

## CSA Notice and Request for Comment

### *Proposed Amendments to National Instrument 24-102 Clearing Agency Requirements and Proposed Changes to Companion Policy 24-102 Clearing Agency Requirements*

October 18, 2018

#### Introduction

The Canadian Securities Administrators (the **CSA** or **we**) are publishing for a 90 day comment period proposed amendments to National Instrument 24-102 *Clearing Agency Requirements* (**Instrument**) and proposed changes to Companion Policy 24-102 *Clearing Agency Requirements* (**Companion Policy**), altogether referred as the **Proposed Amendments**. The Instrument and the Companion Policy are collectively referred to as **NI 24-102**.

The purposes of the Proposed Amendments are described in the “Substance and Purpose” section below.

This Notice contains the following annexes:

- **Annex A** – Proposed Amendments to National Instrument 24-102 *Clearing Agency Requirements*
- **Annex B** – Proposed Changes to Companion Policy 24-102CP to National Instrument 24-102 *Clearing Agency Requirements*
- **Annex C** – Blacklined Proposed Amendments to National Instrument 24-102 *Clearing Agency Requirements* (showing the changes under the Proposed Amendments to the Instrument)
- **Annex D** – Blacklined Proposed Changes to Companion Policy 24-102CP to National Instrument 24-102 *Clearing Agency Requirements* (showing the changes under the Proposed Changes to the CP)
- **Annex E** – Local Matters (published only in local jurisdictions where such additional information is relevant)

This Notice, including its annexes, is available on websites of CSA jurisdictions, including:

[www.albertasecurities.com](http://www.albertasecurities.com)  
[www.bcsc.bc.ca](http://www.bcsc.bc.ca)  
[www.fcaa.gov.sk.ca](http://www.fcaa.gov.sk.ca)  
[www.fcnb.ca](http://www.fcnb.ca)  
[www.lautorite.qc.ca](http://www.lautorite.qc.ca)  
[www.msc.gov.mb.ca](http://www.msc.gov.mb.ca)  
[nssc.novascotia.ca](http://nssc.novascotia.ca)  
[www.osc.gov.on.ca](http://www.osc.gov.on.ca)

The 90-day comment period will expire on January 16, 2019. For further details, see the “Request for Comments” section below.

#### Background

The Instrument sets out ongoing requirements for recognized clearing agencies, including requirements that are based on international standards applicable to financial market infrastructures (**FMI**s) operating as a central counterparty (**CCP**), central securities depository (**CSD**) or securities settlement system (**SSS**). These international standards are described in the April 2012 report (**PFMI Report**) *Principles for financial market infrastructures* (the **PFMI Principles**) published by the Committee on Payments and Market Infrastructures (**CPMI**)<sup>1</sup> and the International Organization of Securities Commissions (**IOSCO**).<sup>2</sup> The

<sup>1</sup> Prior to September 2014, CPMI was known as the Committee on Payment and Settlement Systems (**CPSS**).

Companion Policy presently includes an annex (**Annex I**) that sets forth supplementary guidance (**Joint Supplementary Guidance**) that was developed jointly by the Bank of Canada and CSA regulators. The Joint Supplementary Guidance is intended to provide additional clarity on the PFMI Principles for domestic recognized clearing agencies that are also overseen by the Bank of Canada. The Instrument also sets forth certain requirements for clearing agencies intending to apply for recognition as a clearing agency under securities legislation, or for an exemption from the recognition requirement. NI 24-102, including the Joint Supplementary Guidance, came into force February 17, 2016.<sup>3</sup>

Since the development of the PFMI and their adoption by CPMI and IOSCO members, CPMI-IOSCO has undertaken to monitor global implementation of the PFMI. On August 2, 2018, a report was published by CPMI-IOSCO which provides an assessment of Canada's implementation of the PFMI within its legislative and regulatory structure.<sup>4</sup> The report presents the conclusions of CPMI-IOSCO as to whether, and to what degree, the Canadian legal, regulatory and oversight frameworks, including rules and regulations and any relevant policy statements, implement the PFMI with regards to systemically important CCPs, CSDs and SSSs (as well as trade repositories and payment systems). The report generally found that the PFMI were implemented in a complete and consistent manner through the implementation measures of the Canadian authorities. These findings are discussed further below.

## Substance and Purpose

### 1. Purposes of Proposed Amendments

The Proposed Amendments seek to enhance operational system requirements, align aspects of NI 24-102 more closely with similar provisions in National Instrument 21-101 *Marketplace Operation (NI 21-101)*, and reflect latest developments and findings of CPMI-IOSCO with relevance for the Canadian market.

In particular, the purposes of the Proposed Amendments are the following:

- enhance the systems-related requirements in Part 4, Division 3, of the Instrument and related provisions in the Companion Policy, by aligning them more closely with similar provisions in NI 21-101, emphasizing the importance of cyber resilience, and clarifying testing and reporting expectations;
- update NI 24-102 to include a general reference in the Companion Policy to CPMI-IOSCO guidance reports that have been published on various aspects of the PFMI Principles since the publication of the PFMI Report;
- adopt findings made by the CPMI-IOSCO PFMI implementation monitoring assessment, including substantially simplifying the Joint Supplementary Guidance; and
- make other non-substantive changes, corrections and clarifications to NI 24-102.

### 2. Summary of Proposed Amendments

We discuss briefly the changes and policy rationales for the key Proposed Amendments below.

#### a. Systems requirements

(i) The concept of 'cyber resilience' has been added to subparagraph 4.6(1)(a)(ii) as one of the information technology general controls that a recognized clearing agency must develop and maintain. While cyber resilience should already be covered by an entity's controls, the explicit addition of the concept in the Instrument is intended to be reflective of the increasing importance of ensuring that an entity has taken adequate steps to address cyber resilience, as discussed in the June 2016 CPMI-IOSCO *Guidance on cyber resilience for financial market infrastructures*.<sup>5</sup>

(ii) The concept of "security breach" in relation to the notifications that must be provided by a recognized clearing agency pursuant to subsection 4.6(c) has been broadened to "security incident". The change extends the concept beyond actual breaches, as we are of the view that a material event may include one where a breach has not necessarily occurred. We describe "security incidents" in the Companion Policy with reference to general definition of the concept used by the National Institute of Standards and Technology (U.S. Department of Commerce) (NIST)<sup>6</sup>, a recognized standard also followed by CPMI-IOSCO.

(iii) In line with the reporting requirements in existing recognized clearing agencies' recognition orders, for clarity and consistency we have added requirements in the Instrument under section 4.6 and proposed section 4.6.1 that recognized clearing agencies keep records of any systems failures, malfunctions, delays or security incidents and if applicable document reasons with respect to the materiality of the event, and provide a report to us on a quarterly basis.

---

<sup>2</sup> The PFMI Report is available on the Bank for International Settlements' website ([www.bis.org](http://www.bis.org)) and the IOSCO website ([www.iosco.org](http://www.iosco.org)).

<sup>3</sup> In Saskatchewan, the effective date was February 19, 2016.

<sup>4</sup> The assessment report on Canada's adoption of the PFMI is available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD608.pdf>.

<sup>5</sup> The guidance is available at <https://www.bis.org/cpmi/publ/d146.pdf>.

<sup>6</sup> The NIST definition of "security incident" is available at <https://csrc.nist.gov/Glossary>.

(iv) To better align the systems requirements in the Instrument with those for marketplaces in NI 21-101, we propose two amendments. Firstly, a new section 4.6.1 regarding auxiliary systems has been added. An auxiliary system is one that shares network resources with one or more systems, operated by or on behalf of a recognized clearing agency, that supports its clearing, settlement and depository functions and that, if breached, would pose a security threat to one or more of the previously mentioned systems. We note that the new section is not intended to introduce any new substantive requirement, but to clarify what is already implicit in PFMI Principle 17: *Operational risk*; namely, that recognized clearing agencies are expected to identify and manage all plausible sources of operational risks internally and externally including those that may result from auxiliary systems.

Secondly, under section 4.7, we make clear that we expect a recognized clearing agency to engage a “qualified external auditor” to conduct and report on its independent systems reviews. A qualified external auditor is considered to be 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. As contemplated by section 6.1 of the Instrument, we may consider applications for exemption from the requirement to engage a qualified external auditor in certain circumstances, subject to such conditions or restrictions as may be imposed in the exemption. Before engaging a qualified external auditor, we would also expect the clearing agency to discuss with us its choice for qualified external auditor and the scope of the systems review mandate.

b. Additional CPMI-IOSCO guidance reports

The Companion Policy currently states that, in interpreting and implementing the PFMI Principles, regard is to be given to the explanatory notes in the PFMI Report unless otherwise indicated in section 3.1 or Part 3 of the Companion Policy. Since the publication of the PFMI Report, CPMI-IOSCO have published related documents and additional guidance on certain specific aspects of the PFMI Principles, including the following:<sup>7</sup>

- December 2012 – *Principles for financial market infrastructures: disclosure framework and assessment methodology*
- October 2014 – *Recovery of financial market infrastructures*
- December 2014 – *Principles for financial market infrastructures: Assessment methodology for the oversight expectations applicable to critical service providers*
- February 2015 – *Public quantitative disclosure standards for central counterparties*
- August 2015 – *Application of the “Principles for financial market infrastructures” to central bank FMI*s
- February 2016 – *Clearing of deliverable FX instruments*
- June 2016 – *Guidance on cyber resilience for financial market infrastructures*
- July 2017 – *Resilience of central counterparties: further guidance on the PFMI*
- April 2018 – *Framework for supervisory stress testing of central counterparties (CCPs)*

We are proposing to amend the Companion Policy to include the general reference that these and other future additional CPMI-IOSCO reports should be used as guidance in interpreting and implementing the PFMI Principles.

c. CPMI-IOSCO implementation monitoring assessment

Following from the CPMI-IOSCO implementation monitoring assessment, which found that Canada has generally implemented the PFMI in a complete and consistent way, the report does recommend making some clarifications within the Canadian regime applicable to clearing agencies. As a result, we propose to make two main changes to the NI 24-102 to address these findings.

Firstly, we propose to amend subsection 4.3(1) by removing the permissive ability of a recognized clearing agency’s chief risk officer and chief compliance officer to report directly to the chief executive officer, if its board of directors so determines. This change will address the CPMI-IOSCO finding that a reporting line to the chief executive officer may result in insufficient independence of the risk and audit functions unless there are adequate safeguards in place that address potential conflicts of interest.

Secondly, as the CPMI-IOSCO implementation monitoring assessment found that certain limited aspects of the Joint Supplementary Guidance may introduce confusion in relation to the implementation of two PFMI Principles, we propose to substantially simplify such guidance, and in the process, remove any lack of clarity with respect to the application of the PFMI Principles to domestic recognized clearing agencies that are also overseen by the Bank of Canada. Beyond removal of all guidance that is duplicative of the text of the PFMI Report, including all guidance presently included for PFMI Principle 2: *Governance* and PFMI Principle 23: *Disclosure of rules, key procedures, and market data*, these changes will address the CPMI-IOSCO finding in respect of PFMI Principle 7: *Liquidity risk* that confusion may follow by allowing the use of “other liquid resources” which are not “qualifying liquid resources” to meet a certain portion of minimum liquid resource requirements. The changes will also address the finding related to the Joint Supplementary Guidance for PFMI Principle 15: *General business risk* that “any extraordinary expenses” (i.e. unessential, infrequent or one-off costs) should not be excluded from the calculation of current operating expenses. Joint Supplementary Guidance presently included for PFMI Principle 3: *Framework for the*

<sup>7</sup> Links to all of the documents are presently available at [https://www.bis.org/cpmi/info\\_pfmi.htm](https://www.bis.org/cpmi/info_pfmi.htm).

*comprehensive management of risks* related to 'Recovery Plans' is not removed or simplified, however. Such guidance is unchanged but moved to a new Annex II to the Companion Policy.

d. Non-substantive changes

Lastly, a number of non-substantive changes, corrections and clarifications are proposed, including modernizing the drafting of NI 24-102 in accordance with recent revised CSA rule-making drafting guidelines. By their nature, none of the non-substantive changes should have any impact on the application of NI 24-102 to market participants.

**Request for Comments**

We welcome your comments on the Proposed Amendments. Please submit your comments in writing on or before January 16, 2019. If you are not sending your comments by email, please send a CD containing the submissions (in Microsoft Word format).

Address your submission to the following CSA member commissions:

Alberta Securities Commission  
Autorité des marchés financiers  
British Columbia Securities Commission  
Financial and Consumer Services Commission (New Brunswick)  
Financial and Consumer Affairs Authority of Saskatchewan  
Manitoba Securities Commission  
Nova Scotia Securities Commission  
Nunavut Securities Office  
Ontario Securities Commission  
Office of the Superintendent of Securities, Newfoundland and Labrador  
Office of the Superintendent of Securities, Northwest Territories  
Office of the Yukon Superintendent of Securities  
Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island

Please deliver your comments only to the addresses that follow. Your comments will be forwarded to the remaining CSA member jurisdictions.

The Secretary  
Ontario Securities Commission  
20 Queen Street West, 22nd Floor  
Toronto, Ontario M5H 3S8  
Fax: 416-595-2318  
E-mail: [comments@osc.gov.on.ca](mailto:comments@osc.gov.on.ca)

M<sup>e</sup> Anne-Marie Beaudoin  
Corporate Secretary  
Autorité des marchés financiers  
800, rue du Square-Victoria, 22<sup>e</sup> étage  
C.P. 246, tour de la Bourse  
Montréal (Québec) H4Z 1G3  
Fax: 514-864-6381  
E-mail: [consultation-en-cours@lautorite.qc.ca](mailto:consultation-en-cours@lautorite.qc.ca)

Please note that comments received will be made publicly available and posted on the Websites of certain CSA jurisdictions. We cannot keep submissions confidential because securities legislation in certain provinces requires publication of the written comments received during the comment period. Therefore, you should not include personal information directly in comments to be published. It is important that you state on whose behalf you are making the submission.

Questions with respect to this Notice or the Proposed Amendments may be referred to:

Aaron Ferguson  
Manager, Market Regulation  
Ontario Securities Commission  
Tel: 416-593-3676  
Email: [aferguson@osc.gov.on.ca](mailto:aferguson@osc.gov.on.ca)

Oren Winer  
Legal Counsel, Market Regulation  
Ontario Securities Commission  
Tel: 416-593-8250

Email: [owiner@osc.gov.on.ca](mailto:owiner@osc.gov.on.ca)

Claude Gatién  
Director, Clearing houses  
Autorité des marchés financiers  
Tel: 514-395-0337, ext. 4341  
Toll free: 1-877-525-0337  
Email: [claudio.gatien@lautorite.qc.ca](mailto:claudio.gatien@lautorite.qc.ca)

Martin Picard  
Senior Policy Advisor, Clearing houses  
Autorité des marchés financiers  
Tel: 514-395-0337, ext. 4347  
Toll free: 1-877-525-0337  
Email: [martin.picard@lautorite.qc.ca](mailto:martin.picard@lautorite.qc.ca)

Michael Brady  
Senior Legal Counsel  
British Columbia Securities Commission  
Tel: 604-899-6561  
Email: [mbrady@bcsc.bc.ca](mailto:mbrady@bcsc.bc.ca)

April Hughes  
Legal Counsel  
Alberta Securities Commission  
Tel: 403.297.2634  
Email: [april.hughes@asc.ca](mailto:april.hughes@asc.ca)

Martin McGregor  
Legal Counsel  
Alberta Securities Commission  
Tel: 403-355-2804  
Email: [martin.mcgregor@asc.ca](mailto:martin.mcgregor@asc.ca)

Paula White  
Deputy Director, Compliance and Oversight  
Manitoba Securities Commission  
Tel: 204-945-5195  
Email: [paula.white@gov.mb.ca](mailto:paula.white@gov.mb.ca)

Liz Kutarna  
Deputy Director, Capital Markets, Securities Division  
Financial and Consumer Affairs Authority of Saskatchewan  
Tel: 306-787-5871  
Email: [liz.kutarna@gov.sk.ca](mailto:liz.kutarna@gov.sk.ca)

## ANNEX A

### PROPOSED AMENDMENTS TO NATIONAL INSTRUMENT 24-102 *CLEARING AGENCY REQUIREMENTS*

#### AMENDING INSTRUMENT

1. ***National Instrument 24-102 Clearing Agency Requirements is amended by this Instrument.***
2. ***The definition “publicly accountable enterprise” in section 1.1 is amended by italicizing “Acceptable Accounting Principles and Auditing Standards”.***
3. ***Section 1.2 is amended***
  - (a) ***in subsection (2),***
    - (i) ***by replacing “company if” with “company if any of the following applies:”;***
    - (ii) ***by replacing “fifty percent” with “50%”, wherever the words occur, and***
    - (iii) ***by deleting “or” at the end of paragraph (b), and***
  - (b) ***in subsection (3),***
    - (i) ***by replacing “company if” with “company if either of the following applies:”, and***
    - (ii) ***by replacing paragraph (a) with the following:***
      - (a) it is a controlled entity of any of the following:
        - (i) that other;
        - (ii) that other and one or more persons or companies, each of which is a controlled entity of that other;
        - (iii) two or more persons or companies, each of which is a controlled entity of that other;.
4. ***Section 1.3 is replaced with the following:***

**1.3 Interpretation - Extended Meaning of Affiliated Entity -** For the purposes of the PFMI Principles, a person or company is considered to be an affiliate of a participant, the person or company and the participant each being described in this section as a “party”, where either of the following applies:

  - (a) a party holds, otherwise than by way of security only, voting securities of the other party carrying more than 20% of the votes for the election of directors;
  - (b) in the event paragraph (a) is not applicable either of the following applies:
    - (i) a party holds, otherwise than by way of security only, an interest in the other party that allows it to direct the management or operations of the other party;
    - (ii) financial information in respect of both parties is consolidated for financial reporting purposes..
5. ***Paragraph 2.1(1)(b) is replaced with the following:***
  - (b) sufficient information to demonstrate either of the following:
    - (i) the applicant is in compliance with provincial and territorial securities legislation;
    - (ii) the applicant is subject to and in compliance with comparable regulatory requirements of the foreign jurisdiction in which the applicant’s head office or principal place of business is located;.
6. ***Subsection 2.1(2) is amended***
  - (a) ***by replacing “books and records” with “books, records and other documents”, wherever the words occur, and***
  - (b) ***in paragraph (b), by replacing “such” with “the”.***

7. **Subsection 2.1(3) is amended by replacing** “Submission to Jurisdiction and Appointment of Agent for Service” **with** “Clearing Agency Submission to Jurisdiction and Appointment of Agent for Service of Process”.
8. **Subsection 2.1(4) is amended by replacing** “material change to the information provided in its application” **with** “change to the information provided in its application that is material”.
9. **Subsection 2.2(1) is amended**
  - (a) **by adding** “any of the following:” **immediately after** “in relation to a clearing agency,”, **and**
  - (b) **by replacing** “recognition terms and conditions.” **with** “terms and conditions of a decision to recognize the clearing agency under securities law.”.
10. **Subsection 2.2(3) is replaced with the following:**

(3) The written notice referred to in subsection (2) must include an assessment of how the significant change is consistent with the PFMI Principles applicable to the recognized clearing agency..
11. **Subsection 2.3(1) is replaced with the following:**

(1) A recognized clearing agency or exempt clearing agency that intends to cease carrying on business in the local jurisdiction as a clearing agency must file a report on Form 24-102F2 *Cessation of Operations Report for Clearing Agency* with the securities regulatory authority at least 90 days before ceasing to carry on business..
12. **Subsection 2.5(2) is replaced with the following:**

(2) A recognized clearing agency or exempt clearing agency must file interim financial statements for each interim period as defined in National Instrument 51-102 Continuous Disclosure Obligations that comply with the requirements set out in paragraphs 2.4(2)(a) and (2)(b) with the securities regulatory authority no later than the 45th day after the end of each interim period of the recognized clearing agency’s or exempt clearing agency’s financial year..
13. **Section 3.1 is amended**
  - (a) **by replacing the first paragraph with the following:**

3.1 A recognized clearing agency must establish, implement and maintain rules, procedures, policies or operations designed to ensure that it meets or exceeds PFMI Principles 1 to 3, 10, 13 and 15 to 23, other than key consideration 9 in PFMI Principle 20 and any of the following:.
  - (b) **by deleting** “and” **at the end of paragraph (b).**
14. **Section 4.1. is amended in paragraph (2)(b), by replacing** “not employees or executive officers of a participant or” **with** “neither employees or officers of a participant nor”.
15. **Section 4.3. is amended**
  - (a) **in subsection (1), by deleting** “or, if determined by the board of directors, to the chief executive officer”,
  - (b) **in paragraph (2)(a),**
    - (i) **by deleting** “full”, **and**
    - (ii) **replacing** “maintain, implement” **with** “implement, maintain”,
  - (c) **by replacing the “,” with a “;” at the end of each of subparagraphs (3)(c)(i) and (ii),**
  - (d) **in subparagraph (3)(c)(iii), by replacing** “non-compliance, or” **with** “non-compliance;”,
  - (e) **in paragraph (3)(f), by replacing** “such” **with** “the”.



**16. Section 4.4 is amended**

**(a) in paragraph (4)(b), by replacing “not employees or executive officers of a participant or” with “neither employees or officers of a participant nor”, and**

**(b) by adding the following subsections:**

**(5)** For the purpose of subsection (3) and paragraph (4)(a), an individual is independent of a clearing agency if he or she has no direct or indirect material relationship with the clearing agency.

**(6)** For the purposes of subsection (5), a “material relationship” is a relationship that could, in the view of the clearing agency’s board of directors, be reasonably expected to interfere with the exercise of a member’s independent judgment..

**17. Section 4.6. is amended**

**(a) by renumbering it as subsection 4.6(1),**

**(b) in paragraph (a)**

**(i) by replacing “an adequate system of internal controls” with “adequate internal controls”, and**

**(ii) by adding “cyber resilience,” immediately before “change management”,**

**(c) in subparagraph (b)(ii), by replacing “ability” with “processing capability” and “process transactions” with “perform”,**

**(d) by replacing paragraph (c) with the following:**

(c) promptly notify the regulator or, in Québec, the securities regulatory authority of any systems failure, malfunction, delay or security incident that is material, and provide timely updates on the following:

(i) the status of the failure, malfunction, delay or security incident;

(ii) the resumption of service;

(iii) the results of the clearing agency’s internal review of the failure, malfunction, delay or security incident; and,

**(e) by adding the following paragraph:**

(d) keep a record of any systems failure, malfunction, delay or security incident and, if applicable, document the reasons why the clearing agency considered that the system failure, malfunction, delay or security incident was not material., **and**

**(f) by adding the following subsection:**

**(2)** A recognized clearing agency must provide the regulator or, in Québec, the securities regulatory authority, with a report, by the 30<sup>th</sup> day after the end of the calendar quarter, containing a log and summary description of each systems failure, malfunction, delay or security incident to which paragraph (1)(d) applies..

**18. The Instrument is amended by adding the following section:**

**Auxiliary systems**

**4.6.1 (1)** In this section “auxiliary system” of a recognized clearing agency means a system that shares network resources with one or more of the systems operated by or on behalf of the recognized clearing agency that supports the recognized clearing agency’s clearing, settlement and depository functions and that, if breached, would pose a security threat to one or more of the previously mentioned systems.

**(2)** For each auxiliary system, a recognized clearing agency must

(a) develop and maintain adequate information security controls that relate to the security threats posed to any system that supports the clearing, settlement and depository functions,

(b) promptly notify the regulator or, in Québec, the securities regulatory authority of any security incident that is material and provide timely updates on

(i) the status of the incident,

(ii) the resumption of service, where applicable, and

(iii) the results of the clearing agency’s internal review of the security incident, and

- (c) keep a record of any security incident and, if applicable, document the reasons why the clearing agency considered that such a security incident was not material.

(3) A recognized clearing agency must provide the regulator or, in Québec, the securities regulatory authority, with a report, by the 30<sup>th</sup> day after the end of the calendar quarter, containing a log and summary description of each security incident to which paragraph (2)(c) applies..

**19. Subsection 4.7(1) is replaced with the following:**

**(1)** A recognized clearing agency must

- (a) on a reasonably frequent basis and, in any event, at least annually, engage a qualified external auditor to conduct an independent systems review and prepare a report in accordance with established audit standards and best industry practices to ensure that the clearing agency is in compliance with paragraph 4.6(1)(a), and sections 4.6.1 and 4.9, and
- (b) on a reasonably frequent basis and, in any event, at least annually, engage one or more qualified parties to perform appropriate assessments and testing to identify security vulnerabilities and measure the effectiveness of information security controls that assess the clearing agency's compliance with paragraphs 4.6(1)(a) and 4.6.1(2)(a)..

**20. Subsection 4.7(2) is amended by replacing "subsection (1)" with "paragraph (1)(a)".**

**21. Paragraph 4.10(g) is amended by replacing "an appropriate" with "a reasonable".**

**22. Subsection 5.1(1) is amended by deleting "and must keep those other books, records and documents as may otherwise be required under securities legislation".**

**23. Section 5.2 is amended**

**(a) by replacing subsection (1) with the following:**

**(1)** In this section, "Global Legal Entity Identifier System" means the system for unique identification of parties to financial transactions.

**(b) in subsection (2), by replacing "a single" with "the", and**

**(c) by adding the following subsection:**

**(2.1)** Throughout the period that the clearing agency is recognized as a clearing agency or is exempt from the requirement to be recognized as a clearing agency, the clearing agency must maintain and renew the legal entity identifier referred to in subsection (2)..

**24. Subsection 6.1(3) is amended by adding "Alberta and" immediately before "Ontario".**

**25. Form 24-102F1 is amended**

**(a) in paragraph 7, by replacing "[province of local jurisdiction]" with "[name of local jurisdiction]",**

**(b) in paragraph 10, by replacing "be a recognized" with "be recognized", and**

**(c) by deleting "insert" wherever it occurs.**

**26. Form 24-102F2 is amended**

**(a) under the heading "Exhibit B", by replacing "ceasing business" with "ceasing to carry on business",**

**(b) by replacing "the cessation of" with "ceasing to carry on" in Exhibit C and D, and**

**(c) after the heading "CERTIFICATE OF CLEARING AGENCY"**

**(i) by deleting the round brackets immediately before and after "Name of clearing agency",**

- (ii) **by replacing** “(Name of director, officer or partner – please type or print)” **with** “Name of director, officer or partner (please type or print)”,
- (iii) **by deleting the round brackets immediately before and after** “Signature of director, officer or partner”,  
**and**
- (iv) **by replacing** “(Official capacity – please type or print)” **with** “Official capacity (please type or print)”.

27. This Instrument comes into force on •.

## ANNEX B

### PROPOSED CHANGES TO COMPANION POLICY 24-102CP TO NATIONAL INSTRUMENT 24-102 CLEARING AGENCY REQUIREMENTS

#### CHANGING DOCUMENT

1. **Companion Policy 24-102CP to National Instrument 24-102 Clearing Agency Requirements (Companion Policy) is changed by this Document.**
2. **Subsection 1.1(2) is changed by replacing** “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” **with** “this section, sections 1.2, 1.3, 3.2 and 3.3 of this CP, and Annex I”.
3. **Subsection 1.2(3) is changed by replacing** “Annex I to this CP includes supplementary guidance in *text boxes* that applies” **with** “Annexes I and II to this CP include supplementary guidance that applies”.
4. **Part 1 is changed by adding the following section:**

1.5 Section 1.5 provides clarity on the application of the different parts of the Instrument to a clearing agency that has been recognized by a securities regulatory authority, or exempted from recognition, as is further described in section 2.0 of this CP. For greater clarity, unless otherwise specified, Parts 1, 2, and 5 to 7 generally apply to both a recognized clearing agency and one that is exempted from recognition..
5. **Subsection 2.0(2) is changed by replacing** “will generally” **with** “would generally need to”.
6. **Section 2.1 is changed:**
  - (a) **by adding** “in both substance and process, though its oversight program may differ” **immediately after** “agency is similar”,
  - (b) **by adding** “comprehensive and” **immediately after** “completion of”, **and**
  - (c) **by adding** “for either recognition or exemption” **immediately after** “application materials”.
7. **Subsection 2.2(2) is replaced with the following:**

The written notice should provide a reasonably detailed description of the significant change (as defined in subsection 2.2(1)), the expected date of the implementation of the change, and an assessment of how the significant change is consistent with the PFMI Principles applicable to the clearing agency (see subsection 2.2(3)).
8. **Section 2.3 is changed by deleting** “within the appropriate timelines”.
9. **Part 3 is changed**
  - (a) **in section 3.1**
    - (i) **by adding** “and other reports or explanatory material published by CPMI and IOSCO that provide supplementary guidance to FMIs on the application of the PFMI Principles” **immediately after** “explanatory notes in the PFMI Report”, **and**
    - (ii) **by deleting** “separate *text boxes* in”,
  - (b) **in section 3.2 by deleting** “(see Box 5.1 in Annex I to this CP)”,
  - (c) **in section 3.3**
    - (i) **by deleting the “:” immediately after the subheading** “- Customers of IIROC dealer members”,
    - (ii) **by deleting the “:” after the words** “domestic cash markets because” **in the paragraph immediately after the subheading** “- Customers of IIROC dealer members”, **and**

- (iii) by deleting the “:” immediately after the subheading “- Customers of other types of participants”.*
- (d) by deleting the numbering of section 3.2 and 3.3.*

10. **Section 4.0 is changed by adding “recognized” immediately before “clearing agency”.**

11. **Subsection 4.1(4) is changed**

- (a) by replacing “reasonably” with “, absent exceptional circumstances,”,*
- (b) by deleting “executive” immediately before “officer” in paragraph (a), (b) and (e), and*
- (c) by replacing “ten per cent” with “10%” wherever it occurs.*

12. **Section 4.2 is removed.**

13. **Subsection 4.3(3) is changed by adding “(or certain aspects thereof)” immediately after “role of a CCO”.**

14. **Section 4.6 is changed**

- (a) by renumbering it as 4.6(1),*
- (b) by replacing paragraph (a) with the following:*

(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, cyber resilience, and security. Recognized guides as to what constitutes adequate information technology controls may include guidance, principles or frameworks published by the Chartered Professional Accountants - Canada (CPA Canada), American Institute of Certified Public Accountants (AICPA), Information Systems Audit and Control Association (ISACA), International Organization for Standardization (ISO), or the National Institute of Standards and Technology (U.S. Department of Commerce) (NIST). We are of the view that internal controls include controls which support the processing integrity of the models used to quantify, aggregate, and manage the clearing agency's risks.

- (c) in paragraph (b), by replacing “4.6(b)” with “4.6(1)(b)” and replacing “once a year” with “once in each 12-month period”, and*

- (d) replacing paragraph (c) with the following:*

(c) A failure, malfunction, delay or security 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. Such events would not generally include those that have or would have little or no impact on the clearing agency's operations or on participants. Non-material events may become material if they recur or have a cumulative effect. It is expected that, as part of the required notification, the clearing agency will provide updates on the status of the incident 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 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. A security incident is considered to be any event that actually or potentially jeopardizes the confidentiality, integrity or availability of an information system or the information the system processes, stores or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures or acceptable use policies.<sup>1</sup> Any security incident that requires non-routine measures or resources by the clearing agency 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 incident it did not consider material..

15. **Subsection 4.7(1) is replaced with the following:**

**(1)(a)** An independent systems review must be conducted and reported on at least once in each 12-month period by a qualified external auditor in accordance with established audit standards and best industry practices. We consider that

---

<sup>1</sup> Adapted from the NIST definition of “incident”. See <https://csrc.nist.gov/Glossary/?term=4730#AlphaIndexDiv>.

best industry practices include the 'Trust Services Criteria' developed by the American Institute of CPAs and CPA Canada. For the purposes of paragraph (1)(a), we consider a qualified external auditor to be 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. Before engaging a qualified external auditor to conduct the independent systems review, a clearing agency is expected to discuss its choice of external auditor and the scope of the systems review mandate with the regulator or, in Québec, the securities regulatory authority. We further expect that the report prepared by the external auditor include, to the extent applicable, an audit opinion that (i) the description included in the report fairly presents the systems and controls that were designed and implemented throughout the reporting period, (ii) the controls stated in the description were suitably designed, and (iii) the controls operated effectively throughout the reporting period.

(1)(b) The clearing agency must also establish and perform effective assessment and testing methodologies and practices and would be expected to implement appropriate improvements where necessary. The assessments and testing required in this section, such as vulnerability assessments and penetration tests, are to be carried out by a qualified party on a reasonably frequent basis and, in any event, at least once in each 12-month period. For the purposes of paragraph (1)(b), we consider a qualified party to be 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. We consider that qualified parties 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. The securities regulatory authority may, in accordance with securities legislation, require the clearing agency to provide a copy of any such assessment..

**16. Section 4.9 is changed by replacing “annually” with “at least once in each 12-month period”.**

**17. Subsection 5.2(1) is replaced with the following:**

(1) The Global Legal Entity Identifier System defined in subsection 5.2(1) is a G20 endorsed system<sup>2</sup> that is intended to serve as a public-good utility responsible for overseeing the issuance of legal entity identifiers (LEIs) globally in order to uniquely identify parties to transactions. It was designed and implemented under the direction of the LEI Regulatory Oversight Committee, a governance body endorsed by the G20.

**18. Subsection 5.2(3) is removed.**

**19. Annex I is replaced with the following:**

---

<sup>2</sup> See [http://www.financialstabilityboard.org/list/fsb\\_publications/tid\\_156/index.htm](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  
ON THE PFMI PRINCIPLES**

Joint Supplementary Guidance has been developed by the BOC and the securities regulatory authorities to provide additional clarity on certain aspects of selected PFMI Principles within the Canadian context. It is found on the BOC website and in annexes to the Companion Policy (to the CSA National Instrument 24-102 *Clearing Agency Requirements*).

The Joint Supplementary Guidance applies in respect of recognized domestic clearing agencies that are designated as systemically-important by the BOC and jointly overseen by the BOC and one or more securities regulatory authorities (referred to in this Joint Supplementary Guidance as an “FMI”).

Beyond observation of the PFMI Principles, an FMI is expected to take into account the “Explanatory Notes” for each applicable PFMI Principle, other reports and explanatory materials published by CPMI and IOSCO that supplement the PFMI Report and that provide guidance to FMIs on the application of the PFMI Principles, as well as this Joint Supplementary Guidance or any future guidance published jointly by the BOC and the securities regulatory authorities.

The Joint Supplementary Guidance below appears under the relevant headings for each applicable PFMI Principle (referred to by the BOC as its “Risk-Management Standards for Designated FMIs”).

**PFMI Principle 3: Framework for the comprehensive management of risks**

- a. Joint Supplementary Guidance for PFMI Principle 3 has been developed by the BOC and CSA pertaining to FMI recovery planning. This guidance can be found separately on the BOC website and in Annex II to the Companion Policy.

