

DISCLOSURE OBSERVANCE OF THE CPMI-IOSCO PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES

RESPONDING INSTITUTION:	COMDER CONTRAPARTE CENTRAL S.A.
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GLOSSARY

ABIF	Asociación de Bancos e Instituciones Financieras de Chile (association of banks and financial institutions)
BCP	Business Continuity Plan
BCCh	Banco Central de Chile (Central Bank of Chile)
BCS	Bolsa de Comercio de Santiago (Santiago Stock Exchange)
BDDC	Base de Datos de Derivados Cambiarios del BCCh (foreign exchange derivatives database of the Central Bank of Chile)
BIA	Business Impact Analysis
CCP	Central Counterparty
CCS	CCP Calypso System
CLF	The market-recognized convention for the Chilean UF
CLP	Chilean Peso
CSD	Central Securities Depository
CPMI	Committee on Payments and Market Infrastructure
DCV	Depósito Central de Valores (central securities depository)
DNS	Deferred Net Settlement
EMIR	European Market Infrastructure Regulation
EWMA	Exponentially Weighted Moving Average
FLI	Facilidad de Liquidez Intradía (intraday liquidity facility)
FMI	Financial Market Infrastructure
FX	Foreign Exchange
IOSCO	International Organization of Securities Commission
IMF	International Monetary Fund
IRR	Internal Rate of Return
ISO	International Standards Organization
KC	Key Consideration
LBTR	Liquidación Bruta en Tiempo Real (real time gross settlement)
MOF	Ministry of Finance
MOU	Memorandum of Understanding
NCG	Norma de Carácter General (general rule)
NDF	Non-delivery Forward
OLA	Operational Level Agreement
PFMI	Principles for Financial Market Infrastructures
PS	Payment System
QCCP	Qualifying Central Counterparty
RBI	Red Bancaria Interconectada (interconnected bank network)
RTGS	Real time gross settlement
RTO	Recovery Time Objective
SBIF	Superintendencia de Bancos e Instituciones Financieras (superintendence of banks and financial institutions)
SCL	Sistema de Compensación y Liquidación (clearing and settlement systems)
SGI	Sistema de Gestión Integral (comprehensive management system)
SLA	Service Level Agreement
SSS	Securities Settlement System
SVS	Superintendencia de Valores y Seguros (superintendence of securities and insurance)
CMF	Comisión de Mercado Financiero (Financial Market Commission)
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TR	Trade Repository
UF	Unidad de Fomento
VAR	Value-at-Risk
WBG	World Bank Group

I. EXECUTIVE SUMMARY

ComDer is the result of a project that was initiated in 2011. At that time, the Chilean banking industry, following G-20¹ and CPMI-IOSCO recommendations, among others, decided to create a CCP for the OTC derivatives market in order to align the Chilean financial market infrastructures with new international standards and best practices.

The OTC derivatives market in Chile continues to grow and currently it is estimated that notional amounts of OTC FX and interest rate derivatives traded on daily basis averages 7.5 USD billions. The main actors of this OTC derivatives market are local commercial banks, foreign commercial banks and pension funds.

ComDer, Contraparte Central S.A (hereinafter “ComDer”) was licensed by the SVS in June 2015, and started clearing derivatives transactions on July 30th, 2015. Its ownership structure is as follows: IMERC OTC, participated by 13 commercial banks, owns 99.92%, while the Association of Banks and Financial Institutions of Chile (ABIF) owns the remaining 0.08%. Within IMERC, ownership shares were assigned on the basis of the estimated activity of these banks in the OTC derivatives market in previous years. Ownership shares are revised every three years.

During 2022, ComDer applied to be recognized as a QCCP by ESMA. On August 8th, ComDer received the QCCP recognition from ESMA.

There are currently 11 direct participants in ComDer with 1 additional direct participant to be included during 2023, which at the same time are ComDer shareholders, as noted earlier. All such participants are banks licensed in Chile and concentrate the bulk of transactions in the OTC derivatives market². While other banks licensed in Chile are expected to join shortly, some others appear to be bounded by laws/regulations (e.g. Dodd-Frank Act and EMIR) that are in principle applicable to their parent jurisdiction but that, as a result of consolidation, affect their operations globally³. Although foreseen in ComDer’s [rulebook](#), at present there are no indirect participants or clients.

II. SUMMARY OF MAJOR CHANGE SINCE THE LAST UPDATE OF THE DISCLOSURE

The most relevant changes are:

1. QCCP: On August 8th 2022 ComDer received the QCCP recognition by ESMA.
2. 1 new direct participant: We are expecting 1 additional direct participant to join during the first quarter of 2023. The new total of participants will be 12.

III. COMDER’S GENERAL BACKGROUND

General description and the target market.

¹ G20 Leaders agreed in 2009 to a comprehensive reform agenda for these markets, to improve transparency, mitigate systemic risk, and protect against market abuse. To achieve these objectives, the G20 agreed that: (i) all OTC derivatives contracts should be reported to trade repositories (TRs); (ii) all standardized contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties (CCPs); (iii) non-centrally cleared contracts should be subject to higher capital requirements and minimum margining requirements should be developed.

² At present, in Chile there are 18 banks that are locally incorporated, licensed as subsidiaries or licensed as local branches of foreign banks.

³ For some banks that are local subsidiaries of global banks with headquarters in the US or the EU, clearing through ComDer may be costly due to legal and regulatory restrictions, i.e. Dodd-Frank Act and EMIR.

Currently ComDer is clearing and settling NDFs for CLP-USD and CLF-CLP with maturities up to two years⁴. Both contracts are settled in Chilean pesos. For now ComDer is only accepting direct participants, although the approved [rulebook](#) already provides for indirect participation. It is envisaged that for a second stage, most likely in 2023, ComDer will also start clearing interest rate swaps (IRS), Cross currency basis swaps (CCBS) and will begin accepting indirect participants and clients.

During 2023 and up to December 31th, ComDer was clearing an average of nearly 101 contracts per day (both legs) and daily cleared amounts averaged 1.327 USD million. The gross notional amount outstanding in ComDer was 82.886 USD million. Since ComDer started operations, it is absorbing approximately 51% of the NDF USD/CLP market.

General Organization

The ComDer Organization is composed by:

- A nine members Board, whom are nominates by Banks that owe ComDer's parent company IMERC.
- The following Committees:
 - Risk Committee with five member, three elected by the Participants and two nominated by the Board,.
 - Operational Risk Committee with two elected by the Participants and one nominated by the Board.
 - Audit Committee composed by three Board's members
 - Disciplinary Committee composed by three Board' members.
- A Chief Executive Officer, who has three direct reports: Chief Risk Officer, Chief Operations Officer and Chief Technology and Project Officer.
- ComDer has currently 43 employees distributed in the following areas:
 - Risk Management: 5 FTE
 - Operations, Finance and Operational risk: 19 FTE
 - Technology and Projects: 14 FTE
 - Internal Audit Department: 3 FTE (Chief Auditor Officer reports directly to the Board and Audit Committee)
 - Others: 2

Legal and Regulatory Framework

The Financial Market Commission, CMF, is the regulator and supervisor of ComDer CCP. The legal basis for the operation of the CCP in Chile is provided under [Law 20.345](#). Consistently with its statutory powers and the laws mentioned above, the CMF regulates and supervises ComDer. However, [Law 20.345](#) requires that any changes to the [rulebooks](#) of ComDer be approved by the CMF though also with the binding opinion of the BCCh.

⁴ CLP is the market convention for the Chilean Peso, while CLF is the market convention for the Chilean Unidad de Fomento or "UF", which is a unit of account indexed to inflation in use in Chile since the mid-1980s.

In addition to the applicable laws, the CMF issues general rules (“[Normas de Carácter General](#)” or “NCG”) to the FMIs under their regulatory purview. The main instance of domestic cooperation among financial sector authorities is provided by the Financial Stability Council.

Since 2018, the CMF has adopted the oversight of the PFMI-IOSCO compliance.

Finally, on June 8, 2022, the European Commission (EC) gave a significant green light to the legal framework in Chile's derivatives industry. In this sense, the international body confirmed the equivalence of the regulation of derivative compensation and settlement by Chilean CCPs. This is an indication of the maturity of the local regulatory and financial infrastructure, which has developed since the adoption of the Financial Instruments Settlement and Compensation System [Law 20.345](#) in 2009.

With this approval, EU banks or bank subsidiaries in Chile can operate through an authorized Chilean CCP recognized by the CMF and the European Securities and Markets Authority (ESMA) as an equivalent entity that requests its exposures according to credit risk weightings.

System Design and Operations

ComDer operates using Adenza (CCS) to process the Clearing Orders (CO) and the global network SWIFT to manage all its trades, collaterals, and payments messages. Both systems are highly secure and resilient. The CCS allows the reception, registration, confirmation, acceptance, clearing and settlement of the Clearing Orders (CO) received from the Participants. Therefore, Calypso is used as a Back Office, Middle Office and Front Office system, this is a "Back to End" system.

The operational systems (CCS and SWIFT) have sufficient capacity to monitor and control the risks pertaining to the operation; to accept or reject the CO that receives depending on the compliance or non-compliance with the requirements established; to maintain the registration of all and each one of its operations; and to provide information to the Participants in respect of their positions.

The CCP Business Cycle

The CCP conducts a daily cycle of businesses the settlement of which is in T+1, due to which the Day Starting Process considers the information of the closing of the next preceding business day.

The CCP manages the OCs in the following clearing services (Annex No. 10 Clearing services and clearing instruments):

- FX service: Derivative instruments in which the main risk comes from fluctuations in FX rates.
- Interest Rates and Inflation service: Derivative Instruments in which the main risk comes from fluctuations in interest rates and inflation.

The processes that form the Business Cycle are:

1. Day Starting Process
2. Business Daily Process
3. Day Closing Process

a) Day Starting Process:

- Guarantees in cash to be credited on Participants Accounts Daily, prior to the commencement of its activities, ComDer shall proceed to credit to its Settlement Account in the RTGS the totality of the funds in cash established in guaranty by the Direct Participants, either as Initial Margin or Contributions to the Guaranty Fund, that are deposited in its Guarantees Cash Account at the Chilean Central Bank.

- Calls to Contribute to the Guaranty Fund Daily, in the hours that are indicated in the [Rule Book Annex N°11: Operation Cycle Schedule](#), the Direct Participants that have received a Call to Contribute to the Guaranty Fund shall pay the Required Amount in cash in the Settlement Account of ComDer in the RTGS.

For all legal and regulatory purposes that may correspond, the Call to Contribute to the Guaranty Fund are considered complied with by the Direct Participant once the transfer of the relevant funds has been materialized in the Settlement Account of ComDer in the RTGS.

Upon the materialization of the transfer of funds, the CCP register the payment in the Cash Guaranty Account of the Direct Participants that answered the call.

If any Direct Participant shall fail to comply with the Call to contribute to the Guaranty Fund within the term indicated, a default event is triggered in the terms set forth in the [Rule Book section 7.2](#).

- Calls to Contribute to the margin account, at 09:45 each business day, the Direct Participants that have received a Margin Call shall pay the Required Amount in cash in the Settlement Account of ComDer in the RTGS.

For all legal and regulatory purposes that may correspond, the Margin Call is considered complied with by the Direct Participant once the transfer of the relevant funds has been materialized in the Settlement Account of ComDer in the RTGS.

Upon the materialization of the transfer of funds, the CCP register the payment in the Cash Margin Account of the Direct Participants that answered the Margin Call, which shall have sufficient funds to receive the charges that ComDer subsequently perform.

Once the payment of the totality of the Direct Participants with Margin Call has been received, ComDer proceeds to:

- Debit in the Cash Margin Account of the Direct Participants:
 - The negative Variation Margin.
 - The losses resulting at the expiration of the CO.
- Credit in the Cash Margin Account of each Direct Participant:
 - The positive Margin Variation.
 - The gains resulting at the expiration of the CO.

The net creditor balances resulting from the process of settlement are at the disposal of the Direct Participant in its Cash Margin Account, which may request to ComDer their transfer to an account in the RTGS system. On this way, the Normal Settlement of the CCP occurs, becoming the net creditor balances and net debtor balances resulting from the clearance extinguished in an irrevocable manner.

If a Direct Participant shall fail to comply with the Margin Call within the term indicated, a default event is triggered in the terms set forth in the [Rule Book section 7.2](#).

b) Business Daily Process

Following the completion of the Day Starting Process, the CCP commence the Business Daily Process, at 09:45am that includes the following activities:

Treatment of Guarantees

Establishment of guarantees

For the acceptance of CO in the CCS it is required that the Direct Participants have sufficient guarantees in their Margin Account.

For these purposes, the Direct Participant must timely make, during the entire Business Daily Process, crediting to its Margin Account through:

- Establishment of cash guarantees crediting the Settlement Account of ComDer with Banco Central de Chile, through the remittance of Funds Transfer Instructions (FTI) that are settled in the RTGS and the relevant annotation in the Cash Margin Account of ComDer.
- Establishment of guarantees in Financial Instruments in favor of ComDer in a securities deposit enterprise regulated by Law No. 18,876, through the remittance of Securities Transfer Instructions (STI). The establishment, release or modification will be made in accordance with the provisions in section 14 of the above-mentioned statute.

Likewise, the crediting of the Direct Participants to their Guaranty Fund Accounts shall be made in cash and /or Financial Instruments, within the hours defined by ComDer and in accordance with the procedures and rules that regulate the systems of the securities deposit enterprises regulated by [Law No. 18,876](#) and the RTGS of BCCh.

In accordance with the provisions in section 27 of [Law No. 20,345](#), the properties that have been given in guaranty to secure the compliance with the obligations of the Direct Participants shall constitute patrimonies of exclusive affectation for such purposes, and they shall not be susceptible of annulment, attachment, injunction or preventive measure or other limitations to the right of ownership for any cause whatsoever, or may be subject to other encumbrances or prohibitions different that those established by the [Rulebook](#).

Entrance of Clearing Orders

The CCS receives CO from the Direct Participants and Indirect Participants from the OCS or other External Confirmation System authorized.

