## **DEPÓSITO CENTRAL DE VALORES**



## Disclosure Framework Principles for Financial Market Infrastructures (PFMI)

January 2020

Responding institution: **Depósito Central de Valores** Jurisdiction in which the FMI operates: **Chile** Authority regulating, supervising or overseeing the FMI: **Comisión para el Mercado Financiero** The date of this disclosure is: **30/01/2020**. This disclosure can also be found at **https://www.dcv.cl/en/** For further information, please contact **Jaime Fernández (jfernandez@dcv.cl)**.

## GLOSSARY

AFP	Administradora de Fondos de Pensiones (Pension Fund Management Company)
BCP	Business Continuity Plan
BCCh	Banco Central de Chile (Central Bank of Chile)
BCS	Bolsa de Comercio de Santiago (Santiago Stock Exchange)
BEC	Bolsa Electrónica de Chile (Electronic Stock Exchange of Chile)
BIA	Business Impact Analysis
ССР	Central Counterparty
CCLV	CCLV Contraparte Central S.A. (CCLV Central Counterparty ltd.)
CMF	Comisión para el Mercado Financiero (Financial Market Commission)
CSD	Central Securities Depository
CPSS	Committee on Payment and Settlement Systems
DVP	Delivery versus Payment
FMI	Financial Market Infrastructure
GRC	Governance, Risk Management and Compliance
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commission
ISAE	International Standard on Assurance Engagements
ISO	International Standards Organization
КС	Key Consideration
LBTR	Liquidación Bruta en Tiempo Real (real time gross settlement)
MILA	Mercado Integrado Latinoamericano (Integrated Latin American Market)
MOF	Ministry of Finance
MOU	Memorandum of Understanding
NCG	Norma de Carácter General (general rule)
OLA	Operational Level Agreement
OTC	Over the Counter
PFMI	Principles for Financial Market Infrastructures
PS	Payment System
RPO	Recovery Point Objective
RTGS	Real time gross settlement system
RTO	Recovery Time Objective
SBIF	Superintendencia de Bancos e Instituciones Financieras (Superintendence of Banks
	and Financial Institutions)
SLA	Service Level Agreement
SP	Superintendencia de Pensiones (superintendence of pensions)
SRAD	Sitio de Recuperación ante Desastres (disaster recovery site)
SSS	Securities Settlement System
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UF	Unidad de Fomento

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## I – EXECUTIVE SUMMARY

This disclosure framework has been prepared according to the "Disclosure and Assessment Framework Methodology" published in December 2012 by CPSS-IOSCO.

The Central Securities Depository (DCV), was created in 1993 and its business operations began in 1995. DCV acts as a central securities depository (CSD) in Chile and is the only entity that provides this service in the country. It is a user-owned entity, which includes among its shareholders domestic brokers (through stock exchanges) and institutional investors.

DCV maintains custody of public offering securities, principally those held by institutional investors (insurance companies, banks, pension funds and investment funds), as well as those held in custody by brokers, either on their own account or on behalf of their clients. Likewise, DCV electronically registers the exchange of securities and facilitates the transfer of ownership, resulting from the securities trading carried out by its depositors, which originate both in the exchange market and in the over the counter market (OTC).

DCV has six different business units: 1) national custody, 2) international custody, 3) registrar services, 4) statistics, 5) documents and 6) guarantees.

The principal legal body that regulates DCV is the Law 18,876 ("*That Establishes the Legal Framework for the Constitution and Operation of Private Securities Depository and Custody Entities*"). DCV is regulated and overseen by the Financial Market Commission of Chile (CMF).

Because the entity operates only as a CSD, without carrying out the functions of a securities settlement system (SSS), it is exposed only to operational risk, custody risk and general business risk, but is not exposed to credit or liquidity risks.

## II – SUMMARY OF MAJOR CHANGES SINCE THE LAST UPDATE OF THE DISCLOSURE

- During the year 2019, the centralized custody service of Recognition Bonds was launched, by which the issuer of those bonds (the Social Security Institute) interacts with the AFPs electronically and remotely, allowing the immobilization of physical titles, both those in force, and the ones to be issued, managing to give greater agility, efficiency and security to the process and reducing by 50% the amount of securities in physical or not immobilized form (initiative applicable to principle 10).
- The DCV has accumulated a volume of net liquid assets sufficient to cover more than 6 months of operating expenses and the compliance with this threshold is periodically monitored (initiative applicable to principle 15).
- The DCV has designed a policy that establishes the internal guidelines for the removal

and replacement process of the general manager and senior executives of the DCV in order to facilitate the proper functioning of the company in the event of the replacement or loss of the main executives of the organization (initiative applicable to principle 2).

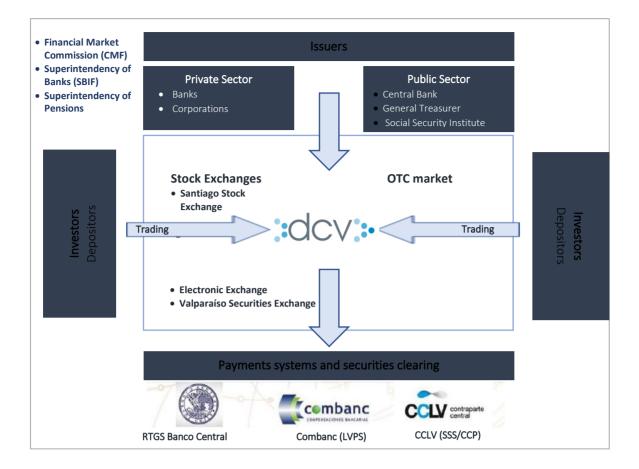
- During the year 2019 the DCV implemented a questionnaire focused on knowing the directors' perception regarding the practices and structure of the board of directors based on current best practices as well as on the corporate government questionnaire that Chilean regulations require for open public limited companies (initiative applicable to principle 2).
- The DCV has developed a risk management policy which partially replaced the previously called operational risk policy, accounting for all DCV risks, including general business risk, operational risk, legal risk, custody risk and custody and investment risk (initiative applicable to principle 3).

#### **III – GENERAL BACKGROUND ON THE FMI**

#### A. General description of the DCV and the markets it serves

DCV maintains in custody public offering securities, principally those owned by institutional investors (insurance companies, banks, pension fund managers and investment funds), as well as held by stockbrokers, either on their own account or on behalf of customers. Together with maintaining the custody of securities, DCV electronically registers the operations and facilitates the transfer of ownership, which are a result of the securities trading carried out by its depositors. The latter originate both in the stock market and in the over the counter market (OTC).

In its capacity as CSD, DCV is linked with practically all the participants in the Chilean financial market, as shown in the following diagram. In this way, it relates to investors, as DCV depositors, through the offer of custody services and the execution of instructions for the transfer of securities traded, either in stock exchanges or in the OTC market. Likewise, in securities settlement, it is related operationally to payment systems (PS) and securities settlement systems (SSS). On the other hand, it interacts with the issuers of public offering securities, while those carry out their securities placement using DCV services and, in the case of corporations, the DCV subsidiary, DCV Registros, manages the shareholder registries and corporate events of a large part of Chilean companies. Finally, DCV is subject to the surveillance of the Financial Market Commission (CMF) and, on the other hand, it permits various authorities to access information for their regulatory work.



## **Business Units**

DCV has six different business units: 1) National custody, 2) International custody, 3) Shareholders Registries, 4) Statistics, 5) Documents and 6) Collateral

## 1. National

It is the principal business area of the DCV and includes the depository and management of securities issuers and services to the depositor's customers (*"mandantes"*).

Depository services include the custody of domestic securities, as well as the registration and settlement of operations, accounts management, certificate of holdings issuance, use of liquidity facilities with the Central Bank, and the payment of corporate events. Although more than 97% of the deposited securities are dematerialized, DCV maintains some securities in physical form, mainly social security bonds and some corporate bonds.

The securities issuers management services involve the registration of issues, the securities dematerialization service and the representation in Chile of ANNA (ISIN code assignment).

The depositors' customer's services consider the provision of services to the clients of the depositors (*"mandantes"*) that maintain their own account with DCV, allowing them the

custody, the registration and settlement of operations, the accounts management, and the securities administration.

## 2. International Custody

This business unit includes two principal service lines: the depository services and the Omgeo service.

The international depository services allow depositors who hold securities abroad to safeguard these investments through the CSD in a similar way as with the custody of domestic securities.

On the other hand, the main objective of the Omgeo service is to facilitate communication between brokers and investors during the process of "*matching post-trade and pre-settlement*" of operations.

## 3. Administration of Shareholder Registries

The third business unit consists of the management of shareholder and investment fund investor records. The management of the shareholder registry includes shareholder assistance, the updating of their background information, the shareholder registry database maintenance and the processing of stock transfers. On the other hand, the maintenance of investment funds investor records includes investor assistance, the updating of their background information, the investor database maintenance, and the processing of fund unit transfers.

The management of corporate events involves the summons for shareholders' meetings, the management of capital offerings and preferred capital offerings, withdrawal rights, dividend payments and other activities.

DCV also monitors shareholders and investors, by verifying their inclusion in OFAC lists and it carries out legal reports and advisory services associated with the latter.

## 4. Statistics

The statistics service includes reports for other FMIs (e.g., Comder, Central Bank), transaction reports, custody reports, securities catalog, securities maturities, among others.

Additionally, this line of business includes portfolio valuation, especially those managed by the pension fund managers (AFP).

## 5. Documents

In this business unit, DCV offers the centralized registration service of forward contracts, which

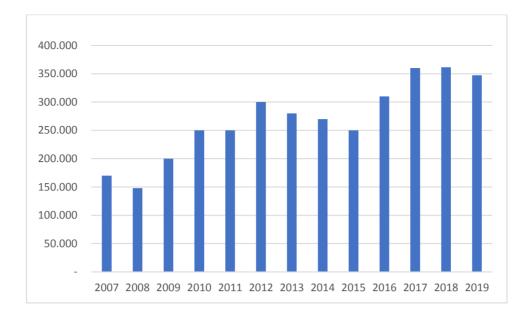
involves the registration of forward transactions traded among banks and among the latter and the pension funds managed by the AFPs. Also, this business unit includes the registration and custody of certain social security bonds, known as "recognition bonds", which are issued by the State of Chile (through the Social Security Institute), and are payable to pensioners who contributed to the old pay-as-you-go pension system.