**PFMI Principle 5: Collateral**

- a. An FMI should not rely solely on external opinions to determine collateral eligibility.
- b. In general, most of the FMI’s collateral pools should be composed of cash and debt securities issued or guaranteed by the Government of Canada, a provincial government or the U.S. Treasury.
- c. Additional asset classes may be acceptable as collateral if they are subject to conservative haircuts and concentration limits. An FMI should limit such assets to a maximum of 40% of the total collateral posted from each participant. It should also limit securities issued by a single issuer to a maximum of 5% of total collateral from each participant. Such assets are:
  - Securities issued by a municipal government;
  - Bankers’ acceptances;
  - Commercial paper;
  - Corporate bonds;
  - 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;
  - Equity securities traded on marketplaces regulated by a member of the CSA; and
  - 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.
- d. Since it is highly likely that the value of debt and equity securities issued by companies operating in the financial sector would be adversely affected by the default of an FMI participant – introducing wrong-way risk for an FMI that has accepted such securities as collateral – and FMI should:
  - Limit the collateral from financial sector issuers to a maximum of 10% of total collateral pledged from each participant; and

- Not allow a participant to pledge as collateral securities issued by itself or an affiliate.

#### **PFMI Principle 7: Liquidity risk**

- a. Liquidity facilities should include at least three independent liquidity providers to ensure the FMI has access to sufficient liquid resources even in the event one of its liquidity providers defaults.
- b. Uncommitted liquidity facilities are considered qualifying liquid resources for liquidity exposure in Canadian dollars if they meet all of the following additional criteria:
  - The liquidity provider has access to the Bank of Canada's Standing Liquidity Facility (SLF);
  - The facility is fully-collateralized with SLF-eligible collateral; and
  - The facility is denominated in Canadian dollars.

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

- a. Liquid net assets funded by equity must be held at the level of the FMI legal entity to ensure they are unencumbered and can be accessed quickly.

#### **PFMI Principle 16: Custody and investment risks**

- a. It is paramount that an FMI have prompt access to assets held for risk-management purposes with minimal price impact. For the purposes of PFMI Principle 16, financial instruments can be considered to have minimal credit, market and liquidity risk if they are debt instruments that are:
  - Securities issued or guaranteed by the Government of Canada;
  - Marketable securities issued by the U.S. Treasury;
  - Securities issued or guaranteed by a provincial government;
  - Securities issued by a municipal government;
  - Bankers' acceptances;
  - Commercial paper;
  - Corporate bonds; and
  - Asset-backed securities that are:
    - 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.
- b. Investments should also, at a minimum, observe the following:
  - To reduce concentration risk, no more than 20% of total investments should be invested in any combination of municipal and private sector securities. Investment in a single private sector or municipal issuer should be no more than 5% 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 being required. Investment in financial sector securities should be no more than 10% of total investments. An FMI should not invest assets in the securities of its own affiliates.
  - For investments that are subject to counterparty credit risk, an FMI should set clear criteria for choosing investment counterparties and setting exposure limits.

#### **20. The Companion Policy is changed by adding the following Annex II:**



**ANNEX II**  
**TO COMPANION POLICY 24-102CP**

**JOINT SUPPLEMENTARY GUIDANCE**  
**DEVELOPED BY THE BANK OF CANADA AND CANADIAN SECURITIES ADMINISTRATORS**  
**ON RECOVERY PLANS**

**Context**

In 2012, to enhance the safety and efficiency of payment, clearing and settlement systems, CPMI and IOSCO released a set of international risk-management standards for FMIs, known as the PFMI.<sup>1</sup> The PFMI provide standards regarding FMI recovery planning and orderly wind-down, which were adopted by the Bank of Canada as Standard 24 of the Bank's *Risk-Management Standards for Systemic FMIs*<sup>2</sup> and by the CSA as part of the Instrument.<sup>3</sup> In the context of recovery planning,

*An FMI is expected to identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. This entails preparing appropriate plans for its recovery or orderly wind-down based on the results of that assessment.*

In October 2014, CPMI and IOSCO released its report, "Recovery of Financial Market Infrastructures" (the Recovery Report), providing additional guidance specific to the recovery of FMIs.<sup>4</sup> The Recovery Report explains the required structure and components of an FMI recovery plan and provides guidance on FMI critical services and recovery tools at a level sufficient to accommodate possible differences in the legal and institutional environments of each jurisdiction.

For the purpose of this guidance, FMI recovery is defined as the set of actions that an FMI can take, consistent with its rules, procedures and other ex ante contractual agreements, to address any uncovered loss, liquidity shortfall or capital inadequacy, whether arising from participant default or other causes (such as business, operational or other structural weakness), including actions to replenish any depleted pre-funded financial resources and liquidity arrangements, as necessary, to maintain the FMI's viability as a going concern and the continued provision of critical services.<sup>5,6</sup>

Recovery planning is not intended as a substitute for robust day-to-day risk management or for business continuity planning. Rather, it serves to extend and strengthen an FMI's risk-management framework, enhancing the resilience of the FMI against financial risks and bolstering confidence in the FMI's ability to function effectively even under extreme but plausible market conditions and operating environments.

**Key Components of Recovery Plans**

Overview of existing risk-management and legal structures

As part of their recovery plans, FMIs should include overviews of their legal entity structure and capital structure to provide context for stress scenarios and recovery activities.

FMIs should also include an overview of their existing risk-management frameworks – i.e., their **pre-recovery** risk-management frameworks and activities. As part of this overview, and to determine the relevant point(s) where standard pre-recovery risk-management frameworks are exhausted, FMIs should identify all the material risks they are exposed to and explain how they use their existing pre-recovery risk-management tools to manage these risks to a high degree of confidence.

Critical services<sup>7</sup>

---

<sup>1</sup> Available at <http://www.bis.org/cpmi/publ/d101a.pdf>.

<sup>2</sup> See key consideration 4 of PFMI Principle 3 and key consideration 3 of PFMI Principle 15 which are adopted in the Instrument, section 3.1.

<sup>3</sup> The Bank of Canada's *Risk-Management Standards for Systemic FMIs* is available at <http://www.bankofcanada.ca/core-functions/financial-system/bank-canada-risk-management-standards-systemic-fmis/>.

<sup>4</sup> Available at <http://www.bis.org/cpmi/publ/d121.pdf>.

<sup>5</sup> Recovery Report, Paragraph 1.1.1.

<sup>6</sup> For a precise definition of orderly wind-down, see the Recovery Report, Paragraph 2.2.2.

<sup>7</sup> Recovery Report, Paragraphs 2.4.2–2.4.4.

In their recovery plans, FMIs should identify, in consultation with Canadian authorities and stakeholders, the services they provide that are critical to the smooth functioning of the markets that they serve and to the maintenance of financial stability. FMIs may find it useful to consider the degree of **substitutability** and **interconnectedness** of each of these critical services, specifically

- ❖ the degree of criticality of an FMI's service is likely to be high if there are no, or only a small number of, alternative service providers. Factors related to the substitutability of a service could include (i) the size of a service's market share, (ii) the existence of alternative providers that have the capacity to absorb the number of customers and transactions the FMI maintains, and (iii) the FMI participants' capability to transfer positions to the alternative provider(s).
- ❖ the degree of criticality of an FMI's service may be high if the service is significantly interconnected with other market participants, both in terms of breadth and depth, thereby increasing the likelihood of contagion if the service were to be discontinued. Potential factors to consider when determining an FMI's interconnectedness are (i) what services it provides to other entities and (ii) which of those services are critical for other entities to function

### Stress scenarios<sup>8</sup>

In their recovery plans, FMIs should identify scenarios that may prevent them from being able to provide their critical services as a going concern. Stress scenarios should be focused on the risks an FMI faces from its payment, clearing and settlement activity. An FMI should then consider stress scenarios that cause financial stress in excess of the capacity of its existing pre-recovery risk controls, thereby placing the FMI into recovery. An FMI should organize stress scenarios by the types of risk it faces; for each stress scenario, the FMI should clearly explain the following:

- ❖ the assumptions regarding market conditions and the state of the FMI within the stress scenario, accounting for the differences that may exist depending on whether the stress scenario is systemic or idiosyncratic;
- ❖ the estimated impact of a stress scenario on the FMI, its participants, participants' clients and other stakeholders; and
- ❖ the extent to which an FMI's existing pre-recovery risk-management tools are insufficient to withstand the impacts of realized risks in a recovery stress scenario and the value of the loss and/or of the negative shock required to generate a gap between existing risk-management tools and the losses associated with the realized risks.

### Triggers for recovery

For each stress scenario, FMIs should identify the triggers that would move them from their pre-recovery risk-management activities (e.g., those found in a CCP's default waterfall) to recovery. These triggers should be both qualified (i.e., outlined) and, where relevant, quantified to demonstrate a point at which recovery plans will be implemented without ambiguity or delay. While the boundary between pre-recovery risk-management activities and recovery can be clear (for example, when pre-funded resources are fully depleted), judgment may be needed in some cases. When this boundary is not clear, FMIs should lay out in their recovery plans how they will make decisions.<sup>9</sup> This includes detailing in advance their communication plans, as well as the escalation process associated with their decision-making procedures. They should also specify the decision-makers responsible for each step of the escalation process to ensure that there is adequate time for recovery tools to be implemented if required.

More generally, it is important to identify and place the triggers for recovery early enough in a stress scenario to allow for sufficient time to implement recovery tools described in the recovery plan. Triggers placed too late in a scenario will impede the effective rollout of these tools and hamper recovery efforts. Overall, in determining the moment when recovery should commence, and especially where there is uncertainty around this juncture, an FMI should be prudent in its actions and err on the side of caution.

## ***Selection and Application of Recovery Tools<sup>10</sup>***

### A comprehensive plan for recovery

The success of a recovery plan relies on a comprehensive set of tools that can be effectively applied during recovery. The applicability of these tools and their contribution to recovery varies by system, stress event and the order in which they are applied.

A robust recovery plan relies on a range of tools to form an adequate response to realized risks. Canadian authorities will provide feedback on the comprehensiveness of selected recovery tools when reviewing an FMI's complete recovery plan.

---

<sup>8</sup> Recovery Report, Paragraph 2.4.5.

<sup>9</sup> Recovery Report, Paragraph 2.4.8.

<sup>10</sup> Recovery Report, Paragraph 2.3.6 – 2.3.7 and 2.5.6 and Paragraphs 3.4.1 – 3.4.7.

## Characteristics of recovery tools

In providing this guidance, Canadian authorities used a broad set of criteria (described below), including those from the Recovery Report, to determine the characteristics of effective recovery tools.<sup>11</sup> FMIs should aim for consistency with these criteria in the selection and application of tools. In this context, recovery tools should be:

- ❖ Reliable and timely in their application and have a strong legal and regulatory basis. This includes the need for FMIs to mitigate the risk that a participant may be unable or unwilling to meet a call for financial resources in a timely manner, or at all (i.e., performance risk), and to ensure that all recovery activities have a strong legal and regulatory basis.
- ❖ Measurable, manageable and controllable to ensure that they can be applied effectively while keeping in mind the objective of minimizing their negative effects on participants and the broader financial system. To this end, using tools in a manner that results in participant exposures that are determinable and fixed provides better certainty of the tools' impacts on FMI participants and their contribution to recovery. Fairness in the allocation of uncovered losses and shortfalls, and the capacity to manage the associated costs, should also be considered.
- ❖ Transparent to participants: this should include a predefined description of each recovery tool, its purpose and the responsibilities and procedures of participants and the FMIs subject to the recovery tool's application to effectively manage participants' expectations. Transparency also mitigates performance risk by detailing the obligations and procedures of FMIs and participants beforehand to support the timely and effective rollout of recovery tools.
- ❖ Designed to create appropriate incentives for sound risk management and encourage voluntary participation in recovery to the greatest extent possible. This may include distributing post-recovery proceeds to participants that supported the FMI through the recovery process.

## Systemic stability

Certain tools may have serious consequences for participants and for the stability of financial markets more generally. FMIs should use prudence and judgment in the selection of appropriate tools. Canadian authorities are of the view that FMIs should be cautious in using tools that can create uncapped, unpredictable or ill-defined participant exposures, and which could create uncertainty and disincentives to participate in an FMI. Any such use would need to be carefully justified. Participants' ability to predict and manage their exposures to recovery tools is important, both for their own stability and for the stability of the indirect participants of an FMI.

In assessing FMI recovery plans, Canadian authorities are concerned with the possibility of systemic disruptions from the use of certain tools or tools that pose unquantifiable risks to participants. When determining which recovery tools should be included in a recovery plan, and selecting and applying such tools during the recovery phase, FMIs should keep in mind the objective of minimizing their negative impacts on participants, the FMI and the broader financial system.

## Recommended recovery tools

This section outlines recommended recovery tools for use in FMI recovery plans. Not all tools are applicable for the different types of FMIs (e.g., a payment system versus a central counterparty), nor is this an exhaustive list of tools that may be available for recovery. Each FMI should use discretion when determining the most appropriate tools for inclusion in its recovery plan, consistent with the considerations discussed above.

### ❖ **Cash calls**

Cash calls are recommended for recovery plans to the extent that the exposures they generate are fixed and determinable; for example, capped and limited to a maximum number of rounds over a specified period, established in advance. In this context, participant exposures should be linked to each participant's risk-weighted level of FMI activity.

By providing predictable exposures pro-rated to a participant's risk-weighted level of activity, FMIs create incentives for better risk management on the part of participants, while giving the FMI greater certainty over the amount of resources that can be made available during recovery.

Since cash calls rely on contingent resources held by FMI participants, there is a risk that they may not be honoured, reducing their effectiveness as a recovery tool. The management of participants' expectations, especially through the placement of clear limits on participant exposure, can mitigate this concern.

Cash calls can be designed in multiple ways to structure incentives, vary their impacts on participants and respond to different stress scenarios. When designing cash calls, FMIs should, to the greatest extent possible, seek to minimize the negative consequences of the tool's use.

### ❖ **Variation margin gains haircutting (VMGH)**

---

<sup>11</sup> Recovery Report, Paragraph 3.3.1.

VMGH is recommended for recovery plans because participant exposure under this tool can be measured with reasonable confidence, as it is tied to the level of risk held in the variation margin (VM) fund and the potential for gains. Where recovery plans allow for multiple rounds of VMGH, Canadian authorities will consider the impact of each successive round of haircutting with increasing focus on systemic stability.

VMGH relies on participant resources posted at the FMI as variation margin (VM). Where the price movements of underlying instruments create sufficient VM gains for use in recovery, VMGH provides an FMI with a reliable and timely source of financial resources without the performance risk that is associated with tools reliant on resources held by participants.

VMGH assigns losses and shortfalls only to participants with net position gains; as a result, the pro rata financial burden is higher for these participants. The negative effects of VMGH can also be compounded for participants who rely on variation margin gains to honour obligations outside the FMI. FMIs should seek to minimize these negative effects to the greatest extent possible.

#### ❖ Voluntary contract allocation

To recover from an unmatched book caused by a participant default, a CCP can use its powers to allocate unmatched contracts.<sup>12</sup> In the context of recovery, contract allocation is encouraged on a voluntary basis—for example, by auction. Voluntary contract allocation addresses unmatched positions while taking participant welfare into account, since only participants who are willing to take on positions will participate.

The reliance on a voluntary process, such as an auction, introduces the risk that not all positions will be matched or that the auction process is not carried out in a timely manner. Defining the responsibilities and procedures for voluntary contract allocation (e.g., the auction rules) in advance will mitigate this risk and increase the reliability of the tool. To ensure that there is adequate participation in an auction process, FMIs should create incentives for participants to take on unmatched positions. FMIs may also wish to consider expanding the auction beyond direct participants to increase the chances that all positions will be matched.

#### ❖ Voluntary contract tear-up

Since eliminating positions can help re-establish a matched book, Canadian authorities view voluntary contract tear-up as a potentially effective tool for FMI recovery. To this end, FMIs may want to consider using incentives to encourage voluntary tear-up during recovery.<sup>13</sup> While contract tear-up undertaken on a voluntary basis is a recommended tool, the forced termination of an incomplete trade may represent a disruption of a critical FMI service, and can be intrusive to apply (see the section “Tools requiring further justification” for a discussion of forced contract tear-up).

To the extent that voluntary contract tear-up may disrupt critical FMI services, it can produce disincentives to participate in an FMI. There should be a strong legal basis for the relevant processes and procedures when voluntary contract tear-up is included in a recovery plan. This will help to manage participant expectations for this tool and ensure that confidence in the FMI is maintained.

Other tools available for FMI recovery include standing third-party liquidity lines, contractual liquidity arrangements with participants, insurance against financial loss, increased contributions to pre-funded resources, and use of an FMI’s own capital beyond the default waterfall. These and other tools are often already found in the pre-recovery risk-management frameworks of FMIs. Canadian authorities encourage their use for recovery as well, provided they are in keeping with the criteria for effective recovery tools as found in the Recovery Report and in this guidance.<sup>14</sup> Where system-specific recovery needs necessitate, FMIs can also design recovery tools not explicitly listed in this guidance. The applicability of such tools will be examined by the Canadian authorities when they review the proposed recovery plan.

To the extent that the costs of recovery are shared less equally under some tools (e.g., VMGH), if it is financially feasible, FMIs could consider post-recovery actions to restore fairness where participants have been disproportionately affected. Such actions may include the repayment of participant contributions used to address liquidity shortfalls and other instruments that aim to redistribute the burden of losses allocated during recovery. It is important to note that these actions in the post-recovery period should not impair the financial viability of the FMI as a going concern.

#### Tools requiring further justification

Due to their uncertain and potentially negative effects on the broader financial system, tools that are more intrusive or result in participant exposures that are difficult to measure, manage or control, must be carefully considered and justified with strong rationale by the FMI when they are included in a recovery plan. Canadian authorities will provide their views on the suitability of any such tools as part of their review of recovery plans.

---

<sup>12</sup> A CCP “matched book” occurs when a position taken on by the CCP with one clearing member is offset by an opposite position taken on with a second clearing member. A matched book must be maintained for the CCP to complete a trade. An unmatched book occurs when one participant defaults on its position in the trade, leaving the CCP unable to complete the transaction.

<sup>13</sup> Recovery Report, Paragraph 4.5.3.

<sup>14</sup> Recovery Report, Paragraph 3.3.1.

