Companion Policy 24-102CP

TO

National Instrument 24 – 102

CLEARING AGENCY REQUIREMENTS

PART1
GENERAL COMMENTS

Introduction

1.1 **(1)** This Companion Policy (CP) sets out how the Canadian Securities Administrators (the CSA or we) interpret or apply provisions of National Instrument 24-102 *Clearing Agency Requirements* (the Instrument) and related securities legislation.

(2) Except for this Part 1 of the CP, section 3.2 and 3.3 of Part 3 of this CP, and the *text boxes* in Annex I to this CP, the numbering of Parts, sections and subsections in this CP generally corresponds to the numbering in the Instrument. Any general guidance or introductory comments for a Part appears immediately after the Part's name. Specific guidance on a section or subsection in the Instrument follows any general guidance. If there is no guidance for a Part, section or subsection, the numbering in this CP will skip to the next provision that does have guidance.

(3) Unless otherwise stated, any reference in this CP to a Part, section, subsection, paragraph or defined term is a reference to the corresponding Part, section, subsection, paragraph or defined term of the Instrument. The CP also makes references to certain paragraphs in the April 2012 report *Principles for financial market infrastructures* (the PFMIs or PFMI Report, as the context requires) and the PFMI Principles set out therein. A reference to a PFMI Principle may include a reference to an applicable key consideration (see definition of "PFMI Principle" in section 1.1).

Background and overview

1.2 **(1)** Securities legislation in certain jurisdictions of Canada requires an entity seeking to carry on business as a clearing agency in the jurisdiction to be (i) recognized by the securities regulatory authority in that jurisdiction, or (ii) exempted from the recognition requirement.[1] Accordingly, Part 2 sets out certain requirements in connection with the application process for recognition as a clearing agency or exemption from the recognition requirement. Guidance on the CSA's regulatory approach to such an application is set out in this CP.

(2) Parts 3 and 4 set out on-going requirements applicable to a recognized clearing agency. Part 3 adopts the PFMI Principles generally but does restrict their application only to a clearing agency that operates as a central counterparty (CCP), securities settlement system (SSS) or central securities depository (CSD), as relevant. Part 4 applies to a clearing agency whether or not it operates as a CCP, SSS or CSD. The PFMI Principles were developed jointly by the Committee on Payments and Market Infrastructures (CPMI)[2] and the International Organization of Securities Commissions (IOSCO).[3] The PFMI Principles harmonize and strengthen previous international standards for financial market infrastructures (FMIs).[4]

(3) Annex I to this CP includes supplementary guidance in *text boxes* that applies to recognized domestic clearing agencies that are also overseen by the Bank of Canada (BOC). The supplementary guidance (Joint Supplementary Guidance) was prepared jointly by the CSA and BOC to provide additional clarity on certain aspects of the PFMI Principles within the Canadian context.

Definitions, interpretation and application

1.3 **(1)** Unless defined in the Instrument or this CP, defined terms used in the Instrument and this CP have the meaning given to them in the securities legislation of each jurisdiction or in National Instrument 14-101 *Definitions*.

(2) The terms "clearing agency" and "recognized clearing agency" are generally defined in securities legislation. For the purposes of the Instrument, a clearing agency includes, in Quebec, a clearing house, central securities depository and settlement system within the meaning of the Québec *Securities Act* and a clearing house and settlement system within the meaning of the Québec *Derivatives Act.* See section 1.5. The CSA notes that, while Part 3 applies only to a recognized clearing agency that operates as a CCP, CSD or SSS, the term "clearing agency" may incorporate certain other centralized post-trade functions that are not necessarily limited to those of a CCP, CSD or SSS, e.g., an entity that provides centralized facilities for

[1] The entity is prohibited from carrying on business as a clearing agency unless recognized or exempted.
[2] Prior to September 1, 2014, CPMI was known as the Committee on Payment and Settlement Systems (CPSS).
[3] See the CPMI-IOSCO *Principles for Financial Market Infrastructures* Report, published in April 2012, available on the Bank for International Settlements' website (www.bis.org) and the IOSCO website (www.iosco.org).
[4] See (i) 2001 CPMI report *Core principles for systemically important payment systems*, (ii) 2001 CPMI-IOSCO report *Recommendations for securities settlement systems* (together with the 2002 CPMI-IOSCO report *Assessment methodology for Recommendations for securities settlement systems*); and (iii) 2004 CPMI-IOSCO report *Recommendations for central counterparties*. All of these reports are available on the Bank for International Settlements' website (www.bis.org). The CPMI-IOSCO reports are also available on IOSCO website (www.iosco.org).

comparing data respecting the terms of settlement of a trade or transaction may be considered a clearing agency, but would not be considered a CCP, CSD or SSS. Except in Québec, such an entity would be required to apply either for recognition as a clearing agency or an exemption from the requirement to be recognized.[5] The CSA considers that a recognized clearing agency, which is not a CCP, CSD or SSS, should not be subject to the application of Part 3. Such a clearing agency is, however, subject to provisions in Part 2 and all of Parts 4 and 5..

(3) A clearing agency may serve either or both the securities and derivatives markets. A clearing agency serving the securities markets can be a CCP, CSD or SSS. A clearing agency serving the derivatives markets is typically only a CCP.

(4) In this CP, FMI means a financial market infrastructure, which the PFMI Report describes as follows: payment systems, CSDs, SSSs, CCPs and trade repositories.

PART 2
CLEARING AGENCY RECOGNITION
OR EXEMPTION FROM RECOGNITION

Recognition and exemption

2.0 **(1)** An entity seeking to carry on business as a clearing agency in certain jurisdictions in Canada is required under the securities legislation of such jurisdictions to apply for recognition or an exemption from the recognition requirement. For greater clarity, a foreign-based clearing agency that provides, or will provide, its services or facilities to a person or company resident in a jurisdiction would be considered to be carrying on business in that jurisdiction.

-Recognition of a clearing agency

(2) The CSA takes the view that a clearing agency that is systemically important to a jurisdiction's capital markets, or that is not subject to comparable regulation by another regulatory body, will generally be recognized by a securities regulatory authority.[6] A securities regulatory authority may consider the systemic importance of a clearing agency to its capital markets based on the following list of guiding factors: value and volume of transactions

[5] In Québec, an entity that provides such centralized facilities for comparing data would be required to apply either for recognition as a matching service utility or for an exemption from the recognition requirement, in application of the *Securities Act* or the *Derivatives Act*.

[6] We would consider comparable regulation by another regulatory body to be regulation that generally results in similar outcomes in substance to the requirements of Part 3 and 4.

processed, cleared and settled by the clearing agency;[7] risk exposures (particularly credit and liquidity) of the clearing agency to its participants; complexity of the clearing agency;[8] and centrality of the clearing agency with respect to its role in the market, including its substitutability, relationships, interdependencies and interactions.[9] The list of guiding factors is non-exhaustive, and no single factor described above will be determinative in an assessment of systemic importance. A securities regulatory authority retains the ability to consider additional quantitative and qualitative factors as may be relevant and appropriate.[10]

(3) Because of the approach described in subsection 2.0(2) of this CP, a securities regulatory authority may require a foreign-based clearing agency to be recognized if the clearing agency's proposed business activities in the local jurisdiction are systemically important to the jurisdiction's capital markets, even if it is already subject to comparable regulation in its home jurisdiction. In such circumstances, the recognition decision would focus on key areas that pose material risks to the jurisdiction's market and rely, where appropriate, on the current regulatory requirements and processes to which the entity is already subject in its home jurisdiction. Terms and conditions of a recognition decision that require a foreign clearing agency to report information to a Canadian securities regulatory authority may vary among foreign clearing agencies. Among other factors, they will depend on whether Canadian securities regulatory authorities have entered into an agreement or memorandum of understanding with the home regulator for sharing information and cooperation.

-Exemption from recognition

(4) Depending on the circumstances, a clearing agency may be granted an exemption from recognition pursuant to securities legislation and subject to appropriate terms and conditions, where it is not considered systemically important or where it does not otherwise pose significant risk to the capital markets. For example, such an approach may be considered for an entity that provides limited services or facilities, thereby not warranting full regulation, such as a clearing agency that does not perform the functions of a CCP, CSD or SSS. However, in such cases, terms and conditions may be imposed. In addition, a foreign-based clearing agency that is already subject to a comparable regulatory regime in its home jurisdiction may be granted an exemption from the recognition requirement as full regulation may be duplicative and inefficient when imposed in addition to the

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[7] We would consider, for example, the current aggregate monetary values and volumes of such transactions, as well as the entity's potential for growth.
[8] We would look, for example, to the nature and complexity of the clearing agency, taking into account an analysis of the various products it processes, clears or settles.
[9] We would consider, for example, the centrality or importance of the clearing agency to the particular market or markets it serves, based on the degree to which it critically supports, or that its failure or disruption would affect, such markets or the entire Canadian financial infrastructure.
[10] Additional factors may be based on the characteristics of the clearing agency under review, such as the nature of its operations, its corporate structure, or its business model.

regulation of the home jurisdiction. The exemption may be subject to certain terms and conditions, including reporting requirements and prior notification of certain material changes to information provided to the securities regulatory authority.

Application and initial filing of information

2.1 The application process for both recognition and exemption from recognition as a clearing agency is similar. The entity that applies will typically be the entity that operates the facility or performs the functions of a clearing agency. The application for recognition or exemption will require completion of appropriate documentation. This will include the items listed in subsection 2.1(1). Together, the application materials should present a detailed description of the history, regulatory structure, and business operations of the clearing agency. A clearing agency that operates as a CCP, CSD or SSS will need to describe how it meets or will meet the requirements of Parts 3 and 4. An applicant based in a foreign jurisdiction should also provide a detailed description of the regulatory regime of its home jurisdiction and the requirements imposed on the clearing agency, including how such requirements are similar to the requirements in Parts 3 and 4.

Where specific information items of the PFMI Disclosure Framework Document are not relevant to an applicant because of the nature or scope of its clearing agency activities, its structure, the products it clears or settles, or its regulatory environment, the application should explain in reasonable detail why the information items are not relevant.

The application filed by an applicant will generally be published for public comment for a 30-day period. Other materials filed with the application, which the applicant wishes to maintain confidential, will generally be kept confidential in accordance with securities and privacy legislation. However, the clearing agency will be required to publicly disclose its PFMI Disclosure Framework Document. See PFMI Principle 23, key consideration 5.

Significant changes, fee changes, and other changes in information

2.2 Section 2.2 is subject to the application provisions of subsections 1.5(3) and (4). For example, where the terms and conditions of a recognition decision made by a securities regulatory authority require a recognized clearing agency to obtain the approval of the authority before implementing a new fee for a service, the process to seek such approval set forth in the terms and conditions will apply instead of the prior notification requirement in subsection 2.2(4).

(2) The written notice should provide a reasonably detailed description of the significant change (as defined in subsection 2.2(1)) and the expected date of the implementation of the change. It should enclose or attach updated relevant documentation, including clean and blacklined versions of the documentation that show how the significant change will be implemented. If the notice is being filed by a foreign-based clearing agency, the notice should also describe the approval process or other involvement by the primary or home-jurisdiction regulator for implementing the significant change. The clearing agency is required to file concurrently with the notice any changes required to be made to the clearing agency's PFMI Disclosure Framework Document as a result of implementing the significant change, in accordance with subsection 2.2(3).