Validation of the CO

Prior to their acceptance, the CCS validate the CO, considering at least the following elements:

- That they correspond to a type of Financial Instrument of those mentioned in the Rule Book Annex N°10: Instruments Eligible for Clearance.
- That they include all the minimum information required for that Financial Instrument.
- That the Direct Participants and Indirect Participants that present the CO are habilitated and operative.

The CO that complies with the requirements listed above shall be in the status of Outstanding OC. Should the contrary be the case, the CCS will reject the CO and communicate it to whoever may correspond through an electronic message.

Acceptance of the CO

The COs received remain pending until they are confirmed, either by matching or by affirmation.

The confirmed COs are entered in real time for their acceptance in the CCS, where the Limit Control functionality performs an online validation verifying that the Direct and/or Indirect Participants who present a CO for compensation have sufficient limits for said CO.

If the limit control determined insufficient balance in the Margin Account, the OC will remain without being compensated until the situation is overcome because of:

- The Direct Participant has voluntarily established new sufficient guarantees in his Margin Account or,
- The compensation of other POs has released sufficient collateral in your Margin Account.

The CO will become an accepted CO only once the following requirements have been verified in real time:

- That the Direct Participants have a sufficient margin in their Margin Account.
- That the Direct Participants have sufficient limits in the CCS in accordance with the provisions of section 6.1.2.2.
- That Indirect Participants have sufficient limits defined by their Direct Participant

Once the requirements are met, the accepted OC will be compensated by the CCS and registered in the corresponding Position Accounts.

The CO that has not been accepted can:

- Be left without effect by mutual agreement of the parties, through an electronic message or through an option available in the CCS.
- Automatically rejected by the CCP at the close of the day.

The CCS will communicate the acceptance and compensation of a CO by electronic message to the Direct Participants and/or Indirect Participants who entered the CO.

It is the exclusive responsibility of ComDer to carry out and allocate the guarantees, with respect to Events of Delay and Default that require their use.

Restoration of Surpluses of the Margin Accounts

If the Margin Account of a Direct Participant in the CCS presents a surplus of guarantees established either in cash or in Financial Instruments in connection to the guarantees required by ComDer for that account, the Direct Participant may request the restoration of such surplus to ComDer.

ComDer verify the applications for restoration it receives and, should it correspond, proceed accordingly:

- Sending Funds Transfer Instructions (FTI) to transfer the funds from the Settlement Account of ComDer to the account of the applicant Direct Participant.
- Sending the Securities Transfer Instructions (STI) or the release of the pledge to the relevant securities deposit enterprise regulated by [Law No. 18,876](#).

Restoration of Surpluses of the Guaranty Fund

If the balance of the Guaranty Fund Account of a Direct Participant exceeds the contribution to the Guaranty Fund that is required from it, such Direct Participant may request to ComDer the restoration of the excess either in cash or in Financial Instruments.

ComDer verify the applications for restoration it receives and, should it correspond, will proceed accordingly:

- Sending Funds Transfer Instructions (FTI) to transfer the funds from the Settlement Account of ComDer to the account of the applicant Direct Participant.
- Sending the Securities Transfer Instructions (STI) to the relevant securities deposit enterprise regulated by [Law No. 18,876](#).

Replacement of Guarantees in Financial Instruments

The Direct Participant can replace the financial instruments established as collateral in their Margin accounts and Guarantee Fund accounts, being first obliged to constitute a quantity of collateral in financial instruments and/or cash, which generates a sufficient surplus, allowing the withdrawal of the financial instruments that need to be replaced.

c) Day Closing Process

Within the hours described in the [Rule Book ANNEX No. 11: Operation Cycle Schedule](#), there will be conducted the Closing of the Business Daily Process, during which the CCS:

- a) Shall reject all the Pending CO and shall not accept the new CO it receives to be processed in the same day, communicating that to the parties to the transactions that shall have originated them and the relevant registration and confirmation systems.
- b) Shall not perform more cash or Financial Instruments transfers to the Direct Participants.

This process comprises the following activities:

- Obtainment of Prices and Market Rates
- Valuation of the Outstanding COs
- Valuation of the Guarantees other than cash
- Calculation of Payments of CO at Maturity
- Expirations of Guarantees in Financial Instruments
- Calculation of the Variation Margin
- Calculation of the Initial Margin
- Calculation of the Guaranty Fund
- Margin Call Calculation

Access to the information

During the Business Daily Cycle, the Direct Participants and Indirect Participants shall have terminals connected to the systems of ComDer in accordance with the provisions in [Rule Book Chapter 9 on COMMUNICATIONS, ACCESS TO THE INFORMATION AND CONTINGENCIES](#).

During the hours of operation indicated in the [Rule Book Annex No. 11: Operation Cycle Schedule](#), the Direct Participants and Indirect Participants shall have online Access to their information, which considers at least the following:

- a) Pending CO
- b) Accepted CO
- c) Rejected CO
- d) Outstanding CO in each Position Account
- e) Balances of the Margin Account and Guaranty Fund, in cash as well as Financial Instruments
- f) Level of minimum guarantees required as Initial Margin and Guaranty Fund
- g) Limits: outstanding, utilized, and available

- h) Information of prices and parameters of valuation utilized.
- i) Financial Instruments entered as guarantees.
- j) Movements of the Margin Account and Guaranty Fund

IV. PRINCIPLE-BY-PRINCIPLE SUMMARY NARRATIVE DISCLOSURE

Principle 1: Legal basis An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.	
Key consideration 1	The legal basis should provide a high degree of certainty for each material aspect of an FMI’s activities in all relevant jurisdictions.
Description	<p><i>Material aspects and relevant jurisdictions</i></p> <p>Principles on finality, on protection of collateral arrangements against insolvency, on novation, as well as on segregation and portability of positions and posted collateral are all material aspects for ComDer.</p> <p>Law 20.345, in addition to regulating clearing and settlement, also imposes that the administrator of a clearing and/or settlement system for securities be authorized as a <i>Sociedad Administradora</i>, and, as such, be subject to specific requirements as a <i>Sociedad Administradora</i>. In this context, ComDer needs to comply both with the requirements established as a CCP (as the operator of the system) and as a settlement system.</p> <p><i>Legal basis for each material aspect</i></p> <p>Law 20.345 on clearing and settlement systems for financial instruments clearly regulates all relevant aspects as for finality, recognition of novation, and protection against insolvency. Article 29 states that a security clearing and settlement system may use the collateral posted to it based on what established in its rulebook, without any need of intervention from judicial authorities.</p> <p>Law 20.345 contains a satisfactory description of “novation” (final bilateral compensation by the CCP against any participant and with effects against third parties) although this is not expressly mentioned as such. Specific rules are established in Chapter II of Law 20.345 for a CCP to sufficiently manage the risk connected with its activities as the sole legal counterparty to all participants in the securities settlement system.</p> <p>Regarding default arrangements, the minimum features of the measures CCPs must include in their rulebook are described in section VI of SVS regulation 258 (NCG 258 “Minimum elements of credit and liquidity risk management for entities clearing and settling financial instruments”).</p> <p>Articles 16-19 of Law 20.345 describe the processes for the recovery of CCPs, while section V describes the resolution process for all types of “entities that clear and settle financial instruments” (articles 33-37).</p> <p>The Law does not contain any provision on segregation and portability. Although these are covered by agreement, no statutory provision exists to that extent.</p>
Key consideration 2	An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.
Description	<p>ComDer’s rules, procedures and contracts are clear and understandable, and have not been contested by its participants.</p> <p>The main set of rules, the rulebook, was approved by the CMF (also with the binding opinion of the BCCh and after hearing the opinion of SBIF). This provides an acceptable level of assurance to ComDer and its participants that the rules and procedures are consistent with applicable laws and regulations. Any changes to the rules and procedures also require the approval of the CMF and BCCh.</p>

	Laws and regulations and the rulebook itself specify the minimum contents of the contracts between ComDer and its participants, between direct settlement members and indirect settlement members (at present there are no indirect settlement members. These are planned for a second phase).
Key consideration 3	An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.
Description	The rules and procedures are contained in ComDer's rulebook and other documents that are disclosed to stakeholders. These documents include all relevant topics for the operation of the ComDer as a CCP, including access and exclusion criteria, the various membership types, the rights, and obligations of ComDer as the operator, the rights and obligations of settlement members, a detailed explanation of the operational model, including the use of margin/collateral, limits, definition of a participant default and its consequences.
Key consideration 4	An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.
Description	<p><i>Enforceability of rules, procedures, and contracts</i></p> <p>ComDer's rulebook, which also includes model contracts with direct and indirect participants, was approved by the CMF and BCCh and its provisions are therefore fully enforceable in Chile.</p> <p><i>Degree of certainty for rules and procedures</i></p> <p>All key rules and provisions in the rulebook are based on laws (especially Law 20.345) and on NCGs issued by the CMF. The only relevant jurisdiction for ComDer is Chile (see KC5).</p> <p>There is no precedence of a ComDer rule, procedure or action being revoked by any other competent authority.</p>
Key consideration 5	An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.
Description	<p>At present the only relevant jurisdiction for ComDer is Chile.</p> <p>ComDer only operates in local markets and with local participants, i.e. locally licensed banks. Participation of foreign entities (i.e. not licensed as financial entities in Chile) in ComDer is not explicitly allowed nor forbidden in laws or regulations.</p>

Principle 2: Governance An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.	
Key consideration 1	An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations
Description	<p>ComDer’s mission – as declared in its annual report of 2022 – is to be a resilient Financial Market Infrastructure, which develops and provides Clearing and Settlement services of financial instruments to the Participants and their clients, at competitive costs, which facilitate and improve management of financial and operational risks, support the productivity of clearing member processes, and contribute to the security and stability of the financial system.</p> <p>ComDer’s rulebook states the main objectives of the organization, which include risk mitigation, safety, timeliness of clearing and others in connection with the clearing and settlement of OTC-traded derivatives.</p> <p>ComDer’s overarching risk management document “Risk Management Policy Framework” states that one of the key objectives of the organization is to contribute to reducing and/or mitigating systemic crises that could endanger the stability of financial markets.</p> <p>ComDer has defined its BSC that have 12 strategic objectives related with KC1 (these were approved by ComDer’s board of directors):</p> <ul style="list-style-type: none"> • Maintain and improve the financial resilience of the CCP in accordance with the PFMI. • Comply with the budget to achieve the ROE defined by the shareholders for the operating company. • Compliance with local and international regulations related to the financial resilience of the CCP. • Provide excellent, efficient, safe, reliable and timely services for banks/participants, which position the organization as a relevant player in the financial market. • Generate and share knowledge about risks, products and services to interested parties. • Ensure organizational, technological, operational and Cybersecurity resilience with international standards, ensuring compliance with local and international regulations. • Maintain the process of continuous improvement in the comprehensive management system in the following management disciplines: Risk, Quality, Internal Control, Business Continuity, Information Security, Cyber Security and Compliance, to ensure excellence in the delivery of the services. • Maintain certified and audited management systems under best practice standards. • Advance in the digitization of the Organization's processes. • Generate a work environment that promotes corporate values, self-learning and skills. • Increase the intellectual capital of the organization, supporting growth and

	<p>development of new talents.</p> <p>For each of these strategic objectives, corresponding KPIs for its measurement have been laid down. To ensure that these objectives are achievable, they have been linked to and aligned with the organization's processes.</p>
Key consideration 2	<p>An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.</p>
Description	<p><i>Governance arrangements</i></p> <p>ComDer's governance arrangements are based on the applicable legal framework (e.g. joint-stock companies law, securities markets law, etc.) and applicable regulations, as well as its by-laws and approved rulebook.</p> <p>The organization is ruled by a board of directors, with five board committees (risk management, operational risk, audit, disciplinary and default management) and a CEO ("Gerente General") reporting directly to the board. Below the CEO there are 3 senior managers ("Gerentes"), plus a legal advisor and an Auditor General, the latter with a direct reporting line to the audit committee of the board and a secondary reporting line to the CEO.</p> <p>CRO has also a direct reporting line with the Board and the Risk Committee.</p> <p>On an annual basis, ComDer holds a General Shareholders Assembly to report on the activities performed throughout the year. ComDer also holds an annual participants' meeting.</p> <p>ComDer began operations in late July 2015 with governance arrangements detailed in the internal document entitled "ComDer Corporate Governance" approved by the board.</p> <p><i>Disclosure of governance arrangements</i></p> <p>Currently, most of ComDer's internal regulations are available to its owners and participants only via Internet. In addition, ComDer's by-laws and annual reports are publicly available in its website.</p>
Key consideration 3	<p>The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.</p>
Description	<p><i>Roles and responsibilities of the board</i></p> <p>The general roles and responsibilities of the board are stated in ComDer's by-laws. A more detailed description of these roles and responsibilities, including the board's procedures for its functioning, has been prepared as part of the "ComDer Corporate Governance" document. The latter document contains the procedures to be followed for identification and handling of conflicts of interests.</p> <p>ComDer has established four committees. The composition, functions, and procedures of each of these committees are outlined in Section 10 of ComDer's rulebook. These committees are as follows:</p> <ul style="list-style-type: none"> • Risk management committee: to identify, measure and control risks in ComDer, propose mitigation actions, and assess and propose improvements to