## 6. Collateral

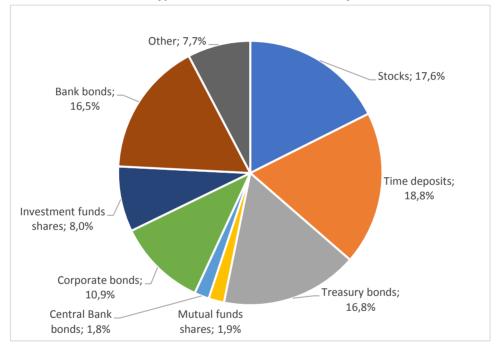
DCV has developed the service of collateral registration in certain areas, such as the notary certified pledge, the electronic pledge management and special pledges as well as mining guarantees. All ofthese activities include in the registration, releasing and custody of the respective pledge.

Total domestic securities under custody	USD 347 billion
Percentage of fixed income securities under custody	50.7%
Percentage of equity securities under custody	27.4%
Percentage of money market securities under custody	21.9%
Number of depositors	176
Percentage of dematerialized securities	98.4%
Total securities transferred in December 2019	USD 239 billion
Number of securities transferred in December 2019	147,283
Total international custody	USD 4.0 billion

Main statistics (December 2019)



Types of securities under custody



#### Depositors

Securities brokers	34
Life insurance companies	37
Investment funds managers	32
Non-Life insurance companies	30
Banks	20
Corporations	15
Pension funds managers	6
Securities exchanges	3
Government entities	3

## **B.** General organization of the DCV

DCV is constituted as a public limited company in accordance with Law 18,876 and therefore, in terms of corporate governance, the provisions of the Public Limited Companies Act (Law 18,046) are applicable. It has a subsidiary, DCV Registros, dedicated to the management of shareholder and fund investor registries.

Its main shareholders are the domestic banks (30%), pension fund managers (30%), the Santiago Stock Exchange (23%), insurance companies (10%), the Electronic Stock Exchange (6%) and the Valparaíso Stock Exchange (1%).

In the DCV shareholders' meeting, the shareholders nominate the DCV board of directors, composed of 10 members, who hold office for two years and can be re-elected indefinitely.

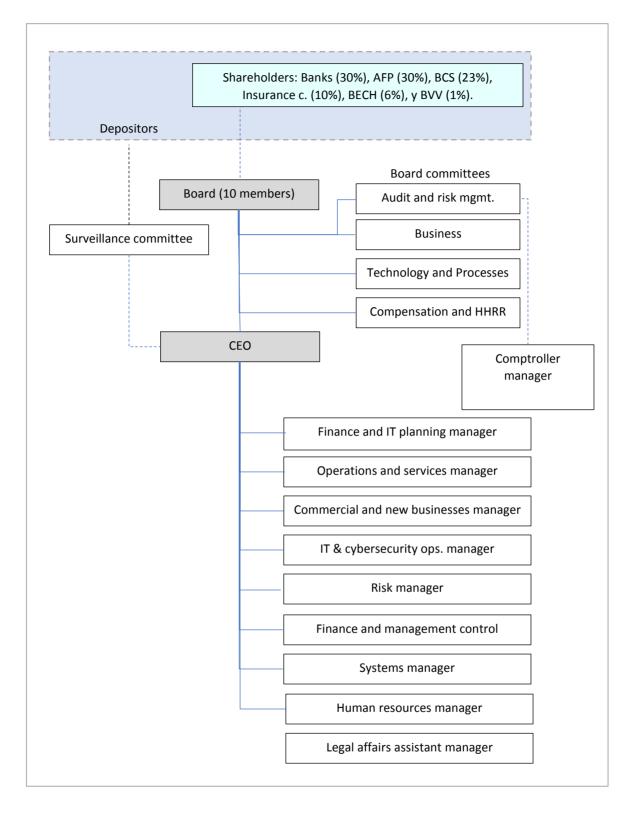
The board of directors has four committees (audit and operational risk, business, technology and processes, and compensation and human resources), the functions of these being the following:

- Audit and Risk Management Committee: Oversees the internal audit work, approves risk management policies, procedures and mitigation plans regarding operational risk and monitors its implementation to inform the board of directors, analyzes the observations made by the external auditors and the CMF, analyzes the financial statements and informs the board about conflicts of interest and suspicious activities or conduct. This committee is composed of three board members, one of whom is appointed by the other members as the president and meets at least ten times a year.
- Business Committee: Analyzes and defines the mission, vision and corporate values, relevant business initiatives, changes in current services and practices, the fee structure

and the follow-up of the business plan. This committee is composed of three board members, one of whom is appointed by the other members as the president and meets every two months.

- Technology and Processes Committee: Analyzes and defines the medium and long-term technology vision of the company, as well as any initiative to improve the technological area, proposes priorities and allocates resources for the different projects. This committee is composed of three board members, one of whom is appointed by the other members as the president and an external adviser and meets every two months.
- Compensation and Human Resources Committee: Analyzes, defines and approves the
  personnel and senior management compensation and benefits, defines the criteria for
  the staff annual incentive plan, reviews and approves the policies proposed by the
  human resources manager. This committee is made up of the board president and vicepresident and two other board members and meets twice a year.

The executive administration of DCV is led by its General Manager or CEO, who in turn reports directly to the board. In addition to the General Manager, there are nine senior managers as can be seen in the following box. The Legal Affairs Assistant Manager is also part of this management team. The identification of the senior managers can be found at: https://www.dcv.cl/en/dcv-about/corporate-governance/management.html



DCV depositors meet in ordinary or extraordinary meetings or assemblies. The first are held once a year, to decide on issues that are specific to their matter. The second may be held at any time, when so determined by DCV or when requested by the Surveillance Committee or the depositors.

The Surveillance Committee is an entity created and regulated by the Law 18,876, which oversees the company's internal operations and those carried out with it by the depositors. As provided by the Law, this committee is composed of 5 representatives of the depositors, and is vested with the following powers:

- a.- Verify that the custody, clearing, settlement and transfer operations are fully and timely fulfilled;
- b.- Practice, quarterly, the company's securities audit and verify the accuracy and match of the depositor accounts;
- c.- Verify that the information available to depositors is sufficient, truthful and timely;
- d.- To verify if the depositors timely and satisfactorily fulfil their obligations both with respect to other depositors and with the company itself;
- e.- Verify the quality of the facilities and security systems; as well as the quality and amount of guarantees and insurance in force;
- f.- To inform the CMF of the deficiencies, differences and irregularities they may encounter, suggesting the measures that they deem pertinent and appropriate to overcome them or to prevent their repetition,
- g.- To inform in the depositors' meeting of any situation that may affect their interests, and
- h.- Any other issue that is deemed necessary for the proper security of the system.

## C. Legal and regulatory framework

The principal legal body that regulates the DCV is the Law 18,876 ("*That Establishes the Legal Framework for the Constitution and Operation of Private Securities Depository and Custody Entities*"). This law establishes the legal basis of the contract of the depository, who can be accepted as participants of the company, the main relationships between the participants and the company, the legal implications of the actions of the company, including transfers, pledge constitution, securities ownership, settlement finality and the company responsibilities.

The Law 18,876 also establishes the operational requirements, including the existence of an Internal Regulation that deals with the relationship between the company and the depositors and requires a public fee study that supports the fee structure. Likewise, it establishes the existence of the depositors' assembly, which has as its main purpose the nomination of the Surveillance Committee and the determination of its annual goals, the monitoring of these tasks and those imposed by the law itself on the committee. The Law also contemplates the procedure for dealing with net equity deficits, including procedures of reorganization and orderly liquidation.

It is relevant to mention that the so-called Productivity Law, promulgated in 2016, established a series of changes to the Law 18,876. Among these modifications, the following stand out:

• Broadens the nature of the instruments that securities depositories can custody, by

allowing the deposit of other goods, documents and contracts authorized by the CMF.

- Creates a new type of pledge called "special pledge" that facilitates the pledge constitution and release by electronic means, and allows its execution by simple instructions and transfers. This provision can expedite the use of collateral in various environments, including in the securities clearing system and in a stock exchange.
- Authorizes to constitute or to participate in the ownership of a subsidiary whose main purpose is to carry out activities that are related, complementary or ancillary to the purpose of the depository company.
- Empowers DCV to represent the depositors in shareholder meetings and to exercise the voting right in these, as well as to participate in the subscription and payment of public offer securities on their behalf, and to collect and receive amortizations, interest, dividends, distributions and other benefits to which depositors are entitled.

On the other hand, Supreme Decree 734 (issued by the Ministry of Finance), establishes the procedure for the approval of the operation of the depository companies, the content of the Internal Regulation, as well as the Depository Contract that the company must sign with each one of its depositors. It also includes provisions regarding the deposit and withdrawal of securities, the opening and closing of accounts and the obligations of information and monitoring, such as the presentation of financial statements and the obligation of external audit with respect to its own operations and those concerning to the securities custody activity.

DCV's supervisory authority is the Financial Market Commission (CMF)<sup>1</sup>, whose function is to oversee and regulate the insurance industry and the securities market, including stock exchanges, fund managers, securities intermediaries, public limited companies and financial market infrastructures.

At the level of regulation issued by the supervisory authority, the following rules stand out:

## Circular 1939

This instructs on the implementation of the operational risk management in the deposit and custody and the clearing and settlement systems managing entities. For the development of this circular, the principal international standards on this subject have been considered, to ensure appropriate risk management practices to count on market infrastructures capable of dealing with the risks that affect them.