For example, uncapped and unlimited cash calls and unlimited rounds of VMGH can create ambiguous participant exposures, the negative effects of which must be prudently considered when including them in a recovery plan. In addition, when applied during the recovery process, Canadian authorities will monitor the application of each successive round of cash calls and VMGH with increased focus on systemic stability.

Tools such as involuntary (forced) contract allocation and involuntary (forced) contract tear-up create exposures that are difficult to manage, measure and control. To the extent that these tools are even more intrusive, they have the ability to pose greater risk to systemic stability. Canadian authorities acknowledge that such tools have potential utility when other recovery options are ineffective, and could possibly be used by a resolution authority, but expect FMIs to carefully assess the potential impact of such tools on participants and the stability of the broader financial system.

Canadian authorities do not encourage the use of non-defaulting participants' initial margin in FMI recovery plans considering the potential for significant negative impacts.<sup>15</sup> Similarly, a recovery plan should not assume any extraordinary form of public or central bank support.<sup>16</sup>

#### Recovery from non-default-related losses and structural weaknesses

Consistent with a defaulter-pays principle, an FMI should rely on FMI-funded resources to address recovery from non-default-related losses (i.e., operational and business losses on the part of an FMI), including losses arising from structural weakness.<sup>17</sup> To this end, FMIs should examine ways to increase the loss absorbency between the FMI's pre-recovery risk-management activities and participant-funded resources (e.g., by using FMI-funded insurance against operational risks). Structural weakness can be an impediment to the effective rollout of recovery tools and may itself result in non-default-related losses that are a trigger for recovery. An FMI recovery plan should identify procedures detailing how to promptly detect, evaluate and address the sources of underlying structural weakness on a continuous basis (e.g., unprofitable business lines, investment losses).

The use of participant-funded resources to recover from non-default-related losses can lessen incentives for robust risk management within an FMI and provide disincentives to participate. If, despite these concerns, participants consider it in their interest to keep the FMI as a going concern, an FMI and its participants may agree to include a certain amount of participant-funded recovery tools to address some non-default-related losses. Under these circumstances, the FMI should clearly explain under what conditions participant resources would be used and how costs would be distributed.

#### Defining full allocation of uncovered losses and liquidity shortfalls

Principles 4 (credit risk)<sup>18</sup> and 7 (liquidity risk)<sup>19</sup> of the PFMI's require that FMIs should specify rules and procedures to fully allocate both uncovered losses and liquidity shortfalls caused by stress events. To be consistent with this requirement, **Canadian FMIs should consider various stress scenarios and have rules and procedures that allow them to fully allocate any losses or liquidity shortfalls arising from these stress scenarios, in excess of the capacity of existing pre-recovery risk controls.** Tools used to address full allocation should reflect the Recovery Report's characteristics of effective recovery tools, including the need to have them measurable, manageable and controllable to those who will bear the losses and liquidity shortfalls in recovery, and for their negative impacts to be minimized to the greatest extent possible.

#### Legal consideration for full allocation

**An FMI's rules for allocating losses and liquidity shortfalls should be supported by relevant laws and regulations.** There should be a high level of certainty that rules and procedures to fully allocate all uncovered losses and liquidity shortfalls are enforceable and will not be voided, reversed or stayed.<sup>20</sup> This requires that Canadian FMIs design their recovery tools in compliance with Canadian laws. For example, if the FMI's loss-allocation rules involve a guarantee, Canadian law generally requires that the guaranteed amount be determinable and preferably capped by a fixed amount.<sup>21</sup>

FMIs should consider whether it is appropriate to involve indirect participants in the allocation of losses and shortfalls during recovery. To the extent that it is permitted, such arrangements should have a strong legal and regulatory basis; respect the FMI's frameworks for tiered participation, segregation and portability; and involve consultation with indirect participants to ensure that all relevant concerns are taken into account.

---

<sup>15</sup> Recovery Report, Paragraph 4.2.26.

<sup>16</sup> Recovery Report, Paragraph 2.3.1.

<sup>17</sup> Structural weakness can be caused by factors such as poor business strategy, poor investment and custody policy, poor organizational structure, IM/IT-related obstacles, poor legal or regulatory risk frameworks, and other insufficient internal controls.

<sup>18</sup> Under key consideration 7 of PFMI Principle 4, an FMI should establish explicit rules and procedures that fully address any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI.

<sup>19</sup> Under key consideration 10 of PFMI Principle 7, FMIs should establish rules and procedures that address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking or delaying the same-day settlement of payment obligations.

<sup>20</sup> PFMI Report, Paragraph 3.1.10.

<sup>21</sup> The Bank Act, Section 414(1) and IIROC Rule 100.14 prohibit banks and securities dealers, respectively, from providing unlimited guarantees to an FMI or a financial institution.

Overall, FMIs are responsible for seeking appropriate legal advice on how their recovery tools can be designed and for ensuring that all recovery tools and activities are in compliance with the relevant laws and regulations.

### ***Additional Considerations in Recovery Planning***

#### Transparency and coherence<sup>22</sup>

An FMI should ensure that its recovery plan is coherent and transparent to all relevant levels of management within the FMI, as well as to its regulators and overseers. To do so, a recovery plan should

- ❖ contain information at the appropriate level and detail; and
- ❖ be sufficiently coherent to relevant parties within the FMI, as well as to the regulators and overseers of the FMI, to effectively support the application of the recovery tools.

An FMI should ensure that the assumptions, preconditions, key dependencies and decision-making processes in a recovery plan are transparent and clearly identified.

#### Relevance and flexibility<sup>23</sup>

An FMI's recovery plan should thoroughly cover the information and actions relevant to extreme but plausible market conditions and other situations that would call for the use of recovery tools. An FMI should take into account the following elements when developing its recovery plan:

- ❖ the nature, size and complexity of its operations;
- ❖ its interconnectedness with other entities;
- ❖ operational functions, processes and/or infrastructure that may affect the FMI's ability to implement its recovery plan; and
- ❖ any upcoming regulatory reforms that may have the potential to affect the recovery plan.

Recovery plans should be sufficiently flexible to address a range of FMI-specific and market-wide stress events. Recovery plans should also be structured and written at a level that enables the FMI's management to assess the recovery scenario and initiate appropriate recovery procedures. As part of this expectation, the recovery plan should demonstrate that senior management has assessed the potential two-way interaction between recovery tools and the FMI's business model, legal entity structure, and business and risk-management practices.

### ***Implementation of Recovery Plan***<sup>24</sup>

An FMI should have credible and operationally feasible approaches to recovery planning in place and be able to act upon them in a timely manner, under both idiosyncratic and market-wide stress scenarios. To this end, recovery plans should describe

- ❖ potential impediments to applying recovery tools effectively and strategies to address them; and
- ❖ the impact of a major operational disruption.<sup>25</sup>

This information is important to strengthen a recovery plan's resilience to shocks and ensure that the recovery tools are actionable.

A recovery plan should also include an escalation process and the associated communication procedures that an FMI would take in a recovery situation. Such a process should define the associated timelines, objectives and key messages of each communication step, as well as the decision-makers who are responsible for it.

#### Consulting Canadian authorities when taking recovery actions

While the responsibility for implementing the recovery plan rests with the FMI, Canadian authorities consider it critical to be informed when an FMI triggers its recovery plan and before the application of recovery tools and other recovery actions. To the extent an FMI intends to use a tool or take a recovery action that might have significant impact on its participants (e.g. tools

---

<sup>22</sup> Recovery Report, Section 2.3

<sup>23</sup> Recovery Report, Section 2.3.

<sup>24</sup> Recovery Report, Paragraph 2.3.9.

<sup>25</sup> This is also related to the FMI's backup and contingency planning, which are distinct from recovery plans.

requiring further justification), the FMI should consult Canadian authorities before using such tools or taking such actions to demonstrate how it has taken into account potential financial stability implications and other relevant public interest considerations. Authorities include those responsible for the regulation, supervision and oversight of the FMI, as well as any authorities who would be responsible for the FMI if it were to be put into resolution.

Relevant Canadian authorities should be informed (or consulted as appropriate) early on and interaction with authorities should be explicitly identified in the escalation process of a recovery plan. Acknowledging the speed at which an FMI may enter recovery, FMIs are encouraged to develop formal communications protocols with authorities in the event that recovery is triggered and immediate action is required.

### ***Review of Recovery Plan<sup>26</sup>***

An FMI should include in its recovery plan a robust assessment of the recovery tools presented and detail the key factors that may affect their application. It should recognize that, while some recovery tools may be effective in returning the FMI to viability, these tools may not have a desirable effect on its participants or the broader financial system.

A framework for testing the recovery plan (for example, through scenario exercises, periodic simulations, back-testing and other mechanisms) should be presented either in the plan itself or linked to a separate document. This impact assessment should include an analysis of the effect of applying recovery tools on financial stability and other relevant public interest considerations.<sup>27</sup> Furthermore, an FMI should demonstrate that the appropriate business units and levels of management have assessed the potential consequences of recovery tools on FMI participants and entities linked to the FMI.

### **Annual review of recovery plan**

An FMI should review and, if necessary, update its recovery plan on an annual basis. The recovery plan should be subject to approval by the FMI's Board of Directors.<sup>28</sup> Under the following circumstances, an FMI is expected to review its recovery plan more frequently:

- ❖ if there is a significant change to market conditions or to an FMI's business model, corporate structure, services provided, risk exposures or any other element of the firm that could have a relevant impact on the recovery plan;
- ❖ if an FMI encounters a severe stress situation that requires appropriate updates to the recovery plan to address the changes in the FMI's environment or lessons learned through the stress period; and
- ❖ if the Canadian authorities request that the FMI update the recovery plan to address specific concerns or for additional clarity.

Canadian authorities will also review and provide their views on an FMI's recovery plan before it comes into effect. This is to ensure that the plan is in line with the expectations of Canadian authorities.

### ***Orderly Wind-Down Plan as Part of a Recovery Plan<sup>29</sup>***

Canadian authorities expect FMIs to prepare, as part of their recovery plans, for the possibility of an orderly wind-down. However, developing an orderly wind-down plan may not be appropriate or operationally feasible for some critical services. In this instance, FMIs should consult with the relevant authorities on whether they can be exempted from this requirement.

### **Considerations when developing an orderly wind-down plan**

An FMI should ensure that its orderly wind-down plan has a strong legal basis. This includes actions concerning the transfer of contracts and services, the transfer of cash and securities positions of an FMI, or the transfer of all or parts of the rights and obligations provided in a link arrangement to a new entity.

In developing orderly wind-down plans, an FMI should elaborate on

- ❖ the scenarios where an orderly wind-down is initiated, including the services considered for wind-down;
- ❖ the expected wind-down period for each scenario, including the timeline for when the wind-down process for critical services (if applicable) would be complete; and

---

<sup>26</sup> Recovery Report, Paragraph 2.3.8.

<sup>27</sup> This is in line with key consideration 1 of PFMI Principle 2 (Governance), which states that an FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

<sup>28</sup> Recovery Report, Paragraph 2.3.3.

<sup>29</sup> Recovery Report, Paragraph 2.2.2.

- ❖ measures in place to port critical services to another FMI that is identified and assessed as operationally capable of continuing the services.

#### Disclosure of recovery and orderly wind-down plans

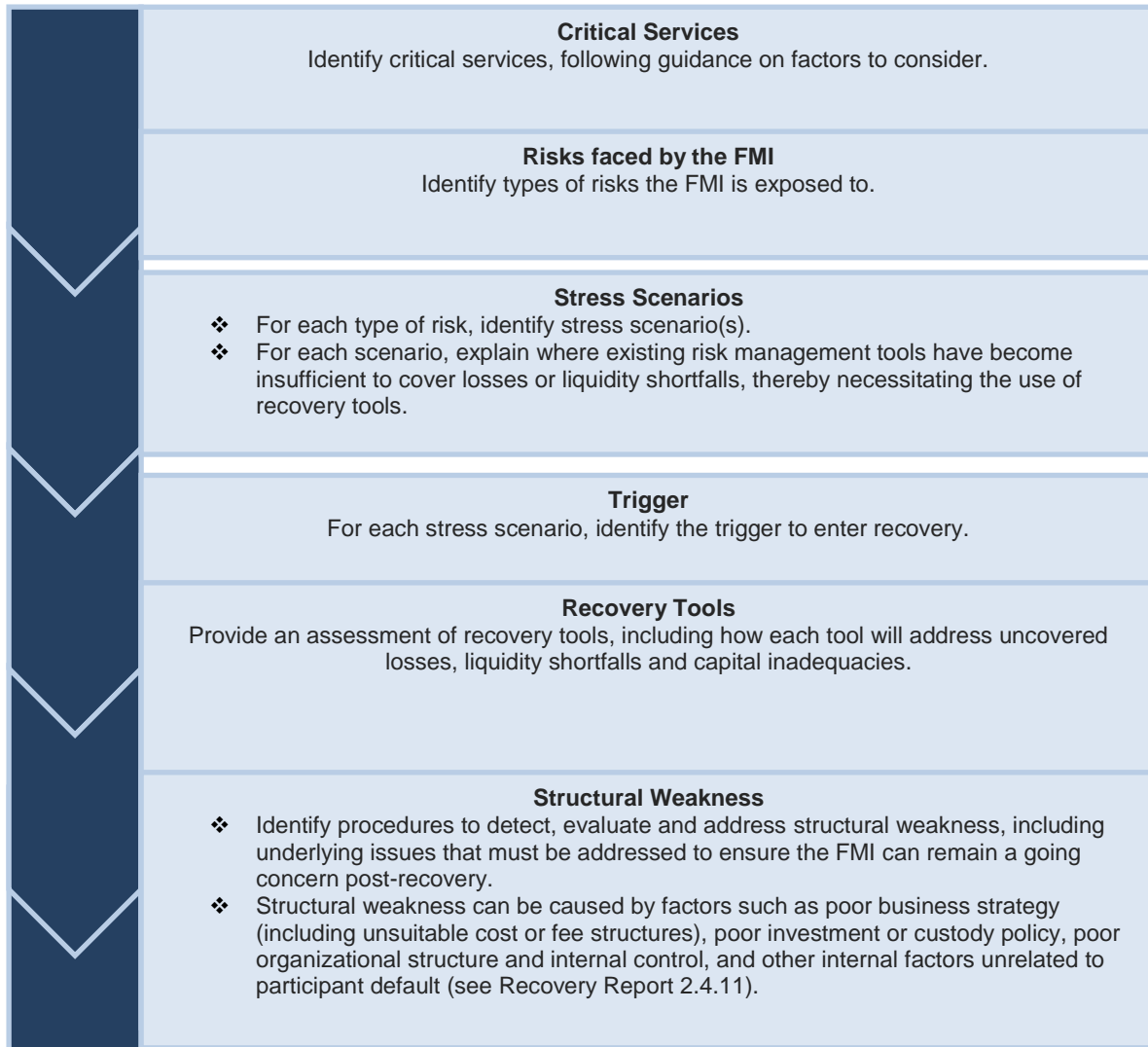
An FMI should disclose sufficient information regarding the effects of its recovery and orderly wind-down plans on FMI participants and stakeholders, including how they would be affected by (i) the allocation of uncovered losses and liquidity shortfalls and (ii) any measures the CCP would take to re-establish a matched book. In terms of disclosing the degree of discretion an FMI has in applying recovery tools, an FMI should make it clear to FMI participants and all other stakeholders ahead of time that all recovery tools and orderly wind-down actions that an FMI can apply will only be employed after consulting with the relevant Canadian authorities.

Note that recovery and orderly wind-down plans need not be two separate documents; the orderly wind-down of critical services may be a part or subset of the recovery plan. Furthermore, Canadian FMIs may consider developing orderly wind-down plans for non-critical services in the context of recovery if winding down non-critical services could assist in or benefit the recovery of the FMI.



**Appendix: Guidelines on the Practical Aspects of FMI Recovery Plans**

The following example provides suggestions on how an FMI recovery plan could be organized.



21. These changes become effective on ●.

## ANNEX C

### BLACKLINED PROPOSED AMENDMENTS TO NATIONAL INSTRUMENT 24-102 CLEARING AGENCY REQUIREMENTS

#### NATIONAL INSTRUMENT 24-102 CLEARING AGENCY REQUIREMENTS

##### TABLE OF CONTENTS

PART 1	–	DEFINITIONS, INTERPRETATION AND APPLICATION
PART 2	–	CLEARING AGENCY RECOGNITION OR EXEMPTION FROM RECOGNITION
PART 3	–	PFMI PRINCIPLES APPLICABLE TO RECOGNIZED CLEARING AGENCIES
PART 4	–	OTHER REQUIREMENTS OF RECOGNIZED CLEARING AGENCIES
		Division 1 – Governance
		Division 2 – Default management
		Division 3 – Operational risk
		Division 4 – Participation requirements
PART 5	–	BOOKS AND RECORDS AND LEGAL ENTITY IDENTIFIER
PART 6	–	EXEMPTIONS
PART 7	–	EFFECTIVE DATE AND TRANSITION
FORMS		Form 24-102F1 – <i>Clearing Agency Submission to Jurisdiction and Appointment of Agent for Service of Process</i>
		Form 24-102F2 – <i>Cessation of Operations Report for Clearing Agency</i>

\*\*\*\*\*

**NATIONAL INSTRUMENT 24-102  
CLEARING AGENCY REQUIREMENTS**

**PART 1  
DEFINITIONS, INTERPRETATION AND APPLICATION**

**Definitions**

**1.1 In this Instrument**

“accounting principles” means accounting principles as defined in National Instrument 52-107 *Acceptable Accounting Principles and Auditing Standards*;

“auditing standards” means auditing standards as defined in National Instrument 52-107 *Acceptable Accounting Principles and Auditing Standards*;

“board of directors” means, in the case of a recognized clearing agency that does not have a board of directors, a group of individuals that acts for the clearing agency in a capacity similar to a board of directors;

“central counterparty” means a person or company that interposes itself between the counterparties to securities or derivatives transactions in one or more financial markets, acting functionally as the buyer to every seller and the seller to every buyer or the counterparty to every party;

“central securities depository” means a person or company that provides centralized facilities as a depository of securities, including securities accounts, central safekeeping services and asset services, which may include the administration of corporate actions and redemptions;

“exempt clearing agency” means a clearing agency that has been granted a decision of the securities regulatory authority pursuant to securities legislation exempting it from the requirement in such legislation to be recognized by the securities regulatory authority as a clearing agency;

“link” means, in relation to a clearing agency, contractual and operational arrangements that directly or indirectly through an intermediary connect the clearing agency and one or more other systems for the clearing, settlement or recording of securities or derivatives transactions;

“participant” means a person or company 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;

“PFMI Disclosure Framework Document” means a disclosure document completed substantially in the form of *Annex A: FMI disclosure template* of the December 2012 report *Principles for financial market infrastructures: Disclosure framework and Assessment methodology* published by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions, as amended, supplemented or superseded from time to time, or a similar disclosure document required to be completed regularly and disclosed publicly by a clearing agency in accordance with the regulatory requirements of a foreign jurisdiction in which the clearing agency is located;

“PFMI Principle” means a principle, including applicable key considerations, in the April 2012 report *Principles for financial market infrastructures* published by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions, as amended from time to time;

“publicly accountable enterprise” means a publicly accountable enterprise as defined in Part 3 of National Instrument 52-107 *Acceptable Accounting Principles and Auditing Standards*;

“securities settlement system” means a system that enables securities to be transferred and settled by book entry according to a set of predetermined multilateral rules.