Ceasing to carry on business

2.3 A recognized or exempt clearing agency that ceases to carry on business in a local jurisdiction as a clearing agency, either voluntarily or involuntarily, must file a completed Form 24-102F2 *Cessation of Operations Report for Clearing Agency* within the appropriate timelines. In certain jurisdictions, the clearing agency intending to cease carrying on business must also make an application to voluntarily surrender its recognition to the securities regulatory authority pursuant to securities legislation. The securities regulatory authority may accept the voluntary surrender subject to terms and conditions.[11]

PART 3
PFMI PRINCIPLES APPLICABLE TO RECOGNIZED CLEARING AGENCIES

Introduction

3.0 **(1)** Section 3.1 adopts the PFMI Principles generally but excludes the application of specific PFMI Principles for certain types of clearing agencies. We have adopted only those PFMI Principles that are relevant to clearing agencies operating as a CCP, CSD or SSS.[12]

(2) Part 3, together with the PFMI Principles, is intended to be consistent with a flexible and principles-based approach to regulation. In this regard, Part 3 anticipates that a clearing agency's rules, procedures, policies and operations will need to evolve over time so that it can adequately respond to changes in technology, legal requirements, the needs of its participants and their customers, trading volumes, trading practices, linkages between financial markets, and the financial instruments traded in the markets that a clearing agency serves.

PFMI Principles

3.1 The definition of PFMI Principles in the Instrument includes the applicable key considerations for each principle. Annex E to the PFMI Report provides additional guidance on how each key consideration will apply to the specified types of

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[11] See, for example, section 21.4 of the *Securities Act* (Ontario).
[12] PFMI Principles that are relevant to payment systems and trade repositories, but not CCPs, SSSs and CSDs, are not adopted in Part 3.

clearing agencies. In interpreting and implementing the PFMI Principles, regard is to be given to the explanatory notes in the PFMI Report, as appropriate, unless otherwise indicated in section 3.1 or this Part 3 of the CP.[13] As discussed in subsection 1.2(3) of this CP, the CSA and BOC have together developed Joint Supplementary Guidance to provide additional clarity on certain aspects of some PFMI Principles within the Canadian context. The Joint Supplementary Guidance is directed at recognized domestic clearing agencies that are also overseen by the BOC. The Joint Supplementary Guidance is included in separate *text boxes* in Annex I to this CP under the relevant headings of the PFMI Principles. Except as otherwise indicated in this Part 3 of the CP, other recognized domestic clearing agencies should assess the applicability of the Joint Supplementary Guidance to their respective entity as well.

PFMI Principle 5: Collateral

3.2 Notwithstanding section 3.1 of the CP and the Joint Supplementary Guidance relating to PFMI Principle 5: *Collateral* (see Box 5.1 in Annex I to this CP), we are of the view that letters of credit may be permitted as collateral by a recognized domestic clearing agency operating as a CCP serving derivatives markets that is not also overseen by the BOC, provided that the collateral and the clearing agency's collateral policies and procedures otherwise meet the requirements of PFMI Principle 5: *Collateral*. However, the recognized clearing agency must first obtain regulatory approval of its rules and procedures that govern the use of letters of credit as collateral before accepting letters of credit.

PFMI Principle 14: Segregation and portability for CCPs serving cash markets

3.3 PFMI Principle 14: *Segregation and portability* requires, pursuant to section 3.1, that a CCP have rules and procedures that enable the segregation and portability[14] of positions and related collateral of a CCP participant's customers, particularly to protect the customers from the default or insolvency of the participant. The explanatory notes in the PFMI Report offer an "alternate approach" to meeting PFMI Principle 14. The report notes that, in certain jurisdictions, cash market CCPs operate in legal regimes that facilitate segregation and portability to achieve the protection of customer assets by alternate means that offer the same degree of protection as the approach in PFMI Principle 14.[15] The features of the alternate approach are described in the PFMI Report.[16]

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[13] For example, the Instrument uses specialized terminology related to the clearing and settlement area. Not all such terminology is defined in the Instrument, but instead may be defined or explained in the PFMI Report. Regard should be given to the PFMI Report in understanding such terminology, as appropriate, including Annex H: *Glossary*.

[14] Portability refers to the operational aspects of the transfer of contractual positions, funds, or securities from one party to another party. See paragraph 3.14.3 of the PFMI Report.

[15] See paragraph 3.14.6 of the PFMI Report, at p. 83.

[16] Features of such regimes are that, if a participant fails, (a) the customer positions can be identified in a timely manner, (b) customers will be protected by an investor protection scheme designed to move customer accounts from the failed or failing participant to another participant in a timely manner, and (c) customer assets can be restored. As an example, the PFMIs suggest that domestic law may subject participants to explicit and comprehensive financial responsibility and customer protection requirements that obligate participants to make frequent determinations (for example, daily) that they maintain possession and control of all customers' fully paid and excess margin securities and to segregate their proprietary activities from those of their customers. Under these types of regimes, pending securities purchases do not belong to the customer; thus there is no customer trade or position entered into the CCP. As a result, participants who provide collateral to the CCP do not identify whether the

- *Customers of IIROC dealer members:*

Currently, most participants of domestic cash market CCPs that clear for customers are investment dealers.[17] They are required to be members of the Investment Industry Regulatory Organization of Canada (IIROC)[18] and to contribute to the Canadian Investor Protection Fund (CIPF).[19] The CSA is of the view that the customer asset protection regime applicable to investment dealers (IIROC-CIPF regime) is an appropriate alternative framework for customers of investment dealers that are direct participants of a cash-market CCP. The IIROC-CIPF regime meets the criteria for the alternate approach for CCPs serving certain domestic cash markets because:

- IIROC's requirements governing, among other things, an investment dealer's books and records, capital adequacy, internal controls, client account margining, and segregation of client securities and cash help ensure that customer positions and collateral can be identified timely,

- customers of an investment dealer are protected by CIPF, and

- through a combination of IIROC's member rules and oversight powers, CIPF's role in the administration of the bankruptcy of a dealer, and the overarching policy objectives of Part XII of the federal *Bankruptcy and Insolvency Act* (BIA) (discussed below), customer accounts can be moved from a failing dealer to another dealer in a timely manner and customers' assets can be restored.

Part XII of the BIA sets out a special bankruptcy regime for administering the insolvency of a securities firm. The regime generally provides for all cash and securities of a bankrupt securities firm, whether held for its own account and for its customers, to vest in the appointed trustee in bankruptcy. The trustee, in turn, is directed to pool such assets into a "customer pool fund" for the benefit of the customers, which are entitled to a pro rata share of the customer pool fund according to their respective "net equity" claims as a priority claim before the general creditors are paid. To the extent there is a shortfall in customer recovery from the customer pool fund and any remaining assets in the insolvent estate, the assets are allocated among the customers on a pro rata basis. CIPF, which works in conjunction with IIROC and the bankruptcy trustee,[20] provides protection to eligible customers for losses up to $1 million per account.[21]

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collateral is provided on behalf of their customers regardless of whether they are acting on a principal or agent basis, and the CCP is not able to identify positions or the assets of its participants' customers.

[17] Investment dealers are firms registered in the category of "investment dealer" under provincial securities legislation. Investment dealers are required to be members of IIROC. See section 9.1 of National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*.

[18] IIROC is the national self-regulatory organization (SRO) which oversees all investment dealers and trading activity on debt and equity marketplaces in Canada. It is a recognized SRO in all 10 provinces in Canada and is subject to regulation and oversight by the CSA.

[19] CIPF is an investor compensation protection fund that is sponsored by IIROC and approved by the CSA.

[20] CIPF is a "customer compensation body" for the purposes of Part XII of the BIA. Where the accounts of a securities firm are protected (in whole or in part) by CIPF, the trustee in bankruptcy is required to consult with CIPF on the administration of the bankruptcy, and CIPF may designate an inspector to act on its behalf. See section 264 of the BIA.

[21] The losses must be in respect of a claim for the failure of the dealer to return or account for securities, cash balances, commodities, futures contracts, segregated insurance funds or other property received, acquired or held by the dealer in an account for the customer.

- *Customers of other types of participants:*

A recognized clearing agency operating as a cash market CCP for participants that are not IIROC investment dealers will need to have segregation and portability arrangements at the CCP level that meet PFMI Principle 14. Where the clearing agency is proposing to rely on an alternate approach for the purposes of protecting the customers of such participants, the clearing agency will need to demonstrate how the applicable legal or regulatory framework in which it operates achieves the same degree of protection and efficiency for such customers that would otherwise be achieved by segregation and portability arrangements at the CCP level described in PFMI Principle 14. See the PFMI Report, at paragraph 3.14.6.

PART 4
OTHER REQUIREMENTS OF
RECOGNIZED CLEARING AGENCIES

Introduction

4.0 As discussed in section 1.2(2) of this CP, the provisions of Part 4 are in addition to the requirements of Part 3, and apply to a clearing agency whether or not it operates as a CCP, SSS or CSD.

Division 1 – Governance:

Board of directors

4.1 **(4)** Consistent with the explanatory notes in the PFMI Report (see paragraph 3.2.10), we are of the view that the following individuals have a relationship with a clearing agency that would reasonably be expected to interfere with the exercise of the individual's independent judgment:

(a) an individual who is, or has been within the last year, an employee or executive officer of the clearing agency or any of its affiliated entities;

(b) an individual whose immediate family member is, or has been within the last year, an executive officer of the clearing agency or any of its affiliated entities;

(c) an individual who beneficially owns, directly or indirectly, voting securities carrying more than ten per cent of the voting rights attached to all voting securities of the clearing agency or any of its affiliated entities for the time being outstanding;

(d) an individual whose immediate family member beneficially owns, directly or indirectly, voting securities carrying more than ten per cent of the voting rights attached to all voting securities of the clearing agency or any of its affiliated entities for the time being outstanding;

(e) an individual who is, or has been within the last year, an executive officer of a person or company that beneficially owns, directly or indirectly, voting securities carrying more than ten per cent of the voting rights attached to all voting securities of the clearing agency or any of its affiliated entities for the time being outstanding; and

(f) an individual who accepts or who received within the last year, directly or indirectly, any audit, consulting, advisory or other compensatory fee from the clearing agency or any of its affiliated entities, other than as remuneration for acting in his or her capacity as a member of the board of directors or any board committee, or as a part-time chair or vice-chair of the board or any board committee.

For the purposes of paragraph (f) above, compensatory fees would not normally include the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the clearing agency if the compensation is not contingent in any way on continued service. Also, the indirect acceptance by an individual of any audit, consulting, advisory or other compensatory fee includes acceptance of a fee by (a) an individual's immediate family member; or (b) an entity in which such individual is a partner, a member, an officer such as a managing director occupying a comparable position or an executive officer, or occupies a similar position (except limited partners, non-managing members and those occupying similar positions who, in each case, have no active role in providing services to the entity) and which provides accounting, consulting, legal, investment banking or financial advisory services to the clearing agency or any of its affiliated entities.

In addition, an individual appointed to the board of directors or board committee of the clearing agency or any of its affiliated entities or of a person or company referred to in paragraph (e) above would not be considered to have a material relationship with the clearing agency solely because the individual acts, or has previously acted, as a chair or vice-chair of the board of directors or a board committee.