General Rule 220

<sup>&</sup>lt;sup>1</sup> http://www.cmfchile.cl

This General Rule regulates the information to be sent by the depository entities regarding new inherent or complementary activities to be implemented and the authorization procedures of these, in order that the authorities and the market take notice of them, and be able to understand the form in which they are inserted in the going concern of the entity, to learn the risks that this activity contributes to the system, as well as to determine the existence of proper risk control mechanisms, aimed at ensuring the correct functioning of the securities settlement system

## General Rule 224

In consideration that the Law 18,876 requires the depository company to provide a fee study that supports its fee structure, this General Rule establishes minimum contents for the preparation of this fee study to be provided by the securities depository entities.

## General Rule 223

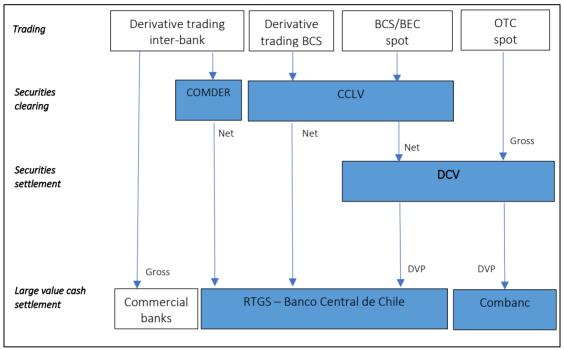
This deals with the information that must be made available by depository entities to the depositors' customers that hold an individual account, as referred to in Article 179 of the Law 18,045.

#### Circular 2020

Thi, presents the instructions to be fulfilled by the depository entities as well as securities clearing and settlement entities, referring to communication, management and resolution of critical operational incidents that affect the normal development of its services, to ensure compliance with proper standards in relation to its services performance, availability and safety.

## D. System design and activities of DCV

The following diagram presents an overview of the securities clearing and settlement system in Chile.





## Description of the settlement process

The clearing and settlement of securities in Chile is carried out through multilateral and bilateral processes, depending on the origin of the transaction. In general, stock market transactions, i.e. those carried out in the Santiago Stock Exchange (BCS) and the Electronic Stock Exchange (BEC), are cleared through multilateral procedures by the Clearing and Settlement System (CCLV) and settled in DCV, and the Central Bank of Chile (BCCH), for securities and cash, respectively. On the other hand, OTC trades, as well as other types of transactions, are settled through gross bilateral processes.

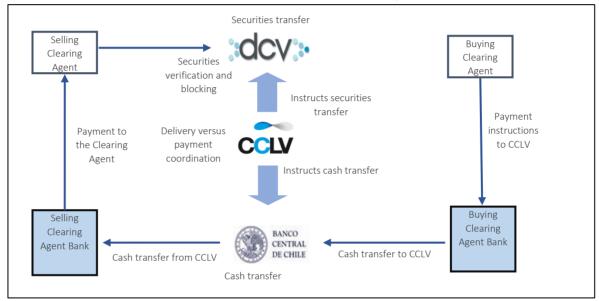
## Multilateral settlement

Net multilateral clearing and settlement is coordinated by CCLV, which uses DVP model 3 for equities and DVP model 2 for long-term as well as short-term debt instruments.

Participants with net cash debit must pay, through their commercial bank, in the settlement account of CCLV in the RTGS system, those balances before a certain time in the settlement day. This account functions as an accumulation account, gathering all the payments that must be made by the system participants with net cash debit. Likewise, participants with net debit

securities must instruct the securities transfer to the CCLV securities settlement account at DCV.

At the time of settlement, CCLV instructs DCV to transfer those securities to the system participants with net credit positions and CCLV, in turn, transfers the corresponding cash to the participants with net cash credit balance, from its account in the RTGS system. For the preceding, SWIFT messaging is used that identify the final beneficiary of the transfer. If any participant does not comply with their obligations in cash, the securities that the participant should receive are retained in the securities account of the CCLV at DCV, pending the resolution of this fail.



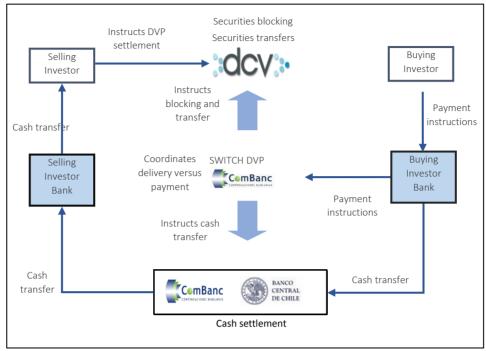
#### General scheme multilateral settlement system

## **Bilateral settlement**

The bilateral securities settlement procedures are like a DVP model 1, with gross transfer in both securities and cash. The settlement of an operation begins with the receipt of a cash transfer instruction made by the bank of the buying investor, institution that in parallel retains the cash in a special account of the investor. Once the instruction has been received, a platform called Switch DVP, belonging to the private large-value payment system, Combanc verifies with DCV if the selling investor has sufficient securities in its account, proceeding to block those securities if this is the case, and informing that to the Switch DVP.

Once the securities are blocked in DCV, Switch DVP sends the payment order to Combanc or directly to the RTGS system, depending on the instruction given in this regard by the paying bank. Once the instruction to transfer cash through the respective payment system has been accepted, the cash is credited to the bank account at the seller's bank and debited at the bank account of the buyer, and on the part of the securities they are credited in the buyer's

securities account and debited in the seller's account.



#### General scheme of the bilateral settlement system

## Principal risks

DCV is exposed to operational risk and custody risk, as well as business risk. However, it is not exposed to credit or liquidity risks. Operational risk management is oriented at assessing and managing the risks associated to the following categories:

## People

It refers to the risk of losses, being they intentional or not, caused by, or that involve, employees. This kind of risk causes problems to the internal organization and losses.

## Relations with third parties

It refers to losses caused to the Company that are generated through the relationships or contacts that the firm has with its customers, shareholders, third parties, regulators and interest groups.

## Processes

It refers to the risks related to the execution and maintenance of the operations and the variety of aspects of the business execution, including products and services.

## Technological

Refers to risks of losses caused by piracy, theft, failures, interruptions or other disruptions in technology, data or information; it also includes technology that does not contribute to

achieving business objectives.

## External

It refers to risk of losses due to damage to tangible property or intangible assets due to natural causes or others. This category of risk also includes actions caused by external agents, such as in the performance of a fraud. In the case of regulators, the enactment or change that could alter the continuity of the firm to continue operating in a certain market.

## **IV – PRINCIPLE BY PRINCIPLE SUMMARY DISCLOSURE**

Note: DCV underwent an assessment of compliance with the PFMIs by an FSAP (Financial System Assessment Program) Mission carried out during 2016 by the International Monetary Fund and the World Bank. In those matters that have not undergone modifications since the publication of the respective ROSC Report (Reports on the Observance of Standards and Codes), the translation of the text of said report has been adopted in the preparation of this section.

## 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.

## Material aspects and relevant jurisdictions

DCV<sup>2</sup> is constituted as a limited public company in accordance with Law 18,876 and consequently, in terms of corporate governance, the provisions of the Corporations Act (Law 18,046) are applicable.

The material aspects for its operations that require a high degree of legal certainty are the following:

- Finality of securities transfers
- Dematerialization of securities
- Protection of customer assets, including the segregation of the positions of depositors and those of their customers

The material aspects mentioned above are covered principally under Law 18.876 on central securities depositories and on related regulations. Specifically, Law 18.876 establishes relevant provisions as for legal value of deposit agreements. It covers the relationship between the CSD and its depositors, its duties against these, and its internal governance. Articles 4 and 5 of the same Law, cover segregation and protection of customer assets. This Law also refers to the securities market law, Law 18.045 of 1981 (*Ley de Mercado de Valores* or LMV) as for book-entry rules in the event of dematerialization of securities and their enforceability. In addition, DCV is subject to Finance Ministry Supreme Decree 734, which provides additional regulations relating to the operation of depositories, as well as its own internal regulations, which have been approved by the SVS (currently Financial Market Commission [CMF]).

<sup>&</sup>lt;sup>2</sup> Hereinafter, the acronym CSD (Central Securities Depository) is used interchangeably with "DCV".

The surveillance of the CSD is carried out by the CMF which also approves its operational rules and deposit agreements.

Key consideration 2: An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.

The rules, procedures and contracts of DCV are clear and understandable, and have not been contested in any significant aspect by DCV participants, neither in front of the CMF or in judiciary instances. DCV rules, procedures and contracts are revised by legal experts (internal and external). Moreover, DCV's Rulebook is approved by the CMF as well as all changes to it. DCV's procedures are consistent with applicable laws and regulations.

No inconsistencies have been found in the procedures, rules and contracts used by DCV. Laws and regulations provide guidance on the minimum contents of the contracts between DCV and its participants (mainly the depositors of securities, but also the issuers of securities).

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.

Rules and procedures have been developed in the DCV Rulebook, and these are clear and understandable. Changes to key rules and procedures are subject to consultations with stakeholders. Except for some minor issues, DCV participants have had no issues with these rules and procedures in the past. Rules and procedures are further developed in Circulars. DCV also publishes the Rulebooks of foreign CSDs and the contracts signed with foreign custodians to further clarify what the applicable law(s) is in the international custody contracts signed by investors with DCV. All relevant documents are provided to all direct participants upon joining DCV and are considered part of the contract and are therefore binding for all participants.

In summary, the legal documentation issued by DCV are:

- The DCV Rulebook
- DCV's Circulars
- DCV's framework agreements with depositors

The documents, as well as any updates, are also posted at DCV's public website www.dcv.cl.

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.

## Enforceability of rules, procedures and contracts

DCV's Rulebook was approved by the CMF consistent with Laws 18.876 and 18.045, among others, and its provisions are therefore deemed fully enforceable for securities transactions undertaken in Chile.