**Interpretation - Affiliated Entity, Controlled Entity and Subsidiary Entity**

**1.2 (1)** In this Instrument, a person or company is considered to be an affiliated entity of another person or company if one is a subsidiary entity of the other or if both are subsidiary entities of the same person or company, or if each of them is a controlled entity of the same person or company.

**(2)** In this Instrument, a person or company is considered to be controlled by a person or company if any of the following applies:

- (a) in the case of a person or company,

- (i) voting securities of the first-mentioned person or company carrying more than 50% of the votes for the election of directors are held, otherwise than by way of security only, by or for the benefit of the other person or company, and
- (ii) the votes carried by the securities are entitled, if exercised, to elect a majority of the directors of the first-mentioned person or company;
- (b) in the case of a partnership that does not have directors, other than a limited partnership, the second-mentioned person or company holds more than 50% of the interests in the partnership;
- (c) in the case of a limited partnership, the general partner is the second-mentioned person or company.

**(3)** In this Instrument, a person or company is considered to be a subsidiary entity of another person or company if either of the following applies:

- (a) it is a controlled entity of any of the following:
  - (i) that other;
  - (ii) that other and one or more persons or companies, each of which is a controlled entity of that other;
  - (iii) two or more persons or companies, each of which is a controlled entity of that other;
- (b) it is a subsidiary entity of a person or company that is the other's subsidiary entity.

#### **Interpretation – Extended Meaning of Affiliated Entity**

**1.3** For the purposes of the PFMI Principles, a person or company is considered to be an affiliate of a participant, the person or company and the participant each being described in this section as a “party”, where either of the following applies:

- (a) a party holds, otherwise than by way of security only, voting securities of the other party carrying more than 20% of the votes for the election of directors;
- (b) in the event paragraph (a) is not applicable either of the following applies:
  - (i) a party holds, otherwise than by way of security only, an interest in the other party that allows it to direct the management or operations of the other party;
  - (ii) financial information in respect of both parties is consolidated for financial reporting purposes.

#### **Interpretation – Clearing Agency**

**1.4** For the purposes of this Instrument, in Québec, a clearing agency includes a clearing house, a central securities depository and a settlement system within the meaning of the Québec *Securities Act* and a clearing house and a settlement system within the meaning of the Québec *Derivatives Act*.

#### **Application**

**1.5 (1)** Part 3 applies to a recognized clearing agency that operates as any of the following:

- (a) a central counterparty;
- (b) a central securities depository;
- (c) a securities settlement system.

**(2)** Unless the context otherwise indicates, Part 4 applies to a recognized clearing agency whether or not it operates as a central counterparty, central securities depository or securities settlement system.

**(3)** In Québec, if there is a conflict or an inconsistency between section 2.2 and the provisions of the Québec *Derivatives Act* governing the self-certification process with respect to a clearing agency implementing a significant change or a fee change, the provisions of the Québec *Derivatives Act* prevail.

**(4)** The requirements of section 2.2 or 2.5 apply only to the extent that the subject matters of the section are not otherwise governed by the terms and conditions of a decision of the securities regulatory authority that recognizes a clearing agency or

that exempts a clearing agency from a recognition requirement.

**PART 2**  
**CLEARING AGENCY RECOGNITION**  
**OR EXEMPTION FROM RECOGNITION**

**Application and initial filing of information**

**2.1 (1)** An applicant for recognition as a clearing agency under securities legislation, or for exemption from the requirement to be recognized as a clearing agency under securities legislation, must include in its application all of the following:

- (a) if applicable, the applicant's most recently completed PFMI Disclosure Framework Document;
- (b) sufficient information to demonstrate either of the following:
  - (i) the applicant is in compliance with provincial and territorial securities legislation;
  - (ii) the applicant is subject to and in compliance with comparable regulatory requirements of the foreign jurisdiction in which the applicant's head office or principal place of business is located;
- (c) any additional relevant information sufficient to demonstrate that it is in the public interest for the securities regulatory authority to recognize or exempt the applicant, as the case may be.

**(2)** In addition to the requirement set out in subsection (1), an applicant that has a head office or principal place of business located in a foreign jurisdiction must

- (a) certify that it will assist the securities regulatory authority in accessing the applicant's books, records and other documents and in undertaking an onsite inspection and examination at the applicant's premises, and
- (b) certify that it will provide the securities regulatory authority, if requested by the authority, with an opinion of legal counsel that the applicant has, as a matter of law, the power and authority to
  - (i) provide the securities regulatory authority with prompt access to its books, records and other documents, and
  - (ii) submit to onsite inspection and examination by the securities regulatory authority.

**(3)** In addition to the requirements set out in subsections (1) and (2), an applicant whose head office or principal place of business is located in a foreign jurisdiction must file a completed Form 24-102F1 *Clearing Agency Submission to Jurisdiction and Appointment of Agent for Service of Process*.

**(4)** An applicant must inform the securities regulatory authority in writing of any change to the information provided in its application that is material, or if any of the information becomes materially inaccurate for any reason, as soon as the change occurs or the applicant becomes aware of any inaccuracy.

**Significant changes, fee changes and other changes in information**

**2.2 (1)** In this section, for greater certainty, a "significant change" includes, in relation to a clearing agency, any of the following:

- (a) any change to the clearing agency's constating documents or by-laws;
- (b) any change to the clearing agency's corporate governance or corporate structure, including any change of control of the clearing agency, whether direct or indirect;
- (c) any material change to an agreement among the clearing agency and participants in connection with the clearing agency's operations and services, including those agreements to which the clearing agency is a party and those agreements among participants to which the clearing agency is not a party, but that are expressly referred to in the clearing agency's rules or procedures and are made available by participants to the clearing agency;
- (d) any material change to the clearing agency's rules, operating procedures, user guides, manuals, or other documentation governing or establishing the rights, obligations and relationships among the clearing agency and participants in connection with the clearing agency's operations and services;
- (e) any material change to the design, operation or functionality of any of the clearing agency's operations and services;
- (f) the establishment or removal of a link or any material change to an existing link;

- (g) commencing to engage in a new type of business activity or ceasing to engage in a business activity in which the clearing agency is then engaged;
- (h) any other matter identified as a significant change in the terms and conditions of a decision to recognize the clearing agency under securities law.

**(2)** Subject to subsection (4), a recognized clearing agency must not implement a significant change unless it has filed a written notice of the significant change with the securities regulatory authority at least 45 days before implementing the change.

**(3)** The written notice referred to in subsection (2) must include an assessment of how the significant change is consistent with the PFMI Principles applicable to the recognized clearing agency.

**(4)** If a recognized clearing agency proposes to modify a fee or introduce a new fee for any of its clearing, settlement or depository services, the clearing agency must notify in writing the securities regulatory authority of such fee change before implementing the fee change within a period stipulated by the terms and conditions of a decision of the securities regulatory authority that recognizes the clearing agency.

**(5)** An exempt clearing agency must notify in writing the securities regulatory authority of any material change to the information provided to the securities regulatory authority in its PFMI Disclosure Framework Document and related application materials, or if any of the information becomes materially inaccurate for any reason, as soon as the change occurs or the exempt clearing agency becomes aware of any inaccuracy.

### **Ceasing to carry on business**

**2.3 (1)** A recognized clearing agency or exempt clearing agency that intends to cease carrying on business in the local jurisdiction as a clearing agency must file a report on Form 24-102F2 *Cessation of Operations Report for Clearing Agency* with the securities regulatory authority at least 90 days before ceasing to carry on business.

**(2)** A recognized clearing agency or exempt clearing agency that involuntarily ceases to carry on business in the local jurisdiction as a clearing agency must file a report on Form 24-102F2 *Cessation of Operations Report for Clearing Agency* with the securities regulatory authority as soon as practicable after it ceases to carry on that business.

### **Filing of initial audited financial statements**

**2.4 (1)** An applicant must file audited financial statements for its most recently completed financial year with the securities regulatory authority as part of its application under section 2.1.

**(2)** The financial statements referred to in subsection (1) must

- (a) be prepared in accordance with Canadian GAAP applicable to publicly accountable enterprises, IFRS or the generally accepted accounting principles of the foreign jurisdiction in which the person or company is incorporated, organized or located,
- (b) identify in the notes to the financial statements the accounting principles used to prepare the financial statements,
- (c) disclose the presentation currency, and
- (d) be audited in accordance with Canadian GAAS, International Standards on Auditing or the generally accepted auditing standards of the foreign jurisdiction in which the person or company is incorporated, organized or located.

**(3)** The financial statements referred to in subsection (1) must be accompanied by an auditor's report that

- (a) expresses an unmodified or unqualified opinion,
- (b) identifies all financial periods presented for which the auditor's report applies,
- (c) identifies the auditing standards used to conduct the audit,
- (d) identifies the accounting principles used to prepare the financial statements,
- (e) is prepared in accordance with the same auditing standards used to conduct the audit, and

- (f) is prepared and signed by a person or company that is authorized to sign an auditor's report under the laws of a jurisdiction of Canada or a foreign jurisdiction, and that meets the professional standards of that jurisdiction.

### **Filing of annual audited and interim financial statements**

**2.5 (1)** A recognized clearing agency or exempt clearing agency must file annual audited financial statements that comply with the requirements set out in subsections 2.4(2) and (3) with the securities regulatory authority no later than the 90th day after the end of the recognized clearing agency or exempt clearing agency's financial year.

**(2)** A recognized clearing agency or exempt clearing agency must file interim financial statements for each interim period as defined in National Instrument 51-102 *Continuous Disclosure Obligations* that comply with the requirements set out in paragraphs 2.4(2)(a) and (2)(b) with the securities regulatory authority no later than the 45th day after the end of each interim period of the recognized clearing agency's or exempt clearing agency's financial year.

## **PART 3 PFMI PRINCIPLES APPLICABLE TO RECOGNIZED CLEARING AGENCIES**

### **PFMI Principles**

**3.1** A recognized clearing agency must establish, implement and maintain rules, procedures, policies or operations designed to ensure that it meets or exceeds PFMI Principles 1 to 3, 10, 13 and 15 to 23, other than key consideration 9 of PFMI Principle 20, and any of the following:

- (a) if the clearing agency operates as a central counterparty, PFMI Principles 4 to 9, 12 and 14;
- (b) if the clearing agency operates as a securities settlement system, PFMI Principles 4, 5, 7 to 9 and 12;
- (c) if the clearing agency operates as a central securities depository, PFMI Principle 11.

## **PART 4 OTHER REQUIREMENTS OF RECOGNIZED CLEARING AGENCIES**

### ***Division 1 – Governance:***

#### **Board of directors**

**4.1 (1)** A recognized clearing agency must have a board of directors.

**(2)** The board of directors must include appropriate representation by individuals who are

- (a) independent of the clearing agency, and
- (b) neither employees or officers of a participant nor their immediate family members.

**(3)** For the purposes of paragraph (2)(a), an individual is independent of a clearing agency if he or she has no direct or indirect material relationship with the clearing agency.

**(4)** For the purposes of subsection (3), a "material relationship" is a relationship that could, in the view of the clearing agency's board of directors, be reasonably expected to interfere with the exercise of a member's independent judgment.

## **Documented procedures regarding risk spill-overs**

**4.2** The board of directors and management of a recognized clearing agency must have documented procedures to manage possible risk spill-over where the clearing agency provides services with a different risk profile than its depository, clearing and settlement services.

## **Chief Risk Officer and Chief Compliance Officer**

**4.3 (1)** A recognized clearing agency must designate a chief risk officer and a chief compliance officer, who must report directly to the board of directors of the clearing agency.

**(2)** The chief risk officer must

- (a) have responsibility and authority to implement, maintain and enforce the risk management framework established by the clearing agency,
- (b) make recommendations to the clearing agency's board of directors regarding the clearing agency's risk management framework,
- (c) monitor the effectiveness of the clearing agency's risk management framework, and
- (d) report to the clearing agency's board of directors on a timely basis upon becoming aware of any significant deficiency with the risk management framework.

**(3)** The chief compliance officer must

- (a) establish, implement, maintain and enforce written policies and procedures to identify and resolve conflicts of interest and ensure that the clearing agency complies with securities legislation,
- (b) monitor compliance with the policies and procedures described in paragraph (a),
- (c) report to the board of directors of the clearing agency as soon as practicable upon becoming aware of any circumstance indicating that the clearing agency, or any individual acting on its behalf, is not in compliance with securities legislation and one or more of the following apply:
  - (i) the non-compliance creates a risk of harm to a participant;
  - (ii) the non-compliance creates a risk of harm to the broader financial system;
  - (iii) the non-compliance is part of a pattern of non-compliance;
  - (iv) the non-compliance may have an impact on the ability of the clearing agency to carry on business in compliance with securities legislation,
- (d) prepare and certify an annual report assessing compliance by the clearing agency, and individuals acting on its behalf, with securities legislation and submit the report to the board of directors,
- (e) report to the clearing agency's board of directors as soon as practicable upon becoming aware of a conflict of interest that creates a risk of harm to a participant or to the capital markets, and
- (f) concurrently with submitting a report under paragraphs (c), (d) or (e), file a copy of the report with the securities regulatory authority.

## **Board or advisory committees**

**4.4 (1)** The board of directors of a recognized clearing agency must, at a minimum, establish and maintain committees on risk management, finance and audit.

**(2)** If a committee is a board committee, it must be chaired by a sufficiently knowledgeable individual who is independent of the clearing agency.

**(3)** Subject to subsection (4), a committee must have an appropriate representation by individuals who are independent of the clearing agency.



(4) An audit or risk committee must have an appropriate representation by individuals who are

- (a) independent of the clearing agency, and
- (b) neither employees or officers of a participant nor their immediate family members.

(5) For the purpose of subsection (3) and paragraph (4)(a), an individual is independent of a clearing agency if he or she has no direct or indirect material relationship with the clearing agency.

(6) For the purposes of subsection (5), a “material relationship” is a relationship that could, in the view of the clearing agency’s board of directors, be reasonably expected to interfere with the exercise of a member’s independent judgment.

### ***Division 2 – Default management:***

#### **Use of own capital**

4.5 A recognized clearing agency that operates as a central counterparty must dedicate and use a reasonable portion of its own capital to cover losses resulting from one or more participant defaults.

### ***Division 3 – Operational risk:***

#### **Systems requirements**

4.6 (1) For each system operated by or on behalf of a recognized clearing agency that supports the clearing agency’s clearing, settlement and depository functions, the clearing agency must

- (a) develop and maintain
  - (i) adequate internal controls over that system, and
  - (ii) adequate information technology general controls, including, without limitation, controls relating to information systems operations, information security, cyber resilience, change management, problem management, network support and system software support,
- (b) in accordance with prudent business practice, on a reasonably frequent basis and, in any event, at least annually
  - (i) make reasonable current and future capacity estimates, and
  - (ii) conduct capacity stress tests to determine the processing capability of that system to perform in an accurate, timely and efficient manner, and
- (c) promptly notify the regulator or, in Québec, the securities regulatory authority of any systems failure, malfunction, delay or security incident that is material, and provide timely updates on the following:
  - (i) the status of the failure, malfunction, delay or security incident;
  - (ii) the resumption of service;
  - (iii) the results of the clearing agency’s internal review of the failure, malfunction, delay or security incident; and
- (d) keep a record of any systems failure, malfunction, delay or security incident and, if applicable, document the reasons why the clearing agency considered that the system failure, malfunction, delay or security incident was not material.

(2) A recognized clearing agency must provide the regulator or, in Québec, the securities regulatory authority, with a report, by the 30<sup>th</sup> day after the end of the calendar quarter, containing a log and summary description of each systems failure, malfunction, delay or security incident to which paragraph (1)(d) applies.

#### **Auxiliary systems**

**4.6.1 (1)** In this section “auxiliary system” of a recognized clearing agency means a system that shares network resources with one or more of the systems operated by or on behalf of the recognized clearing agency that supports the recognized clearing agency’s clearing, settlement and depository functions and that, if breached, would pose a security threat to one or more of the previously mentioned systems.