Documented procedures regarding risk spill-overs

4.2 For guidance on this provision, see the Joint Supplementary Guidance in Box 2.2 in Annex I of this CP.

Chief Risk Officer (CRO) and Chief Compliance Officer (CCO)

4.3 Section 4.3 is consistent with PFMI Principle 2, key consideration 5, which requires a clearing agency to have an experienced management with a mix of skills and the integrity necessary to discharge its operations and risk management responsibilities.

(3) The reference to "harm to the broader financial system" in subparagraph 4.3(3)(c)(ii) may be in relation to the domestic or international financial system. The CSA is of the view that the role of a CCO may, in certain circumstances, be performed by the Chief Legal Officer or General Counsel of the clearing agency, where the individual has sufficient time to properly carry out his or her duties and, provided that there are appropriate safeguards in place to avoid conflicts of interest.

Board or advisory committees

4.4 Section 4.4 is intended to reinforce the clearing agency's obligations to meet the PFMI Principles, particularly PFMI Principles 2 and 3. The CSA is of the view that the mandates of the committees should, at a minimum, include the following:

(a) providing advice and recommendations to the board of directors to assist it in fulfilling its risk management responsibilities, including reviewing and assessing the clearing agency's risk management policies and procedures, the adequacy of the implementation of appropriate procedures to mitigate and manage such risks, and the clearing agency's participation standards and collateral requirements;

(b) ensuring adequate processes and controls are in place over the models used to quantify, aggregate, and manage the clearing agency's risks;

(c) monitoring the financial performance of the clearing agency and providing financial management oversight and direction to the business and affairs of the clearing agency;

(d) implementing policies and processes to identify, address, and manage potential conflicts of interest of board members; and

(e) regularly reviewing the board of directors' and senior management's performance and the performance of each individual member.

Section 4.4 is a minimum requirement. Consistent with the explanatory notes in the PFMI Principles (see paragraph 3.2.9), a recognized clearing agency should also consider forming other types of board committees, such as a compensation committee. All committees should have clearly assigned responsibilities and procedures. The clearing agency's internal audit function should have sufficient resources and independence from management to provide, among other activities, a rigorous and independent assessment of the effectiveness of its risk-management and control processes. See section 4.1 for the concept of independence. A board will typically establish an audit committee to oversee the internal audit function. In addition to reporting to senior management, the audit function should have regular access to the board through an additional reporting line.

Division 2 – Default management:

Use of own capital

4.5 The CSA is of the view that a CCP's own capital contribution should be used in the default waterfall, immediately after a defaulting participant's contributions to margin and default fund resources have been exhausted, and prior to non-defaulting participants' contributions. Such equity should be significant enough to attract senior management's attention, and separately retained and not form part of the CCP's resources for other purposes, such as to cover general business risk.

Division 3 – Operational risk:

4.6 to 4.10 Sections 4.6 to 4.10 complement PFMI Principle 17, which requires a clearing agency to 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. PFMI Principle 17 further requires that systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity, and business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Systems requirements

4.6 (a) The intent of these provisions is to ensure that controls are implemented to support information technology planning, acquisition, development and maintenance, computer operations, information systems support, and security. Recognized guides as to what constitutes adequate information technology controls include 'Information Technology Control Guidelines' from the Canadian Institute of Chartered Accountants (CICA) and 'COBIT' from the IT Governance Institute.

(b) Capacity management requires that the clearing agency monitor, review, and test (including stress test) the actual capacity and performance of the system on an ongoing basis. Accordingly, under subsection 4.6(b), the clearing agency is required to meet certain standards for its estimates and for testing. These standards are consistent with prudent business practice. The activities and tests required in this subsection are to be carried out at least once a year. In practice, continuing changes in technology, risk management requirements and competitive pressures will often result in these activities being carried out or tested more frequently.

(c) A failure, malfunction or delay or other incident is considered to be "material" if the clearing agency would, in the normal course of operations, escalate the matter to or inform its senior management ultimately accountable for technology. It is also expected that, as part of this notification, the clearing agency will provide updates on the status of the failure and the resumption of service. Further, the clearing agency should have comprehensive and well-documented procedures in place to record, report, analyze, and resolve all operational incidents. In this regard, the clearing agency should undertake a "post-incident" review to identify the causes and any required improvement to the normal operations or business continuity arrangements. Such reviews should, where relevant, include the clearing agency's participants. The results of such internal reviews are required to be communicated to the securities regulatory authority as soon as practicable. Subsection 4.6(c) also refers to a material security breach. A material security breach or systems intrusion is considered to be any unauthorized entry into any of the systems that support the functions of the clearing agency or any system that shares resources with one or more of these systems. Virtually any security breach would be considered material and thus reportable to the securities regulatory authority. The onus would be on the clearing agency to document the reasons for any security breach it did not consider material.

Systems reviews

4.7 (1) A qualified party is a person or company or a group of persons or companies with relevant experience in both information technology and in the evaluation of related internal systems or controls in a complex information technology environment. Qualified persons may include external auditors or third party information system consultants, as well as employees of the clearing agency or an affiliated entity of the clearing agency, but may not be persons responsible for the development or operation of the systems or capabilities being tested. Before engaging a qualified party, a clearing agency should discuss its choice with the regulator or, in Québec, the securities regulatory authority.

Clearing agency technology requirements and testing facilities

4.8 (1) The technology requirements required to be disclosed under subsection 4.8(1) do not include detailed proprietary information.

(5) We expect the amended technology requirements to be disclosed as soon as practicable, either while the changes are being made or immediately after.

Testing of business continuity plans

4.9 Business continuity management is a key component of a clearing agency's operational risk-management framework. A recognized clearing agency's business continuity plan and its associated arrangements should be subject to frequent review and testing. At a minimum, under section 4.9, such tests must be conducted annually. Tests should address various scenarios that simulate wide-scale disasters and inter-site switchovers. The clearing agency's employees should be thoroughly trained to execute the business continuity plan and participants, critical service providers, and linked clearing agencies should be regularly involved in the testing and be provided with a general summary of the testing results. The CSA expects that the clearing agency will also facilitate and participate in industry-wide testing of the business continuity plan (domestically-based recognized clearing agencies are required to participate in all industry-wide business continuity tests, as determined by a regulation services provider, regulator, or in Québec, the securities regulatory authority, pursuant to National Instrument 21-101 *Marketplace Operation*). The clearing agency should make appropriate adjustments to its business continuity plan and associated arrangements based on the results of the testing exercises.

Outsourcing

4.10 Where a recognized clearing agency relies upon or outsources some of its operations to a service provider, it should generally ensure that those operations meet the same requirements they would need to meet if they were provided internally. Under section 4.10, the clearing agency must meet various requirements in respect of the outsourcing of critical services or systems to a service provider. These requirements apply regardless of whether the outsourcing arrangements are with third-party service providers, or with affiliated entities of the clearing agency.

Generally, the clearing agency is required to establish, implement, maintain and enforce policies and procedures to evaluate and approve outsourcing agreements to critical service providers. Such policies and procedures should include assessing the suitability of potential service providers and the ability of the clearing agency to continue to comply with securities legislation in the event of the service provider's bankruptcy, insolvency or termination of business. The clearing agency is also required to monitor and evaluate the on-going performance and compliance of the service provider to which they outsourced critical services, systems or facilities. Accordingly, the clearing agency should define key performance indicators that will measure the service level. Further, the clearing agency should have robust arrangements for the substitution of such providers, timely access to all necessary information, and the proper controls and monitoring tools.

Under section 4.10, a contractual relationship should be in place between the clearing agency and the critical service provider allowing it and relevant authorities to have full access to necessary information. The contract should ensure that the clearing agency's approval is mandatory before the critical service provider can itself outsource material elements of the service provided to the clearing agency, and that in the event of such an arrangement, full access to the necessary information is preserved. Clear lines of communication should be established between the outsourcing clearing agency and the critical service provider to facilitate the flow of functions and information between parties in both ordinary and exceptional circumstances.

Where the clearing agency outsources operations to critical service providers, it should disclose the nature and scope of this dependency to its participants. It should also identify the risks from its outsourcing and take appropriate actions to manage these dependencies through appropriate contractual and organisational arrangements. The clearing agency should inform the securities regulatory authority about any such dependencies and the performance of these critical service providers. To that end, the clearing agency can contractually provide for direct contacts between the critical service provider and the securities regulatory authority, contractually ensure that the securities regulatory authority can obtain specific reports from the critical service provider, or the clearing agency may provide full information to the securities regulatory authority.

Division 4 – Participation requirements:

Access requirements and due process

4.11 Section 4.11 complements PFMI Principle 18, which requires a clearing agency to have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

(1) (b) We consider an indirect participant to be an entity that relies on the services provided by other entities (participants) to use a clearing agency's clearing and settlement facilities. As defined in the Instrument, a participant (sometimes also referred to as a "direct participant") is an entity that has entered into an agreement with a clearing agency to access the services of the clearing agency and is bound by the clearing agency's rules and procedures. While indirect participants are generally not bound by the rules of the clearing agency, their transactions are cleared and settled through the clearing agency in accordance with the clearing agency's rules and procedures. The concept of indirect participant is discussed in the PFMI Report, at paragraph 3.19.1.

(1) (d) We are of the view that a requirement on participants of a clearing agency serving the derivatives markets to use a trade repository that is an affiliated entity to report derivatives trades would be unreasonable.

PART 5
BOOKS AND RECORDS AND LEGAL ENTITY IDENTIFIER

Legal Entity Identifiers

5.2 **(1)** The Global Legal Entity Identifier System defined in subsection 5.2(1) and referred to in subsections 5.2(2) and 5.2(3) is a G20 endorsed system[22] that will serve as a public-good utility responsible for overseeing the issuance of legal entity identifiers (LEIs) globally to counterparties that enter into transactions in order to uniquely identify parties to transactions. It is currently being designed and implemented under the direction of the LEI Regulatory Oversight Committee (ROC), a governance body endorsed by the G20.

(3) If the Global LEI System is not available at the time a clearing agency is required to fulfill their recordkeeping or reporting requirements under securities legislation, they must use a substitute LEI. The substitute LEI must be in accordance with the standards established by the LEI ROC for pre-LEI identifiers. At the time the Global LEI System is operational, a clearing agency or its affiliated entities must cease using their substitute LEI and commence using their LEI. It is conceivable that the two identifiers could be identical.

PART 6
EXEMPTIONS

Exemptions

6.1 As Part 3 adopts a principles-based approach to incorporating the PFMI Principles into the Instrument, the CSA has sought to minimize any substantive duplication or material inefficiency due to cross-border regulation. Where a recognized foreign-based clearing agency does face some conflict or inconsistency between the requirements of sections 2.2 and 2.5 and Part 4 and the requirements of the regulatory regime in its home jurisdiction, the clearing agency is expected to comply with the Instrument. However, where such a conflict or inconsistency causes a hardship for the clearing agency, and provided that the entity is subject to requirements in its home jurisdiction resulting in similar outcomes in substance to the requirements of sections 2.2 and 2.5 and Part 4, an exemption from a provision of the Instrument may be considered by a securities regulatory authority. The exemption may be subject to appropriate terms or conditions.

[22] See http://www.financialstabilityboard.org/list/fsb_publications/tid_156/index.htm for more information.