DCV commissioned a legal opinion regarding the enforceability of its rules and procedures about its foreign custody services – in particular, about providing deposit accounts for foreign CSDs. Based on this opinion, DCV does not have concerns regarding conflict-of-law issues or enforceability of its choice of law in relevant jurisdictions.

## Degree of certainty for rules and procedures

All key rules and provisions in the Rulebook are based on laws (especially Law 18.876) and on rules issued by the CMF.

There is no precedent of a DCV rule or procedure being revoked by any other competent authority.

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.

DCV engages in foreign custody activities. For this purpose, DCV has links (i.e. holds accounts and vice versa) with CSDs in Mexico, Colombia and Peru, as well as DTCC in the United States and with Euroclear. The contracts that investors in Chile sign with DCV for this purpose state that for transactions with securities held at foreign CSDs, the applicable law is that of the foreign CSD or foreign custodian.

In each of its contracts with foreign CSDs, the applicable law(s) is defined. For its international custody business, the applicable laws are those of the relevant foreign CSD or foreign international custodian. In this sense, in the relevant foreign jurisdiction DCV is treated the same as any other depositor of a CSD or other custodian (i.e. has the same rights and obligations).

## 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

As published on its website, DCV's Vision is as follows: "Being a highly efficient institution with an excellent quality of service as well as leader in the development and innovation of services for the capital market, both locally and internationally". Accordingly, its stated mission is: "Providing custody, settlement and other complementary services infrastructure for the securities market, both locally and internationally, meeting the highest standards of security, availability, efficiency and quality."

Also, DCV's values are:

- Honesty: We strive for acting with transparency, truthfulness, honesty and prudence in everything we do.
- Respect: We value the merit and recognize the dignity of all people working in DCV and DCV Registros, promoting diversity and ensuring equal opportunities and the existence of a good work environment.
- Excellence: We are continuously committed to improving the quality of our services and all the activities developed in the Company.
- Austerity: We act with simplicity and sobriety. We manage resources on a rational basis, avoiding any excesses that may affect the service excellence or image of the organization.
- Accountability: We are fully committed to and responsible for our obligations in the performance of our professional activities.
- Commitment: We are responsible for acting ethically and in accordance with the values, principles, mission and purposes of our organization, defending and promoting the corporate interests as if they were our own interests

DCV's by-laws state that the sole objective of the Company is to receive securities on deposit and facilitate securities transfers per legal and regulatory procedures. Each year DCV prepares a balanced scorecard, which reflects measurable objectives. Among those that are especially relevant for financial stability, DCV places strong emphasis on "operational quality", including reliability, uptime of its technological infrastructure, fulfillment of SLAs (Service level Agreements) with linked FMIs, etc.

Key consideration 2: An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be

#### Governance arrangements

Governance arrangements are documented in the by-laws, the Rulebook and other internal documents, including board minutes. The organization is governed by a board of directors, supported by four board committees (business issues, audit and operational risk, processes and technology, remuneration and human resources) and a CEO ("Gerente General") reporting directly to the board. Below the CEO there are seven senior managers in charge of the following areas: planning, finance and IT, operations and services, commercial and legal affairs, IT operations, development and architecture, comptroller and compliance, and human resources. The legal advisor is also part of this management team.

Identification of senior managers can be found at: https://www.dcv.cl/en/dcv-about/corporate-governance/management.html.

The principal accountability mechanism is the surveillance committee ("comité de vigilancia"), which is provided for in Law 18.876. Members of this committee are elected by the assembly of DCV depositors. This surveillance committee reports solely to the assembly of DCV depositors and to the regulator (i.e. the CMF).

## Disclosure of good governance mechanisms

DCV's by-laws, which regulates its principal governance arrangements are published on its website at https://www.dcv.cl/en/legal-regulatory/statutes-dcv-dcv-registros.html

Additionally, DCV discloses other governance arrangements to the public via circulars and direct mail to participants. In DCV's website, the by-laws, Rulebooks and minutes of the shareholders' assembly are available. Additionally, in the website there is also a "corporate governance" and a "corporate information" section with specific information on these issues. See https://www.dcv.cl/en/dcv-about/corporate.html.

Key consideration 3: 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.

## Roles and responsibilities of the board

As a public limited company ("Sociedad Anónima"), the responsibilities of DCV's board, include those stated by the Corporations Law 18.046. Additionally, per the Rulebook (Section 2.1.1), the

board is responsible for the sound operation and for the stability of DCV, as well as for the strict observance of laws and regulations that are applicable to it. The board is required to inform the surveillance committee of any irregularities, violations or complaints that are formally presented to it. There are 10 board members which are elected by the general shareholders' assembly for a twoyear term and may be re-elected indefinitely. Board members do not need to be shareholders themselves, or executives of shareholder entities. Each board member has one vote. For some issues, which are specified in the by-laws (e.g. fees, designation and removal of the CEO, creation of new board committees, among others), seven or eight votes are required.

The board meets every month on an ordinary basis (Article 13 of the by-laws), and extraordinary board meetings may be convened as necessary by the Chairman of the board. The FMI's board members are not expected to follow a code of conduct. However, there are procedures in place to manage a conflict of interest within the board. For example, members with a real or potential conflict of interest must inform the board of this situation and if determined by the board must recuse themselves from the corresponding decision-making. Detailed board procedures are disclosed to shareholders and the CMF. Only some of the more general procedures are disclosed to the public.

The functions of the board committees are as follows:

- Audit and risk management committee: Oversees the internal audit work, approves risk management policies, procedures and mitigation plans regarding operational risk and monitors its implementation to inform the board of directors, analyzes the observations made by the external auditors and the CMF, analyzes the financial statements and informs the board regarding conflicts of interest and suspicious activities or conduct. This committee is composed of three board members, one of whom is appointed by the other members as the president and meets at least ten times a year.
- Business committee: Analyzes and defines the mission, vision and corporate values, relevant business initiatives, changes in current services and practices, the fee structure and the follow-up of the business plan. This committee is composed of three board members, one of whom is appointed by the other members as the president and meets every two months.
- Technology and processes committee: Analyzes and defines the medium and long-term technology vision of the Company, as well as any initiative to improve the technological area, proposes priorities and allocates resources for the different projects. This committee is composed of three board members, one of whom is appointed by the other members as the president and an external adviser and meets every two months.
- Compensation and human resources committee: Analyzes, defines and approves the personnel and senior management compensation and benefits, defines the criteria for the staff annual incentive plan, reviews and approves the policies proposed by the human resources

manager. This committee is composed of the board president and vice-president and two other board members and meets twice a year.

## Review of performance

During the year 2019 the DCV implemented a questionnaire focused on knowing the directors' perception regarding the practices and structure of the board of directors based on current best practices and on the corporate government questionnaire that Chilean regulations require for open public limited companies.

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).

In accordance with corporations Law, board members are appointed by the shareholders. DCV's board of directors has an acceptable mix of skills, including principally finance and economics, but also legal, IT, risk management and human resources. Board members are remunerated and are entitled to an additional stipend for their participation as members in any of the board committees. Independent board members are defined by DCV as individuals that are not executives of any of the companies that are shareholders of DCV. At present, three board members are considered by DCV as independent. Representation in the board usually parallels the ownership structure, i.e. the various institution types (e.g. banks, exchanges, etc.) designate one or more board members based on their ownership stake as a group in DCV. Therefore, the "user owned, user governed" model of DCV implies that board members proposed by users have incentive to attend board meetings and participate in the development of the strategy.

Key consideration 5: 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.

## Roles and responsibilities of management

The roles and responsibilities of management are set by the board. Roles, responsibilities and functions for each of the senior managers are clearly defined in internal documentation. Those documents also state the preferred professional background, minimum experience and other desirable personal characteristics and attributes for each senior management position. Critical success factors and management indicators for each of the positions are also detailed in these documents. In addition to the CEO, there are currently five senior managers covering the following areas: Commercial and Legal; Compliance and Internal Audit; Finance, IT and Planning; Human Resources; Operations and Services. Two other positions that report to the Manager of Finance, IT

and Planning are also considered part of the senior management team (i.e. Development and Architecture, and IT Operations).

## Experience, skills and integrity

The senior management team has a good level of experience and mix of skills. Performance of the senior management team is assessed using key performance indicators (KPI), financial results, system uptime and other variables. Critical success factors and management indicators have been specified for some of the senior management positions. Assessment of senior management and other staff takes place once a year. Regarding removal of management, the by-laws specify that the CEO may be removed with the vote of at least seven board members. There is a policy issued by the board that establishes the removal and replacement process of the general manager and senior executives of the DCV in order to facilitate the proper functioning of the company in the event of the replacement or loss of the main executives of the organization

Key consideration 6: 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.

## Risk management framework

DCV has a documented risk management framework. The policy focuses on operational risk, which is the principal risk faced by the Company. The policy takes as a basis CMF Circular 1939 on operational risk management. The policy describes the objectives, scope, and the key processes, as well as lines of responsibility and accountability regarding risk management, and decision-making. The lines of responsibility include process owners as the first line of defense, the operational risk management area, the board of directors, and internal audit. Section 6 describes the risk tolerance policy: DCV accepts risks that are equivalent or less than "moderate risk" (the maximum impact level has a remote probability of materializing). The risk management policy is approved by the board of directors, including any subsequent changes. Senior management must ensure that the risk management framework is reviewed at least once a year.

## Authority and independence of risk management and audit functions

Risk management and audit are given an important role through a specific committee that reports directly to the board. The Manager for Risk has overall responsibility for risk management at DCV.. The Compliance and Audit Manager is responsible for internal audit. The principal objectives of this department are to ensure the organization has a robust audit plan that focuses on the key risks, and provides an independent opinion on the effectiveness of controls over all operational processes of the organization. The Compliance and Audit Manager has a direct reporting line to the board. In addition, there is a yearly external audit and a permanent Surveillance committee. Per Article 3.2.3

of the Rulebook, the surveillance committee is responsible for auditing both the operations of the Company as well as the operations and transactions of depositors. This committee is also responsible for obtaining information on conflicts between depositors, claims against a depositor or against the Company.