	<p>the risk management framework to the board. This committee has 5 members, 3 of which are designated by ComDer's participants and the rest by the board of directors (the latter two cannot be themselves board members). The members of the committee elect a chairperson from amongst themselves. Currently, members designated by participants are senior risk officers from participant banks.</p> <ul style="list-style-type: none"> • Operational and Operator Risk management committee: to identify, measure and control operational and operator risks in ComDer, propose mitigation actions, and assess and propose improvements to the operational risk management framework to the board. This committee has 3 members, 2 of which are designated by ComDer's participants and one by the board of directors. The members of the committee elect a chairperson from amongst themselves. Currently, members designated by participants are adequately qualified. • Audit committee: its role is to oversee the observance of the rulebook and the implementation, application and ongoing improvement of the system of internal controls. This committee is made-up of three members of the board of directors. • Disciplinary committee: its main role is to propose to the board the sanctions to be applied to participants in connection with infringements to the rulebook and other applicable rules. This committee is made-up of three members of the board of directors. • Default management committee: its role is to assess and decide on the course of action about the outstanding clearing orders of a defaulting party, and to designate the entity that will implement the corresponding plan. This committee is made-up of 7 members, including the CEO and the Chief Risk Office (CRO), the chair of the audit committee, the legal advisor, and three external Senior Finance Managers (or equivalent post) that will represent the participants (except the defaulting party or parties).
Key consideration 4	The board should contain suitable members with the appropriate skills and incentives to fulfill its multiple roles. This typically requires the inclusion of non-executive board member(s).
Description	<p>ComDer's board of directors comprises a total of 9 members.</p> <p>Article 14 of ComDer's by-laws states that "<i>The personal characteristics of each candidate shall prevail in the designation of board members, specifically with regard to professional background and suitability for the position</i>". ComDer is also observant of the provisions established in Law 18.046 (article 35), regarding the minimum requirements (e.g. appropriate skills, experience, integrity) and the impediments for an individual to become a board member. Law 20.345 also contains provisions on the designation of board members of securities clearing and settlement entities.</p> <p>Board members are elected by the shareholders assembly for a three-year period. Every three years there is a new election of all nine board positions. Current board members may be re-elected indefinitely.</p> <p>Board members are compensated, and are entitled to an additional stipend for their participation as members of the audit or disciplinary committees. The company was formally incorporated in July 2013 and of the board members that were elected then seven remain in their posts. The remaining members were elected in mid-2015 and September 2017.</p> <p>The by-laws allow for the designation of independent directors -defined as those</p>

	<p>individuals that are not also directors, senior managers or otherwise have any contractual relationship with any of ComDer's shareholders. There is no minimum or maximum number of independent directors. In practice, the criterion that ComDer applies for all nine directors is that they cannot be staff members of shareholders. At present, the board is made-up of one director that is also member of the board of banks, and eight other directors that do not have any contractual relationship with banks.</p>
Key consideration 5	<p>The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.</p>
Description	<p><i>Roles and responsibilities of management</i></p> <p>The roles and responsibilities of management are currently stated in the internal document "ComDer Organizational Structure". This document outlines the general organization of the company, and describes in detail the objectives, roles and responsibilities of each of the department heads (i.e. CEO, CRO, COO, CTI), and their respective staff, up to the most junior level of the organization.</p> <p>The "ComDer Corporate Governance" document describes the various "internal committees" (i.e. committees made-up of ComDer staff, including senior management) of the organization.</p> <p>The organization has defined a total of 26 processes (including business and management processes). All 26 processes have been assigned a process owner. Likewise, ComDer has defined 4 overarching management systems, each with its owner. Performance of individual managers and other staff is evaluated based on the performance of the processes they are responsible for.</p> <p><i>Experience, skills and integrity</i></p> <p>Current senior management consists of highly experienced individuals in FMIs, as all of the senior management team members had previously held similar positions in a high-value payments system (i.e. ComBanc). Integrity of all staff is verified through interviews and independent checks as part of the hiring process.</p> <p>Regarding the removal of management, the by-laws only specify that the CEO may be removed with the vote of at least seven board members.</p>
Key consideration 6	<p>The board should establish a clear, documented risk-management framework) that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.</p>
Description	<p><i>Risk management framework</i></p> <p>ComDer has a "Risk Management Policy Framework" approved by the board. This framework is based on ISO 31.000:2009 for all the risks identified throughout the document. The risks management processes that conform this framework are: context, evaluation of risks (identification, analysis and assessment of risk), treatment of risks, acceptance of risks, monitoring and communication of risks.</p> <p>The Risk Management Policy Framework states that ComDer has defined its risk</p>

	<p>tolerance based on “a very low tolerance for credit, liquidity, general business, legal, operational, custody and investment risks”.</p> <p>The responsibility for risk management lies on the Risk Management Committee of the board, and ultimately on the board itself. The role of this committee is to identify measure and control risks in ComDer, propose mitigation actions, and assess and propose to the board improvements to the risk management framework. The risk management policy framework is then approved on an annual basis by the board (this policy is considered “Level 1” policy, requiring approval from the board and the CEO).</p> <p><i>Authority and independence of risk management and audit functions</i></p> <p>The main objectives of the Risk Management Department are the design, development and implementation of risk management systems for ComDer’s business. In addition to the manager, this department has two deputy managers and two professionals hired as analysts.</p> <p>The Chief Risk Officer has a direct reporting line to the Risk Management Committee and ComDer’s Board.</p> <p>The audit department reports to the Audit Committee of the board, and has a secondary (“functional”) reporting line to the CEO. The main objectives of this department are to ensure the organization has a robust audit plan that focuses on the key risks, and propose measures to improve controls, in particular as regard security of information and the physical infrastructure as a whole. There are internal audits performed by audit department and external audits performed by external auditors like KPMG and EY).</p>
Key consideration 7	<p>The board should ensure that the FMI’s design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.</p>
Description	<p><i>Identification and consideration of stakeholder interests</i></p> <p>ComDer was built by initiative of participants in financial markets, essentially commercial banks. Currently, the shareholders and participants in ComDer coincide, which ensures to a large extent that the interests of participants and those of the organization are aligned.</p> <p>As mentioned in KC 2.3, three out of five members of the risk management committee of the board designated by the participants. In addition, ComDer has developed and approved the document “Stakeholders’ Needs and Expectations”, which describes and provides for the interest of primary (i.e. participants, regulators, vendors, ComDer staff members) and secondary (community, media, etc.) stakeholders.</p> <p><i>Disclosure</i></p> <p>Decisions made by the board are communicated to regulators. “Major decisions” are disclosed by the CMF in its website through the “<i>Hechos Relevantes</i>” microsite. Likewise, some important decisions are disclosed in the annual report, which is a public document.</p> <p>Board decisions are reflected in minutes, which are made available to board members, Risk Management Committee members and few other selected parties</p>

	via ComDer's Knowledge Portal (restricted access).
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Principle 3: Framework for the comprehensive management of risks An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.	
Key consideration 1	An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.
Description	<p><i>Risks that arise in or are borne by the FMI</i> The Risk Management Policy Framework identifies the following risks: credit, liquidity, general business, legal, operational, custody and investment.</p> <p>ComDer classifies these risks in two groups: those associated with financial stability and continuity objectives (counterparty credit risk and liquidity risk) and those that are specific to ComDer as a business organization (custody and investment risk, operational risk, general business risk and legal and regulatory risk).</p> <p><i>Risk management policies, procedures and systems</i> ComDer has a number of policies on the various risks faced by the organization. These are derived from the overarching Risk Management Policy Framework, which is based on ISO 31.000 (see KC 2.6). These policies are approved on an annual basis by the board. Specific policies approved so far include on credit and liquidity risks, on operational risks, on financial investments and custody, on quality assurance, on outsourcing and vendors, on information security, on human resources, on compliance, on felony prevention, on administration and on financial management.</p> <p>A number of detailed procedures have been developed on the basis of some of the aforementioned policies. These include on management of non- financial risks, on management of financial risks, on the usage of tools for assessing counterparty credit risk, on the usage of tools for assessing liquidity risk, on the treatment of financial risks, on the monitoring and review of financial risks, on communication of financial risks, on management of delay events, and on management of default events. A specific procedure also exists for cyber threats, including virus/malware, hacking, etc ("<i>Evaluación y tratamiento de riesgos de seguridad de la información</i>").</p> <p>Risk management systems used by ComDer include Calypso as the core clearing and settlement engine and risk management system, Aranda for incident management, Pentana for operational risk management and audit, and IBM BAW and Content for knowledge management, the monitoring of defined business and management processes.</p> <p>Calypso provides the capacity to ComDer to have an integrated view of its financial exposures by allowing the aggregation of all such exposures across the organization.</p> <p><i>Review of risk management policies, procedures, systems</i> In general, risk management policies, procedures and systems are reviewed on an annual basis by the Risk Management Committee, which makes a statement on the adequateness of such policies and procedures and recommends changes,</p>

	<p>if any, to the board, which gives final approval. To this end, in the last quarter of each year the Risk Management Committee presents a formal report to the board with its opinion on the effectiveness of the risk management system at ComDer. The risk management policy framework is then approved on an annual basis by the board (this policy is considered “Level 1” policy, requiring approval from the board and the CEO).</p> <p>Proposals for improvement come from a number of feedback mechanisms, like internal audit, interactions with users or requests from regulators. In most cases the proposals are assessed initially by the Risk Management Department, the Operations Department and/or the Projects and Technology Department, and are then presented to the Risk Management Committee.</p>
Key consideration 2	An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.
Description	<p>ComDer provides on-line, real-time information to participants on their net positions and their margin positions. Mark-to-market values of positions and collaterals are updated daily. A number of statistical reports are also made available to participants through RBI (secure bank’s network), together with educational documents on risk management.</p> <p>At the level of incentives, these are associated mainly with initial margin requirements, the size of each participant’s contribution to the settlement guarantee fund and allocation of losses in the event of a default. In this regard, the initial margin and individual contributions to the settlement guarantee fund are proportional to the risks participants pose to ComDer.</p> <p>The key provisions contained in ComDer’s rulebook with regard to the risks posed by participants are embedded in the Calypso clearing, settlement and risk management platform. Therefore, this system provides information, alerts, makes automatic margin calls, forbids further acceptance of new clearing orders, and has other features that allow for the effective management and containment of risks (see principles 4-7, 13).</p>
Key consideration 3	An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.
Description	<p><i>Material risks</i></p> <p>These risks have been identified in the document “Assessment and Treatment of Risks to Business Continuity”.</p> <p>The material risks identified include the disruption of custodian and securities transfer services provided by the central securities depository (i.e. DCV), cash settlement services provided by the Sistema LBTR of the BCCh, and problems with service provided by telecom and/or software vendors that could endanger the continuous provision of ComDer services.</p> <p>The risk of non-performance of liquidity providers is not specifically identified in the document mentioned earlier, but this risk is evaluated and treated in the Liquidity Risk Matrix. ComDer also does identify the risk of not having enough financial resources to provide its CCP services (impact of this event considers only the ordinary settlement process and the usage of the settlement guarantee fund, but not on the liquidity provider SLA, where liquidity providers would be required to perform). In practice, however, ComDer does address the risk of</p>

	<p>liquidity providers by imposing strict requirements for their selection (article 100 of the rulebook) and through diversification of providers (see below).</p> <p>ComDer does not pose risks to the DCV or the Sistema LBTR as it is merely a user of such services and uses the applications and communications means provided by those FMIs.</p> <p><i>Risk management tools</i></p> <p>To identify, measure and address the risks arising from interdependencies ComDer uses a methodology based on ISO 27005:2011. Hence, in the document “Assessment and Treatment of Risks to Business Continuity” ComDer has mapped the various risks of interdependencies and others reflecting the probability that such risks materialize, impact and expected outcome. Control activities to address/mitigate all risks with a high impact are also identified in each case.</p> <p>Moreover, with regard to other FMIs and critical telecom networks ComDer has developed a “Response Plan in the event of failure of External Components to the System”:</p> <p>To address risks of interdependencies with other FMIs, ComDer will become part of the business continuity group led by the BCCh and as part of this will be involved in periodical continuity tests involving all FMIs in Chile. In parallel, ComDer is planning to undertake such tests bilaterally with DCV.</p> <p>The risk of non-performance of liquidity providers is dealt by means of diversification with five such providers (see principle 7).</p> <p>The effectiveness of these (and other) risk management tools is assessed through the comprehensive risk management system (SGIR). The Risk Management Committee reviews and validates the effectiveness of these tools. Normally it does so, on a monthly basis.</p>
Key consideration 4	<p>An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.</p>
Description	<p><i>Scenarios that may prevent an FMI from providing critical operations and services</i></p> <p>ComDer has identified scenarios that may potentially prevent it from providing its critical operations and services through a detailed business impact analysis (BIA) reflected in the document “Assessment and Treatment of Risks to Business Continuity”. Among others, ComDer has identified catastrophic events like multiple defaults. Although not documented in its BIA, ComDer has also identified risks such as some participants - mainly those are subsidiaries of global banks with headquarters in the US - not being able to clear OTC derivatives through ComDer due to legal and regulatory restrictions, i.e. Dodd-Frank Act. These potential scenarios are mentioned in its annual reports.</p> <p><i>Recovery or orderly wind-down plans</i></p> <p>ComDer has created detailed plans for recovery. These include recovery from</p>

	<p>operational disruptions, for addressing unbalanced positions and replenishing financial resources (see KC 4.7 and KC 7.10), and also from a situation in which its capital falls below the regulatory minimum. For the latter, ComDer has a “Recovery Plan in the event of Insufficient Capital” (see principle 15). In this last regard, Law 20.345 (articles 16-19) specifies the procedures to be followed in case the capital of a clearing and settlement entity falls below a minimum threshold.</p> <p>An orderly wind-down plan is to be activated if the mechanisms described in the business continuity plan and the financial recovery plan does not allow ComDer to avoid bankruptcy. In such an event, ComDer will work together with regulators and participants to try to wind-down its operations as smoothly as possible.</p>
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Principle 4. Credit risk

An FMI should effectively measure, monitor, and manage its credit exposure to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two largest participants and their affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions. All other CCPs should maintain, at a minimum, total financial resources sufficient to cover the default of the one participant and its affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions.