Annex I

to Companion Policy 24-102CP

Joint Supplementary Guidance

Developed by the Bank of Canada and Canadian Securities Administrators

- ***PFMI Principle 2: Governance***

Box 2.1:
Joint Supplementary Guidance –
Financial Stability and Other Public Interest Considerations

Context

The PFMIs define governance as the set of relationships between an FMI's owners, board of directors (or equivalent), management, and other relevant parties, including participants, authorities, and other stakeholders (such as participants' customers, other interdependent FMIs, and the broader market). Governance provides the processes through which an organization sets its objectives, determines the means for achieving those objectives, and monitors performance against those objectives. This note provides supplementary regulatory guidance for Canadian FMIs on their governance arrangements as it relates to supporting relevant public interest considerations.

Public interest considerations in the context of the PFMIs

The PFMIs indicate that FMIs should "explicitly support financial stability and other relevant public interests." However, there may be circumstances where providing explicit support of relevant public interests conflict with other FMI objectives and therefore require appropriate prioritization and balancing. For example, addressing the potential trade-offs between protecting the participants and the FMI while ensuring the financial stability interests are upheld.

Guidance within the PFMIs

The following text has been extracted directly from the PFMIs. The pertinent information is in bold italics.

PFMI paragraph 3.2.2:

> ***Given the importance of FMIs and the fact that their decisions can have widespread impact, affecting multiple financial institutions, markets, and jurisdictions, it is essential for each FMI to place a high priority on the safety and efficiency of its operations and explicitly support financial stability and other***

> ***relevant public interests. Supporting the public interest is a broad concept that includes, for example, fostering fair and efficient markets.*** *For example, in certain over the counter derivatives markets, industry standards and market protocols have been developed to increase certainty, transparency, and stability in the market. If a CCP in such markets were to diverge from these practices, it could, in some cases, undermine the market's efforts to develop common processes to help reduce uncertainty. An FMI's governance arrangements should also include appropriate consideration of the interests of participants, participants' customers, relevant authorities, and other stakeholders. (...) For all types of FMIs, governance arrangements should provide for fair and open access (see Principle 18 on access and participation requirements) and for effective implementation of recovery or wind-down plans, or resolution.*

PFMI paragraph 3.2.8:

> ***An FMI's board has multiple roles and responsibilities that should be clearly specified. These roles and responsibilities should include*** *(a) establishing clear strategic aims for the entity; (b) ensuring effective monitoring of senior management (including selecting its senior managers, setting their objectives, evaluating their performance, and, where appropriate, removing them); (c) establishing appropriate compensation policies (which should be consistent with best practices and based on long-term achievements, in particular, the safety and efficiency of the FMI); (d) establishing and overseeing the risk-management function and material risk decisions; (e) overseeing internal control functions (including ensuring independence and adequate resources); (f) ensuring compliance with all supervisory and oversight requirements;* ***(g) ensuring consideration of financial stability and other relevant public interests****; and (h) providing accountability to the owners, participants, and other relevant stakeholders.*

The CPMI-IOSCO PFMI Disclosure framework and Assessment methodology provides questions to guide the assessment of the FMI against the PFMIs. Questions related to public interest considerations are focused on ensuring that the FMI's objectives are clearly defined, giving a high priority to safety, financial stability and efficiency while also ensuring all other public interest considerations are identified and reflected in the FMI's objectives.

Supplementary Guidance for designated Canadian FMIs

By definition the PFMIs apply to systemically important FMIs, so safety and financial stability objectives should be given a high priority.

Efficiency is also a high priority that should contribute to (but not supersede) the safety and financial stability objectives.

Other public interest considerations such as competition and fair and open access should also be considered in the broader safety and financial stability context.

A framework (objectives, policies and procedures) should be in place for default and other emergency situations. The framework should articulate explicit principles to ensure financial stability and other relevant public interests are considered as part of the decision making process. For example, it should provide guidance on discretionary management decisions, consider the trade-offs between protecting the participants and the FMI while also ensuring the financial stability interests are upheld, and articulate a communication protocol with the board and regulators.

Practical questions/approaches to assessing the appropriateness of the framework include:

- Does the enabling legislation, articles of incorporation, corporate by-laws, corporate mission, vision statements, corporate risk statements/frameworks/methodology clearly articulate the objectives and are they appropriately aligned and communicated (transparent)?
- Do the objectives give appropriate priority to safety, financial stability, efficiency and other public interest considerations?
- Does the Board structure ensure the right mix of skills/experience and interests are in place to ensure the objectives are clear, appropriately prioritized, achieved and measured?
- What is the training provided to the Board and management to support the objectives?
- Do the service offerings and business plans support the objectives?
- Do the system design, rules, procedures support the objectives?
- Are the inter-dependencies and key dependencies considered and managed in the context of the broader financial stability objectives? For instance, do problem and default management policies and procedures appropriately provide for consideration of the broader financial stability interests and do they engage the key stakeholders and regulators?
- Are there procedures in place to get timely engagement of the Board to discuss emerging/current issues, consider scenarios, provide guidance and make decision?
- Does the framework ensure that the broader financial stability issues are considered in any actions relating to a participant suspension?

Box 2.2:
Joint Supplementary Guidance–
Vertically and Horizontally Integrated FMIs

Context

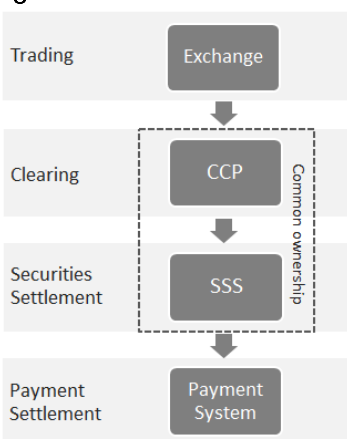
Consolidation, or integration, of FMI services may bring about benefits for merging FMIs; however it may also create new governance challenges. The PFMIs contain some general guidance regarding how FMIs should manage governance issues that arise in integrated entities. This note provides supplementary regulatory guidance for Canadian FMIs that either belong to an integrated entity or are considering consolidating with another entity to form one. The guidance applies to both vertically and horizontally integrated entities.

Vertical and horizontal integration in the context of FMIs

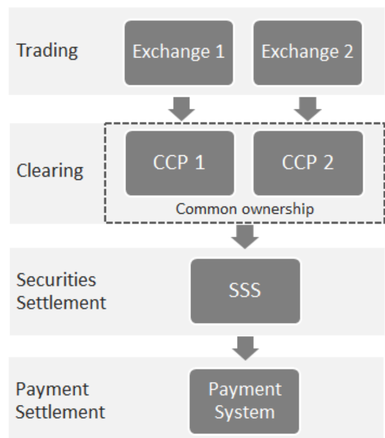
The PFMIs define a vertically integrated FMI group as one that brings together post-trade infrastructure providers under common ownership with providers of other parts of the value chain (for example, one entity owning and operating an exchange, CCP and SSS) and a horizontally integrated group as one that provides the same post-trade service offerings across a number of different products (for example, one entity offering CCP services for derivatives and cash markets).[23] Examples are shown in Figure 1.

Figure 1: Examples of FMI integration in the value chain

a) Example of vertically integrated FMIs



b) Example of horizontally integrated FMIs



Guidance within the PFMIs

The following text has been extracted directly from the PFMIs. The pertinent information is in bold italics.

PFMI paragraph 3.2.5:

> *Depending on its ownership structure and organisational form, an FMI may need to focus particular attention on certain aspects of its governance arrangements.* ***An FMI that is part of a larger organisation, for example, should place particular emphasis on the clarity of its governance arrangements, including in relation to any conflicts of interests and outsourcing issues that may arise because of the parent or other affiliated organisation's structure. The FMI's governance***

[23] CPMI-IOSCO 2010. "Market structure developments in the clearing industry: implications for financial stability." CPMI-IOSCO Paper No 92. Available at: http://www.bis.org/publ/cpss92.htm.

arrangements should also be adequate to ensure that decisions of affiliated organisations are not detrimental to the FMI.[24] An FMI that is, or is part of, a for-profit entity may need to place particular emphasis on managing any conflicts between income generation and safety.

PFMI paragraph 3.2.6:

> *An FMI may also need to focus particular attention on certain aspects of its risk-management arrangements as a result of its ownership structure or organisational form.* ***If an FMI provides services that present a distinct risk profile from, and potentially pose significant additional risks to, its payment, clearing, settlement, or recording function, the FMI needs to manage those additional risks adequately. This may include separating the additional services that the FMI provides from its payment, clearing, settlement, and recording function legally, or taking equivalent action.*** *The ownership structure and organisational form may also need to be considered in the preparation and implementation of the FMI's recovery or wind-down plans or in assessments of the FMI's resolvability.*

Supplementary guidance for designated Canadian FMIs

An FMI that is part of a larger entity faces additional risk considerations compared to stand-alone FMIs. While there are potential benefits from integrating services into one large entity, including potential risk reduction benefits, integrated entities could face additional risks such as a greater degree of general business risk. Examples of how this could occur include the following:

- losses in one function may spill-over to the entity's other functions;
- the consolidated entity may face high combined exposures across its functions; and
- the consolidated entity may face exposures to the same participants across its functions.

For a more extensive discussion of potentially heightened risks that integrated FMIs may face, see CPMI, "Market structure developments in the clearing industry: implications for financial stability" (2010).[25]

If an FMI belongs to a larger entity, or is considering consolidating with another entity, it should consider how its risk profile differs as part of the consolidated entity, and take appropriate measures to mitigate these risks.

In addition, FMIs that either belong to an integrated entity or are considering merging to form one should meet the following conditions.

[24] If an FMI is wholly owned or controlled by another entity, authorities should also review the governance arrangements of that entity to see that they do not have adverse effects on the FMI's observance of this principle.
[25] Available at http://www.bis.org/cpmi/publ/d92.pdf.

1) Measures to protect critical FMI functions

- FMIs may be part of a larger consolidated entity. These FMIs must either:
  - o legally separate FMI-related functions[26] from non-FMI-related functions performed by the consolidated entity in order to maximize bankruptcy remoteness of the FMI-related functions; or
  - o have satisfactory policies and procedures in place to manage additional risks resulting from the non-FMI-related functions appropriately to ensure the FMI's financial and operational viability.
- If an FMI performs multiple FMI-related functions with distinct risk profiles within the same entity, the operator should effectively manage the additional risks that may result. The FMI should hold sufficient financial resources to manage the risks in all services it offers, including the combined or compounded risks that would be associated with offering the services through a single legal entity. If the FMI provides multiple services, it should disclose information about the risks of the combined services to existing and prospective participants to give an accurate understanding of the risks they incur by participating in the FMI. The FMI should carefully consider the benefits of offering critical services with distinct risk profiles through separate legal entities.
- If an FMI offers CCP services as part of its FMI-related functions, further conditions apply. CCPs take on more risk than other FMIs, and are inherently at higher risk of failure. Therefore, the FMI must either legally separate its CCP functions from other critical (non-CCP) FMI-related functions, or have satisfactory policies and procedures in place to manage additional risks appropriately to ensure the FMI's financial and operational viability.
- Legal separation of critical functions is intended to maximize their bankruptcy remoteness and would not necessarily preclude integration of common organizational management activities such as IT and legal services across functions as long as any related risks are appropriately identified and mitigated.