Key consideration 7: 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.

## Identification and consideration of stakeholder interests

DCV holds a general assembly of depositors on an annual basis and is accountable to the surveillance committee which represents the interests of depositors. In addition, the management team uses the following mechanisms to gather the views and thoughts of the participants: participant/user survey, user groups, informal channels (networking, social media, etc.). Participant/user surveys are essentially customer satisfaction surveys and are performed every month to a randomly selected group of depositors.

## Disclosure

Decisions of the General Assembly of Shareholders are disclosed to the public via DCV's website. Other important decisions of the board are disclosed to the participants via newsletter or email, and eventually are implemented through Circulars which are publicly available at DCV's website.

## 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.

## Risks that arise in or are borne by the FMI

The risks that arise in or are borne by the FMI include: reputational, operational, custody, legal, and general business. The FMI identifies and monitors the following risks:

**Frequency of** 

Risks	monitoring
Processing	Monthly
Cybercrime	Monthly
Fraud/crime	Monthly
Force majeure, political events	Annually
Business decisions/competition	Ad-hoc basis
System breakdown/business continuity	Quarterly
Outsourcing risk	Each six months
Asset servicing	Ad-hoc basis
Legal/regulation changes	Each six months
Intra-group contagion risk	Ad-hoc basis
Investment risk	Monthly

## Risk management policies, procedures and systems

DCV has a documented risk management framework, based on ISO 31.000. This framework covers only operational risk. Specific policies approved thus far include information security, human resources, custody of physical securities, change management, and financial investments. DCV identifies specific risks through process and procedure analysis, feedback from participants, and through audits (internal/external). Regarding processes and procedures, DCV has identified 149 processes and sub-processes per their criticality. Thus far, automated monitoring and control tools have been developed for 136 of them. To manage custody risks, DCV has also obtained insurance policies. A GRC software is used to monitor and manage the risks identified. Internal electronic controls report daily on key processes.

#### Review of risk management policies, procedures, systems

Proposals for improvement come from a series of feedback mechanisms, such as internal/external audit, interactions with depositors and other FMIs, or requests from regulators. The person(s) responsible for signing off the risk controls are: risk officer, head of respective department, senior manager responsible for operational risk, and the CEO.

DCV has developed a balanced scorecard and several additional KPIs to assess the effectiveness of its risk management policies, procedures and systems. The risk control mechanism is also reviewed annually by the external auditor, and some aspects – particularly those that are associated with the custody and transfer of securities - are reviewed also by the surveillance committee.

The risk management policy is approved by the board of directors, including any subsequent changes. Senior management must ensure that the risk management framework is reviewed at least on an annual basis.

Key consideration 2: An FMI should provide incentives to participants and, where relevant, their

DCV is not exposed to risks from depositors or securities issuers. Vis-à-vis DCV, depositors and issuers are exposed solely to operational risks and custody risk. Custody risk is minimized. For example, securities holdings of depositors are legally and operationally segregated from any holdings of DCV (for additional details see Principle 11). Depositors also hold segregated accounts for their own holdings and the holdings of their customers (accounts at the level of each beneficial owner are also possible, although these are not frequently used).

DCV makes available risk-related information concerning the business/operations of the FMI via its website, annual report and newsletter.

DCV depositors have real-time access to information on their securities holdings and on the transactions performed with those securities.

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.

## Material risks

DCV has identified the material risks it bears from and poses to other entities in its Business Impact Analysis (BIA). Regarding its custody and securities transfer services, DCV responds to instructions from other FMIs. While DCV does not face credit or liquidity risks from these interconnections, it may be exposed to reputational risk in the event other interconnected FMIs are experiencing operational problems, as it may not be able to provide those services in an efficient and reliable manner.

Regarding its other services as a CSD, DCV is also exposed to risks in securities administration (e.g. administration of corporate event). In addition, the securities transfer service that DCV provides to its depositors jointly with ComBanc (involving a connection with LBTR system) could be affected by a failure of either of these two FMIs.

DCV does not face risks from settlement banks or liquidity providers. DCV poses operational risks to other FMIs, including ComDer and CCLV (both as a CCP and the latter also as a SSS) and the LBTR system. Those other FMIs may not be able to operate in case DCV experiences a failure: the LBTR system, ComDer and CCLV would not be able to perform their collateral management activities. In addition, CCLV would not be able to transfer the ownership of securities for its activities as a SSS and as a CCP.

#### Risk management tools

DCV monitors these risks on a continuous basis and reviews the risk management tools once a year. To manage the risk, it poses to other FMIs, DCV has engaged in several bilateral business continuity tests. DCV is also a participant of the business continuity committee that is led by the BCCh and that brings together other FMIs such as the LBTR system, ComBanc, CCLV, etc.

Key consideration 4: 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.

## Scenarios that may prevent an FMI from providing critical operations and services

The business continuity policy provides the framework for identifying risk scenarios that may affect DCV and prevent it from providing critical operations and services. The scenarios identified include principally the materialization of one or more of the identified operational risks (internal and/or external). General business risk has not been considered in these scenarios (see Principle 15).

## Recovery or orderly wind-down plans

Through its BCP, DCV has defined strategies for it to recover its critical business units within a defined time frame, based on the BIA. The sole focus of this plan is on recovery from disruptions originating from the materialization of operational risks.

DCV is the only CSD in the country and has not developed an orderly wind-down plan. However, Law 18.876 (Articles 37-46) foresees an orderly wind-down procedure for CSDs in Chile.

DCV has developed a framework for the management of risks, based on ISO 31.000, that describes the procedures and controls to identify, measure, treat, oversee and review the risks faced by the organization. The new risk management policy which partially replaced the previously called operational risk policy, accounting for all DCV risks, including general business risk, operational risk, legal risk, custody risk and custody and investment risk.

## **Principle 10: Physical Deliveries**

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

# Key consideration 1: An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.

DCV holds certain physical securities on behalf of its depositors which represent 1,6% of the total volume of securities in deposit. The assets eligible for physical delivery are certain corporate bonds and some fixed-term deposits and others. During the year 2019, the centralized custody service of Recognition Bonds was launched, through which the issuer of those bonds (the Social Security Institute) interacts with the AFPs electronically and remotely, allowing the immobilization of physical titles, both those in force, and the ones to be issued, managing to give greater agility, efficiency and security to the process and reducing by 50% the amount of securities in physical or not immobilized form. Certain dematerialized securities can be re-materialized and delivered physically. The responsibilities, with respect to the delivery of physical instruments, are established in the Law 18,876 and CMF regulations. The procedure for withdrawing physical securities is defined in Section 10.9.1 of the Rulebook. DCV's responsibility is limited to delivering the physical security to the owner (or its representative). DCV has stated in its Rulebook (Section 2.2.1) and in its contracts with depositors that it will indemnify them for any losses incurred in the delivery of physical securities. DCV engages with its depositors through training sessions, regular circulars and newsletters to ensure that they have a clear understanding of their obligations and the procedures for effecting physical delivery of securities.

## Key consideration 2: An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.

The risks associated with the storage and delivery of physical instruments are identified in DCV's risk matrix i.e. physical custody and physical delivery are two of the processes identified in the BIA. The principal risks identified as operational, reputational and information security. The cost identified in relation to the storage and delivery of physical securities is considered significant by the Company, representing over 1% of total monthly expenses. Section 10.2.6 of the Rulebook specifies the processes, procedures and controls to monitor and manage these risks. Physical securities received by DCV are stored in vaults and must be kept following a pre-determined system to ensure easy access and identification. In this context, DCV has implemented security systems to prevent theft, fires and other potential events that could cause destruction of the physical securities. In addition, DCV has also implemented microfilm, electronic records and other similar mechanisms to, in case it becomes necessary, ensure proper reconstitution of the physical securities.

Additionally, DCV performs daily reconciliations of positions with physical securities with participants / issuers; there is separation of duties between handling physical securities and record-keeping; access restrictions to vaults and areas where physical securities are located.

DCV can match receipt and delivery instructions of transactions related to physical securities. DCV

does not perform surveillance to verify that its depositors have the necessary systems and resources to be able to fulfil their own physical delivery obligations.

## **Principle 11: Central Securities Depositories**

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimize and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry.

Key consideration 1: A CSD should have appropriate rules, procedures, and controls, including robust accounting practices, to safeguard the rights of securities issuers and holders, prevent the unauthorized creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains.

## Safeguarding the rights of securities issuers and holders

DCV rules, procedures, internal controls and IT systems safeguard the rights of securities issuers and holders. Securities holdings records at DCV are segregated from DCV's own holdings. Holdings of financial institutions acting as depositors are segregated from the holdings of their customers in either omnibus accounts or individualized accounts (see KC 11.5). Debits and credits to accounts are processed in accordance with participants' instructions, and/or instructions from recognized SSSs or CCPs.

Securities are transferred by means of book entries, which are legally recognized to transfer ownership. Whoever appears as the holder of securities in DCV is recognized as the legal owner of those securities. In the case of custody contracts by which DCV acts as direct participant with foreign CSDs (DTCC, Euroclear, CSDs of Colombia, Mexico and Peru), it is specified that all securities held as part of those arrangements belong to DCV's clients.

Each day, as part of its end-of-day processes, DCV reconciles securities balances in the accounts of depositors. DCV verifies that the end-of-day balances of securities holdings are consistent with the previous day balances once the transactions performed during the day are considered (including new issuances and expiration/maturities). All transactions provide audit trails (user, date, hour, transaction type, types of securities, quanties, etc.). DCV has in place procedures to manage breaks in reconciliation.

DCV manages the outstanding securities until their full amortization/maturity. At this moment, securities are automatically deleted from the system. Both the internal and external audit team on an annual basis review the CSDs procedures and controls used for safekeeping. The surveillance committee that represents depositors also performs a reconciliation procedure every quarter to ensure that there are sufficient securities to satisfy the rights of each of DCV's depositors.