**(2)** For each auxiliary system, a recognised clearing agency must

- (d) develop and maintain adequate information security controls that relate to the security threats posed to any system that supports the clearing, settlement and depository functions,
- (e) promptly notify the regulator or, in Québec, the securities regulatory authority of any security incident that is material and provide timely updates on
  - (i) the status of the incident,
  - (ii) the resumption of service, where applicable, and
  - (iii) the results of the clearing agency’s internal review of the security incident, and
- (f) keep a record of any security incident and, if applicable, document the reasons why the clearing agency considered that such a security incident was not material.

**(3)** A recognized clearing agency must provide the regulator or, in Québec, the securities regulatory authority, with a report, by the 30<sup>th</sup> day after the end of the calendar quarter, containing a log and summary description of each security incident to which paragraph (2)(c) applies.

### **Systems reviews**

**4.7 (1)** A recognized clearing agency must

- (a) on a reasonably frequent basis and, in any event, at least annually, engage one or more qualified external auditors to conduct an independent systems review and prepare a report in accordance with established audit standards and best industry practices to ensure that the clearing agency is in compliance with paragraph 4.6(1)(a), and sections 4.6.1 and 4.9, and
- (b) on a reasonably frequent basis and, in any event, at least annually, engage one or more qualified parties to perform appropriate assessments and testing to identify security vulnerabilities and measure the effectiveness of information security controls that assess the clearing agency’s compliance with paragraphs 4.6(1)(a) and 4.6.1(2)(a).

**(2)** The clearing agency must provide the report resulting from the review conducted under paragraph (1)(a) to

- (a) its board of directors, or audit committee, promptly upon the report’s completion, and
- (b) the regulator or, in Québec, the securities regulatory authority, by the earlier of the 30th day after providing the report to its board of directors or the audit committee or the 60th day after the calendar year end.

### **Clearing agency technology requirements and testing facilities**

**4.8 (1)** A recognized clearing agency must make available to participants, in their final form, all technology requirements regarding interfacing with or accessing the clearing agency

- (a) if operations have not begun, sufficiently in advance of operations to allow a reasonable period for testing and system modification by participants, and
- (b) if operations have begun, sufficiently in advance of implementing a material change to technology requirements to allow a reasonable period for testing and system modification by participants.

**(2)** After complying with subsection (1), the clearing agency must make available testing facilities for interfacing with or accessing the clearing agency

- (a) if operations have not begun, sufficiently in advance of operations to allow a reasonable period for testing and system modification by participants, and

- (b) if operations have begun, sufficiently in advance of implementing a material change to technology requirements to allow a reasonable period for testing and system modification by participants.

**(3)** The clearing agency must not begin operations before

- (a) it has complied with paragraphs (1)(a) and (2)(a), and
- (b) the chief information officer of the clearing agency, or an individual performing a similar function, has certified in writing to the regulator or, in Québec, the securities regulatory authority, that all information technology systems used by the clearing agency have been tested according to prudent business practices and are operating as designed.

**(4)** The clearing agency must not implement a material change to the systems referred to in section 4.6 before

- (a) it has complied with paragraphs (1)(b) and (2)(b), and
- (b) the chief information officer of the clearing agency, or an individual performing a similar function, has certified in writing to the regulator or, in Québec, the securities regulatory authority, that the change has been tested according to prudent business practices and is operating as designed.

**(5)** Subsection (4) does not apply to the clearing agency if the change must be made immediately to address a failure, malfunction or material delay of its systems or equipment and if

- (a) the clearing agency immediately notifies the regulator or, in Québec, the securities regulatory authority, of its intention to make the change, and
- (b) the clearing agency discloses to its participants the changed technology requirements as soon as practicable.

### **Testing of business continuity plans**

**4.9** A recognized clearing agency must

- (a) develop and maintain reasonable business continuity plans, including disaster recovery plans, and
- (b) test its business continuity plans, including its disaster recovery plans, according to prudent business practices and on a reasonably frequent basis and, in any event, at least annually.

### **Outsourcing**

**4.10** If a recognized clearing agency outsources a critical service or system to a service provider, including to an affiliated entity of the clearing agency, the clearing agency must do all of the following:

- (a) establish, implement, maintain and enforce written policies and procedures to conduct suitable due diligence for selecting service providers to which a critical service and system may be outsourced and for the evaluation and approval of those outsourcing arrangements;
- (b) identify any conflicts of interest between the clearing agency and the service provider to which a critical service and system is outsourced, and establish, implement, maintain and enforce written policies and procedures to mitigate and manage those conflicts of interest;
- (c) enter into a written contract with the service provider to which a critical service or system is outsourced that
  - (i) is appropriate for the materiality and nature of the outsourced activities,
  - (ii) includes service level provisions, and
  - (iii) provides for adequate termination procedures;
- (d) maintain access to the books and records of the service provider relating to the outsourced activities;
- (e) ensure that the securities regulatory authority has the same access to all data, information and systems maintained by the service provider on behalf of the clearing agency that it would have absent the outsourcing arrangements;

- (f) ensure that all persons conducting audits or independent reviews of the clearing agency under this Instrument have appropriate access to all data, information and systems maintained by the service provider on behalf of the clearing agency that such persons would have absent the outsourcing arrangements;
- (g) take appropriate measures to determine that the service provider to which a critical service or system is outsourced establishes, maintains and periodically tests a reasonable business continuity plan, including a disaster recovery plan;
- (h) take appropriate measures to ensure that the service provider protects the clearing agency's proprietary information and participants' confidential information, including taking measures to protect information from loss, thefts, vulnerabilities, threats, unauthorized access, copying, use and modification, and discloses it only in circumstances where legislation or an order of a court or tribunal of competent jurisdiction requires the disclosure of such information;
- (i) establish, implement, maintain and enforce written policies and procedures to monitor the ongoing performance of the service provider's contractual obligations under the outsourcing arrangements.

**Division 4 – Participation requirements:**

**Access requirements and due process**

**4.11 (1)** A recognized clearing agency must not

- (a) unreasonably prohibit, condition or limit access by a person or company to the services offered by the clearing agency,
- (b) unreasonably discriminate among its participants or indirect participants,
- (c) impose any burden on competition that is not reasonably necessary and appropriate,
- (d) unreasonably require the use or purchase of another service for a person or company to utilize the clearing agency's services offered by it, and
- (e) impose fees or other material costs on its participants that are unfairly or inequitably allocated among the participants.

**(2)** For any decision made by the clearing agency that terminates, suspends or restricts a participant's membership in the clearing agency or that declines entry to membership to an applicant that applies to become a participant, the clearing agency must ensure that

- (a) the participant or applicant is given an opportunity to be heard or make representations, and
- (b) it keeps records of, gives reasons for, and provides for reviews of its decisions, including, for each applicant, the reasons for granting access or for denying or limiting access to the applicant, as the case may be.

**(3)** Nothing in subsection (2) limits or prevents the clearing agency from taking timely action in accordance with its rules and procedures to manage the default of one or more participants or in connection with the clearing agency's recovery or orderly wind-down, whether or not such action adversely affects a participant.

**PART 5  
BOOKS AND RECORDS AND LEGAL ENTITY IDENTIFIER**

**Books and records**

**5.1 (1)** A recognized clearing agency or exempt clearing agency must keep books, records and other documents as are necessary to account for the conduct of its clearing, settlement and depository activities, business transactions and financial affairs.

**(2)** The clearing agency must retain the books and records maintained under this section

- (a) for a period of seven years from the date the record was made or received, whichever is later,
- (b) in a safe location and a durable form, and

(c) in a manner that permits them to be provided promptly to the securities regulatory authority.

### **Legal Entity Identifier**

**5.2 (1)** In this section,

“Global Legal Entity Identifier System” means the system for unique identification of parties to financial transactions.

**(2)** For the purposes of any recordkeeping and reporting requirements required under securities legislation, a recognized clearing agency or exempt clearing agency must identify itself by means of the legal entity identifier assigned to the clearing agency in accordance with the standards set by the Global Legal Entity Identifier System.

**(2.1)** Throughout the period that the clearing agency is recognized as a clearing agency or is exempt from the requirement to be recognized as a clearing agency, the clearing agency must maintain and renew the legal entity identifier referred to in subsection (2).

**(3)** LAPSED.

## **PART 6 EXEMPTIONS**

### **Exemption**

**6.1 (1)** The regulator or the securities regulatory authority may grant an exemption from the provisions of this Instrument, in whole or in part, subject to such conditions or restrictions as may be imposed in the exemption.

**(2)** Despite subsection (1), in Ontario, only the regulator may grant an exemption.

**(3)** Except in Alberta and Ontario, an exemption referred to in subsection (1) is granted under the statute referred to in Appendix B of National Instrument 14-101 *Definitions* opposite the name of the local jurisdiction.

## **PART 7 EFFECTIVE DATE AND TRANSITION**

### **Effective date and transition**

**7.1 (1)** LAPSED.

**(2)** LAPSED.

**(3)** LAPSED.

**FORM 24-102F1**  
**CLEARING AGENCY SUBMISSION TO**  
**JURISDICTION AND APPOINTMENT OF**  
**AGENT FOR SERVICE OF PROCESS**

1. Name of clearing agency (the "Clearing Agency"):  
\_\_\_\_\_
2. Jurisdiction of incorporation, or equivalent, of Clearing Agency:  
\_\_\_\_\_
3. Address of principal place of business of Clearing Agency:  
\_\_\_\_\_
4. Name of the agent for service of process (the "Agent") for the Clearing Agency:  
\_\_\_\_\_
5. Address of the Agent in \_\_\_\_\_ [name of local jurisdiction]:  
\_\_\_\_\_
6. The \_\_\_\_\_ [name of securities regulatory authority] ("securities regulatory authority") issued an order recognizing the Clearing Agency as a clearing agency pursuant to securities legislation, or the securities regulatory authority issued an order exempting the Clearing Agency from the requirement to be recognized as a clearing agency pursuant to such legislation, on \_\_\_\_\_.
7. The Clearing Agency designates and appoints the Agent as its agent upon whom may be served a notice, pleading, subpoena, summons or other process in any action, investigation or administrative, criminal, quasi-criminal, penal or other proceeding arising out of or relating to or concerning the activities of the Clearing Agency in \_\_\_\_\_ [name of local jurisdiction]. The Clearing Agency hereby irrevocably waives any right to challenge service upon its Agent as not binding upon the Clearing Agency.
8. The Clearing Agency agrees to unconditionally and irrevocably attorn to the non-exclusive jurisdiction of (i) the courts and administrative tribunals of \_\_\_\_\_ [name of local jurisdiction] and (ii) any proceeding in any province or territory arising out of, related to, concerning or in any other manner connected with the regulation and oversight of the activities of the Clearing Agency in \_\_\_\_\_ [name of local jurisdiction].
9. The Clearing Agency must file a new submission to jurisdiction and appointment of agent for service of process in this form at least 30 days before the Clearing Agency ceases to be recognized or exempted by the securities regulatory authority, to be in effect for six years from the date it ceases to be recognized or exempted unless otherwise amended in accordance with section 10.
10. Until six years after it has ceased to be recognized or exempted by the securities regulatory authority, the Clearing Agency must file an amended submission to jurisdiction and appointment of agent for service of process at least 30 days before any change in the name or above address of the Agent.
11. The Clearing Agency agrees that this submission to jurisdiction and appointment of agent for service of process is to be governed by and construed in accordance with the laws of \_\_\_\_\_ [name of local jurisdiction].

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature of the Clearing Agency

\_\_\_\_\_  
Print name and title of signing officer of the Clearing Agency

**AGENT  
CONSENT TO ACT AS AGENT FOR SERVICE**

I, \_\_\_\_\_ [name of Agent in full; if a corporation, full corporate name] of  
\_\_\_\_\_ [business address], hereby accept the appointment as agent for service of  
process of \_\_\_\_\_ [name of Clearing Agency] and hereby consent to act as agent for  
service pursuant to the terms of the appointment executed by \_\_\_\_\_ [name of Clearing Agency] on  
\_\_\_\_\_ [date].

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature of Agent

\_\_\_\_\_  
Print name of person signing and, if Agent is not an individual,  
the title of the person

**FORM 24-102F2**  
**CESSATION OF OPERATIONS REPORT FOR CLEARING AGENCY**

1. Identification:

A. Full name of the recognized or exempted clearing agency:

B. Name(s) under which business is conducted, if different from item 1A:

2. Date clearing agency proposes to cease carrying on business as a clearing agency:

3. If cessation of business was involuntary, date clearing agency has ceased to carry on business as a clearing agency:

**Exhibits**

File all exhibits with the Cessation of Operations Report. For each exhibit, include the name of the clearing agency, the date of filing of the exhibit and the date as of which the information is accurate (if different from the date of the filing). If any exhibit required is inapplicable, a statement to that effect must be provided instead of the exhibit.

**Exhibit A**

The reasons for the clearing agency ceasing to carry on business as a clearing agency.

**Exhibit B**

A list of all participants in Canada during the last 30 days prior to ceasing to carry on business as a clearing agency.

**Exhibit C**

A description of the alternative arrangements available to participants in respect of the services offered by the clearing agency immediately before ceasing to carry on business as a clearing agency.

**Exhibit D**

A description of all links the clearing agency had immediately before ceasing to carry on business as a clearing agency with other clearing agencies or trade repositories.

**CERTIFICATE OF CLEARING AGENCY**

The undersigned certifies that the information given in this report is true and correct.

DATED at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
Name of clearing agency

\_\_\_\_\_  
Name of director, officer or partner (please type or print)

\_\_\_\_\_  
Signature of director, officer or partner

\_\_\_\_\_  
Official capacity (please type or print)



## ANNEX D

# BLACKLINED PROPOSED CHANGES TO COMPANION POLICY 24-102CP TO NATIONAL INSTRUMENT 24-102 *CLEARING AGENCY REQUIREMENTS*

### COMPANION POLICY 24-102CP TO NATIONAL INSTRUMENT 24-102 *CLEARING AGENCY REQUIREMENTS*

#### TABLE OF CONTENTS

PART 1	–	GENERAL COMMENTS
PART 2	–	CLEARING AGENCY RECOGNITION OR EXEMPTION FROM RECOGNITION
PART 3	–	PFMI PRINCIPLES APPLICABLE TO RECOGNIZED CLEARING AGENCIES
PART 4	–	OTHER REQUIREMENTS OF RECOGNIZED CLEARING AGENCIES
		Division 1 – Governance
		Division 2 – Default management
		Division 3 – Operational risk
		Division 4 – Participation requirements
PART 5	–	BOOKS AND RECORDS AND LEGAL ENTITY IDENTIFIER
PART 6	–	EXEMPTIONS
ANNEX I		
ANNEX II		

\*\*\*\*\*

**COMPANION POLICY 24-102CP  
TO  
NATIONAL INSTRUMENT 24-102  
CLEARING AGENCY REQUIREMENTS**

**PART I  
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 section, sections 1.2, 1.3, 3.2 and 3.3 of this CP, and 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 PFMI 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.<sup>1</sup> 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)<sup>2</sup> and the International Organization of Securities Commissions (IOSCO).<sup>3</sup> The PFMI Principles harmonize and strengthen previous international standards for financial market infrastructures (FMIs).<sup>4</sup>

**(3)** Annexes I and II to this CP include supplementary guidance 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 1.4. The CSA notes that, while Part 3 applies only to a recognized clearing

---

<sup>1</sup> The entity is prohibited from carrying on business as a clearing agency unless recognized or exempted.

<sup>2</sup> Prior to September 1, 2014, CPMI was known as the Committee on Payment and Settlement Systems (CPSS).

<sup>3</sup> 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](http://www.bis.org)) and the IOSCO website ([www.iosco.org](http://www.iosco.org)).

<sup>4</sup> 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](http://www.bis.org)). The CPMI-IOSCO reports are also available on IOSCO website ([www.iosco.org](http://www.iosco.org)).

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 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.<sup>5</sup> 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.

1.5 Section 1.5 provides clarity on the application of the different parts of the Instrument to a clearing agency that has been recognized by a securities regulatory authority, or exempted from recognition, as is further described in section 2.0 of this CP. For greater clarity, unless otherwise specified, Parts 1, 2, and 5 to 7 generally apply to both a recognized clearing agency and one that is exempted from recognition.

## **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, would generally need to be recognized by a securities regulatory authority.<sup>6</sup> 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 processed, cleared and settled by the clearing agency;<sup>7</sup> risk exposures (particularly credit and liquidity) of the clearing agency to its participants; complexity of the clearing agency;<sup>8</sup> and centrality of the clearing agency with respect to its role in the market, including its substitutability, relationships, interdependencies and interactions.<sup>9</sup> 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.<sup>10</sup>

**(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.

---

<sup>5</sup> 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*.

<sup>6</sup> 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.

<sup>7</sup> We would consider, for example, the current aggregate monetary values and volumes of such transactions, as well as the entity’s potential for growth.

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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.

## – **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 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 in both substance and process, though its oversight program may differ. 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 comprehensive and appropriate documentation. This will include the items listed in subsection 2.1(1). Together, the application materials for either recognition or exemption 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)), the expected date of the implementation of the change, and an assessment of how the significant change is consistent with the PFMI Principles applicable to the clearing agency (see subsection 2.2(3)). 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.

## **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*. 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.<sup>11</sup>

## **PART 3 PFMI PRINCIPLES APPLICABLE TO RECOGNIZED CLEARING AGENCIES**

---

<sup>11</sup> See, for example, section 21.4 of the *Securities Act* (Ontario).

## 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.<sup>12</sup>

**(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 clearing agencies. In interpreting and implementing the PFMI Principles, regard is to be given to the explanatory notes in the PFMI Report and other reports or explanatory material published by CPMI and IOSCO that provide supplementary guidance to PFMI on the application of the PFMI Principles, as appropriate, unless otherwise indicated in section 3.1 or this Part 3 of the CP.<sup>13</sup> 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 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

Notwithstanding section 3.1 of the CP and the Joint Supplementary Guidance relating to PFMI Principle 5: *Collateral*, 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

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<sup>14</sup> 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.<sup>15</sup> The features of the alternate approach are described in the PFMI Report.<sup>16</sup>

#### – Customers of IIROC dealer members

---

<sup>12</sup> PFMI Principles that are relevant to payment systems and trade repositories, but not CCPs, SSSs and CSDs, are not adopted in Part 3.