2) Independence of governance and risk management

- FMIs and non-FMIs may have different corporate objectives and risk management appetites which could conflict at the parent level. For example, non-FMI-related functions, such as trading venues, are generally more focused on profit generation than risk management and do not have the same risk profile as FMI-related functions. A trading venue in a vertically integrated entity may benefit from increased participation in its service if its associated clearing function lessens its participation requirements.
- To mitigate potential conflicts, in particular the ability of other functions to negatively influence the FMI's risk controls, each FMI subsidiary should have a governance structure and risk management decision-making process that is separate and independent from the other functions and should maintain an appropriate level of autonomy from the parent and other functions to ensure

[26] FMI-related functions are CCP, SSS, and CSD functions, including other core aspects of clearing and settlement necessary to perform the CCP, SSS, and CDS functions (see the CPMI-IOSCO glossary definitions of "clearing" and "settlement", available at http://www.bis.org/cpmi/publ/d00b.pdf).

efficient decision making and effective management of any potential conflicts of interest. In addition, the consolidated entity's broad governance arrangements should be reviewed to ensure they do not impede the FMI-related function's observance of the CPMI-IOSCO principle on governance.

3) Comprehensive management of risks

- Although risk management governance and decision-making should remain independent, it is nonetheless necessary that the consolidated entity is able to manage risk appropriately across the entity. At a consolidated level, the entity should have an appropriate risk management framework that considers the risks of each subsidiary and the additional risks related to their interdependencies.
- An FMI should identify and manage the risks it bears from and poses to other entities as a result of interdependencies. Consolidated FMIs should also identify and manage the risks they pose to one another as a result of their interdependencies. Consolidated FMIs may have exposures to the same participants, liquidity providers, and other critical service providers across products, markets and/or functions. This may increase the entity's dependence on these providers and may heighten the systemic risk associated with the consolidated entity compared to a stand-alone FMI. Where possible, the consolidated entity and its FMIs should consider ways to mitigate risks arising from shared dependencies. The consolidated entity and its FMIs should also consider conducting entity-wide operational risk testing related to identifying and mitigating these risks.

4) Sufficient capital to cover potential losses

- Consolidated entities face the risk that a single participant defaults in more than one subsidiary simultaneously. This could result in substantial losses for the consolidated entity which will then also need to replenish resources for the FMIs to continue to operate. FMIs should consider such risks in developing their resource replenishment plan.
- Consolidated entities may face higher or lower business risk than individual FMIs depending on size, complexity and diversification across affiliates. Consolidated entities should consider these impacts in their general business risk profiles and in determining the appropriate level of liquid assets needed to cover their potential general business losses.[27]

- *PFMI Principle 5: Collateral*

Box 5.1:
Joint Supplementary Guidance –
Collateral

Context

[27] Liquid assets held for general business losses must be funded by equity (such as common stock, disclosed reserves, or retained earnings) rather than debt.

The PFMIs establish the form and attributes of collateral that an FMI holds to manage its own credit exposures or those of its participants. This note provides additional guidance for Canadian FMIs to meet the components of the collateral principle related to: (i) acceptance of collateral with low credit, liquidity and market risk; (ii) concentrated holdings of certain assets; and (iii) calculating haircuts. In certain circumstances, regulators may allow exceptions to the collateral policy on a case-by-case basis if the FMI demonstrates that the risks can be adequately managed.

(i) Acceptable collateral

An FMI should conduct its own assessment of risks when determining collateral eligibility. In general, collateral held to manage the credit exposures of the FMI or those of its participants should have minimal credit, liquidity and market risk, even in stressed market conditions. However, asset categories with additional risk may be accepted when subject to conservative haircuts and adequate concentration limits.[28]

The following clarifies regulators' expectations on what is acceptable collateral by specifying:

1) minimum requirements for all assets that are acceptable as collateral;
2) the asset categories that are judged to have minimal credit, liquidity and market risk; and
3) additional asset categories that could be acceptable as collateral if subject to conservative haircuts and concentration limits.

1) An FMI should conduct its own internal assessment of the credit, liquidity and market risk of the assets eligible as collateral. The FMI should review its collateral policy at least annually, and whenever market factors justify a more frequent review. At a minimum, acceptable assets should:

- **i) be freely transferable without legal, regulatory, contractual or any other constraints that would impair liquidation in a default;**
- **ii) be marketable securities that have an active outright sale market even in stressed market conditions;**
- **iii) have reliable price data published on a regular basis;**
- **iv) be settled over a securities settlement system compliant with the Principles; and**
- **v) be denominated in the same currency as the credit exposures being managed, or in a currency that the FMI can demonstrate it has the ability to manage.**

An FMI should not rely only on external opinions to determine what acceptable collateral is. The FMI should conduct its own assessment of the riskiness of assets, including differences within a particular asset category, to determine whether the risks are acceptable. Since the primary purpose of accepting collateral is to manage the

[28] See PFMI Principle 5, key considerations 1 and 4.

credit exposures of the FMI and its participants, it is paramount that assets eligible as collateral can be liquidated for fair value within a reasonable time frame to cover credit losses following a default. The annual review of the FMI's collateral policy provides an opportunity to assess whether risks continue to be adequately managed. Owing to the dynamic nature of capital markets, the FMI should monitor changes in the underlying risk of the specific assets accepted as collateral, and should adjust its collateral policy in the interim period between annual reviews, when required.

At a minimum, an asset should have certain characteristics in order to provide sufficient assurance that it can be liquidated for fair value within a reasonable time frame. These characteristics relate primarily to the FMI's ability to reliably sell the asset as required to manage its credit exposures. The asset should be unencumbered, that is, it must be free of legal, regulatory, contractual or other restrictions that would impede the FMI's ability to sell it. The challenges associated with selling or transferring non-marketable assets, or those without an active secondary market, preclude their acceptance as collateral.

2) Assets generally judged to have minimal credit, liquidity and market risk are the following:

- **i) cash;**
- **ii) securities issued or guaranteed by the Government of Canada;[29]**
- **iii) securities issued or guaranteed by a provincial government; and**
- **iv) securities issued by the U.S. Treasury.**

In general, the assets judged to have minimal risk are cash and debt securities issued by government entities with unique powers, such as the ability to raise taxes and set laws, and that have a low probability of default. Total Canadian debt outstanding is currently dominated by securities issued or guaranteed by the Government of Canada and by provincial governments. The relatively large supply of securities issued by these entities and their generally high creditworthiness contribute to the liquidity of these assets in the domestic capital market. Securities issued by the U.S. Treasury are also deemed to be of high quality for the same reasons. The overall riskiness of securities issued by the Government of Canada and the U.S. Treasury is further reduced by their previous record of maintaining value in stressed market conditions, when they tend to benefit from a "flight to safety."

It is essential that an FMI regularly assesses the riskiness of even the specific high-quality assets identified in this section to determine their adequacy as eligible collateral. In some cases, only certain assets within the more general asset category may be deemed acceptable.

3) An FMI should consider its own distinct arrangements for allocating credit losses and managing credit exposures when accepting a broader range of assets as collateral. The following asset classes may be acceptable as collateral if they are

[29] Guarantees include securities issued by federal and provincial Crown corporations or other entities with an explicit statement that debt issued by the entity represents the general obligations of the sovereign.

subject to conservative haircuts and concentration limits:

- **i) securities issued by a municipal government;**
- **ii) bankers' acceptances;**
- **iii) commercial paper;**
- **iv) corporate bonds;**
- **v) asset-backed securities that meet the following criteria: (1) sponsored by a deposit-taking financial institution that is prudentially regulated at either the federal or provincial level, (2) part of a securitization program supported by a liquidity facility , and (3) backed by assets of an acceptable credit quality;**
- **vi) equity securities traded on marketplaces regulated by a member of the CSA and the Investment Industry Regulatory Organization of Canada; and**
- **vii) other securities issued or guaranteed by a government, central bank or supranational institution classified as Level 1 high-quality assets by the Basel Committee on Banking Supervision.**

An FMI should take into account its specific risk profile when assessing whether accepting certain assets as collateral would be appropriate. The decision to broaden the range of acceptable collateral should also consider the size of collateral holdings to cover the credit exposures of the FMI relative to the size of asset markets. In cases where the total collateral required to cover credit exposures is small compared with the market for high-quality assets, there is less potential strain on participants to meet collateral requirements.

Accepting a broader range of collateral has certain advantages. Most importantly, it provides participants with more flexibility to meet the FMI's collateral requirements, which may be especially important in stressed market conditions. A broader range of collateral diversifies the risk exposures faced by the FMI, since it may be easier to liquidate diversified collateral holdings when liquidity unexpectedly dries up for a particular asset class. It also diversifies market risk by reducing potential exposure to idiosyncratic shocks. Accepting a broader range of assets recognizes the increased cost to market participants of posting only the highest-quality assets, as well as the increasing encumbrance of these assets in order to meet new regulatory standards.[30]

(ii) Concentration Limits

An FMI should avoid concentrated holding of assets where this could potentially introduce credit, market and liquidity risk beyond acceptable levels. In addition, the FMI should mitigate specific wrong-way risk by limiting the acceptance of collateral that would likely lose value in the event of a participant default, and prevent participants from posting assets they or their affiliates have issued. The FMI should measure and monitor the collateral posted by participants on a regular basis, with more frequent analysis required when more flexible collateral policies have been implemented.[31]

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[30] The encumbrance of high-quality assets is expected to increase through a number of regulatory reforms, including Basel III, over-the-counter derivatives reform and the Principles.

[31] See Principle 5, key considerations 1 and 4.

The following points clarify regulators' expectations regarding the composition of collateral accepted by an FMI by specifying:

1) broad limits for riskier asset classes to mitigate concentration risk;
2) targeted limits for securities issued by financial sector entities to mitigate specific wrong-way risk; and
3) the level of monitoring required for collateral posted by participants.

1) **An FMI should limit assets from the broader range of acceptable assets identified in section (i)3) to a maximum of 40 per cent of the total collateral posted from each participant. Within the broader range of acceptable assets, the FMI should consider implementing more specific concentration limits for different asset categories.**

An FMI should limit securities issued by a single issuer from the broader range of acceptable assets to a maximum of 5 per cent of total collateral from each participant.

The guidance limits the acceptance of collateral from the broader range of assets to a maximum of 40 per cent because a higher proportion could potentially create unacceptable risks to FMIs and their participants. This limit is currently applied to the Bank's Standing Liquidity Facility and the Liquidity Coverage Ratio under Basel III. The benefits of expanding collateral—namely, providing participants with more flexibility and achieving greater diversification—are achieved within the limit of 40 per cent, with collateral in excess of this limit increasing the overall risk exposures with less benefit. In some circumstances, regulators may permit an FMI to accept more than 40 per cent of total collateral from the broader range of assets if the risk from a particular participant is low.
Employing a limit of 5 per cent of total collateral for securities issued by a single issuer is a prudent measure to limit exposures from idiosyncratic shocks. It also reduces the need for procyclical adjustments to collateral requirements following a decline in value.

An FMI should consider implementing more stringent concentration limits, as well as imposing limits on certain asset categories, depending on the FMI's specific arrangements for managing credit exposures. The considerations described in section (i) 3) for accepting a broader range of assets as collateral apply equally to the decision over whether more stringent concentration limits should be implemented.

2) **An FMI should limit the collateral from financial sector issuers to a maximum of 10 per cent of total collateral pledged from each participant. The FMI should not allow participants to post their own securities or those of their affiliates as collateral.**

An FMI is exposed to specific wrong-way risk when the collateral posted is highly likely to decrease in value following a participant default. It is highly likely that the value of debt and equity securities issued by companies in the financial sector would be adversely affected by the default of an FMI participant, introducing wrong-way risk. This is especially the case for interconnected FMI participants with activities that are concentrated in domestic financial markets. Implementing a limit on financial sector issuers mitigates potential risk exposures from specific wrong-way risk. More stringent limits should be implemented where appropriate.