Key consideration 1	An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.
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Description	<p>ComDer has developed a “General Policy for Credit and Liquidity Risks”. This policy contains the general guidelines and practices to be followed for risk management purposes, its appetite with regard to credit risk, and describes the processes for the management of credit risk. It also clarifies roles and responsibilities. Section VI (“Rules”) of this Policy states that the framework must be revised at least on an annual basis.</p> <p>The most important policy statement regarding credit exposure that may arise from current exposures, future exposures, or both is as follows:</p> <p>ComDer declares that it intends to comply with the obligations it has with its Participants, as established in the rulebook, and for this it will manage the counterparty credit risk that it maintains with the Participants.</p> <p>According to the general definition of risks, which indicates that risk is the probable frequency and probable magnitude of an expected and unexpected future loss, it is necessary to define the frequency scenarios of financial risks, under which the magnitudes of future losses and therefore ComDer's appetite for these risks.</p> <p>Counterparty Credit Risk Scenarios</p> <ul style="list-style-type: none">• 99% probability scenario for individual accounts• Extreme but plausible probability scenario (stress scenario) for the two largest CCP exposures. <p>Counterparty Credit Risk Appetite</p> <p>The appetite for counterparty credit risks under the previously defined scenarios is equal to 0. This means that the CCP must have sufficient guarantees to face the estimated losses under its counterparty credit risk quantification models, under the scenarios previously exposed.</p> <p>On the other hand, the Tolerance to these risks according to the previously defined scenarios are the following:</p> <p>Intra-Day Tolerance</p> <ul style="list-style-type: none">• ComDer has defined its counterparty credit risk tolerance associated with its 99% Probability Scenario for individual accounts equal to 58% of the Initial Margin. <p>Daily tolerance</p>
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	<ul style="list-style-type: none"> • ComDer has defined its counterparty credit risk tolerance associated with its Future Power Exposure under extreme market scenario equal to 30% of its value. • ComDer has defined its tolerance for counterparty credit risk associated with its 99% Probability Scenario for individual accounts equal to 0, since the excess after one day, management default is declared.” <p>The ComDer rulebook details the risk management framework, including for credit risk. The rulebook, in a number of annexes, describes the methods for calculating the various elements of ComDer’s credit risk management model. This model includes the following elements:</p> <ul style="list-style-type: none"> • Strict participation requirements • Daily margin requirements • Certain limits to participants’ exposures • Monthly or more frequent contributions to the settlement guarantee fund • Real-time controls for assessing the adequacy of collateral posted by participants • ComDer’s own resources
Key consideration 2	An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.
Description	<p>ComDer identifies sources of credit risk on the basis of its Risk Management Framework (based on ISO 31.000). This framework requires that the following steps be performed in an ongoing basis: establish context, assessment of risks (identification, analysis and measurement/valuation of risk), treatment of risks, and monitoring and communication of risks.</p> <p>The main source of credit risk for ComDer is a participant default (i.e. non-payment of a net debit position), or a combination of participant defaults. Participant exposures are measured and monitored on an ongoing basis. ComDer credit exposure to its participants in its role as a CCP is the sum of current exposure plus potential future exposure. Hence, participants must cover 100% of this exposure by posting collateral to ComDer. The adequacy of collateral for a participant’s net positions is verified in real-time.</p> <p>ComDer has established the following limits for participant exposures (section 5.1.1 of the rulebook). New clearing orders are no longer accepted by ComDer for settlement if these limits are not observed:</p> <ul style="list-style-type: none"> • At all times, a participant must maintain a “calibrated estimated risk indicator” (i.e. initial margin adjusted by a factor that reflects the performance of the underlying VaR model – see KC 4.5 and 4.6) that does not exceed 30% of that participant’s capital. • For each new clearing order entered by a participant, “excess collateral” (i.e. still not used for previous clearing orders) available in that participant’s margin account should cover the order’s initial margin requirement in an incremental manner and its fair value, in case the latter is negative. This is verified in real-time through the “Headroom Check” tool. <p>ComDer may also establish additional limits based on the net notional or a number of risk sensitivity measures (ComDer rulebook paragraph 205).</p> <p>At least on an annual basis, the Risk Management Committee requires from</p>

	management all relevant information to assess the overall effectiveness of the risk management model and associated tools. Results are informed to the Board of Directors.
Key consideration 3	A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.
Description	Not applicable.
Key consideration 4	A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.
Description	<p><i>Coverage of current and potential future exposures to each participant</i></p> <p>ComDer covers its current and potential future exposures to each participant through its margin system, consisting of initial margin and variation margin.</p> <p>Financial resources used to cover these exposures are essentially cash in Chilean pesos and short-term government securities (see principle 5), and are readily available to ComDer: cash is transferred to the ComDer account at the Sistema LBTR of the BCCh, while securities are pledged irrevocably to ComDer at the DCV.</p> <p>The margin system is calculated using VaR at 99% single tail confidence level, covering the latest 5 years/1251 business days (see principle 6 for additional details).</p> <p>Variation margin is calculated at least daily, and the calculation triggers automatic margin calls and variation margin payments. Sufficiency or adequateness of initial margin vis-à-vis a participant's outstanding clearing orders is verified in real time every time a new clearing order is entered into the system.</p> <p><i>Risk profile and systemic importance in multiple jurisdictions</i></p> <p>Not applicable.</p>

	<p><i>Additional financial resources</i></p> <p>Additional financial resources include:</p> <ul style="list-style-type: none"> • A settlement guarantee fund made-up of contributions from direct settlement members, and which is designed to cover at least the sum of the two largest losses net of initial margin (i.e. that were not fully covered through margin requirements) that could have occurred under extreme but plausible market conditions in the last 5 years. • A Reserve Fund made-up with ComDer own resources. This fund is at least 0.2% of the sum of the two largest net debit balance registered by de Direct Participants in the last 2 years. <p>Contingent resources:</p> <ul style="list-style-type: none"> • Withholding of variation margin payments to participants. • An additional settlement guarantee fund, which is basically the replenishment of the settlement guarantee fund in the event this fund was partially or totally depleted due to a participant default. <p><i>Supporting rationale and governance arrangements</i></p> <p>The rationale regarding ComDer holdings of total financial resources is documented at a high-level in its “General Policy for Credit and Liquidity”, and in detail in its rulebook (annexes 3, 5 and 6).</p> <p>The Risk Management Committee is the body responsible for risk management, and therefore approves the models and mechanisms through which the amount of total holdings of financial resources at ComDer are determined.</p>
Key consideration 5	<p>A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP’s required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP’s participant increases significantly. A full validation of a CCP’s risk-management model should be performed at least annually.</p>
Description	<p><i>Stress testing</i></p> <p>With regard to initial margin, the Risk Management Department monitors the USD dollar-Chilean peso exchange rate in real time and in general all the relevant risk factors. Under stressed market conditions, in the event that the variation of any of the risk factors exceeds the standard deviation (adjusted to a 99% confidence level) in relation to its previous value, then ComDer makes a new valuation of the portfolios of all participants. If as a result of this the loss in a participant’s portfolio exceeds 58% (i.e. one-day VaR) of the initial margin, then ComDer makes an extraordinary margin call. Likewise, ComDer can make an extraordinary margin call whenever the losses in a participant’s portfolio exceed 30% of that participant’s initial margin.</p>

	<p>With regard to the settlement guarantee fund, ComDer performs stress tests on a daily basis to assess the adequateness of this fund. ComDer calculates the sum of the two largest losses in extreme but plausible market conditions (see KC 4.6) and compares this amount with the size of the fund that was determined for the current month. If for three consecutive days the latter falls short in 10% or more to the sum of the two largest potential losses that were calculated (net of initial margin), or if in any single day this insufficiency exceeds 30%, then ComDer requires extraordinary contributions to the fund.</p> <p>Stress test results are communicated to the CEO, board and the risk management committee at least on a monthly basis.</p> <p><i>Review and validation</i></p> <p>The products cleared by ComDer are standard/plain vanilla and exhibit little model risk. Nevertheless, the Risk Management Committee reviews stress test assumptions and parameters and validates them scenarios at least on an annual basis. In particular, the committee makes an explicit statement on the relevance, adequateness and plausibility of stress test assumptions and parameters.</p> <p>In parallel, the Risk Management Department makes ad-hoc reviews, for example, whenever higher volatility market conditions are being experienced, or when a direct participant is believed to be under stress.</p>
Key consideration 6	<p>In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.</p>
Description	<p>Criteria for selecting scenarios for stress tests is based on General Rule 258 of the CMF. This General Rule (section IX) states minimum requirements for stress tests that must be performed to determine the sufficiency of the settlement guarantee fund – which is created to cover extreme scenarios in which the collateral posted by individual participants may not suffice to cover losses in their net position(s).</p> <p>Hence, for stress testing the settlement guarantee fund ComDer holds a database of historical, hypothetical and prospective stress test scenarios that cover a significant diversity of financial crises and days showing extremely high price volatilities. The Risk Management Department selects those scenarios it considers most appropriate for stress testing purposes, and submits them to the risk management committee for approval.</p> <p>ComDer initiated operations in late July 2015. From then and until now, the following stress test scenarios are being used for NDF USD/CLP and CLF/CLP (using 5-year data):</p> <ul style="list-style-type: none"> • Highest increase in the US dollar in 5, 10 and 15 consecutive days • Highest drop in the US dollar in 5, 10 and 15 consecutive days • Highest increase in forward points in the UF in 5, 10 and 15 consecutive days • Highest drop in forward points in the UF in 5, 10 and 15 consecutive days

	<ul style="list-style-type: none"> • Changes in the prices/levels of these same risk factors during the week that followed the bankruptcy of Lehman Brothers
Key consideration 7	<p>An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.</p>
Description	<p><i>Allocation of credit losses</i></p> <p>The rulebook (section 7.3.3) explicitly addresses credit losses that ComDer may face as a result of any individual or combined default. Uncovered credit losses (i.e. those that are not fully covered by a participant's initial margin) are allocated as follows:</p> <ol style="list-style-type: none"> a) Defaulting Participant collateral posted in their Margin Accounts b) Total collateral posted by the defaulting Participant in the Default Fund and Additional Default Fund. c) Reserve fund ("skin in the game"). d) Default fund and additional default fund posted by the Direct Participants in the withdrawal process in the affected clearing service(s) that choose not to participate in the auctions in accordance with the provisions of section 3.2.4. e) Default fund of the affected clearing service(s) posted by the rest of the Direct Participants, in the proportion in which each Direct Participant contributed to the mentioned fund. f) Additional default fund of the impacted clearing service(s) posted by the rest of the Direct Participants, in the proportion in which each Direct Participant contributed to the mentioned fund. g) Withholding of variation margin gains to the Participants in the impacted clearing service(s). <p>ComDer's board may decide to apply the Reserve Fund in a different order. This decision and the rationale behind it shall be communicated to the CMF immediately after this has been agreed.</p> <p><i>Replenishment of financial resources</i></p> <p>As mentioned in KC 4.4, in the event of a default, whenever the settlement guarantee fund has been used beyond the contribution of the defaulting participant, all other participants are required to replenish this fund via the creation of the so-called "additional settlement guarantee fund" (for additional details see principle 13).</p> <p>To cover losses, ComDer may also withhold variation margin payments (though this would be considered a liability of ComDer).</p>

Principle 5. Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Key consideration 1	An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.
Description	<p>The list of acceptable collateral is specified in ComDer's rulebook (section 18.1 in Annex 4). The list is applicable to the margin system, the settlement guarantee fund, and the additional settlement guarantee fund (and also the reserve fund which consists of own resources). There are no provisions for accepting certain other assets on an exceptional basis.</p> <p>The general policy is to accept cash and financial instruments with very low credit risk, high liquidity, low market risk, and that ensure a reliable mark-to-market outcome. The list therefore includes:</p> <ol style="list-style-type: none">Cash in Chilean pesosFinancial instruments issued by the BCCh or the National TreasuryDebt instruments issued by foreign governments or foreign central banks as long as the relevant jurisdiction has a sovereign risk rating of investment grade or above and that are approved by ComDer's boardOther instruments that are compliant with what established in applicable laws and regulations and that are accepted by the BCCh in connection with its intraday liquidity facility (i.e. "FLI") and that are approved by ComDer's board.Other instruments that are compliant with what established in applicable laws and regulations and that are approved by ComDer's board. <p>The list of eligible collateral is loaded in ComDer's collateral management system (a module in Calypso), which ensures at all times that only eligible collateral will be accepted by ComDer</p> <p>Wrong-way risk is mitigated by not allowing participants to post as collateral any financial instruments issued by them. Moreover, participants may not operate as custodians or as settlement banks.</p>
Key consideration 2	An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.
Description	<p><i>Valuation practices</i></p> <p>ComDer marks-to-market collateral on a daily basis.</p> <p>For this purpose, ComDer uses asset price information provided by the Santiago Stock Exchange, to which some validations are applied. This is the only source of prices for the first 100 days of operation of ComDer, although later on it may decide to use other/additional sources (see Annex 2 - section 16.1.2 of the rulebook).</p> <p>In case validations of prices provided are not successful, the Risk Management Department Manager may decide to "mark-to-model" the collateral on the basis of discounted cash flows and no arbitrage principle. Usage of this alternative needs to be fully documented.</p> <p><i>Haircutting practices</i></p> <p>Haircuts are applied to all assets accepted as collateral with the exception of cash in Chilean pesos. At present, ComDer only accepts securities issued by the BCCh</p>