<sup>13</sup> 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*.

<sup>14</sup> 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.

<sup>15</sup> See paragraph 3.14.6 of the PFMI Report, at p. 83.

<sup>16</sup> 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 PFMI Report suggests 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 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.

Currently, most participants of domestic cash market CCPs that clear for customers are investment dealers.<sup>17</sup> They are required to be members of the Investment Industry Regulatory Organization of Canada (IIROC)<sup>18</sup> and to contribute to the Canadian Investor Protection Fund (CIPF).<sup>19</sup> 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,<sup>20</sup> provides protection to eligible customers for losses up to \$1 million per account.<sup>21</sup>

– *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 recognized 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, absent exceptional circumstances, be expected to interfere with the exercise of the individual's independent judgment;

---

<sup>17</sup> 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*.

<sup>18</sup> 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.

<sup>19</sup> CIPF is an investor compensation protection fund that is sponsored by IIROC and approved by the CSA.

<sup>20</sup> 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.

<sup>21</sup> 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.

- (a) an individual who is, or has been within the last year, an employee or 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 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 10% 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 10% 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 officer of a person or company that beneficially owns, directly or indirectly, voting securities carrying more than 10% 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.

#### **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 (or certain aspects thereof) 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 (1)(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, cyber resilience, and security. Recognized guides as to what constitutes adequate information technology controls may include guidance, principles or frameworks published by the Chartered Professional Accountants - Canada (CPA Canada), American Institute of Certified Public Accountants (AICPA), Information Systems Audit and Control Association (ISACA), International Organization for Standardization (ISO), or the National Institute of Standards and Technology (U.S. Department of Commerce) (NIST). We are of the view that internal controls include controls which support the processing integrity of the models used to quantify, aggregate, and manage the clearing agency's risks.

(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(1)(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 in each 12-month period. 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, delay or security 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. Such events would not generally include those that have or would have little or no impact on the clearing agency's operations or on participants. Non-material events may become material if they recur or have a cumulative effect. It is expected that, as part of the required notification, the clearing agency will provide updates on the status of the incident 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 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. A security incident is considered to be any event that actually or potentially jeopardizes the confidentiality, integrity or availability of an information system or the information the system processes, stores



or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures or acceptable use policies.<sup>22</sup> Any security incident that requires non-routine measures or resources by the clearing agency 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 incident it did not consider material.

## **Systems reviews**

**4.7 (1)(a)** An independent systems review must be conducted and reported on at least once in each 12-month period by a qualified external auditor in accordance with established audit standards and best industry practices. We consider that best industry practices include the 'Trust Services Criteria' developed by the American Institute of CPAs and CPA Canada. For the purposes of paragraph (1)(a), we consider a qualified external auditor to be 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. Before engaging a qualified external auditor to conduct the independent systems review, a clearing agency is expected to discuss its choice of external auditor and the scope of the systems review mandate with the regulator or, in Québec, the securities regulatory authority. We further expect that the report prepared by the external auditor include, to the extent applicable, an audit opinion that (i) the description included in the report fairly presents the systems and controls that were designed and implemented throughout the reporting period, (ii) the controls stated in the description were suitably designed, and (iii) the controls operated effectively throughout the reporting period.

**(1)(b)** The clearing agency must also establish and perform effective assessment and testing methodologies and practices and would be expected to implement appropriate improvements where necessary. The assessments and testing required in this section, such as vulnerability assessments and penetration tests, are to be carried out by a qualified party on a reasonably frequent basis and, in any event, at least once in each 12-month period. For the purposes of paragraph (1)(b), we consider a qualified party to be 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. We consider that qualified parties 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. The securities regulatory authority may, in accordance with securities legislation, require the clearing agency to provide a copy of any such assessment.

## **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 at least once in each 12-month period. 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

---

<sup>22</sup> Adapted from the NIST definition of "incident". See <https://csrc.nist.gov/Glossary/?term=4730#AlphaIndexDiv>.

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) is a G20 endorsed system<sup>23</sup> that is intended to serve as a public-good utility responsible for overseeing the issuance of legal entity identifiers (LEIs) globally in order to uniquely identify parties to transactions. It was designed and implemented under the direction of the LEI Regulatory Oversight Committee, a governance body endorsed by the G20.

## **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

---

<sup>23</sup> See [http://www.financialstabilityboard.org/list/fsb\\_publications/tid\\_156/index.htm](http://www.financialstabilityboard.org/list/fsb_publications/tid_156/index.htm) for more information.

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.

**ANNEX I  
TO COMPANION POLICY 24-102CP**

**JOINT SUPPLEMENTARY GUIDANCE  
DEVELOPED BY THE BANK OF CANADA AND CANADIAN SECURITIES ADMINISTRATORS  
ON THE PFMI PRINCIPLES**

Joint Supplementary Guidance has been developed by the BOC and the securities regulatory authorities to provide additional clarity on certain aspects of selected PFMI Principles within the Canadian context. It is found on the BOC website and in annexes to the Companion Policy (to the CSA National Instrument 24-102 *Clearing Agency Requirements*).

The Joint Supplementary Guidance applies in respect of recognized domestic clearing agencies that are designated as systemically-important by the BOC and jointly overseen by the BOC and one or more securities regulatory authorities (referred to in this Joint Supplementary Guidance as an “FMI”).

Beyond observation of the PFMI Principles, an FMI is expected to take into account the “Explanatory Notes” for each applicable PFMI Principle, other reports and explanatory materials published by CPMI and IOSCO that supplement the PFMI Report and that provide guidance to FMIs on the application of the PFMI Principles, as well as this Joint Supplementary Guidance or any future guidance published jointly by the BOC and the securities regulatory authorities.

The Joint Supplementary Guidance below appears under the relevant headings for each applicable PFMI Principle (referred to by the BOC as its “Risk-Management Standards for Designated FMIs”).

**PFMI Principle 3: Framework for the comprehensive management of risks**

- a. Joint Supplementary Guidance for PFMI Principle 3 has been developed by the BOC and CSA pertaining to FMI recovery planning. This guidance can be found separately on the BOC website and in Annex II to the Companion Policy.

**PFMI Principle 5: Collateral**

- a. An FMI should not rely solely on external opinions to determine collateral eligibility.
- b. In general, most of the FMI’s collateral pools should be composed of cash and debt securities issued or guaranteed by the Government of Canada, a provincial government or the U.S. Treasury.
- c. Additional asset classes may be acceptable as collateral if they are subject to conservative haircuts and concentration limits. An FMI should limit such assets to a maximum of 40% of the total collateral posted from each participant. It should also limit securities issued by a single issuer to a maximum of 5% of total collateral from each participant. Such assets are:
  - Securities issued by a municipal government;
  - Bankers’ acceptances;
  - Commercial paper;
  - Corporate bonds;
  - 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;
  - Equity securities traded on marketplaces regulated by a member of the CSA; and
  - 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.
- d. Since it is highly likely that the value of debt and equity securities issued by companies operating in the financial sector would be adversely affected by the default of an FMI participant – introducing wrong-way risk for an FMI that has accepted such securities as collateral – and FMI should:
  - Limit the collateral from financial sector issuers to a maximum of 10% of total collateral pledged from each participant; and
  - Not allow a participant to pledge as collateral securities issued by itself or an affiliate.

### **PFMI Principle 7: Liquidity risk**

- a. Liquidity facilities should include at least three independent liquidity providers to ensure the FMI has access to sufficient liquid resources even in the event one of its liquidity providers defaults.
- b. Uncommitted liquidity facilities are considered qualifying liquid resources for liquidity exposure in Canadian dollars if they meet all of the following additional criteria:
  - The liquidity provider has access to the Bank of Canada's Standing Liquidity Facility (SLF);
  - The facility is fully-collateralized with SLF-eligible collateral; and
  - The facility is denominated in Canadian dollars.

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

- a. Liquid net assets funded by equity must be held at the level of the FMI legal entity to ensure they are unencumbered and can be accessed quickly.

### **PFMI Principle 16: Custody and investment risks**

- a. It is paramount that an FMI have prompt access to assets held for risk-management purposes with minimal price impact. For the purposes of PFMI Principle 16, financial instruments can be considered to have minimal credit, market and liquidity risk if they are debt instruments that are:
  - Securities issued or guaranteed by the Government of Canada;
  - Marketable securities issued by the U.S. Treasury;
  - Securities issued or guaranteed by a provincial government;
  - Securities issued by a municipal government;
  - Bankers' acceptances;
  - Commercial paper;
  - Corporate bonds; and
  - Asset-backed securities that are:
    - 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.
- b. Investments should also, at a minimum, observe the following:
  - To reduce concentration risk, no more than 20% of total investments should be invested in any combination of municipal and private sector securities. Investment in a single private sector or municipal issuer should be no more than 5% 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 being required. Investment in financial sector securities should be no more than 10% of total investments. An FMI should not invest assets in the securities of its own affiliates.
  - For investments that are subject to counterparty credit risk, an FMI should set clear criteria for choosing investment counterparties and setting exposure limits.

**ANNEX II**  
**TO COMPANION POLICY 24-102CP**

**JOINT SUPPLEMENTARY GUIDANCE**  
**DEVELOPED BY THE BANK OF CANADA AND CANADIAN SECURITIES ADMINISTRATORS**  
**ON RECOVERY PLANS**

**Context**

In 2012, to enhance the safety and efficiency of payment, clearing and settlement systems, CPMI and IOSCO released a set of international risk-management standards for FMIs, known as the PFMI.<sup>1</sup> The PFMI provide standards regarding FMI recovery planning and orderly wind-down, which were adopted by the Bank of Canada as Standard 24 of the Bank's *Risk-Management Standards for Systemic FMIs*<sup>2</sup> and by the CSA as part of the Instrument.<sup>3</sup> In the context of recovery planning,

*An FMI is expected to identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. This entails preparing appropriate plans for its recovery or orderly wind-down based on the results of that assessment.*

In October 2014, CPMI and IOSCO released its report, "Recovery of Financial Market Infrastructures" (the Recovery Report), providing additional guidance specific to the recovery of FMIs.<sup>4</sup> The Recovery Report explains the required structure and components of an FMI recovery plan and provides guidance on FMI critical services and recovery tools at a level sufficient to accommodate possible differences in the legal and institutional environments of each jurisdiction.

For the purpose of this guidance, FMI recovery is defined as the set of actions that an FMI can take, consistent with its rules, procedures and other ex ante contractual agreements, to address any uncovered loss, liquidity shortfall or capital inadequacy, whether arising from participant default or other causes (such as business, operational or other structural weakness), including actions to replenish any depleted pre-funded financial resources and liquidity arrangements, as necessary, to maintain the FMI's viability as a going concern and the continued provision of critical services.<sup>5,6</sup>

Recovery planning is not intended as a substitute for robust day-to-day risk management or for business continuity planning. Rather, it serves to extend and strengthen an FMI's risk-management framework, enhancing the resilience of the FMI against financial risks and bolstering confidence in the FMI's ability to function effectively even under extreme but plausible market conditions and operating environments.

**Key Components of Recovery Plans**

Overview of existing risk-management and legal structures

As part of their recovery plans, FMIs should include overviews of their legal entity structure and capital structure to provide context for stress scenarios and recovery activities.

FMIs should also include an overview of their existing risk-management frameworks – i.e., their **pre-recovery** risk-management frameworks and activities. As part of this overview, and to determine the relevant point(s) where standard pre-recovery risk-management frameworks are exhausted, FMIs should identify all the material risks they are exposed to and explain how they use their existing pre-recovery risk-management tools to manage these risks to a high degree of confidence.

Critical services<sup>7</sup>

In their recovery plans, FMIs should identify, in consultation with Canadian authorities and stakeholders, the services they provide that are critical to the smooth functioning of the markets that they serve and to the maintenance of financial stability. FMIs may find it useful to consider the degree of **substitutability** and **interconnectedness** of each of these critical services, specifically

<sup>1</sup> Available at <http://www.bis.org/cpmi/publ/d101a.pdf>.

<sup>2</sup> See key consideration 4 of PFMI Principle 3 and key consideration 3 of PFMI Principle 15 which are adopted in the Instrument, section 3.1.

<sup>3</sup> The Bank of Canada's *Risk-Management Standards for Systemic FMIs* is available at <http://www.bankofcanada.ca/core-functions/financial-system/bank-canada-risk-management-standards-systemic-fmis/>.

<sup>4</sup> Available at <http://www.bis.org/cpmi/publ/d121.pdf>.

<sup>5</sup> Recovery Report, Paragraph 1.1.1.

<sup>6</sup> For a precise definition of orderly wind-down, see the Recovery Report, Paragraph 2.2.2.

<sup>7</sup> Recovery Report, Paragraphs 2.4.2–2.4.4.

- ❖ the degree of criticality of an FMI's service is likely to be high if there are no, or only a small number of, alternative service providers. Factors related to the substitutability of a service could include (i) the size of a service's market share, (ii) the existence of alternative providers that have the capacity to absorb the number of customers and transactions the FMI maintains, and (iii) the FMI participants' capability to transfer positions to the alternative provider(s).
- ❖ the degree of criticality of an FMI's service may be high if the service is significantly interconnected with other market participants, both in terms of breadth and depth, thereby increasing the likelihood of contagion if the service were to be discontinued. Potential factors to consider when determining an FMI's interconnectedness are (i) what services it provides to other entities and (ii) which of those services are critical for other entities to function

### Stress scenarios<sup>8</sup>

In their recovery plans, FMIs should identify scenarios that may prevent them from being able to provide their critical services as a going concern. Stress scenarios should be focused on the risks an FMI faces from its payment, clearing and settlement activity. An FMI should then consider stress scenarios that cause financial stress in excess of the capacity of its existing pre-recovery risk controls, thereby placing the FMI into recovery. An FMI should organize stress scenarios by the types of risk it faces; for each stress scenario, the FMI should clearly explain the following:

- ❖ the assumptions regarding market conditions and the state of the FMI within the stress scenario, accounting for the differences that may exist depending on whether the stress scenario is systemic or idiosyncratic;
- ❖ the estimated impact of a stress scenario on the FMI, its participants, participants' clients and other stakeholders; and
- ❖ the extent to which an FMI's existing pre-recovery risk-management tools are insufficient to withstand the impacts of realized risks in a recovery stress scenario and the value of the loss and/or of the negative shock required to generate a gap between existing risk-management tools and the losses associated with the realized risks.

### Triggers for recovery

For each stress scenario, FMIs should identify the triggers that would move them from their pre-recovery risk-management activities (e.g., those found in a CCP's default waterfall) to recovery. These triggers should be both qualified (i.e., outlined) and, where relevant, quantified to demonstrate a point at which recovery plans will be implemented without ambiguity or delay. While the boundary between pre-recovery risk-management activities and recovery can be clear (for example, when pre-funded resources are fully depleted), judgment may be needed in some cases. When this boundary is not clear, FMIs should lay out in their recovery plans how they will make decisions.<sup>9</sup> This includes detailing in advance their communication plans, as well as the escalation process associated with their decision-making procedures. They should also specify the decision-makers responsible for each step of the escalation process to ensure that there is adequate time for recovery tools to be implemented if required.

More generally, it is important to identify and place the triggers for recovery early enough in a stress scenario to allow for sufficient time to implement recovery tools described in the recovery plan. Triggers placed too late in a scenario will impede the effective rollout of these tools and hamper recovery efforts. Overall, in determining the moment when recovery should commence, and especially where there is uncertainty around this juncture, an FMI should be prudent in its actions and err on the side of caution.

### ***Selection and Application of Recovery Tools***<sup>10</sup>

#### A comprehensive plan for recovery

The success of a recovery plan relies on a comprehensive set of tools that can be effectively applied during recovery. The applicability of these tools and their contribution to recovery varies by system, stress event and the order in which they are applied.

A robust recovery plan relies on a range of tools to form an adequate response to realized risks. Canadian authorities will provide feedback on the comprehensiveness of selected recovery tools when reviewing an FMI's complete recovery plan.

#### Characteristics of recovery tools

In providing this guidance, Canadian authorities used a broad set of criteria (described below), including those from the Recovery Report, to determine the characteristics of effective recovery tools.<sup>11</sup> FMIs should aim for consistency with these criteria in the selection and application of tools. In this context, recovery tools should be:

<sup>8</sup> Recovery Report, Paragraph 2.4.5.

<sup>9</sup> Recovery Report, Paragraph 2.4.8.

<sup>10</sup> Recovery Report, Paragraph 2.3.6 – 2.3.7 and 2.5.6 and Paragraphs 3.4.1 – 3.4.7.

- ❖ Reliable and timely in their application and have a strong legal and regulatory basis. This includes the need for FMIs to mitigate the risk that a participant may be unable or unwilling to meet a call for financial resources in a timely manner, or at all (i.e., performance risk), and to ensure that all recovery activities have a strong legal and regulatory basis.
- ❖ Measurable, manageable and controllable to ensure that they can be applied effectively while keeping in mind the objective of minimizing their negative effects on participants and the broader financial system. To this end, using tools in a manner that results in participant exposures that are determinable and fixed provides better certainty of the tools' impacts on FMI participants and their contribution to recovery. Fairness in the allocation of uncovered losses and shortfalls, and the capacity to manage the associated costs, should also be considered.
- ❖ Transparent to participants: this should include a predefined description of each recovery tool, its purpose and the responsibilities and procedures of participants and the FMIs subject to the recovery tool's application to effectively manage participants' expectations. Transparency also mitigates performance risk by detailing the obligations and procedures of FMIs and participants beforehand to support the timely and effective rollout of recovery tools.
- ❖ Designed to create appropriate incentives for sound risk management and encourage voluntary participation in recovery to the greatest extent possible. This may include distributing post-recovery proceeds to participants that supported the FMI through the recovery process.