3) In cases where only the highest-quality assets are accepted, an FMI is required to measure and monitor the collateral posted by participants during periodic evaluations of participant creditworthiness. The FMI should measure and monitor the correlation between a participant's creditworthiness and the collateral posted more frequently when a broader range of collateral is accepted. The FMI should have the ability to adjust the composition and to increase the collateral required from participants experiencing a reduction in creditworthiness.

When only the highest-quality assets are accepted as collateral, there is less risk associated with the composition of collateral posted by a participant; hence, such risk does not need to be monitored as closely. The FMI should monitor the composition of collateral pledged by participants more frequently when riskier assets are eligible, since such assets are more likely to be correlated with the participant's creditworthiness. FMIs should also consider the general credit risk of their participants when deciding how frequently monitoring should be conducted. In all circumstances, the FMI should have the contractual and legal ability to unilaterally require more collateral and to request higher-quality collateral from a participant that is judged to present a greater risk.

(iii) Haircuts

An FMI should establish stable and conservative haircuts that consider all aspects of the risks associated with the collateral. An FMI should evaluate the performance of haircuts by conducting backtesting and stress testing on a regular basis.[32]

The following points clarify regulators' expectations regarding the calculation and testing of haircuts by outlining:

1) requirements for calculating haircuts; and
2) requirements for testing the adequacy of haircuts and overall collateral accepted.

1) An FMI should apply stable and conservative haircuts that are calibrated against stressed market conditions. When the same haircut is applied to a group of securities, it should be sufficient to cover the riskiest security within the group. Haircuts should reflect both the specific risks of the collateral accepted and the general risks of an FMI's collateral policy.

[32] See PFMI Principle 5, key considerations 2 and 3.

Including periods of stressed market conditions in the calibration of haircuts should increase the haircut rate. In addition to representing a conservative approach, this helps to mitigate the risk of a procyclical increase in haircuts during a period of high volatility. Typically, FMIs group similar securities by shared characteristics for the purposes of calculating haircuts (e.g., Government of Canada bonds with similar maturities). An FMI should recognize the different risks associated with each individual security by ensuring that the haircut is sufficient to cover the security with the most risk within each group. Haircuts should always account for all of the specific risks associated with each asset accepted as collateral. However, the FMI should also consider the portfolio risk of the total collateral posted by a participant; the FMI may consider employing deeper haircuts for concentration and wrong-way risk above certain thresholds.

2) An FMI should perform backtesting of its collateral haircuts on at least a monthly basis, and conduct a more thorough review of haircuts quarterly. The FMI's stress tests should take into account the collateral posted by participants.

FMIs are expected to calculate stable and conservative haircuts by considering stressed market conditions. In general, including stressed market conditions in the calibration of haircuts should provide a high level of coverage that does not require continuous testing and verification. Nonetheless, backtesting on a monthly basis allow the adequacy of haircuts to be evaluated against observed outcomes. A quarterly review of haircuts balances the objective of stable haircuts with the need to adjust haircuts as required. Including changes to collateral values as part of stress testing provides a more accurate assessment of potential losses in a default scenario.

- ***PFMI Principle 7: Liquidity risk***

Box 7.1:
Joint Supplementary Guidance –
Liquidity Risk

Context

The PFMIs define liquidity risk as risk that arises when the FMI, its participants or other entities cannot settle their payment obligations when due as part of the clearing or settlement process. This note provides additional guidance for Canadian FMIs to meet the components of the liquidity-risk principle related to: (i) maintaining sufficient liquid resources and (ii) qualifying liquid resources.

(i) Maintaining sufficient liquid resources

An FMI should maintain sufficient qualifying liquid resources to cover its liquidity exposures to participants with a high degree of confidence. An FMI should maintain additional liquid resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible conditions. Liquidity stress testing should be performed on a daily basis. An FMI should verify that its liquid resources are sufficient through comprehensive stress testing conducted at least monthly.[33]

The information provided in this section clarifies regulators' expectations of sufficient qualifying liquid resources by specifying:

1) the degree of confidence required to cover liquidity exposures;
2) the total liquid resources that should be maintained; and
3) how the FMI should verify that its liquid resources are sufficient and adjust liquid resources when necessary.

1) Qualifying liquid resources should meet an established single-tailed confidence level of at least 97 per cent with respect to the estimated distribution of potential liquidity exposures.[34] The FMI should have an appropriate method for estimating potential exposures that accounts for the design of the FMI and other relevant risk factors.

The guidance requires a high threshold for covering liquidity exposures with qualifying liquid resources, while also considering the expense associated with obtaining these resources. A 97 per cent degree of confidence is equivalent to less than one observation per month (on average) in which a liquidity exposure is greater than the FMI's qualifying liquid resources. However, if it is to meet the required threshold, the FMI should estimate its potential liquidity exposures accurately. The FMI should account for all relevant predictive factors when estimating potential exposures. While historical exposures are expected to form the basis of estimated potential exposures, the FMI should account for the impact of new products, additional participants, changes in the way transactions settle or other relevant market- risk factors.

2a) An FMI should maintain additional liquid resources that are sufficient to cover a wide range of potential stress scenarios. Total liquid resources should cover the FMI's largest potential exposure under a variety of extreme but plausible conditions. The FMI should have a liquidity plan that justifies the use of other liquid resources and provides the supporting rationale for the total liquid resources that it maintains.

The guidance requires that total liquid resources be determined by the largest potential exposure in extreme but plausible conditions. This implies maintaining total liquid resources sufficient to cover at least the FMI's largest observed liquidity exposures, but the liquidity resources would likely be larger, based on an assessment of potential liquidity exposures in extreme but plausible conditions. The FMI's liquidity plan should explain why the FMI's estimated largest potential

[33] See PFMI Principle 7, key considerations 3, 5, 6 and 9.
[34] A "potential liquidity exposure" is defined as the estimated maximum daily liquidity needs resulting from the market value of the FMI's payment obligations under normal business conditions. FMIs should consider potential liquidity exposures over a rolling one-year time frame.

exposure is an accurate assessment of the FMI's liquidity needs in extreme but plausible conditions, thereby demonstrating the adequacy of the FMI's total liquid resources.

It is permissible for an FMI to manage this risk in part with other liquid resources because it may be prohibitively expensive, or even impossible, for the FMI to obtain sufficient qualifying liquid resources. FMIs face increased risk from liquid resources that do not meet the strict definition of "qualifying," and thus an FMI should include in its liquidity plan a clear explanation of how these resources could be used to satisfy a liquidity obligation. This additional explanation is warranted in all cases, even when the FMI's dependence on other liquid resources is minimal.

2b) When applicable, the possibility that a defaulting participant is also a liquidity provider should be taken into account.

Generally, the liquidity providers for Canadian FMIs are also participants in the FMI. When a defaulting participant is also a liquidity provider, it is important that the FMI's liquidity facilities are arranged in such a way that it has sufficient liquidity. To do so, the FMI should either have additional liquid resources or negotiate a backup liquidity provider, so that the FMI has sufficient liquidity (as specified in this guidance) in the event that one of its liquidity providers defaults.

3) FMIs should perform liquidity stress testing on a daily basis to assess their liquidity needs. At least monthly, FMIs should conduct comprehensive stress tests to verify the adequacy of their total liquid resources and to serve as a tool for informing risk management. Stress-testing results should be reviewed by the FMI's risk-management committee and reported to regulators on a regular basis.

FMIs should have clear procedures to determine whether their liquid resources are sufficient and to adjust their available liquid resources when necessary. A full review and potential resizing of liquid resources should be completed at least annually.

The annual validation of an FMI's model for managing liquidity risk should determine whether its stress testing follows best practices and captures the potential risks faced by the FMI.

FMIs should assess their liquidity needs through stress testing that includes the measurement of the largest daily liquidity exposure that they face. FMIs should also conduct stress testing to verify whether their liquid resources are sufficient to cover potential liquidity exposures under a wide range of stress scenarios. An annual full review and potential resizing of liquid resources provides adequate time to negotiate with liquidity providers. While it may be impractical for FMIs to frequently obtain additional liquid resources, it is important that FMIs clearly define the circumstances requiring prompt adjustment of their available liquid resources, and have a reliable plan for doing so. Establishing clear procedures provides transparency regarding an FMI's decision-making process and prevents the FMI from delaying required increases in liquid resources beyond what is reasonably acceptable. The review of stress- testing results by the FMI's risk-management committee provides additional assurance that liquid resources are sufficient, and whether an interim resizing is necessary. Reporting results to regulators on a monthly basis allows for timely intervention if liquid resources have been deemed inadequate.

Comprehensive stress testing should also encompass a broad range of stress scenarios, not just to verify whether the FMI's liquid resources are sufficient, but also to identify potential risk factors. Reverse stress testing, more extreme stress scenarios, valuation of liquid assets and focusing on individual risk factors (e.g., available collateral) all help to inform the FMI of potential risks. The annual validation of the FMI's risk-management model enables it to fully assess the appropriateness of the stress scenarios conducted and the procedures for adjusting liquid resources.

(ii) Qualifying liquid resources

Qualifying liquid resources should be highly reliable and have same-day availability. Liquid resources are reliable when the FMI has near certainty that the resources it expects will be available when required. Qualifying liquid resources should be available on the same day that they are needed by the FMI to meet any immediate liquidity obligation (e.g., a participant's default). Qualifying liquid resources that are denominated in the same currency as the FMI's exposures count toward its minimum liquid-resource requirement.[35]

The following section clarifies regulators' expectations as to what is considered a qualifying liquid resource by:

1) identifying the assets in the possession, custody or control of the FMI that are considered qualifying liquid resources; and
2) setting clear standards for liquidity facilities to be considered qualifying liquid resources, including more-stringent standards for uncommitted liquidity facilities.

1) Cash and treasury bills[36] in the possession, custody or control of an FMI are qualifying liquid resources for liquidity exposures denominated in the same currency.[37]

Cash held by an FMI does not fluctuate in value and can be used immediately to meet a liquidity obligation, thereby satisfying the criteria for liquid resources to be highly reliable and available on the same day.[38] Treasury bills issued by the

[35] See PFMI Principle 7, key considerations 4, 5 and 6
[36] "Treasury bills" refers to bonds issued by the Government of Canada and the U.S. Treasury with a maturity of one year or less.
[37] This section refers to unencumbered assets free of legal, regulatory, contractual or other restrictions on the ability of the FMI to liquidate, sell, transfer or assign the asset.
[38] "Cash" refers to currency deposits held at the issuing central bank and at creditworthy commercial banks. "Value" in this context refers to the nominal value of the currency.

Government of Canada or the U.S. Treasury also meet the definition of a qualifying liquid resource. By market convention, sales of treasury bills settle on the same day, allowing funds to be obtained immediately, whereas other bonds can settle as late as three days after the date of the trade. Treasury bills can also be transacted in larger sizes with less market impact than most other bonds. In addition, the shorter-term nature of treasury bills makes them more liquid than other securities during a crisis (i.e., they benefit from a "flight to liquidity"). Thus, there is a high degree of certainty that the FMI would obtain liquid resources in the amount expected following the sale of treasury bills.