## Prevention of the unauthorized creation or deletion of securities

Securities are created in DCV following several procedures. Among others, the issuer is required to provide DCV with an authorization for the latter to create securities. This document must be signed by authorized staff of the issuer (individuals with power of attorney are registered at DCV). This document is then reviewed by DCV's legal department. Only after these steps have been successfully completed, the quantity of the issuance may be loaded into DCV's system. Securities allotted to the various depositors are then deducted from the initial amount.

## Periodic reconciliation of securities issues

The outstanding balance of all issuances is verified daily with the issuers. In case of equities, this is verified with the registrars. Through these checks, together with internal audits and external audits, it is ensured that no securities have been unduly created or deleted. DCV also reconciles the balances of the securities accounts it holds with other CSDs and foreign custodians.

## Key consideration 2: A CSD should prohibit overdrafts and debit balances in securities accounts.

Securities transfers can only be processed if there are sufficient securities in the corresponding securities depository accounts. Likewise, DCV does not allow overdrafts or debit balances for any type of transfer orders (e.g. transfer of securities conditional on the transfer of other securities).

Key consideration 3: A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry. Where appropriate, a CSD should provide incentives to immobilize or dematerialize securities.

Of all the securities held at the CSD, more than 96% are in dematerialized form and the rest in physical form. The share of physical securities has been declining over time as those securities mature. Approximately 99% of the total volume of transactions are performed on securities held in dematerialized form. For securities still held in physical form, it is possible to immobilize them and allow their holding and transfer in a book-entry system (Article 7.2.2. of the Rulebook). DCV provides the following incentives to immobilize and dematerialize securities: reduced safekeeping fees.

Key consideration 4: A CSD should protect assets against custody risk through appropriate rules and procedures consistent with its legal framework.

Article 27 of Law 18.876 states the responsibilities of the CSD regarding custody risk. DCV rules (Article 2.2.1 of the Rulebook) states provisions to protect depositors against custody risk in case of the following events: negligence, misuse of assets, fraud, poor administration, inadequate

recordkeeping, authenticity and integrity of securities held under custody, etc. The rules and procedures related to custody risk are consistent with the applicable legal and regulatory framework. Apart from rigorous internal controls and internal and external supervision mechanisms, DCV has insurance policies to protect its depositors against misappropriation, destruction and theft of securities. These policies pay up to 0.1% of the total quantity under custody (currently approximately USD 260 billion).

Key consideration 5: A CSD should employ a robust system that ensures segregation between the CSD's own assets and the securities of its participants and segregation among the securities of participants. Where supported by the legal framework, the CSD should also support operationally the segregation of securities belonging to a participant's customers on the participant's books and facilitate the transfer of customer holdings.

Article 19 of Law 18.876 states that CSDs can hold securities of their own. These holdings should be individualized in their accounting system to ensure they can be clearly distinguished from the holdings of depositors. Depositors hold segregated accounts for their own holdings (*"cuenta valores propios"*) and the holdings of their customers (*"cuenta de valores de terceros"*). In the latter case, there are two types of accounts: omnibus accounts (*"cuenta de mandante grupal"*), and accounts at the level of the beneficial owner (*"cuenta de mandante individual"*). In practice, broker-dealers are required to hold separate omnibus accounts, while for banks and other financial institutions acting as depositors if the latter and the customer have signed a contract stipulating a mandate from the customer for this purpose.

Key consideration 6: A CSD should identify, measure, monitor, and manage its risks from other activities that it may perform; additional tools may be necessary in order to address these risks.

Other than central safekeeping and administration of securities and supporting the SSS, DCV provides registrar functions, trade repository services for forward contracts and OMGEO (essentially information services during the matching post-trade and pre-settlement processes, e.g. allocation, confirmation/affirmation, settlement notification, etc.). The latter two activities are detailed in Chapter 18 and 19 of the Rulebook, respectively. Risks identified for these activities are essentially operational risks. These risks are managed as part of DCV's operational risk management policy.

**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.

DCV facilitates the transfer of securities through links with the SSS, CCPs and payment systems. In this regard, DCV acts solely based on the instructions received from those FMIs. In relation to other securities transfers, Section 11 of DCV's Rulebook states that those transfer/settlement mechanisms shall be selected by the depositors. DCV will act solely based on instructions received and shall undertake no responsibility for the operation of such mechanisms. Its sole role in this context is to provide safe securities transfer systems to support the settlement process. On this basis, Principle 13 is deemed not applicable to DCV.

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.

As per KC 13.1, this principle is deemed to be not applicable to DCV.

Key consideration 3: An FMI should publicly disclose key aspects of its default rules and procedures.

As per KC 13.1, this principle is deemed to be not applicable to DCV.

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.

As per KC 13.1, this principle is deemed to be not applicable to DCV.

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.

To identify business risks, DCV uses qualitative operational analysis, business and strategic analysis, in-house financial analysis, and in-house legal analysis. The risks are included in the risk matrix as part of the BIA. The general risks identified of the principal business include investment risk (own resources), poor business decisions, poor financial planning, impact of legal and regulatory changes, force majeure and political events, among others. As a private company, its business risk assessment considers the potential negative effects of these risks on its cash flow and capital.

In general, DCV monitors and manages its general business risks on an ongoing basis, just as any other risk the entity is exposed to (e.g. see Principle 17). To monitor business risks, it uses automatic alerts and controls, its GRC/enterprise risk-management program, and participant feedback. To manage these risks, it uses cost/project management policies, KPIs, insurance, risk training and awareness, follow-up of audit/regulator recommendations related to general business risks, etc. DCV also uses the balanced score card methodology to support strategic planning over a horizon of 1-year.

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.

As DCV does not undertake any credit, market or liquidity risks in any of its business lines, the organization's equity basically supports general business risk (and operational risk). Net liquid funds are therefore not part of any other fund to face credit or liquidity exposures. As of the end of 2019, total liquid net assets, defined as short-term assets minus short-term liabilities, amounted to approximately USD 11 million.

Although the DCV has pending the development of an scenario and sensitivity analysis in order to determine the amount of liquid net assets funded by equity it will need to continue operations and services as a going concern in the event it incurs general business losses, it currently holds an amount of liquid net assets greater than the sum of 6 months of operating expenses (see KC 3).

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.

### Recovery or orderly wind-down plan

DCV has developed a financial recovery plan. The Law 18.876 provides a mechanism for the orderly wind-down of CSDs.

## Resources

As of the end of 2019, DCV held approximately USD 11 million in liquid net assets - defined as short-term assets minus short-term liabilities. Monthly average operating expenses during that year were nearly USD 1.78 million. Therefore, net liquid assets, as defined, would cover more than 6 months of operating expenses. As mentioned under KC 1, DCV equity basically supports general business risk and operational risk losses.

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.

DCV's liquid net assets are divided into "Cash and equivalent", which are assets with maturities of less than 90 days, and "Other financial assets". These are invested in current accounts and term deposit accounts at licensed commercial banks and low-risk mutual funds. Other financial assets mainly include term deposits at licensed commercial banks, and a small portion invested in securities issued by the BCCh.

DCV has a documented Investment Policy which regulates the quality and liquidity of its investments (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.

DCV has a plan in place to raise additional equity, which follows the protocol established in Law 18.876 (mainly Article 36-37). The law requires the board of directors to convene an extraordinary shareholders' assembly to raise additional equity to observe the minimum regulatory requirement.

Due to DCV's ownership structure, whereby the depositors are also the shareholders, 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.

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.

DCV has a documented Investment Policy. For securities holdings (e.g. securitized fixed-term deposits), DCV holds those securities in its own CSD system, in a customer account where it is the beneficial owner. Any physical securities are to be kept at DCV's own premises, though in a separate vault from that used for safekeeping physical customer securities.

Other investments must be kept at licensed commercial banks, in a customer account where DCV is the beneficial owner.

DCV does not hold collateral on behalf of its participants, be they issuers or depositors.

DCV holds securities on behalf of investors as part of its arrangements for the custody of foreign securities, such as in MILA or with DTCC and Euroclear. For this purpose, DCV is a direct participant in these CSDs.

Key consideration 2: An FMI should have prompt access to its assets and the assets provided by participants, when required.

DCV does not hold collateral on behalf of its participants.

DCV manages its own investment portfolio. To ensure it will have prompt access to its own assets, DCV has defined eligible custodians and types of investments in its Investment Policy. It has immediate access to investment securities it holds in its own system. Likewise, it has immediate access to its bank accounts.

Regarding the assets it holds for third parties in foreign CSDs/foreign custodians, DCV is a direct participant in the foreign CSDs and, as stated in the respective contracts, is subject to the same rules as other participants. These other CSDs are licensed and are regulated and supervised in their respective jurisdictions.

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.

DCV holds current accounts in numerous banks, and some of its portfolio investments are also managed by banks. There are no other financial exposures with banks as these only play the role of depositors or securities issuers vis-à-vis DCV.

Key consideration 4: An FMI's investment strategy should be consistent with its overall riskmanagement 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.

## Investment strategy

In its Investment Policy, DCV establishes that for investments of its own resources it shall use only financial instruments that:

- Are consistent with the risk profile of the Company
- That enable the Company to obtain a reasonably stable return for liquidity surpluses and for its long-term assets
- That enable thC company to manage its financial resources based on its operational needs

The policy enumerates the specific securities/instruments that may be used. Regarding the quality of debtors, the policy states that all instruments must have a credit rating of BBB+ or above (all above investment grade rating).

# *Risk characteristics of investments*

Concentration of investments, in terms of credit rating, must abide by the following guidelines:

- Government: up to 100%
- Securities/issuers rated AA/AAA: up to 50%
- Securities/issuers rated A-/AA: up to 15%
- Securities/issuers rated BBB+: up to 10%

Other limits are set on the basis of the size of the liquid funds that the Company has available for making financial investments. These limits refer to the type of instrument, its duration and diversification.