	<p>and the National Treasury, and for this reasons current haircuts focus on market risk.</p> <p>As described in annex 4 (section 18.4) of the rulebook, assets subject to haircuts are classified on the basis of instrument type, liquidity, term and volatility. Haircuts are determined at least once a year considering the worst daily logarithmic 10-day returns on the price of each asset, using 10-year historical data sets of internal rates of return (IRRs). The haircut for any instrument for which there are less than 1000 observations but more than 250 shall be subject to a 150% adjustment factor. Haircuts for instruments for which there are less than 250 observations will be applied on the basis of Basel III recommendations. If the resulting haircut is less than the one proposed in Basel III recommendations, then the largest haircut is applied.</p> <p>By using a 10-year data set for IRRs, haircuts incorporate episodes of crises.</p> <p>The risk management committee reviews the sufficiency of haircuts and validates haircut procedures at least once a year. Haircuts are adjusted if current levels are insufficient to cover price movements in one or more of the asset types that are accepted as collateral.</p>
Key consideration 3	In order to reduce the need for pro-cyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.
Description	To reduce the need for pro-cyclical adjustments, current haircut levels already incorporate episodes of crisis. This is because, as explained in KC 5.2, haircuts are calculated using 10-year data sets of IRRs for the various assets that are eligible collateral.
Key consideration 4	An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.
Description	<p>Annex 4 – section 18.1 of the rulebook states the following with regard to diversification of collateral holdings:</p> <ul style="list-style-type: none"> • At least 20% of the initial margin required to each direct participant shall be posted in cash in Chilean pesos • At least 30% of total collateral posted by direct participants shall be posted in cash and/or debt securities issued by the National Treasury or the BCCh with maturities of one year maximum. • At least 80% of total collateral posted by direct participants shall be posted in cash and/or debt securities issued by the National Treasury or the BCCh. Hence, only a maximum of 20% of total collateral may be posted in the instruments identified in items c), d) and e) of the list described in KC 5.1. Additionally, for the latter asset types, securities issued by the same issuer may not exceed 4% of total required collateral. <p>ComDer mitigates the potential impact of concentrated holdings by only accepting highly-liquid instruments. Moreover, current holdings of the various assets types accepted as collateral by ComDer represent a very small share of the total outstanding amount of those instruments.</p>
Key consideration 5	An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.
Description	For the time being ComDer does not accept cross-border collateral. If these assets

	were to be accepted as collateral in the future, once approved by its board and ensuring compliance with applicable laws and regulations, then ComDer would need to ensure there are mechanisms to mitigate any potential legal and operational risks.
Key consideration 6	An FMI should use a collateral management system that is well- designed and operationally flexible.
Description	<p><i>Collateral management system design</i></p> <p>ComDer's collateral management system is one of the modules of its Calypso platform. Main features include:</p> <ul style="list-style-type: none"> • Real-time connectivity with the DCV and the Sistema LBTR • Visualization of balances in cash and securities in real-time • Reports on valuation/mark-to-market of collateral • Posting, release, substitution and liquidation of collateral • Integration of the collateral management module with the risk module and Headroom Check (the tool that assists in determining whether new orders should be accepted – see KC 4.2) • Segregation of collateral accounts can be done at the level of omnibus accounts or individual accounts • Collateral in the margin account and collateral in the settlement guarantee fund may be visualized separately or jointly • Availability of a set of analytical tools. <p>With regard to securities accepted as collateral, these are structured as an electronic/book-entry pledge in favor of ComDer (in contrast to transfer of ownership). Pledged securities may not be re-used by the participants. Nor does ComDer re-use any of the collateral it receives from participants.</p> <p><i>Operational flexibility</i></p> <p>The Calypso platform, including the collateral management module, is highly parameterized. Hence, changes (e.g. new eligible assets, new limits, new haircuts, etc.) can be accommodated relatively easily and quickly without any noticeable impact in operations.</p> <p>Functions performed by the collateral management module are highly automatized.</p>

Principle 6. Margin A CCP should cover its exposure to its participants for all products through an effective margin system that is risk-based and regularly reviewed.	
Key consideration 1	A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.
Description	<p><i>Description of margin methodology</i></p> <p>ComDer uses a traditional margin system, with initial margin requirements that aim at covering potential future exposures, coupled with daily calculation of profits and losses of the value of participant positions (i.e. variation margin), that triggers automatic margin payment or margin calls, respectively.</p> <p>The margin methodology is explained in detail in annexes 3 (valuation of participant positions and variation margin) and 5 (initial margin) of the rulebook, which is available to participants and to the general public.</p> <p><i>Credit exposures</i></p> <p>The risk factors of the two products that are currently cleared and settled by ComDer are:</p> <ul style="list-style-type: none"> • Variation of the spot US dollar/Chilean peso exchange rate • The US dollar exchange rate forward curve • The UF forward curve • Interest rates, or more specifically the “índice cámara promedio” swaps curve in Chilean pesos. <p>The basis for the calculation of the variation margin is the valuation of clearing orders (i.e. value on day “t” minus the value on day “t-1”). Clearing orders are valued on a fair price basis, which requires taking into account the aforementioned risk factors.</p> <p>In turn, the initial margin methodology takes into account the expected volatility in the fair price of cleared products, over a defined time horizon.</p> <p>Hence, margin requirements at ComDer are commensurate with the particular attributes of each of the products ComDer clears.</p> <p><i>Operational components</i></p> <p>Annex 11 of the rulebook clearly states the timelines for margin collections and payments (from 8:30 am up to 9:45 am of the value date, plus a “grace period” of 1 hour for delayed participants). Participants that do not observe the deadline are subject to sanctions and fines. Delays are also subject to a fine (minimum of approximately US 2,200 per event).</p> <p>Moreover, participants with insufficient initial margin are not allowed to enter any additional clearing orders.</p>
Key consideration 2	A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.
Description	<p><i>Sources of price data</i></p> <p>For the valuation of participant open positions ComDer uses price data from brokers of OTC derivatives contracts. For the valuation of assets accepted as collateral ComDer currently uses price data from the Santiago “Bolsa de</p>

	<p>comercio”. Historical data for the VaR model of the initial margin system and for stress tests is obtained from the Santiago “Bolsa electronica” and price vendors.</p> <p>Regarding the selection of sources of price data, section 16.1 of the rulebook states the minimum criteria that should be considered:</p> <ul style="list-style-type: none"> • Independence • Methodology used • Transparency and traceability • Market acceptance • Real time availability of price data • Operational reliability • Cost <p>In the case of brokers, an additional consideration is that they handle a significantly large volume of transactions of exactly the same type than the ones that ComDer clears and settles. Brokers must also have intraday price data in addition to closing price data (e.g. to enable ComDer to make extraordinary margin calls).</p> <p><i>Estimation of prices</i></p> <p>Section 16.3 of the rulebook describes the process for validating price data received from vendors, and the process to be followed in case such validations are unsuccessful.</p> <p>Hence, when valuing participant open positions, in case price data on forward points is not available, the Risk Management Department will apply one of three alternative procedures described in that section (e.g. interpolation methods in the absence of price data for a specific maturity; use the forward points curve of the previous day in case several forward points quotes are missing; use a simple average of forward points of the last 5 days in which there were reliable quotes).</p> <p>For financial instruments, in case there is no reliable price information the Risk Management Department will determine an IRR based on expert judgment (e.g. based on the implicit prices of the day’s transactions).</p> <p>In all cases, the failure and the alternative adopted must be documented and be reported to the risk management committee and to the CMF.</p>
<p>Key consideration 3</p>	<p>A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single- tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio’s distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the sub-portfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio</p>

	effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.
Description	<p><i>Initial margin model</i></p> <p>The initial margin (IM) model is based on a VaR methodology with calibration and “fulfillment” (“<i>factor de cumplimiento</i>”) factors, as follows:</p> $IM = VaR * Calibration\ Factor * Compliance\ Factor * Mismatch\ Factor$ <p>More specifically, the VaR methodology used by ComDer considers the following:</p> <ul style="list-style-type: none"> • 1-day weighted historical VaR • 3-day close-out period • 1251 days of historical data • 99% confidence level, single tail, which is the maximum allowed by rule 258 of the SVS • EWMA of 98.5% • Initial calibration factor of 1.00. This factor is adjusted in case the backtests of the VaR model indicate that the model is not performing as expected • Initial fulfillment factor of 1.00. This factor is adjusted in case one or more of the participants show signs of deterioration in their credit quality • Initial Mismatch Factor of 1.00. Weighting greater than or equal to one that ComDer will apply to all those Direct Participants that, due to a significant mismatch in their positions, exacerbate the liquidity needs of the CCP. The factor to be applied shall be established according to the size of the mismatch and shall be applied to all Direct Participants in such situation. <p><i>Close-out and sample periods</i></p> <p>ComDer selected a 3-day close-out period for the two products it clears, i.e. its CLP/USD and CLF/USD, and this close-out period is applied to all positions, i.e. those of direct and - eventually - of indirect participants. This period is deemed reasonable on the basis of the liquidity of the local foreign exchange market. Daily volumes in the spot foreign exchange market are much higher than ComDer’s estimated maximum exposures to its direct participants. Hence, in the event of a default ComDer considers that it could close-out the open positions of a defaulting party within three days without significantly affecting the overall liquidity of the spot market.</p> <p>The sample period for historical data used in the margin model is 5 years/1251 observations. This period is long enough so as to include episodes of very high volatility in market prices.</p> <p><i>Procyclicality and specific wrong-way risk</i></p> <p>ComDer mitigates procyclicality by using a 5-year sample period for historical data used in its margin model, which, as mentioned earlier, is long enough to include episodes of high volatility.</p> <p>To mitigate specific wrong-way risk, ComDer does not accept as collateral any securities issued by an entity that is also a direct or indirect participant in ComDer. Moreover, ComDer does not hold the posted collateral with any of its participants.</p>

Key consideration 4	A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.
Description	<p>ComDer marks participant positions to market (i.e. fair value) on a daily basis. This calculation is the basis for the variation margin model: on the basis of the new values of participants positions (at the portfolio level), ComDer collects variation margin from those participants whose positions experienced a loss, and distributes those funds to those participants whose positions experienced a profit. All this is done automatically on a daily basis: margin calls are made at the end of the operational day and must be covered by 9:45 am of the next operating day. Variation margin may be paid in cash only.</p> <p>Via the Headroom Check tool, ComDer validates in real time that a participant has sufficient margin for any new clearing order it enters (and that the applicable limits are being observed). The rulebook (further detailed in section 19.4) enables ComDer to make extraordinary margin calls (see the description on this specific that is provided in KC 4.5, first paragraph, of this document).</p>
Key consideration 5	In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk-management systems.
Description	<p><i>Portfolio margining</i> ComDer does not allow offset or reductions in required margin across the products that it clears.</p> <p><i>Cross-margining</i> There is no cross-margining between ComDer and other CCPs.</p> <p><i>Robustness of methodologies</i> Not applicable.</p>
Key consideration 6	A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting – and at least monthly, and more-frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model’s coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.
Description	<p><i>Backtesting and sensitivity analysis</i> The Risk Management Department performs daily backtests to analyze the adequacy of the margin system. The objective of the backtest is to determine the number of exceptions, i.e. the times in which losses exceeded the initial margin for three consecutive days.</p> <p>The methodology for backtesting is described in section 19.3 of the rulebook. In essence, exceptions (as per the definition in the previous paragraph) are determined on a daily basis. Then, the backtest is performed over a period covering 250 observations. Three or more exceptions mean that the margin model</p>

	<p>is not fulfilling the 99% confidence interval.</p> <p>With regard to initial margin, some basic sensitivity analysis is performed by monitoring the behavior of risk factors used in the model (see KC 6.1) under stress conditions. A more substantial sensitivity analysis of the margin system is performed in the context of determining the adequacy of the settlement guarantee fund – for which purpose the two largest insufficiencies in initial margin are identified.</p> <p>In this last regard, ComDer performs stress tests on a daily basis to assess the adequateness of this fund. For this, ComDer holds a database of historical, hypothetical and prospective stress test scenarios that cover a significant diversity of financial crises and days showing extremely high price volatilities (for additional details on this exercise see the detailed description provided under KC 4.6).</p> <p><i>Margin model performance</i></p> <p>The Calypso platform calculates each day the theoretical profit & loss of the portfolio. If backtest results indicate that margin requirements are not consistent with the theoretical P&L, at a 99% confidence level, then ComDer will adjust the initial margin model through the calibration factor.</p> <p>With regard to initial margin, in the event that the variation of any of the risk factors used in the model exceeds the standard deviation (adjusted to a 99% confidence level) in relation to its previous value, then ComDer makes a new valuation of the portfolios of all participants. If as a result of this the loss in a participant's portfolio exceeds 58% (i.e. one-day VaR) of the initial margin, then ComDer makes an extraordinary margin call. Likewise, ComDer can make an extraordinary margin call whenever the losses in a participant's portfolio exceed 30% of that participant's initial margin.</p> <p>With regard to the adequateness of the settlement guarantee fund, if for three consecutive days the latter falls short in 10% or more to the sum of the two largest potential losses that were calculated (net of initial margin), or if in any single day this insufficiency exceeds 30%, then ComDer requires extraordinary contributions to the settlement guarantee fund.</p> <p>The Risk Management Department prepares a monthly report on these tests to the risk management committee, which reviews them in its monthly meetings. Results are also reported to the CMF.</p>
Key consideration 7	A CCP should regularly review and validate its margin system.
Description	<p>ComDer reviews and validates its margin system through daily backtesting. A more thorough analysis and review is performed at least on an annual basis.</p> <p>Since it started operations, ComDer has replicated (in Excel) the valuation, initial margin and stress test models embedded in Calypso platform to make sure that such models were implemented correctly in production mode.</p> <p>The Risk Management Committee is responsible for validating the various parameters and methodologies that constitute ComDer risk management model, and to review performance of the model. This committee may then propose changes and improvements on these matters to the board.</p>

Principle 7: Liquidity risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Key consideration 1	An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.
Description	<p>The general framework for the management of liquidity risk at ComDer is provided by its General Policy on Credit and Liquidity Risk.</p> <p>ComDer's general framework for managing liquidity risk covers its direct and indirect participants (although at present there are no indirect participants or customers), and its liquidity providers.</p> <p>With regard to its participants, the key liquidity risk is that ComDer is not able to pay positive variation margin and/or settlement of outstanding clearing orders on the value date. This could happen in the event one participant is delayed (or eventually defaults) in paying its margin calls, including extraordinary margin calls. In the event of a delay, ComDer first uses the collateral posted in cash by the delayed participant, and ComDer's own lines of credit with liquidity providers. At the same time, it blocks any attempt of that participant to withdraw any excess collateral in securities it may have. To ensure that collateral may be used quickly, as explained in KC 5.4 a minimum of 10% of the collateral for the initial margin must be cash, all variation margin is paid in cash, and securities that are currently accepted as collateral are highly liquid.</p> <p>ComDer's liquidity needs for its core operations are therefore essentially represented by the size of its committed lines of credit. ComDer has lines of credit with five different banks, four of which are committed (see additional details in KC 7.4)</p> <p>With regard to participants that play multiple roles, banks that are ComDer's liquidity providers are also participants in ComDer. However, they are not custodians as all collateral in cash is deposited at the BCCh (hence there is no liquidity risk in this specific regard). Likewise, all cash posted as collateral is held with the BCCh and all settlements are made through the Sistema LBTR of the latter institution.</p>
Key consideration 2	An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.
Description	<p>The operational and analytical tools that ComDer uses to identify, measure and monitor the settlement of clearing orders and funding flows are the following:</p> <ul style="list-style-type: none">• The Calypso platform allows ComDer to measure any potential shortfall on an intraday basis ("intraday marking-to-market"), including at the end of the day when margin calls are normally made (ComDer may also make extraordinary margin calls - see KC 6.4).• In Calypso, and through the follow-up of SWIFT payment messages, ComDer monitors in real-time or quasi real-time the payments/funding of collateral, also including outgoing payments made by ComDer.