2a) Committed liquidity facilities are qualifying liquid resources for liquidity exposures denominated in the same currency if the following criteria are met:

i) facilities are pre-arranged and fully collateralized;
ii) there is a minimum of three independent liquidity providers;[39] and
iii) the FMI conducts a level of due diligence that is as stringent as the risk assessment completed for FMI participants.

For liquidity facilities to be considered reliable, an FMI should have near certainty that the liquidity provider will honour its obligation. Pre-arranged liquidity facilities provide clarity on terms and conditions, allowing greater certainty regarding the obligations and risks of the liquidity providers. Pre- arranged facilities also reduce complications associated with obtaining liquidity, when required. Furthermore, a liquidity provider is most likely to honour its obligations when lending is fully collateralized. Therefore, only the amount that is collateralized will be considered a qualifying liquid resource. A liquidity facility is more reliable when the risk of non-performance is not concentrated in a single institution. By having at least three independent liquidity providers, the FMI would continue to diversify its risks should even a single provider default. To monitor the continued reliability of a liquidity facility, the FMI should assess its liquidity providers on an ongoing basis. In this respect, an FMI's risk exposures to its liquidity providers are similar to the risks posed to it by its participants. Therefore, it is appropriate for the FMI to conduct comparable evaluations of the financial health of its liquidity providers to ensure that the providers have the capacity to perform as expected.

2b) Uncommitted liquidity facilities are considered qualifying liquid resources for liquidity exposures in Canadian dollars if they meet the following additional criteria:

i) the liquidity provider has access to the Bank of Canada's Standing Liquidity Facility (SLF);
ii) the facility is fully collateralized with SLF-eligible collateral; and
iii) the facility is denominated in Canadian dollars.

More-stringent standards are warranted for uncommitted facilities because a liquidity provider's incentives to honour its obligations are weaker. However, the

[39] The Liquidity providers should not be affiliates to be considered independent.

risk that the liquidity provider will be unwilling or unable to provide liquidity is reduced by the requirement that it needs to be a direct participant in the Large Value Transfer System and that the collateral be eligible for the Standing Liquidity Facility (SLF). This is because the collateral obtained from the FMI in exchange for liquidity can be pledged to the Bank of Canada under the SLF. This option significantly reduces the liquidity pressures faced by the liquidity provider that could interfere with its ability to perform on its obligations. A facility in a foreign currency would not qualify because the Bank does not lend in currencies other than the Canadian dollar. The increased reliability of liquidity providers with access to routine credit from the central bank is recognized explicitly within the PFMIs.

- ***PFMI Principle 15: General business risk***

Box 15.1:
Joint Supplementary Guidance –
General Business Risk

Context

The PFMIs define general business risk as any potential impairment of the financial condition (as a business concern) of an FMI owing to declines in its revenue or growth in its expenses, resulting in expenses exceeding revenues and a loss that must be charged against capital. These risks arise from an FMI's administration and operation as a business enterprise. They are not related to participant default and are not covered separately by financial resources under the Credit or Liquidity Risk Principles. To manage these risks, the PFMIs state that FMIs should identify, monitor and manage their general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses. This note provides additional guidance for Canadian FMIs to meet the components of the general business risk principle related to: (i) governing general business risk; (ii) determining sufficient liquid net assets; and (iii) identifying qualifying liquid net assets. It also establishes the associated timelines and disclosure requirements.

(i) Governance of general business risk

Principle 15, key consideration 1 of the PFMIs states:

> *An FMI should have robust management and control systems to identify, monitor, and manage general business risk.*

The following points clarify the authorities' expectations on how an FMI's governance arrangements should address general business risk.

An FMI's Board of Directors should be involved in the process of identifying and managing business risks.

Management of business risks should be integrated within an FMI's risk-management framework, and the Board of Directors should be responsible for determining risk tolerances related to business risk and for assigning responsibility for the identification and management of these risks. These risk tolerances and the process for the identification and management of business risk should be the foundation for the FMI's business risk-management policy. Based on the PFMIs, the policies and procedures governing the identification and management of business risk should meet the standards outlined below.

- The FMI's business risk-management policy should be approved by the Board of Directors and reviewed at least annually. The policy should be consistent with the Board's overall risk tolerance and risk-management strategy.
- The Board's Risk Committee should have a role in advising the Board on whether the business risk-management policy is consistent with the FMI's general risk-management strategy and risk tolerance.
- The business risk-management policy should provide clear responsibilities for decision making by the Board, and assign responsibility for the identification, management and reporting of business risks to management.

(ii) Determining sufficient liquid net assets

Principle 15, key consideration 2 of the PFMIs states:

> *An FMI should hold liquid net assets funded by equity [...] 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.*

Principle 15, key consideration 3 of the PFMIs states:

> *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.*

The following points clarify the authorities' expectations on how FMIs should calculate their sufficient liquid net assets:

Until guidance for recovery planning and for calculating the associated costs is completed, FMIs are required to hold liquid net assets to cover a minimum of six months of current operating expenses.

In calculating current operating expenses, FMIs will need to:

- **Assess and understand the various general business risks they face** to allow them to estimate as accurately as possible the required amount of liquid net assets. These estimates should be based on financial projections, which take into consideration, for example, past loss events, anticipated projects and increased operating expenses.
- **Restrict the calculation to ongoing expenses.** FMIs will need to adjust their operating costs such that any extraordinary expenses (i.e., unessential, infrequent or one-off costs) are excluded. Typically, operating costs include both fixed costs (e.g., premises, IT infrastructure, etc.) and variable costs (e.g., salaries, benefits, research and development, etc.).
- **Assess the portion of staff from each corporate department required to ensure the smooth functioning of the FMI during the six-month period.** The calculation of operating expenses would include some indirect costs. FMIs would require not only dedicated operational staff, but also various supporting staff. These could include (but are not limited to) staff from the FMI's Legal, IT and HR departments or staff required to ensure the continued functioning of other FMIs that could be necessary to support the FMI.

To fully observe Principle 15, FMIs must hold sufficient liquid assets to cover the greater of (i) funds required for FMIs to implement their recovery or wind-down; or (ii) six months of current operating expenses. In the interim, until recovery planning guidance is published, only the latter amount will apply.

The amount of liquid net assets required to implement an FMI's recovery or wind-down plans will depend on the scenarios or tools available to the FMI. The acceptable recovery and orderly wind-down plans for Canadian FMIs will be articulated by the authorities in forthcoming guidance. Once this guidance on recovery planning has been developed, the guidance on general business risk will be updated to provide FMIs with additional clarity on how to calculate the costs associated with these plans and determine the amount of liquid net assets required.

(iii) Qualifying liquid net assets

Explanatory note 3.15.5 of the PFMIs states:

> *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. Equity allows an FMI to absorb losses on an ongoing basis and should be permanently available for this purpose.*

Principle 15, key consideration 4 of the PFMIs states:

> *Assets held to cover general business risk should be of high quality and sufficiently liquid to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.*

Principle 15, key consideration 3 of the PFMIs states:

> *These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles.*

The following points clarify the authorities' expectations on which assets qualify to be held against general business risk, and how these assets should be held to ensure that they are permanently available to absorb general business losses.

Assets held against general business risk should be of high quality and sufficiently liquid, such as cash, cash equivalents and liquid securities.

Authorities have developed regulatory guidance related to managing liquidity and investment risks, which provides additional clarity on the definition of cash equivalents and liquid securities, respectively.

- **Cash equivalents** – are considered to be treasury bills[40] issued by either the Canadian or U.S. federal governments. As noted in the liquidity guidance, by market convention, sales of treasuries settle on the same day, allowing funds to be obtained immediately, whereas other bonds can settle as late as three days after the trade date.
- **Liquid securities** – for the purposes of general business risk, liquid securities are defined by the financial instruments criteria listed in the guidance on the Investment Risk Principle. These criteria outline financial instruments considered to have minimal credit, market, and liquidity risk.

Liquid net assets must be held at the level of the FMI legal entity to ensure that they are unencumbered and can be accessed quickly. Liquid net assets may be pooled with assets held for other purposes, but must be clearly identified as held against general business risk.

FMIs may need to accumulate liquid net assets for purposes other than to meet the General Business Risk Principle. However, assets held against general business risk cannot be used to cover participant default risk or any other risks covered by the financial resources principles.

Liquid net assets can be pooled with assets held for other purposes, but must be clearly identified as held against general business risk in the FMI's reports to its regulators.

(iv) Timelines for assessing and reporting the level of liquid net assets

Explanatory note 3.15.8 of the PFMIs states:

[40] Treasury bills refer to short-term (i.e. maturity of one year or less) debt instruments issued by the Canadian or U.S. federal government.

To ensure the adequacy of its own resources, an FMI should regularly assess and report its liquid net assets funded by equity relative to its potential business risks to its regulators.

The following clarifies the authorities' expectations of the frequency with which FMIs should assess and report their required level of liquid net assets.

FMIs should report to authorities the amount of liquid net assets held against business risk annually, at a minimum.

An FMI should report to the authorities the amount of liquid net assets funded by equity held exclusively against business risk and quantify its business risks as major developments arise, or at least on an annual basis. This report should include an explanation of the methodology used to assess the FMI's business risks and to calculate its requirements for liquid net assets.

FMIs should recalculate the required amount of liquid net assets annually, at a minimum.

Once FMI operators have established the amount of liquid net assets required to cover six months of operating expenses, FMIs should recalculate the required amount of liquid net assets as major developments occur, or annually, at a minimum. Once the authorities have provided further guidance on recovery and FMIs have developed recovery plans, FMIs should also evaluate the need to increase the amount of liquid net assets they should hold to meet the General Business Risk Principle.

To establish clear procedures that improve transparency regarding an FMI's decision-making process and to prevent the FMI from delaying required increases in liquid resources beyond what is reasonably acceptable, FMIs should maintain a viable capital plan for raising additional acceptable resources should these resources fall close to or below the amount needed. This plan should be approved by the Board of Directors and updated annually, or as major developments occur.

FMIs should review their methodology for calculating the required level of liquid net assets at least once every five years, or as major developments occur.[41]

The methodology for calculating the amount of required liquid net assets should be reviewed at least every five years to ensure that the calculation remains relevant over time.

[41] In the context of this specific guidance item, "major developments" refers to the major changes to operations, product and service offerings, or classes of participation.

- *PFMI Principle 16: Custody and investment risks*

Box 16.1:
Joint Supplementary Guidance –
Custody and Investment Risks

Context

The PFMIs define investment risk as the risk faced by an FMI when it invests its own assets or those of its participants.

- An FMI holds assets for a variety of purposes, some of which are referred to specifically in the PFMIs: to cover its business risk (Principle 15), to cover credit losses (Principle 4) and to cover credit exposures (Principle 6) using the collateral pledged by participants.
- An FMI may also hold financial assets for purposes not directly related to the risk management issues addressed within the PFMIs (e.g., employee pensions, general investment assets).

An FMI's strategy for investing assets should be consistent with its overall risk-management strategy (Principle 16). The purpose of this note is to provide further guidance on regulators' expectations regarding the management of investment risk. This guidance helps to ensure that an FMI's investments are managed in a way that protects the financial soundness of the FMI and its participants.[42]

(i) Governance

The PFMIs state that the Board of Directors is responsible for overseeing the risk-management function and approving material risk decisions. An FMI should develop an investment policy to manage the risk arising from the investment of its own assets and those of its participants.