DCV does not invest participant assets.

DCV's investment policy and strategy is disclosed in stakeholders' special reports. The investment plan is reviewed every two years.

### **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.

### Identification of operational risk

Operational risk management is one of the focus areas of DCV.

DCV has a documented risk management framework that focuses on operational risk. The policy takes as a basis CMF Circular 1939 on operational risk management.

The areas that the risk policy covers include staff, relationships with third-parties (e.g. through contractual relationships), processes, computing and technology, and external risks/dependencies. The identification of plausible sources of operational risk is embedded in the detailed activities and systems and is part of overall strategic planning at DCV.

### Management of operational risk

The policy describes the objectives, scope, and the key processes that are covered by the policy, as well as the lines of responsibility and accountability regarding risk management, and decision-making.

In addition to the policy, DCV has developed a detailed methodology for the assessment of operational risk. Based on the latter, DCV applies an ongoing process to set the context, identify, analyze and measure risks (e.g. through a BIA), and on this basis, decide on a treatment strategy. These are complemented by ongoing monitoring and communication.

In practice, the clear majority of DCV processes are automated. Internal electronic controls report on key operational processes daily.

#### Policies, processes and controls

The risk management policy and the methodology for the assessment of operational risk are based on international standards, e.g. ISO 31000 and ISO 27000.

DCV has developed policies for the various sources of operational risk that have been identified:

- Information security policy
- IT infrastructure capacity management policy
- Human resources policy
- Business continuity policy

Regarding human resources, DCV's policy provides for issues such as staff selection criteria, ensuring initial and ongoing training to staff (e.g. an annual training plan) and in general promoting that people are satisfied with their professional development, to reduce personnel turnover. Both individual and team work are assessed. All applicants must pass screening tests and checks (e.g. psychological tests, background checks, etc.). The policy also places emphasis on avoiding conflict of interest and situations that may give rise to weak controls or potential fraud.

Regarding change management, when DCV is implementing software changes, upgrades, improvements to code and/or bug fixes, it follows specific procedures to assure that no disruption to the service results from the changes made. There is a documented policy on risk assessment for new projects. Procedures include initial impact analysis of changes proposed/made, quality assurance test, participant involvement.

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.

### Roles, responsibilities and framework

The lines of responsibility include process owners as the first line of defense, followed by the operational risk management area, senior management, the audit and operational risk committee and the board of directors, complemented by internal audit. Specific responsibilities and duties are outlined for each of these.

The risk management policy is approved by the board of directors, including any subsequent changes. Senior management must ensure that the risk management framework is reviewed at least once a year.

### Review, audit and testing

More than 80% of the processes, sub-processes and procedures have a defined operational guideline or manual. Operational guidelines and manuals are reviewed each year.

The scope of the internal audit includes: physical security, reporting, corporate events, accounting and other administration processes. The internal audit team reviews critical processes and procedures and monitors key risks areas once every six months or less, and non-critical ones every two years.

DCV has an ISAE 3402 type 2 of operational audit.

External audits also cover operational risk and are conducted once a year. The scope of the external audit includes: physical security, instruction processing, settlement processing, reporting, and corporate events.

IT audits are conducted once a year. The scope of the IT audit includes: physical security, access and account controls, operational procedures, operational controls.

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.

DCV has clearly defined operational reliability objectives. In its balanced score card DCV has defined several specific objectives. These include:

- Response to participant queries to applications/interfaces in less than 2 seconds 98%, which may vary each year, according to the board's decision
- Fulfillment of SLA (Service Level Agreement) with BCCh 98%
- Availability of operational platforms 99.97%%, which may vary each year, according to the board's decision

DCV's RTO is set at 2 hours (see KC 17.6 for additional details).

The reliability objectives set by the management team are disclosed to the board of directors, the regulator, and internal and external auditors. These objectives are reviewed once a year.

DCV publishes its operational reliability objectives in its annual report.

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.

DCV has an IT capacity management policy. The scope of this policy includes: technological resources; processing times; current business volumes; and, impact of new businesses.

DCV assesses its capacity utilization on a monthly basis. The policy states that, on average, usage of the installed capacity should remain at or below 35%. In fact, at present, usage of the installed capacity for on-line systems is estimated at 35% (including peaks). In the case of batch processing, the policy states that installed capacity should be sufficient to allow total batch processing to be performed twice in the allotted period.

Regarding other systems (e.g. those that do not directly affect operations with clients), usage should not exceed 60-70% of installed capacity.

DCV's IT team has a mid and long-term investment plan to address system capacity needs.

DCV tests its systems capacity simulating conditions of market stress. This is done at least once each year. The results of the system capacity test are disclosed to the risk officer, management team, IT auditor, external auditor, internal auditor, and the board of directors.

Key consideration 5: An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

### Physical security

DCV has a physical security and safety plan in place. The security plans include procedures to prevent, mitigate, contain and/or manage fire, flooding, earthquake, terrorism attack, fraud and theft, social upraising, war/violent conflict. The security and safety plan is prepared jointly by DCV's security department and an external consultant. The security plan is approved by the board of directors and is reviewed once a year.

The measures that DCV takes to limit physical access by persons to its IT systems and physical securities include the use of building security / guards, ID card. To protect equipment and premises from fire, flooding or natural disasters, DCV has in place vaults, seismic-resistant building, gas-based fire suppression system, fire extinguishers, water sprinklers, etc.

### Information security

DCV undertakes a security penetration test once a year. The results of that test are shown to the IT department, IT manager, management team, and to the processes and IT committee of the board.

Logical security measures applicable to DCV staff members include individual user names and passwords, roles-based limitations, remote access limitations.

In terms of wide IT security measures, DCV has in place firewalls, malware, spyware and anti-virus applications, intrusion detection system, etc.

The IT security policies are reflected in DCV's general policy on information security, while physical security policies are reflected in the business continuity policy.

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.

# Objectives of business continuity plan

DCV's has a documented business continuity policy and a disaster recovery plan. The objective of the plan is to maintain service and quality levels and to minimize any negative impact of a disruption on the operation of the Company. As an ultimate objective, DCV has stated that "it should be the last component of the financial system still standing regardless of the incident or catastrophe, and the first one to recover from such an event."

### Design of business continuity plan

The BCP is based on ISO 22301.

The redundancies and other steps taken by the FMI to secure continuous operations include mirror disks, multiple servers (clusters), dual external power suppliers, dual external power supply lines, generators, dual cable/fiber optics connections.

The down-time tolerance threshold is 0.1% of total daily operating hours. This is measured each month. Over the last 12 months, the FMI's systems down-time averaged 0.1% of daily operating hours.

### RTO is set at 2 hours.

Data is replicated in real-time between the main and back-up servers to minimize potential data losses. Recovery point objective (RPO) is set at 5 minutes.

To protect the equipment in processing sites from fire, flooding or natural disasters, DCV has in place seismic-resistant building, gas-based fire suppression system, and fire extinguishers.

Other business continuity arrangements include staff working from home.

DCV has agreed on SLAs with all its relevant service providers. These cover telecommunications and data processing, among others.

# Secondary site

DCV has two alternate processing sites. Both are TIER 3-certified and are located at a sufficient geographic distance from the primary site and from each other such that they have a distinct risk profile. Access to both alternate sites is basically structured as remote access.

Operations can be switched from the primary to the secondary site in less than one hour. In a catastrophic scenario that involves the loss of the primary and secondary sites, then RTO with the third site (the disaster recovery site or "SRAD") is set at 2 hours.

Participants are required to maintain an active connection to the primary and secondary processing sites. Switching between these two sites is transparent to the participants. The third processing site is accessed via the Internet.

# Review and testing

Business continuity and technological contingency plans are tested at least once a year following ISO 22301. DCV has obtained certification on this standard and on BS 25999.

Disaster recovery readiness and connectivity tests are conducted once a year. Tests have involved depositors as well as other FMIs operating from their main site and from their alternate processing site and ensuring connectivity with DCV's primary and alternate processing sites.

The primary and secondary sites are rotated periodically. DCV tests its remote access system weekly.

DCV is a participant of the business continuity committee that is led by the BCCh and that brings together other FMIs in Chile. In the context of this committee, a series of continuity tests involving all FMIs in Chile is being performed on a quarterly basis since mid-2014.

Key consideration 7: 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.

Risks to the FMI's own operations

Regarding its custody and securities transfer services, DCV responds to instructions from other FMIs. DCV may be exposed to reputational risk in the event other interconnected FMIs are experiencing operational problems, as it may not be able to provide those services efficiently and reliably.

Regarding its other services as a CSD, DCV is also exposed to some risks as part of its securities administration activities. In addition, the securities transfer service that DCV provides to its depositors jointly with ComBanc (involving a connection with LBTR system) could be affected by a failure of either of these two FMIs.

The software of DCV's service platforms was designed in-house. Hardware support, including telecommunications, is provided by the manufacturers/operators of the facilities, including the alternate processing sites. SLAs have been agreed in the respective contracts.

To monitor risk exposures generated by other parties, DCV uses market data (e.g. financial indicators, balances, exposures, etc.), automatic alerts and controls, participant feedback. The FMI monitors these risks on a continuous basis and reviews the risk management tools once a year.

## Risks posed to other FMIs

DCV poses operational risks to other FMIs, including the LBTR system, ComDer and CCLV (both as a CCP and as a SSS). Those other FMIs may not be able to operate in case DCV experiences a failure: the LBTR system, ComDer and CCLV would not be able to perform their collateral management activities. In addition, CCLV would not be able to transfer the ownership of securities for its activities as a SSS and as a CCP for the equities market.

DCV has signed SLAs with the other FMIs.

DCV is a participant of the business continuity committee that is led by the BCCh and that brings together other FMIs such as the LBTR system, ComBanc, etc.

# 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.

Law 18.876 (Article 2) and Section 4 of the Rulebook specify the entities that can become depositors in DCV. The list is relatively long, and includes a provision stating "any others that the CSD may approve".