	<ul style="list-style-type: none"> • There are operational arrangements with the Sistema LBTR for the timely settlement of margin calls. • The market liquidity of securities accepted as collateral is monitored on a daily basis.
Key consideration 3	A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.
Description	Not applicable.
Key consideration 4	A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.
Description	<p><i>Sufficient liquid resources</i></p> <p>If a participant is delayed in fully covering its margin calls to ComDer (a delay occurs from 9:45 am of the value date up to the initiation of the daily closing processes of the value date at 16:15 hours), then ComDer steps in and completes settlement with the collateral posted in cash by that participant and/or with funds from its committed lines of credit. It should be noted that with the exception of the last margin call and under normal market conditions, collateral already posted to ComDer by the delayed/defaulting member should have been sufficient to cover open positions with a 99% confidence level (considering a 3-day closing out period). The settlement guarantee fund then intends to cover those situations not covered by the margin system (i.e. under stressed market conditions – see KC 4.4).</p> <p>The minimum size of the committed lines of credit latter is established in section 2.5 of the rulebook. Minimum size should be equivalent to the sum of the two largest margin calls in a single day during the during the last 250 business days net of posted initial margin in cash.</p> <p>Accordingly, at present, the estimated potential liquidity shortfall is the equivalent in Chilean pesos of approximately USD 35 million, plus any extraordinary margin calls.</p> <p><i>Risk profile and systemic importance in multiple jurisdictions</i></p> <p>ComDer clears only standard (“plain vanilla”) instruments in Chile, and is not systemically important in other jurisdictions.</p>
Key consideration 5	For the purpose of meeting its minimum liquid resource requirement, an

	<p>FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.</p>
Description	<p><i>Size and composition of qualifying liquid resources</i></p> <p>To keep on making payments to its participants, if a participant is delayed ComDer may use the collateral posted by that participant and/or use funds from its committed lines of credit. Collateral posted in this context includes both margin and contributions to the settlement guarantee fund. For initial margin, as mentioned earlier, at last 10% must be constituted in cash in Chilean pesos.</p> <p>Regarding liquidity providers, ComDer has established lines of credit with five different banks, each for a maximum of CLP 5,000 or 8,000 million (approximately USD 9,3 million).</p> <p>At present, four of the available lines of credit are committed and are readily available. Currently, the total amount that is readily available is USD 35 million approximately.</p> <p>In addition to the sources already mentioned, ComDer may also decide to use cash from its Reserve Fund.</p> <p><i>Availability and coverage of qualifying liquid resources</i></p> <p>ComDer does not have access to routine credit at the BCCh, namely to the FLI. ComDer does not reuse the collateral posted by its participants to obtain loans or for any other purposes. In the event of a delay/default, collateral posted in the form of securities must be liquidated by ComDer in the market, which due to operational reasons may take one hour or more even if the underlying securities are highly marketable/liquid.</p> <p>The amount available from committed lines of credit is sufficient to cover the estimated minimum liquidity resource requirement (see KC 7.4).</p>
Key consideration 6	<p>An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.</p>
Description	<p><i>Size and composition of supplemental liquid resources</i></p> <p>Except for one uncommitted line of credit, ComDer does not have supplemental liquid resources as its qualifying liquid resources are sufficient to cover its identified minimum liquidity requirement.</p>

	<p><i>Availability of supplemental liquid resources</i></p> <p>Not applicable.</p>
Key consideration 7	<p>An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.</p>
Description	<p><i>Use of liquidity providers</i></p> <p>ComDer has established lines of credit with five different local banks. All these banks are licensed in Chile and therefore have access to routine central bank credit (e.g. the intraday liquidity facility "FLI" at the BCCh in Chilean pesos).</p> <p>Section 2.5 of the rulebook states the criteria for selecting liquidity providers. These include a regulatory capital of at least 10% and an external rating of short-term deposits of N1 or above from at least two credit rating agencies.</p> <p><i>Reliability of liquidity providers</i></p> <p>Regardless of the fulfillment of the minimum criteria mentioned earlier, ComDer place emphasis on diversifying its liquidity providers. Section 2.5 of the rulebook states that the line of credit to be obtained with an individual bank may not exceed 30% of the minimum liquidity requirement. As mentioned earlier, lines of credit have been obtained with five commercial banks.</p> <p>ComDer made monthly real-life liquidity providers SLA tests of its committed lines of credit. ComDer used up to the full amount, and the expected amount of funds was credited to its account at the BCCh within the SLA.</p>
Key consideration 8	<p>An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.</p>
Description	<p>ComDer uses all services from the BCCh for which it is currently eligible.</p> <p>ComDer holds a settlement account with the BCCh in order to effect all its settlements in central bank money. It also holds a "cash account" (i.e. <i>cuenta de garantías en efectivo</i>) where collateral posted in cash by participants is held overnight.</p> <p>ComDer is not eligible at present for the Central Bank liquidity facility.</p> <p>Additionally, ComDer believes that it could increase in practice the share of collateral that is posted in cash by its participants if the balances ComDer holds overnight at the BCCh were to be remunerated.</p>
Key consideration 9	<p>An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk- management framework. In conducting stress testing, an FMI should consider a wide range of relevant</p>

	<p>scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.</p>
Description	<p><i>Stress test programme</i></p> <p>ComDer has implemented a liquidity stress test for the most relevant risk factors. The result of the liquidity stress test is reported to the Risk Committee on a monthly basis.</p>
Key consideration 10	<p>An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.</p>
Description	<p><i>Same day settlement</i></p> <p>The rulebook (section 7.1) states that if a participant is delayed in fully covering its margin calls to ComDer (a delay starts from 9:45 am of the value date) and after the "grace period" of one hour that is given to delayed participants, ComDer steps in in the same day to complete settlement.</p> <p>A delay event may not extend beyond the initiation of the daily closing processes of the value date at 16:00 hours.</p> <p><i>Replenishment of liquidity resources</i></p> <p>Section 7.1 of the rulebook states that a delay event that led to the liquidity contingency/stress event will only be considered overcome once the delayed participant has paid to ComDer the full amount of its margin calls, plus any costs, expenses and interests that may have been originated as a result of the delay. If necessary (i.e. if the delay event persists), the funds obtained from liquidity providers will be covered with the sale of the collateral posted by the delayed/defaulting participant.</p>

Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Key consideration 1	<p>An FMI's rules and procedures should clearly define the point at which settlement is final.</p>
Description	<p><i>Point of settlement finality</i></p> <p>A clearing order becomes irrevocable and unconditional once it is accepted for settlement by ComDer. In this moment ComDer becomes the irrevocable counterpart for all accepted trades.</p>

	<p>In practice, through the Headroom Check tool ComDer verifies online and in real-time that every new clearing order entered by a participant has, together with the rest of the participant's outstanding orders, sufficient margin, and also that the participant remains within the established limits. Only once these conditions are fulfilled, the clearing order is accepted. Otherwise the clearing order is queued.</p> <p>Article 24 of Law 20.345 underpins finality as earlier described. This provides a high degree of legal certainty within Chile, which is the only jurisdiction relevant for ComDer.</p> <p><i>Finality in the case of links</i> Not applicable.</p>
Key consideration 2	An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.
Description	<p><i>Final settlement on the value date</i> ComDer's CCP Calypso system is designed to complete final settlement on the value date, no later than by 9:45 am under normal circumstances (i.e. no delays).</p> <p>Since it started operations, ComDer has not experienced a deferral of final settlement to the next business day.</p> <p><i>Intraday or real-time final settlement</i> ComDer provides final settlement on the value date, in a single settlement window.</p> <p>Information on final settlements is made available to participants via a restricted access to the Web Portal (A Calypso web user interface)</p>
Key consideration 3	An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.
Description	<p>Once clearing orders are accepted, they may not be revoked unilaterally by a participant. Section 6.1.2.3 of the rulebook states the exceptions to this general rule, which have to do mainly with operational errors and as long as there is agreement of all the parties involved. This part of the rulebook specifies what can be considered as an operational error, and the rules that apply to the parties involved in an event of this kind.</p> <p>Section 6.1.2.2 of the rulebook states that clearing orders pending acceptance by ComDer may be cancelled if the two parties to the transaction so agree. This is done via an option in the CCS, or via another form of electronic message. At the end of the operational day, clearing orders pending acceptance are automatically cancelled by the system.</p>

Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimize and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Key consideration 1	An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.
Description	ComDer conducts all money settlements (variation margin, initial margin, payments associated with maturity of clearing orders) via its account at the Sistema LBTR operated by the BCCCh. This is mandated by law. All settlement members must make settlement-related funds transfers to this account, and receive settlement-related funds transfers from this account. ComDer only conducts money settlements in Chilean pesos.
Key consideration 2	If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.
Description	Not applicable.
Key consideration 3	If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalization, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.
Description	Not applicable.
Key consideration 4	If an FMI conducts money settlements on its own books, it should minimize and strictly control its credit and liquidity risks.
Description	Not applicable.
Key consideration 5	An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.
Description	Not applicable.

Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Key consideration 1

An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

Description

Participant default rules and procedures

A default is defined on the basis of a delay event. ComDer's [rulebook](#) (section 7.2, paragraph 345) defines a default as follows:

a) If by the initiation of the Daily Closing Process of the day in which the delay event occurred (i.e. by 16:00 hours of the value date), the direct participant has not:

- i. Covered any amount due to ComDer
- ii. Posted the required collateral
- iii. Posted new collateral to replace collateral that may have been liquidated to overcome the delay event

b) If a direct participant is being subject to liquidation on the basis of [Law 20.720](#) or on the basis of the Banking Law

The "Procedure for handling a delay event" covers in detail the following aspects, among others:

- Any attempt to withdraw excess collateral is blocked
- Calculation of the amount needed from liquidity providers
- Usage of liquidity providers
- Payment of the margin call of the delayed participant
- Transfer of the securities of the delayed participant to ComDer's account at the DCV
- The delay event is closed if the delayed participant pays its margin call before deadline
- Accounting of the delay event

The "Plan for handling and event of default" is very detailed and covers all the key aspects of a participant default. Among other topics, it covers the convening of a Committee for handling the default event, the actions that the Committee and ComDer will take when a default is declared, actions that are automatic and discretionary, actions that ComDer may perform under exceptional circumstances to protect the system as a whole, the steps to be followed as part of the extraordinary settlement period including the way in which transactions will be managed, treatment of direct and indirect participant positions and collateral, auctions of positions of the defaulting participant, the roles, obligations and responsibilities of all other participants, and the mechanisms that will be activated to contain the impact of the default, use of financial resources, calculation of expenses incurred as a result of the default event, allocation of losses, etc.. The Plan is tested at least annually.

Use of financial resources

ComDer's rules and procedures allow it to promptly use the collateral in cash it holds from the delayed/defaulting participant, and ComDer's committed lines of credit with liquidity providers. To withstand liquidity pressures, ComDer may also withhold payments to participants with positive variation margin (this would be considered a liability of ComDer).

	<p>In case those resources are not sufficient, then losses are to be absorbed in the following order:</p> <ol style="list-style-type: none"> Initial margin (remaining portion) of the defaulting participant Contributions to the settlement guarantee fund (and the additional settlement guarantee fund – see below) made by the defaulting direct participant Reserve Fund Contributions to the settlement guarantee fund (and the additional settlement guarantee fund) made by participants that choose not to participate in auctions of the positions of the defaulter Contributions to the settlement guarantee fund made by the non-defaulting direct participants Contributions to the additional settlement guarantee fund made by the non-defaulting direct participants Variation margin gains haircutting to Participants in the affected clearing service. <p>Once the default event has been resolved, and once ComDer has calculated the final financial outcome of such an event, it will recalculate the size of the Settlement Guarantee Fund and require the remaining participants to make their respective contributions and by this means reinstate normal operations.</p>
Key consideration 2	An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.
Description	<p>As described under KC 13.1, ComDer has specific and detailed plans to handle events of delay and events of default. These plans clearly specify the activities the roles and responsibilities of the various staff and other parties (i.e. the chair of the risk management committee) involved.</p> <p>These plans also specify the communications that ComDer must make to regulators (CMF, BCCh, SBIF), its board, the Risk Management Committee, other FMIs, etc. Annex 1 of the plans provides a specific template for these communications, be it a delay or a default.</p> <p>The detailed plans are reviewed and tested at least on a yearly basis, or more frequently in the event it is verified in practice that they are inadequate or insufficient. The detailed plans are approved by senior management. If changes are required at the level of the risk management framework or the rulebook, then involvement of the Risk Management Committee and the board (and in the latter case also regulators) is required.</p>
Key consideration 3	An FMI should publicly disclose key aspects of its default rules and procedures.
Description	All key aspects of the participant default rules and procedures are described in the rulebook , which is a public document.
Key consideration 4	An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.
Description	<p>ComDer has performed tests of its default procedures. The latest one was performed in October 2022.</p> <p>The test involved the actual usage of lines of credit from liquidity providers and the auction of the clearing orders of a supposedly defaulting participant (the</p>

