreed Guarantee Model, the return of collateral will be validated as follows:

180. DVD model 1 (Delivery against Delivery of Securities) will be used to settle securities and collateral

181. **Return of collateral in the Collateral Lock Model:** If delivered in assets, nuam will return the collateral to the Lender's account in the corresponding CSD. If the collateral is in cash, nuam will automatically transfer it to the account designated by the Lender for this purpose.

182. **Return of collateral in the Collateral Transfer Model:** If delivered in assets, nuam will request transfer of the collateral from the Lender's account to the Borrower's account in the corresponding CSD. If the collateral is in cash, the Lender must deposit the amount in nuam's bank account, which will be automatically forwarded to the account designated by the Borrower for such purposes.

183. If the securities are held in custody in a country other than the Lender and/or Borrower's country, nuam will move the asset cross-border using mirror accounts.

184. **Advance/Prepayment/Recall:** The advance/prepayment/recall condition must be indicated on the trade or registration. If this condition was agreed upon, either party may request the recall and it will be resettled, taking into account the effective days of the loan.

185. The prepayment may be requested by mutual agreement, and the amount refunded must be resettled taking into account the effective days of the loan.

186. There will be conditions regarding the business days or terms in which the advance/prepayment/recall is permitted. In the case of corporate events, nuam will help coordinate to ensure prepayment of these transactions.

187. **Loan extension:** The parties may extend a loan's maturity for no more than 365 days from the initial term of the transaction.

Property Rights

188. Any economic rights that may arise from the lent asset should be recognized by the recipient, while any that may arise from the collateral should be recognized by the originator. For this purpose, nuam will use the corresponding criteria.