The Rulebook also regards securities issuers as participants. All issuers of securities that are the object of public offering as well as banks and government entities in their role as issuers of securities are therefore regarded also as DCV participants.

Yet another type of participant considered in the Rulebook are other FMIs and entities that an issuer of securities designates as its payer regarding corporate actions, coupon payments, etc.

Participation requirements are essentially related to ensuring proper connectivity with DCV's technological platform (Section 5.7 of the Rulebook). Participants are required to maintain an active connection to the primary and secondary processing sites and ensure connection to the third site (SRAD) via the Internet.

DCV can open an account at the level of the beneficial owner. However, the accounts are always operated by one of the participants defined in the law or the Rulebook, acting as nominees.

All participants must pay an entry fee equivalent to approximately USD 13,500, plus a fixed monthly amount of USD 600.

Access to trade repositories

Not applicable.

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 endeavor to set requirements that have the least-restrictive impact on access that circumstances permit.

Justification and rationale of participation criteria

DCV's participation requirements are limited to ensuring proper connectivity with DCV's technological platform, which is an essential requirement to ensure safe and efficient operations.

Less restrictive access

The connectivity requirement ensures less restrictive access.

# Disclosure of criteria

Criteria for becoming a participant in DCV are specified in the Rulebook, which is publicly available through DCV's website.

Key consideration 3: 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.

### Compliance Monitoring

DCV can monitor on-line participant ongoing compliance with the access criteria.

## Suspension and orderly exit

Section 21 of the Rulebook addresses sanctions to DCV participants. A participant that repeatedly violates a law, regulations, the Rulebook, DCV Circulars and/or the contract signed with DCV may be excluded. If a participant incurs the same violation three times it shall be suspended 15 days and will not be able to operate in DCV's technological platform. In case of an additional violation of the same kind, or a violation that is considered severe, the participant may be excluded permanently.

### **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.

There is no tiered participation at the DCV. DCV depositors keep their own securities holdings and those of their customers in separate accounts, which are readily identifiable to DCV.

On this basis, Principle 19 is deemed not applicable to DCV.

Key consideration 2: An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.

On this basis of what was explained under KC 19.1 this Principle is deemed not applicable to DCV.

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.

On this basis of what was explained under KC 19.1 this Principle is deemed not applicable to DCV.

Key consideration 4: An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

On this basis of what was explained under KC 19.1 this Principle is deemed not applicable to DCV.

## 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.

When deciding on establishing a link, DCV analyses and takes into consideration legal risks, custody risks and operational risks. To establish the link, these risks should be consistent with the Company's tolerance for risk. DCV also considers whether the link will be profitable from a financial standpoint.

At present, DCV has links with the following FMIs:

- CCLV
- ComDer
- ComBanc
- LBTR system
- CAVALI (CSD in Peru)
- DECEVAL (CSD for private securities in Colombia)
- INDEVAL (CSD in Mexico)
- DTCC
- Euroclear

Links with other FMIs in Chile include technical links that support interoperability with the respective technological platforms. Links with foreign CSDs consist of cross-holdings of depository accounts in the respective systems to be able to perform custody of foreign securities for local depositors/investors.

DCV reviews the identified risks annually and whenever changes arise.

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.

In Chile, DCV has established links only with other regulated and supervised FMIs. Contracts supporting these links have been revised and approved by the respective regulators.

Links with foreign FMIs are based on contracts. The contracts specify the applicable law: regarding the principles of finality, irrevocability, protection of rights and protection of the transactions processed through these foreign systems, the contracts state that all these principles shall be governed by the laws and regulations of the issuer CSD.

Before establishing a link, DCV performs due diligence to ensure that the link has a well-founded legal basis. DCV's Rulebook, which was approved by the CMF, opens the possibility to DCV to interact with foreign CSD/global custodians (Section 16) to offer custody services of foreign securities to residents. CMF regulations provide a legal basis for the links established by DCV in other jurisdictions.

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.

No credit extensions or overdrafts are permitted in any of DCV's contracts with other CSDs, nor does DCV provide any liquidity facilities as part of these arrangements. Transactions take place if and only if actual securities/funds are available and are transferable

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.

DCV does not allow for the provisional transfer of securities in any of its links with other CSDs.

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.

For all links in which DCV acts as an investor CSD, the link is operated in practice by DCV holding an account at the issuer CSD. DCV appears as the owner of the securities in the holdings of the issuer CSD. However, in all contracts with other CSDs it is specified that securities holdings belong to DCV's customers and that in no case these securities can be used to fund or support in any way an obligation or liability of DCV or of the other CSD. The contracts also provide for protecting customer rights regarding corporate actions and representation.

To further ensure that customer rights are being handled appropriately, DCV completes a daily reconciliation of its internal records of customer holdings of foreign securities with the total balances available in its omnibus accounts with foreign CSDs.

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.

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.

Not applicable.

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.

Not applicable.

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.

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.

DCV was created and designed to address a market need: safe and efficient custody and transfer of securities. When it was designed, DCV considered the needs of its participants and the market in relation to operating structure, delivery systems and technologies. Since then, DCV has been continuously adapting to changes in the market, both from the perspective of new types of investors, new types of securities, of clearing and settlement, etc.

To assess whether DCV is continuously meeting the requirements and needs of its participants and other users, it uses the following tools and feedback mechanisms:

- Specific user group meetings, which are held quarterly.
- A general assembly of depositors held annually and when major changes are proposed.
- Recommendations by the surveillance committee
- Customer satisfaction surveys conducted quarterly.

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.

As mentioned under KC 3.1, DCV has developed a balanced scorecard and many additional KPIs to assess the effectiveness of its operations (together with measuring the effectiveness of risk management policies, procedures and systems).

The balanced scorecard covers the following items, with measurable and achievable goals for each of them:

- Financial performance: revenues, efficiency in spending
- Client-product-market: customer satisfaction, operational quality, income by business line with a special focus on new businesses, etc.
- Internal organization issues (e.g. engagement, training)
- Risk management

Fulfillment of goals and objectives is reviewed by the committees of the board, the board of directors, internal and external audit.

Key consideration 3: An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

Indicators are measured monthly and feed the quality assurance system and the internal controls system to foster continuous improvement of processes. A report on progress regarding the balanced scorecard is provided to the board of directors.

In addition, evaluation by external professionals (e.g. auditors, regulator, consultants) takes place annually.

#### 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.

#### Communication procedures and standards

For its communications with its depositors, DCV uses a proprietary messaging system. Messaging is based on ISO 15022.

For its communications with other FMIs in Chile (i.e. ComBanc, ComDer and LBTR system), DCV uses SWIFT messages.

DCV conducts some cross-border operations, specifically custody of foreign securities in foreign CSDs. It also provides accounts to foreign CSDs for them to provide custody services of Chilean securities.

#### 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.

## Rules and procedures

The Rulebook, internal circulars and contracts with depositors, issuers and other FMIs comprise DCV's rules and key procedures.

The Rulebook has been approved by the CMF. Circulars articulate the contents of several key aspects of the Rulebook, thereby providing further clarifications and defining specific mechanisms and courses of action. DCV has not had to amend its rules and procedures because of adverse legal outcomes.

# Disclosure

The Rulebook and other detailed procedures and circulars provide information on the procedures that DCV will follow, including discretionary actions, in non-routine or critical events.

Changes to key rules and procedures are subject to consultations with stakeholders (and a new Rulebook would require CMF approval). The organizations included in the consultation process include: shareholders, depositors, regulators, other FMIs. On average the consultation process lasts between three and six months. To announce that a consultation process has started or is going to take place, DCV uses newsletter (email) and physical letter. DCV collects the consultation feedback through physical letters or via email.

The Rulebook and circulars are publicly available.

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.

The Rulebook contains detailed information about the system's design and operation. Moreover, in its website DCV has uploaded many corporate presentations with detailed information regarding the overall design of the CSD, what services are provided and on what basis, risks and their management, and other relevant aspects.

The Rulebook and especially circulars describe the few cases and areas in which DCV may exercise discretion and the approach it will follow in such circumstances. It should be noted that regarding settlements, DCV exercises no discretion at all as it simply follows the orders received from other FMIs or orders entered directly by depositors.

Rights and obligations as well as the risks participants incur through participation in DCV are explained throughout the Rulebook and are further specified in the contracts that depositors sign with DCV.

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.

Upon becoming a depositor at DCV, participants are provided with the relevant rules and procedures, operational guidelines, and technical information about DCV's technological platform, including a detailed users' manual.

The means described above are generally sufficient to ensure a participant's good understanding of the rules, procedures and the risks they face form participating as depositors in DCV.

The mechanisms that DCV uses to address a participant's understanding of the FMI's rules and procedures include periodical training and provision of e-learning materials.

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.

DCV's fee structure is described in detail in Section 20 of its Rulebook, which is a public document. The fee structure may also be accessed directly in DCV's website.

The individual services fees include:

- General charges (e.g. monthly fee, custody charges, etc.)
- Charges for deposit accounts, including securities transfer services
- Charges for inventory accounts
- Charges for derivative trade repository services
- Charges for the electronic recording of pledges
- Charges for operating mutual funds shares

The information for each of the services is very detailed, differentiating by type of security, type of transaction, etc. Information on discounts is also provided – discounts are regulated in Section 20.10 of the Rulebook.

There are no other CSDs in Chile with which charges applied by DCV may be compared, although international comparisons are possible.

Changes to the fee structure or to the level of the various fees must be approved by the board of directors and shall start to apply 30 days after the participants have been informed of the change.

Key consideration 5: An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

DCV has completed the CPSS-IOSCO Disclosure Framework for Financial Market Infrastructures.

In addition to the Rulebook, the Disclosure Framework and statistics, the following relevant documents are also publicly available at DCV website (some information is also available in English):

- Corporate information
- General information of DCV
- Sanctions and fines to participants
- Fee study