	<p>defaulting participant was not known in advance to ComDer or to the participants). All other parties that have a role in a default event were also included, such as the Risk Management Committee and internal audit.</p> <p>The outcomes of these tests and any necessary revisions to the procedures for handling a participant delay or default are informed to the board, the risk management committee and the CMF.</p>
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Principle 14. Segregation and Portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Key consideration 1	A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.
Description	<p><i>Customer protection from participant default</i></p> <p>ComDer started operations only very recently, and at present it does not have any indirect participants (or customer positions). Participation of indirect participants is planned for a second stage. In this second stage identification in ComDer of positions and collateral customers of direct or indirect participants could also be implemented (segregation is already required in the contracts that direct and indirect participants sign with ComDer)</p> <p>Nevertheless, the rulebook and the default procedures currently provide for segregation and portability. Indirect participant accounts at ComDer are segregated from those of their respective direct participant, both for positions (i.e. outstanding clearing orders) and margin.</p> <p>Section 5.7 of the "Default management plan" states that after 16:00 hours and once daily closing processes are finished, if the action plan to deal with the default considers it appropriate, ComDer may transfer all the positions and associated collateral of indirect participants and/or customers from the defaulting participant to another direct participant(s).</p> <p><i>Customer protection from participant and fellow customer default</i></p> <p>In ComDer omnibus accounts are not used (though they are available in Calypso). Collateral posted by an indirect participant and/or customer can only be used for the positions of such indirect participant/customer, and cannot be used to cover the required collateral of any other indirect participant/customer or any other requirement of the relevant direct (or of the indirect participant that holds the customer accounts).</p> <p><i>Legal basis</i></p> <p>Segregation and portability is only provided for at the level of the ComDer's rulebook and associated procedures and is not provided for in Law 20.345.</p>
Key consideration 2	A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.
Description	<p>In ComDer there are no omnibus accounts. Position accounts and margin of indirect participants is segregated in individual accounts. Moreover, in the contracts that direct and indirect participants sign with ComDer, the article on "Transactions with customers" (article 33 and 32, respectively) states that before a participant enters a clearing order of a new customer, that participant must provide ComDer the necessary information for the latter to open a new position account for that customer. Further, initial margin related to those position accounts of customers is also segregated individually (i.e. for each customer).</p>

	Indirect participants/customers do not make contributions to the settlement guarantee fund.
Key consideration 3	A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.
Description	<p>ComDer's system, i.e. CCS, is prepared to handle transfers of positions and collateral from indirect participants/customers to other direct participants.</p> <p>Section 5.7 of the "Procedure for Handling and Event of Default" states ComDer may transfer all the positions and associated collateral of indirect participants and/or customers from the defaulting participant to other participants, before obtaining consent from those other participants. The defaulting participant is obliged (through the contract signed with ComDer) to accept this.</p> <p>The direct participant to whom positions and collateral are ported is not obliged to accept those positions.</p> <p>If it is not possible to transfer positions to another direct participant, then the positions and collateral of indirect participants/customers shall be treated in the same manner as those of the original direct participant (i.e. the one in default) they are associated with. The relevant indirect participants/customers therefore have an important incentive not to oppose to the transfer arrangement.</p>
Key consideration 4	A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.
Description	The key rules, policies and procedures relating to segregation and portability of customer positions are described in ComDer's rulebook and in model contracts, both of which are publicly available.

Principle 15: General business risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Key consideration 1	An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.
Description	<p>ComDer risk management framework is based on ISO 31000:2009. This framework includes general business risk.</p> <p>General business risks identified by ComDer include:</p> <ul style="list-style-type: none">• Deterioration of its financial positions due to an increase in expenses over revenue, or revenues being less than anticipated in the budget• Negative cash flow that translates into losses or payment of interest, or fines due to non-compliance with certain obligations• Unforeseen or uncontrolled overhead expenses that exceed the original budget• Errors in the production of the company's financial statements that could cause losses due to fines imposed by regulators <p>ComDer monitors and manages its general business risks on an ongoing basis, just as any other risk the entity is exposed to (e.g. see principles 4, 7 and 17). In other words, ComDer applies an ongoing process to establish the context, assess risks (identification, analysis, measurement), treatment, ongoing monitoring of the situation and actions adopted, and communication of risks.</p>
Key consideration 2	An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.
Description	<p>ComDer has a "Financial Investments and Custody Policy" where it defines liquid assets it may use/invest in its role as a business, i.e. different from its risk management activities as a CCP.</p> <p>The Financial Investment and Custody Risk Policy establish that ComDer will assure the availability of enough liquid resources funded by equity in the event it does not obtain any revenues for a six month period.</p>
Key consideration 3	An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.
Description	<p><i>Recovery or orderly wind-down plan</i></p> <p>ComDer has developed a set of recovery plans as part of its business continuity management framework, which is based on ISO 22.301. ComDer has included in the new version of its rulebook its recovery and wind-down plans.</p>

	<p>The current rulebook (section8.1) also foresees that ComDer may find itself in a position in which it cannot cover its obligations to participants with the total amount of funds and collateral, including own funds, it has at its disposal. In this case, before declaring a default ComDer will try to agree with participants additional contributions from the latter to the settlement guarantee fund, or try to raise additional equity from its shareholders (see KC 15.5).</p> <p><i>Resources</i></p> <p>In its procedure “Financial, accountancy and tax compliance” ComDer has established an amount of liquid assets funded by equity to cover general business losses (i.e. 6 months without any revenues) and continue operating as a going concern. Annual personnel expenses (2.8 billion CLP) can be comfortably covered with such liquid assets for more than that 6-month period.</p> <p>According to December 2022 financial statements, at that time ComDer held approximately CLP 9,8 billion (approximately USD 11,4 million) in liquid net assets (i.e. cash and short-term securities minus short-term liabilities).</p>
Key consideration 4	Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.
Description	Liquid assets are essentially term deposits in large local commercial Banks and securities issued by the National Treasury or the BCCh. ComDer’s minimum regulatory capital (i.e. approximately USD. 6 million) is invested in those securities. For additional details see principle 16.
Key consideration 5	An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.
Description	<p>The “Financial Recovery Plan” contains provisions to raise additional equity. In this aspect, the plan follows the protocol established in Law 20.345 (article 16-19). ComDer identifies three different scenarios for attempting to raise additional equity. All three scenarios require provision of fresh funds by shareholders, but are handled differently from a corporate/administrative perspective (e.g. some require that an extraordinary shareholders assembly be convened and that new shares be issued, while other do not, etc.).</p> <p>Due to ComDer’s ownership structure, whereby participants are also the shareholders and ownership is proportional to the volume of activity of each participant, it is likely that the shareholders will have an incentive to provide additional equity so that they can continue to benefit from using the FMI.</p>

Principle 16. Custody and Investment Risks

An FMI should safeguard its own and its participants' assets and minimize the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Key consideration 1	An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.
Description	<p>ComDer has developed a "Financial Investments and Custody Policy".</p> <p>ComDer holds all securities posted as collateral and those securities of its own at the DCV, which is the only CSD in the country. DCV is supervised by the CMF.</p> <p>ComDer hold all cash posted as collateral by participants at the BCCh. With regard to its own holdings of cash, these are kept in term deposits at commercial banks or mutual funds. Criterion to select the latter is that they must have a minimum credit rating of N1 and maturity of deposits must be one year or less. Mutual funds should be Type 1 (debt securities, duration of the portfolio is 90 days or less).</p>
Key consideration 2	An FMI should have prompt access to its assets and the assets provided by participants, when required.
Description	<p>In practice, securities posted as collateral are pledged to ComDer, meaning that they remain in the account of the legal owner, though on a blocked status (or functional equivalent). This mechanism impedes in practice any re-investment of pledged securities by ComDer or by the legal owner.</p> <p>The contracts participants sign with ComDer and the rulebook state the circumstances under which ComDer can get hold of such securities to fulfill its obligations with other participants. Once ComDer needs to use those securities, it asks (electronically) the DCV to transfer the respective securities to ComDer's own account.</p> <p>These practices are supported by laws 20.345 and 18.876 (the latter on central securities depositories).</p> <p>Likewise, ComDer can get hold of cash posted as collateral immediately upon the occurrence of an event typified in the rulebook and are supported by the legal framework, the rulebook and contracts.</p>
Key consideration 3	An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.
Description	<p>ComDer keeps all participant assets with the DCV. Hence, its only exposure to custodian banks has to do with ComDer's own cash holdings.</p>
Key consideration 4	An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.
Description	<p><i>Investment strategy</i></p> <p>ComDer does not invest or re-use any of the assets pledged as collateral by its participants.</p> <p>In its "Financial Investments and Custody Policy", ComDer states that for investments with own resources, it shall use only financial instruments with minimum credit, market and liquidity risk in order to support its main objective</p>

	<p>which is have prompt access to resources to that it can fulfill its obligations as a CCP.</p> <p><i>Risk characteristics of investments</i></p> <p>Section VI of this policy states the types of assets in which ComDer can invest is own resources.</p>
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Principle 17: Operational risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfillment of the FMI's obligations, including in the event of a wide- scale or major disruption.

Key consideration 1	An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.
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Description	<p><i>Identification of operational risk</i></p> <p>Operational risk management is one of the six focus areas of ComDer.</p> <p>The framework for the operational risk management is provided by Circular N° 1939 of CMF and ComDer's "General Policy on Operational Risk".</p> <p>The methodology to identify operational risks is based on ISO 27005:2011. ComDer has identified five broad categories of operational risk: business continuity, information security, fraud and process quality. These are further divided in internal and external risks (see below).</p> <p><i>Management of operational risk</i></p> <p>Management of operational risks is based on ISO 31000:2009. Hence, ComDer applies an ongoing process to establish the context, assess risks (identification, analysis, measurement through BIA), treatment, ongoing monitoring of the situation and actions adopted, and communication of risks. This general framework has been complemented with ISO 27001:2012 (information security), ISO 22301:2019 (business continuity), COSO Fraud Risk Management Guide and ISO 9001:2015 (quality).</p> <p><i>Policies, processes and controls</i></p> <p>ComDer has developed high-level policies as well as detailed processes and procedures for each of the five broad categories of operational risks that have been identified. The detailed processes and procedures are as follows:</p> <ul style="list-style-type: none">• Assessment and treatment of information security risks (systems, persons and external events)• Assessment and treatment of business continuity risks• Assessment and treatment of risks in process quality• Assessment and treatment of fraud risks <p>ComDer has developed a Human Resources Policy. This policy provides for issues such as staff selection criteria, ensuring sufficient training to staff, promoting team work although at the same time rewarding outstanding individual behavior, and in general promoting a sustainable organizational culture (e.g. people being satisfied with their professional development, in order to reduce personnel turnover).</p> <p>ComDer's change management process is based on COBIT 2019, specifically for new software releases (i.e. upgrades, changes, etc.). Participants are involved in testing for all changes that are not "transparent" to them (e.g. changes in operations, functionalities that are visible to them).</p>
Key consideration 2	An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational

	policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.
Description	<p><i>Roles, responsibilities and framework</i></p> <p>Roles and responsibilities for operational risk are detailed in section VII of the General Policy on Operational Risk. This policy has been approved by ComDer's board of directors.</p> <p><i>Review, audit and testing</i></p> <p>Plans for the treatment of operational risks identified (i.e. information security, business continuity, fraud and process quality) are reviewed at least on an annual basis by the Operational Risk Committee, which is an internal committee made-up by ComDer management and staff. At least annually the General Manager report to the Board the state of the operational risk management and evaluation and treatment of the top operational risk.</p> <p>Auditing of operational risk management is part of the annual plan of internal audit at ComDer. Results are reported to the Audit Committee and to the board.</p> <p>Moreover, as part of its strategic focus areas, ComDer has obtained already a triple ISO certification of the following management systems:</p> <ul style="list-style-type: none"> • Information Security Management System (ISMS), ISO 27001:2013 • Quality Management System (QMS), ISO 9001:2015 • Business Continuity Management System, ISO 22301:2019
Key consideration 3	An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.
Description	<p>All IT and telecommunications services are outsourced. ComDer has signed contracts that include service level agreements (SLAs) and operational level agreements (OLAs) with its vendors. These arrangements are in general terms consistent with best international practice in connection with critical service providers. ComDer's SLAs and OLAs comply with the international standard ISO 27001:2013.</p> <p>The ComDer's Information Security Management System (ISMS) was certified by the British Standard Institute (BSI) on July 2022.</p> <p>In this regard, ComDer has established the following specific operational reliability objectives (among others):</p> <ul style="list-style-type: none"> • Up time 99.5% (minimum) • RTO of 2 hours (minimum) <p>From a qualitative perspective, ComDer's objective is to mitigate operational risks to ensure continuity and safety in the services it provides to its participants.</p> <p>Operational reliability objectives, metrics and plans to achieve these objectives are documented in the document "Link Strategic Objectives – Objectives Comprehensive Management System (SGI) and Process Objectives".</p>
Key consideration 4	An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.
Description	<p>In order to ensure the capacity of its technological infrastructure is consistent with business needs, ComDer has implemented a capacity management plan in connection with its IT infrastructure based on COBIT 2019.</p>

	<p>Additionally, ComDer receives monthly reports from a vendor (i.e. SONDA) on capacity usage on all the critical elements of its technological infrastructure.</p> <p>For example, the Calypso platform used by ComDer was designed to handle 700 transactions per day (approximately 100 per hour) and currently it receives some 100 transactions per day. Capacity has been designed in a scalable manner, so that towards the end of the third year of operation of ComDer the Calypso platform is able to process some 1,200 transactions per day.</p> <p>There is sufficient excess capacity at the moment also in telecommunications (i.e. SWIFT messages, access to WebPortal via the RBI (secure bank's network)).</p>
Key consideration 5	An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.
Description	<p><i>Physical and information security</i></p> <p>Physical and information security are managed on the basis of ISO 27001:2013. There is a specific policy and detailed procedures and processes for identifying and handling physical and information security vulnerabilities and threats. On this basis, detailed plans have been developed to mitigate such vulnerabilities and threats.</p> <p>There is an Information Security Officer responsible for these functions, reporting to the Operations Manager (<i>Gerencia de Operaciones</i>) which is independent from IT functions.</p>
Key consideration 6	An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.
Description	<p><i>Objectives of business continuity plan</i></p> <p>The objective of ComDer's business continuity plan (BCP) is to come up with a business continuity strategy that allows it to provide its services on a continuous basis and to meet its RTO and other reliability objectives established in the BIA. The plan refers to identifying and selecting recovery and continuity options that will allow ComDer to recover from a disruption before the effects of such a disruption expand and threaten the company.</p> <p><i>Design of business continuity plan</i></p> <p>The BCP is based on ISO 22301:2019. Specific plans have been developed in the following areas:</p> <ul style="list-style-type: none"> • Incident response team (for events that could disrupt regular operations) • Response in case of non-availability of premises • Response in case of non-availability of staff • Response in case of loss of external components (DCV and LBTR) • Response in case of loss of ICT services • Recovery of documented information <p>At the technological infrastructure level, there is redundancy at the level of the Calypso application and database, including real-time replication of data, of</p>