- The FMI's investment policy should be approved by the Board and reviewed at least annually. The policy should be consistent with the Board's overall risk tolerance and considered part of the FMI's risk-management framework.
- The Risk Committee should advise the Board on whether the investment policy is consistent with the FMI's general risk-management strategy and risk tolerance.
- The Board should assess the advantages and disadvantages of managing assets internally or outsourcing them to an external manager. The FMI retains full responsibility for any actions taken by its external manager.
- The FMI should establish criteria for the selection of an external manager.[43]

The FMI's investment policy should clearly identify those who are accountable for investment performance. The investment policy should also:

[42] This guidance on investment risk is based on aspects of Principle 2 – Governance, Principle 3 – Comprehensive Framework for the Management of Risk, and Principle 16 – Custody and Investment Risk.
[43] At a minimum, external managers should have demonstrated past performance and expertise, as well as strong risk-management practices such as an internal audit function and processes to protect and segregate the FMI's assets.

- Provide a clear explanation of the Board's delegated responsibility for investment decision making.
- Specify clear responsibilities for monitoring investment performance (against established benchmarks) and risk exposures (against limits or constraints). Procedures should be established to ensure that appropriate actions are taken when breaches occur, including possible reporting to the Board.
- Investment performance and key risk metrics should be reported to the Board at least quarterly.[44]

(ii) Investment strategy

The investment strategy chosen by an FMI should not allow the pursuit of profit to compromise its financial soundness. As outlined below, additional consideration should be given to the investment strategy governing assets held specifically for risk-management purposes (i.e. Principle 4-7 and Principle 15).

Investment objectives

The investment policy should include appropriate investment objectives for the various assets held for risk-management purposes. The stated expected return and risk tolerance of the investment objectives should reflect the:

- specific purpose of the assets;
- relative importance of the assets in the overall risk management of the FMI; and
- requirement within the PFMIs for FMIs to invest in instruments with minimal credit, market and liquidity risk (see the Appendix for the minimum standards of acceptable instruments).

The investment objectives should also help to determine the appropriate benchmarks for measuring investment performance.

Investment constraints

The importance of assets held for risk-management purposes warrants the use of investment constraints. It is paramount that an FMI have prompt access to these assets with minimal price impact to avoid interference with their primary use for risk management. Investment of these assets should, at a minimum, observe the following:

- To reduce concentration risk, no more than 20 per cent of total investments should be invested in municipal and private sector securities. Investment in a single private sector or municipal issuer should be no more than 5 per cent of total investments.
- To mitigate specific wrong-way risk, investments should, as much as possible, be inversely related to market events that increase the likelihood of those assets

[44] Investment performance may also be reported to a Board committee with special expertise to which the Board has delegated the authority to review investment performance (e.g., an Investment Committee).

being required. Investment in financial sector securities should be no more than 10 per cent of total investments. An FMI should not invest assets in the securities of its own affiliates. An FMI is not permitted to reinvest participant assets in a participant's own securities or those of its affiliates, as specified in Principle 16.
- For investments that are subject to counterparty credit risk, an FMI should set clear criteria for choosing investment counterparties and setting exposure limits.

The investment constraints should be clearly stated in the investment policy in order to provide clear guidance for those responsible for investment decision making.[45]

Link to risk management

FMIs should account for the implications of investing assets on their broader risk-management practices. The following issues should be considered when investing assets held for risk management purposes:

- An FMI's process for determining whether sufficient assets are available for risk management should account for potential investment losses. For example, investing the assets available to a CCP to cover losses from a participant default could lose value in a default scenario, resulting in less credit-risk protection. An FMI should hold additional assets to cover potential losses from its investments held for risk-management purposes.
- An FMI should account for the implications of investing assets on its ability to effectively manage liquidity risk. In particular, identification of the FMI's available liquid resources should account for the investment of its own and participants' assets. For example, cash held at a creditworthy commercial bank would no longer be considered a qualifying liquid resource under Principle 7 if it were invested in the debt instrument of a private sector issuer.
- The investment of an FMI's own assets and those of its participants should not circumvent related risk management requirements. For example, the reinvestment of participants' collateral should still respect the FMI's collateral concentration limits applicable to those assets.

Appendix

For the purposes of Principle 16, financial instruments can be considered to have minimal credit, market and liquidity risk if they meet *each* of the following conditions:

1. Investments are debt instruments that are:
    a. securities issued by the Government of Canada;
    b. securities guaranteed by the Government of Canada;
    c. marketable securities issued by the United States Treasury;
    d. securities issued or guaranteed by a provincial government;
    e. securities issued by a municipal government;
    f. bankers' acceptances;

[45] The use of investment vehicles where investments are held indirectly (e.g. mutual funds and exchange-traded funds) should not result in breaches to the investment constraints listed.

g. commercial paper;
h. corporate bonds; and
i. asset-backed securities that meet the following criteria: (1) sponsored by a deposit-taking financial institution that is prudentially regulated at either the federal or provincial level, (2) part of a securitization program supported by a liquidity facility, and (3) backed by assets of an acceptable credit quality.

2. The FMI employs a defined methodology to demonstrate that debt instruments have low credit risk. This methodology should involve more than just mechanistic reliance on credit-risk assessments by an external party.
3. The FMI employs limits on the average time-to-maturity of the portfolio based on relevant stress scenarios in order to mitigate interest rate risk exposures.
4. Instruments have an active market for outright sales or repurchase agreements, including in stressed conditions.
5. Reliable price data on debt instruments are available on a regular basis.
6. Instruments are freely transferable and settled over a securities settlement system compliant with the PFMIs.

- ***PFMI Principle 23: Disclosure of rules, key procedures, and market data***

Box 23.1:
Joint Supplementary Guidance –
Disclosure of Rules, Key Procedures and Market Data

Context

The PFMIs state that FMIs should provide sufficient information to their participants and prospective participants to enable them to clearly understand the risks and responsibilities of participating in the system. This note provides additional guidance for Canadian FMIs to meet the components of the disclosure principle related to: (i) public qualitative disclosure and (ii) public quantitative disclosure.

Requirements included in the PFMIs

Principle 23 outlines requirements for disclosure to participants as well as the general public. In addition, specific disclosure requirements are listed in the principles to which they pertain.

The following text has been extracted directly from the PFMIs, Principle 23, key consideration 5:

> *An FMI should complete regularly and disclose publicly responses to the CPMI-IOSCO Disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.*

To supplement key consideration 5, CPMI-IOSCO published two documents: the Disclosure framework for financial market infrastructures (the Disclosure Framework),[46] and the Public quantitative disclosure standards for central counterparties (the Quantitative Disclosure Standards).[47] This note will refer to the disclosures that result from completing the templates provided in these documents as the Qualitative Disclosure and the Quantitative Disclosure, respectively.

Supplementary guidance for Canadian FMIs designated by the Bank of Canada

On its public website, an FMI should publish its Qualitative Disclosure and Quantitative Disclosure, as well as any other public disclosure requirements specified in Principle 23 or in other principles. Any public disclosure should be written for an audience with general knowledge of the financial sector.

(a) Qualitative disclosure (*Applies to all types of FMIs*)

A Qualitative Disclosure should provide the public with a high-level understanding of an FMI's governance, operation and risk-management framework.

Summary narrative disclosure

In part four of the Disclosure Framework, FMIs are required to provide a summary narrative of their observance of the Principles. FMIs should provide these narratives at the principle level, and are not required to address key considerations or to provide answers to the detailed questions listed in Section 5 of the Disclosure Framework report. Instead, the narrative disclosure should focus on providing a broad audience with an understanding of how each Principle applies to the FMI, and what the FMI has done or plans to do to ensure its observance.

Timing

FMIs should update and publish their Qualitative Disclosures following significant changes[48] to the system or its environment, or at least every two years. Only the most current Qualitative Disclosure needs to be maintained on the FMI's website.

(b) Quantitative disclosure (*Applies only to CCPs*)

Quantitative Disclosures specify the set of key quantitative information required in the Disclosure Framework. They should follow the format provided by CPMI-IOSCO, allowing

[46] The Disclosure Framework is part of a document published in December 2012, titled "Principles for financial market infrastructures: Disclosure framework and Assessment methodology", and is available at http://www.bis.org/press/p121214.htm.
[47] This document is available at http://www.bis.org/cpmi/publ/d125.pdf.
[48] Updated Qualitative Disclosures should be published subsequent to regulatory approval, and prior to the effective date of the significant change. Significant changes can include, but are not limited to: (i) any changes to the FMI's constating documents, bylaws, corporate governance or corporate structure; (ii) any material change to an agreement between the FMI and its participants or to the FMI's rules, operating procedures, user guides, or manuals or the design, operation or functionality of its operations and services; and (iii) the establishment of, or removal or material change to, a link, or commencing or ceasing to engage in a business activity.

stakeholders, including the general public, to easily evaluate and compare FMIs.

Currently, CPMI-IOSCO has developed public quantitative disclosure standards only for CCPs. The following guidance applies only to CCPs; Canadian authorities will provide further guidance on the quantitative disclosure requirements of FMIs other than CCPs when such standards have been developed.

Context

Where a general audience may need additional context to properly interpret the data, it should be provided in explanatory notes or addressed in the CCP's Qualitative Disclosure. CCPs are encouraged to provide charts, background information and additional documentation where it may aid the reader's understanding.

Comparability

Regulators recognize that, given the different structures and arrangements among CCPs, an overly homogenized presentation format could lead to inaccurate comparability. Subject to regulatory approval, a CCP may provide analogous data in place of a disclosure requirement that is not applicable to its business or representative of the risks it faces. The CCP must justify to authorities the necessity and selection of the alternative metric.[49] If granted approval, the CCP must provide the original data to authorities with the frequency specified in the Quantitative Disclosure Standards, and must explain in each public disclosure why an alternative metric was chosen.

Confidentiality

A CCP's public disclosure obligation does not release it from its confidentiality duties. Where a required disclosure item could reveal (or allow knowledgeable parties to deduce) commercially sensitive information about individual clearing members, clients, third-party contractors or other relevant stakeholders, or where disclosure may amount to a breach of laws or regulations for maintaining market integrity, the data must be omitted. In this case, the CCP must justify the omission to authorities.[50] If granted approval, the CCP must provide the confidential data to authorities with the frequency specified in the Quantitative Disclosure Standards, and must explain the reason for the omission in each public disclosure.

[49] If the authorities are satisfied with the justification, the CCP need not resubmit the substitution unless the CCP's structure or arrangements change the applicability of the original disclosure requirement, or the CCP wishes to change its substituted metric. CCPs are responsible for informing authorities of any changes that could affect the applicability of the originally required or substituted data.

[50] If the authorities are satisfied with the justification, the CCP need not resubmit the omission unless the circumstances change the confidentiality of the disclosure. CCPs are responsible for informing the authorities of any changes that could affect the confidentiality of such data.

Timing

Quantitative Disclosures should be reported quarterly, and updated with the frequency specified in the Quantitative Disclosure Standards.[51] Even though some required data may already be publicly disclosed in other reports, or may not have changed from the previous quarter, the data should still be included in the disclosure matrix for completeness and consistency. Data should be publicly disclosed no later than 60 days after the end of each fiscal quarter, and should remain available on its website for at least three years so that trends can be examined.

[51] According to the Quantitative Disclosure Standards, items under general business risk should be updated annually, and all other items should be updated on a quarterly basis.