	<p>SWIFT messages, and of access to WebPortal (through RBI – see below).</p> <p>All these plans and arrangements ensure that ComDer is able to resume operations within two hours and that the status of all transactions can be identified in a timely manner.</p> <p><i>Secondary site</i></p> <p>ComDer has a fully operational secondary site (TIER 3 certified) located at approximately 25 kilometers from the main site. In the event processing of transactions needs to be switched to the secondary site, this is transparent to participants.</p> <p>In case SWIFT connectivity is lost, transactions may be entered into Calypso via file upload through WebPortal. The latter is accessed via the RBI network (a network owned and operated by Chilean banks). In case RBI is down, then participants can access Calypso from ComDer's premises or, in the future, via an Internet interface.</p> <p><i>Review and testing</i></p> <p>Business continuity and technological contingency plans are tested at least once a year following ISO 22301:2013. ComDer is member of the RTGS user Committee which coordinates the industry business continuity exercises and testing.</p>
Key consideration 7	<p>An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.</p>
Description	<p><i>Risks to the FMI's own operations</i></p> <p>Risks arising from other FMIs and utility providers are identified in the plan "Response in case of loss of external components". This plan covers DCV, Sistema LBTR, SWIFT and RBI. The plan includes ongoing monitoring of availability of these services.</p> <p>Risks of other critical IT service providers are identified in the BIA and are managed through SLAs and OLAs. The relationship with the critical IT service providers comply with the international standard ISO 27001:2017 Information Security Management System-Requirements.</p> <p><i>Risks posed to other FMIs</i></p> <p>ComDer does not pose operational risks to DCV or to Sistema LBTR, as it is merely a user of those FMIs. ComDer uses applications and communications means provided by those FMIs.</p> <p>ComDer is a participant of the business continuity committee that is led by the BCCh and that brings together other FMIs like DCV, Sistema LBTR, ComBanc, etc.</p>

Principle 18. Access and participation requirements An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.	
Key consideration 1	An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.
Description	<p><i>Participation criteria and requirements</i></p> <p>Law 20.345 (article 21) states that the following entities may become settlement members in a CCP:</p> <ul style="list-style-type: none"> • Securities agents • Brokers-dealers (securities and commodities) • Banks • Other entities that the SVS/CMF may authorize through general rules <p>Rule 256 issued jointly by ex SVS and ex SBIF, now CMF, states the minimum financial, technological and human resources of settlement members.</p> <p>In its rulebook, ComDer states that participation criteria are a mean to control risks in a CCP. Hence, ComDer shall provide services to sound and reliable counterparties only. In this regard, participation criteria are stated in section 3.2.1 (part of Section 5.1 on risk management at the CCP) and include:</p> <ul style="list-style-type: none"> • General requirements: signed contract, qualitative assessment, etc. • Capital requirements: a minimum requirement of UF 100,000, equivalent to approximately USD 4.1 million. • Liquidity and solvency requirements, by complying with regulatory requirements established by the SBIF or SVS/CMF. In case of the liquidity requirement, liquid resources equivalent to at least the average of margin calls made during the last 250 business days plus a standard deviation must be maintained. This requirement may be fulfilled by posting liquid collateral equivalent to at least 80% of the requirement with ComDer or with two sole-purpose credit lines with banks. • Technological and operational risk management requirements • Business continuity requirements • Human resources: at least two staff with relevant experience and a professional background that are consistent with their responsibilities vis-à-vis ComDer, and attendance of the training/induction course <p>Indirect settlement members need only to comply with the general requirements, and with the technological, operational risk management and human resources requirements.</p> <p>These requirements must be met initially and in an ongoing basis (paragraph 107 of the rulebook).</p> <p><i>Access to trade repositories</i></p> <p>Not applicable.</p>
Key consideration 2	An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least- restrictive impact on access that circumstances permit.

Description	<p><i>Justification and rationale of participation criteria</i></p> <p>ComDer's participation requirements observe what established in Law 20.345 and Rule 256 of the CMF, and comprise solvency, liquidity, technological, human resources and other that are objective and risk-based.</p> <p><i>Least restrictive access</i></p> <p>The requirements are deemed reasonable considering the role of a settlement member in a CCP.</p> <p>Changes to access criteria would imply a change to the rulebook, and hence need to be approved by the CMF and the BCCCh. Liquidity and solvency requirements are risk-sensitive. Participants must also comply with certain limits (see principles 4 and 7), and if necessary to continue clearing their OTC derivatives contract with ComDer may opt for reducing their risk exposures and/or volume of activities to remain within the limits.</p> <p><i>Disclosure of criteria</i></p> <p>Criteria for both direct and indirect settlement members are specified in the ComDer rulebook, which is publicly available through ComDer's website.</p>
Key consideration 3	<p>An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.</p>
Description	<p><i>Monitoring compliance</i></p> <p>The rulebook states that all participation requirements must be met initially and on an ongoing basis.</p> <p>ComDer has established a number of procedures to monitor continuous fulfillment of its participation requirements. These procedures involve verification of publicly available information (e.g. financial statements) as well as information that participants must submit periodically to ComDer.</p> <p><i>Suspension and orderly exit</i></p> <p>If a participant does not observe a participation requirement as required by ComDer, then ComDer is entitled (paragraphs 275-276 of the rulebook) to set deadlines for participants to fix this situation and it also applies preventive measures. Preventive measures include restricting the acceptance of new clearing orders, reduction of operational limits and/or requiring additional collateral for that participant, adjusting the "fulfillment factor" of the initial margin formula (see KC 6.2), requiring the participant to transfer the positions of its indirect participants and customers to another direct participant, etc. Eventually, ComDer may opt for excluding that participant permanently.</p>

Principle 19. Tiered Participation Arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Key consideration 1	An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.
Description	<i>Tiered participation arrangements</i> ComDer's rulebook already provides for tiered participation, i.e. indirect participants and customers. However, in the first stage of operations of ComDer only direct participants have been allowed. Indirect participation is considered for a later stage. Moreover, the OTC derivatives market in Chile is essentially an interbank market. On this basis, this principle is currently deemed not applicable to ComDer.
Key consideration 2	An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.
Description	Not applicable.
Key consideration 3	An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.
Description	Not applicable.
Key consideration 4	An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.
Description	Not applicable.

Principle 20. FMI Links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Key consideration 1	Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.
Description	<p>ComDer has established links with the DCV and the Sistema LBTR, both of them are essential for its operations, i.e. collateral management in both cases and cash settlements in the latter.</p> <p>Links with these FMIs are designed for ComDer to remain observant with other principles, i.e. DCV is the only CSD in the country, regulated by the CMF, and the Sistema LBTR operated by the BCCh allows settlement in central bank money.</p> <p>Risks are identified following the General Policy on Operational Risk and other specific policies (e.g. business continuity) and action plans derived from that one.</p>
Key consideration 2	A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.
Description	ComDer has established links only in Chile with other regulated and supervised FMIs that are essential for its operations.
Key consideration 3	Linked CSDs should measure, monitor, and manage the credit and liquidity risks arising from each other. Any credit extensions between CSDs should be covered fully with high quality collateral and be subject to limits.
Description	Not applicable.
Key consideration 4	Provisional transfers of securities between linked CSDs should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.
Description	Not applicable.
Key consideration 5	An investor CSD should only establish a link with an issuer CSD if the arrangement provides a high level of protection for the rights of the investor CSD's participants.
Description	Not applicable.
Key consideration 6	An investor CSD that uses an intermediary to operate a link with an issuer CSD should measure, monitor, and manage the additional risks (including custody, credit, legal, and operational risks) arising from the use of the intermediary.
Description	Not applicable.
Key consideration 7	Before entering into a link with another CCP, a CCP should identify and manage the potential spill-over effects from the default of the linked CCP. If a link has three or more CCPs, each CCP should identify, assess, and manage the risks of the collective link arrangement.
Description	ComDer does not have links with other CCPs.
Key consideration 8	Each CCP in a CCP link arrangement should be able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP and its participants, if any, fully with a high degree of confidence without reducing the CCP's ability to fulfil its obligations to its own participants at any time.
Description	ComDer does not have links with other CCPs.

Key consideration 9	A TR should carefully assess the additional operational risks related to its links to ensure the scalability and reliability of IT and related resources.
Description	Not applicable.

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Key consideration 1	An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.
Description	<p>ComDer was created and designed to address a market need: the clearance and settlement of OTC derivatives contract in a safe and robust environment. ComDer current participants were heavily involved in the design of the FMI, including the risk management framework and the various technological platforms and telecommunications means it uses.</p> <p>To ensure ComDer continues to meet the requirements of its participants, its Comprehensive Management System (SGI) explicitly refers to achieving increased customer satisfaction by meeting product/service expectations. Fulfillment of these expectations is reviewed at least once a year.</p>
Key consideration 2	An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.
Description	<p>As mentioned under KC 2.1, ComDer has defined its BSC in which are stated 12 strategic objectives in the realms of: Finance, Participants, Processes and Learning & Growth. Also, were defined 23 KPIs in order to measure each objective achievement.</p>
Key consideration 3	An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.
Description	<p>The SGI includes a periodical review of the performance of its management system, which naturally includes issues such as efficiency and effectiveness. This review is performed at least once a year.</p> <p>ComDer has feedback mechanisms with participants such as Participants meetings and Participant quality surveys.</p>

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Key consideration 1

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

Description

Communication procedures and standards

All transactional communications between ComDer and its participants and other FMIs is done via SWIFT network and messages.

Access to WebPortal by participants is done via the banking network RBI which uses a standard TCP/IP communication protocol that ensures security, confidentiality, encryption, non-repudiation, etc.

ComDer does not engage in any type cross-border operations.

Principle 23: Disclosure of rules, key procedures, and market data An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.	
Key consideration 1	An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.
Description	<p><i>Rules and procedures</i></p> <p>The rulebook and contracts comprise ComDer’s rules and key procedures. Other detailed procedures that affect participants are contained in internal procedures and plans. The rulebook and other detailed procedures provide information on the procedures that ComDer will follow, including discretionary actions, in non-routine or critical events.</p> <p>The rulebook has been approved by regulators. Detailed procedures articulate the contents of several key aspects of the rulebook, thereby providing further clarifications and defining specific mechanisms and courses of action.</p> <p><i>Disclosure</i></p> <p>The rulebook and contracts are publicly available. Through WebPortal, ComDer makes available to participants other key policies and procedures</p> <p>The general mechanism for changing rules and procedures is described in section 14 of the rulebook.</p>
Key consideration 2	An FMI should disclose clear descriptions of the system’s design and operations, as well as the FMI’s and participants’ rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.
Description	<p>The rulebook contains detailed information about the system’s design and operation. The rulebook and other procedures also describe in detail cases and areas in which ComDer may exercise discretion and the approach it will follow in such circumstances.</p> <p>The contracts signed by participants describe the general rights and obligations of participants. Rights and obligations as well as the risks participants incur through participation in ComDer are further explained in detail throughout the rulebook, for example in the description of ordinary and extraordinary settlement processes.</p>
Key consideration 3	An FMI should provide all necessary and appropriate documentation and training to facilitate participants’ understanding of the FMI’s rules and procedures and the risks they face from participating in the FMI.
Description	<p>Access and participation criteria include some human resources requirements, including a sound professional background and commensurate experience with the role a staff member of a participating entity will be playing in ComDer. There is also a requirement that these staff members or new staff pass a test on operating ComDer’s systems as participants.</p> <p>So far, ComDer has not reported any relevant misunderstandings of the contents of the rules and procedures.</p> <p>In addition to the mandatory training, ComDer offers eLearning tools (e.g. tests, presentations, relevant documents) to participants to facilitate their</p>

	understanding of the rulebook and the operation of the CCP.
Key consideration 4	An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.
Description	<p>ComDer's fee structure is described in Section 13 of the rulebook. A more detailed description is provided in the Fee Study ("<i>Estudio Tarifario</i>") available at its website.</p> <p>The fee structure consists of a full cost recovery mechanism plus a 5.79% of real return on equity for shareholders. Total amount to be covered through revenue includes a fixed element and a variable element. The fixed element represents approximately 20% of the total amount to be covered and must be paid in equal shares by all participants. The remaining 80% accounts for the variable fee and is paid based on 2 components:</p> <ul style="list-style-type: none"> (i) The volume of activities of each participant which represents 70% of the variable fee and, (ii) The outstanding stock maintained within the CCP which represents 30% of the variable fee. <p>In addition, all direct and indirect costs that can be allocated to a specific participant (e.g. SWIFT messages) are passed on to that participant.</p> <p>The current fee structure of ComDer does not allow for comparisons with the other CCP in Chile (i.e. CCLV). In any case, the two CCPs clear different products and in different markets, and their ownership structure is different.</p>
Key consideration 5	An FMI should complete regularly and disclose publicly responses to the CPMI-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.
Description	<p>ComDer publishes its CPMI-IOSCO Disclosure Framework document at least biannually and the public quantitative disclosures quarterly.</p> <p>ComDer publishes some statistical reports in its website. This includes daily and monthly reports with historical information on number of transactions that were accepted by type of contract. It also publishes a monthly report on the actual market prices and price estimates used for risk management purposes (e.g. for marketing-to-market).</p> <p>In addition to the rulebook and statistics, the following relevant documents are also publicly available at ComDer's website (www.comder.cl):</p> <ul style="list-style-type: none"> • Corporate information • General description of the CCP • List of participants • Sanctions and fines to participants • Fee study

V. LIST OF PUBLICLY AVAILABLE RESOURCES

The available resources referenced on this document are properly linked to the sources documents.