### Systemic stability

Certain tools may have serious consequences for participants and for the stability of financial markets more generally. FMIs should use prudence and judgment in the selection of appropriate tools. Canadian authorities are of the view that FMIs should be cautious in using tools that can create uncapped, unpredictable or ill-defined participant exposures, and which could create uncertainty and disincentives to participate in an FMI. Any such use would need to be carefully justified. Participants' ability to predict and manage their exposures to recovery tools is important, both for their own stability and for the stability of the indirect participants of an FMI.

In assessing FMI recovery plans, Canadian authorities are concerned with the possibility of systemic disruptions from the use of certain tools or tools that pose unquantifiable risks to participants. When determining which recovery tools should be included in a recovery plan, and selecting and applying such tools during the recovery phase, FMIs should keep in mind the objective of minimizing their negative impacts on participants, the FMI and the broader financial system.

### Recommended recovery tools

This section outlines recommended recovery tools for use in FMI recovery plans. Not all tools are applicable for the different types of FMIs (e.g., a payment system versus a central counterparty), nor is this an exhaustive list of tools that may be available for recovery. Each FMI should use discretion when determining the most appropriate tools for inclusion in its recovery plan, consistent with the considerations discussed above.

#### ❖ **Cash calls**

Cash calls are recommended for recovery plans to the extent that the exposures they generate are fixed and determinable; for example, capped and limited to a maximum number of rounds over a specified period, established in advance. In this context, participant exposures should be linked to each participant's risk-weighted level of FMI activity.

By providing predictable exposures pro-rated to a participant's risk-weighted level of activity, FMIs create incentives for better risk management on the part of participants, while giving the FMI greater certainty over the amount of resources that can be made available during recovery.

Since cash calls rely on contingent resources held by FMI participants, there is a risk that they may not be honoured, reducing their effectiveness as a recovery tool. The management of participants' expectations, especially through the placement of clear limits on participant exposure, can mitigate this concern.

Cash calls can be designed in multiple ways to structure incentives, vary their impacts on participants and respond to different stress scenarios. When designing cash calls, FMIs should, to the greatest extent possible, seek to minimize the negative consequences of the tool's use.

#### ❖ **Variation margin gains haircutting (VMGH)**

VMGH is recommended for recovery plans because participant exposure under this tool can be measured with reasonable confidence, as it is tied to the level of risk held in the variation margin (VM) fund and the potential for gains. Where recovery plans allow for multiple rounds of VMGH, Canadian authorities will consider the impact of each successive round of haircutting with increasing focus on systemic stability.

VMGH relies on participant resources posted at the FMI as variation margin (VM). Where the price movements of underlying instruments create sufficient VM gains for use in recovery, VMGH provides an FMI with a reliable and timely



source of financial resources without the performance risk that is associated with tools reliant on resources held by participants.

VMGH assigns losses and shortfalls only to participants with net position gains; as a result, the pro rata financial burden is higher for these participants. The negative effects of VMGH can also be compounded for participants who rely on variation margin gains to honour obligations outside the FMI. FMIs should seek to minimize these negative effects to the greatest extent possible.

#### ❖ Voluntary contract allocation

To recover from an unmatched book caused by a participant default, a CCP can use its powers to allocate unmatched contracts.<sup>12</sup> In the context of recovery, contract allocation is encouraged on a voluntary basis –for example, by auction. Voluntary contract allocation addresses unmatched positions while taking participant welfare into account, since only participants who are willing to take on positions will participate.

The reliance on a voluntary process, such as an auction, introduces the risk that not all positions will be matched or that the auction process is not carried out in a timely manner. Defining the responsibilities and procedures for voluntary contract allocation (e.g., the auction rules) in advance will mitigate this risk and increase the reliability of the tool. To ensure that there is adequate participation in an auction process, FMIs should create incentives for participants to take on unmatched positions. FMIs may also wish to consider expanding the auction beyond direct participants to increase the chances that all positions will be matched.

#### ❖ Voluntary contract tear-up

Since eliminating positions can help re-establish a matched book, Canadian authorities view voluntary contract tear-up as a potentially effective tool for FMI recovery. To this end, FMIs may want to consider using incentives to encourage voluntary tear-up during recovery.<sup>13</sup> While contract tear-up undertaken on a voluntary basis is a recommended tool, the forced termination of an incomplete trade may represent a disruption of a critical FMI service, and can be intrusive to apply (see the section “Tools requiring further justification” for a discussion of forced contract tear-up).

To the extent that voluntary contract tear-up may disrupt critical FMI services, it can produce disincentives to participate in an FMI. There should be a strong legal basis for the relevant processes and procedures when voluntary contract tear-up is included in a recovery plan. This will help to manage participant expectations for this tool and ensure that confidence in the FMI is maintained.

Other tools available for FMI recovery include standing third-party liquidity lines, contractual liquidity arrangements with participants, insurance against financial loss, increased contributions to pre-funded resources, and use of an FMI’s own capital beyond the default waterfall. These and other tools are often already found in the pre-recovery risk-management frameworks of FMIs. Canadian authorities encourage their use for recovery as well, provided they are in keeping with the criteria for effective recovery tools as found in the Recovery Report and in this guidance.<sup>14</sup> Where system-specific recovery needs necessitate, FMIs can also design recovery tools not explicitly listed in this guidance. The applicability of such tools will be examined by the Canadian authorities when they review the proposed recovery plan.

To the extent that the costs of recovery are shared less equally under some tools (e.g., VMGH), if it is financially feasible, FMIs could consider post-recovery actions to restore fairness where participants have been disproportionately affected. Such actions may include the repayment of participant contributions used to address liquidity shortfalls and other instruments that aim to redistribute the burden of losses allocated during recovery. It is important to note that these actions in the post-recovery period should not impair the financial viability of the FMI as a going concern.

#### Tools requiring further justification

Due to their uncertain and potentially negative effects on the broader financial system, tools that are more intrusive or result in participant exposures that are difficult to measure, manage or control, must be carefully considered and justified with strong rationale by the FMI when they are included in a recovery plan. Canadian authorities will provide their views on the suitability of any such tools as part of their review of recovery plans.

For example, uncapped and unlimited cash calls and unlimited rounds of VMGH can create ambiguous participant exposures, the negative effects of which must be prudently considered when including them in a recovery plan. In addition, when applied during the recovery process, Canadian authorities will monitor the application of each successive round of cash calls and VMGH with increased focus on systemic stability.

Tools such as involuntary (forced) contract allocation and involuntary (forced) contract tear-up create exposures that are difficult to manage, measure and control. To the extent that these tools are even more intrusive, they have the ability to pose greater

---

<sup>12</sup> A CCP “matched book” occurs when a position taken on by the CCP with one clearing member is offset by an opposite position taken on with a second clearing member. A matched book must be maintained for the CCP to complete a trade. An unmatched book occurs when one participant defaults on its position in the trade, leaving the CCP unable to complete the transaction.

<sup>13</sup> Recovery Report, Paragraph 4.5.3.

<sup>14</sup> Recovery Report, Paragraph 3.3.1.

risk to systemic stability. Canadian authorities acknowledge that such tools have potential utility when other recovery options are ineffective, and could possibly be used by a resolution authority, but expect FMIs to carefully assess the potential impact of such tools on participants and the stability of the broader financial system.

Canadian authorities do not encourage the use of non-defaulting participants' initial margin in FMI recovery plans considering the potential for significant negative impacts.<sup>15</sup> Similarly, a recovery plan should not assume any extraordinary form of public or central bank support.<sup>16</sup>

#### Recovery from non-default-related losses and structural weaknesses

Consistent with a defaulter-pays principle, an FMI should rely on FMI-funded resources to address recovery from non-default-related losses (i.e., operational and business losses on the part of an FMI), including losses arising from structural weakness.<sup>17</sup> To this end, FMIs should examine ways to increase the loss absorbercy between the FMI's pre-recovery risk-management activities and participant-funded resources (e.g., by using FMI-funded insurance against operational risks). Structural weakness can be an impediment to the effective rollout of recovery tools and may itself result in non-default-related losses that are a trigger for recovery. An FMI recovery plan should identify procedures detailing how to promptly detect, evaluate and address the sources of underlying structural weakness on a continuous basis (e.g., unprofitable business lines, investment losses).

The use of participant-funded resources to recover from non-default-related losses can lessen incentives for robust risk management within an FMI and provide disincentives to participate. If, despite these concerns, participants consider it in their interest to keep the FMI as a going concern, an FMI and its participants may agree to include a certain amount of participant-funded recovery tools to address some non-default-related losses. Under these circumstances, the FMI should clearly explain under what conditions participant resources would be used and how costs would be distributed.

#### Defining full allocation of uncovered losses and liquidity shortfalls

Principles 4 (credit risk)<sup>18</sup> and 7 (liquidity risk)<sup>19</sup> of the PFMI's require that FMIs should specify rules and procedures to fully allocate both uncovered losses and liquidity shortfalls caused by stress events. To be consistent with this requirement, **Canadian FMIs should consider various stress scenarios and have rules and procedures that allow them to fully allocate any losses or liquidity shortfalls arising from these stress scenarios, in excess of the capacity of existing pre-recovery risk controls.** Tools used to address full allocation should reflect the Recovery Report's characteristics of effective recovery tools, including the need to have them measurable, manageable and controllable to those who will bear the losses and liquidity shortfalls in recovery, and for their negative impacts to be minimized to the greatest extent possible.

#### Legal consideration for full allocation

**An FMI's rules for allocating losses and liquidity shortfalls should be supported by relevant laws and regulations.** There should be a high level of certainty that rules and procedures to fully allocate all uncovered losses and liquidity shortfalls are enforceable and will not be voided, reversed or stayed.<sup>20</sup> This requires that Canadian FMIs design their recovery tools in compliance with Canadian laws. For example, if the FMI's loss-allocation rules involve a guarantee, Canadian law generally requires that the guaranteed amount be determinable and preferably capped by a fixed amount.<sup>21</sup>

FMIs should consider whether it is appropriate to involve indirect participants in the allocation of losses and shortfalls during recovery. To the extent that it is permitted, such arrangements should have a strong legal and regulatory basis; respect the FMI's frameworks for tiered participation, segregation and portability; and involve consultation with indirect participants to ensure that all relevant concerns are taken into account.

Overall, FMIs are responsible for seeking appropriate legal advice on how their recovery tools can be designed and for ensuring that all recovery tools and activities are in compliance with the relevant laws and regulations.

### ***Additional Considerations in Recovery Planning***

---

<sup>15</sup> Recovery Report, Paragraph 4.2.26.

<sup>16</sup> Recovery Report, Paragraph 2.3.1.

<sup>17</sup> Structural weakness can be caused by factors such as poor business strategy, poor investment and custody policy, poor organizational structure, IM/IT-related obstacles, poor legal or regulatory risk frameworks, and other insufficient internal controls.

<sup>18</sup> Under key consideration 7 of PFMI Principle 4, an FMI should establish explicit rules and procedures that fully address any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI.

<sup>19</sup> Under key consideration 10 of PFMI Principle 7, FMIs should establish rules and procedures that address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking or delaying the same-day settlement of payment obligations.

<sup>20</sup> PFMI Report, Paragraph 3.1.10.

<sup>21</sup> The Bank Act, Section 414(1) and IIROC Rule 100.14 prohibit banks and securities dealers, respectively, from providing unlimited guarantees to an FMI or a financial institution.

## Transparency and coherence<sup>22</sup>

An FMI should ensure that its recovery plan is coherent and transparent to all relevant levels of management within the FMI, as well as to its regulators and overseers. To do so, a recovery plan should

- ❖ contain information at the appropriate level and detail; and
- ❖ be sufficiently coherent to relevant parties within the FMI, as well as to the regulators and overseers of the FMI, to effectively support the application of the recovery tools.

An FMI should ensure that the assumptions, preconditions, key dependencies and decision-making processes in a recovery plan are transparent and clearly identified.

## Relevance and flexibility<sup>23</sup>

An FMI's recovery plan should thoroughly cover the information and actions relevant to extreme but plausible market conditions and other situations that would call for the use of recovery tools. An FMI should take into account the following elements when developing its recovery plan:

- ❖ the nature, size and complexity of its operations;
- ❖ its interconnectedness with other entities;
- ❖ operational functions, processes and/or infrastructure that may affect the FMI's ability to implement its recovery plan; and
- ❖ any upcoming regulatory reforms that may have the potential to affect the recovery plan.

Recovery plans should be sufficiently flexible to address a range of FMI-specific and market-wide stress events. Recovery plans should also be structured and written at a level that enables the FMI's management to assess the recovery scenario and initiate appropriate recovery procedures. As part of this expectation, the recovery plan should demonstrate that senior management has assessed the potential two-way interaction between recovery tools and the FMI's business model, legal entity structure, and business and risk-management practices.

## ***Implementation of Recovery Plan***<sup>24</sup>

An FMI should have credible and operationally feasible approaches to recovery planning in place and be able to act upon them in a timely manner, under both idiosyncratic and market-wide stress scenarios. To this end, recovery plans should describe

- ❖ potential impediments to applying recovery tools effectively and strategies to address them; and
- ❖ the impact of a major operational disruption.<sup>25</sup>

This information is important to strengthen a recovery plan's resilience to shocks and ensure that the recovery tools are actionable.

A recovery plan should also include an escalation process and the associated communication procedures that an FMI would take in a recovery situation. Such a process should define the associated timelines, objectives and key messages of each communication step, as well as the decision-makers who are responsible for it.

## Consulting Canadian authorities when taking recovery actions

While the responsibility for implementing the recovery plan rests with the FMI, Canadian authorities consider it critical to be informed when an FMI triggers its recovery plan and before the application of recovery tools and other recovery actions. To the extent an FMI intends to use a tool or take a recovery action that might have significant impact on its participants (e.g. tools requiring further justification), the FMI should consult Canadian authorities before using such tools or taking such actions to demonstrate how it has taken into account potential financial stability implications and other relevant public interest considerations. Authorities include those responsible for the regulation, supervision and oversight of the FMI, as well as any authorities who would be responsible for the FMI if it were to be put into resolution.

---

<sup>22</sup> Recovery Report, Section 2.3

<sup>23</sup> Recovery Report, Section 2.3.

<sup>24</sup> Recovery Report, Paragraph 2.3.9.

<sup>25</sup> This is also related to the FMI's backup and contingency planning, which are distinct from recovery plans.

Relevant Canadian authorities should be informed (or consulted as appropriate) early on and interaction with authorities should be explicitly identified in the escalation process of a recovery plan. Acknowledging the speed at which an FMI may enter recovery, FMIs are encouraged to develop formal communications protocols with authorities in the event that recovery is triggered and immediate action is required.

### ***Review of Recovery Plan<sup>26</sup>***

An FMI should include in its recovery plan a robust assessment of the recovery tools presented and detail the key factors that may affect their application. It should recognize that, while some recovery tools may be effective in returning the FMI to viability, these tools may not have a desirable effect on its participants or the broader financial system.

A framework for testing the recovery plan (for example, through scenario exercises, periodic simulations, back-testing and other mechanisms) should be presented either in the plan itself or linked to a separate document. This impact assessment should include an analysis of the effect of applying recovery tools on financial stability and other relevant public interest considerations.<sup>27</sup> Furthermore, an FMI should demonstrate that the appropriate business units and levels of management have assessed the potential consequences of recovery tools on FMI participants and entities linked to the FMI.

### **Annual review of recovery plan**

An FMI should review and, if necessary, update its recovery plan on an annual basis. The recovery plan should be subject to approval by the FMI's Board of Directors.<sup>28</sup> Under the following circumstances, an FMI is expected to review its recovery plan more frequently:

- ❖ if there is a significant change to market conditions or to an FMI's business model, corporate structure, services provided, risk exposures or any other element of the firm that could have a relevant impact on the recovery plan;
- ❖ if an FMI encounters a severe stress situation that requires appropriate updates to the recovery plan to address the changes in the FMI's environment or lessons learned through the stress period; and
- ❖ if the Canadian authorities request that the FMI update the recovery plan to address specific concerns or for additional clarity.

Canadian authorities will also review and provide their views on an FMI's recovery plan before it comes into effect. This is to ensure that the plan is in line with the expectations of Canadian authorities.

### ***Orderly Wind-Down Plan as Part of a Recovery Plan<sup>29</sup>***

Canadian authorities expect FMIs to prepare, as part of their recovery plans, for the possibility of an orderly wind-down. However, developing an orderly wind-down plan may not be appropriate or operationally feasible for some critical services. In this instance, FMIs should consult with the relevant authorities on whether they can be exempted from this requirement.

### **Considerations when developing an orderly wind-down plan**

An FMI should ensure that its orderly wind-down plan has a strong legal basis. This includes actions concerning the transfer of contracts and services, the transfer of cash and securities positions of an FMI, or the transfer of all or parts of the rights and obligations provided in a link arrangement to a new entity.

In developing orderly wind-down plans, an FMI should elaborate on

- ❖ the scenarios where an orderly wind-down is initiated, including the services considered for wind-down;
- ❖ the expected wind-down period for each scenario, including the timeline for when the wind-down process for critical services (if applicable) would be complete; and
- ❖ measures in place to port critical services to another FMI that is identified and assessed as operationally capable of continuing the services.

### **Disclosure of recovery and orderly wind-down plans**

---

<sup>26</sup> Recovery Report, Paragraph 2.3.8.

<sup>27</sup> This is in line with key consideration 1 of PFMI Principle 2 (Governance), which states that an FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

<sup>28</sup> Recovery Report, Paragraph 2.3.3.

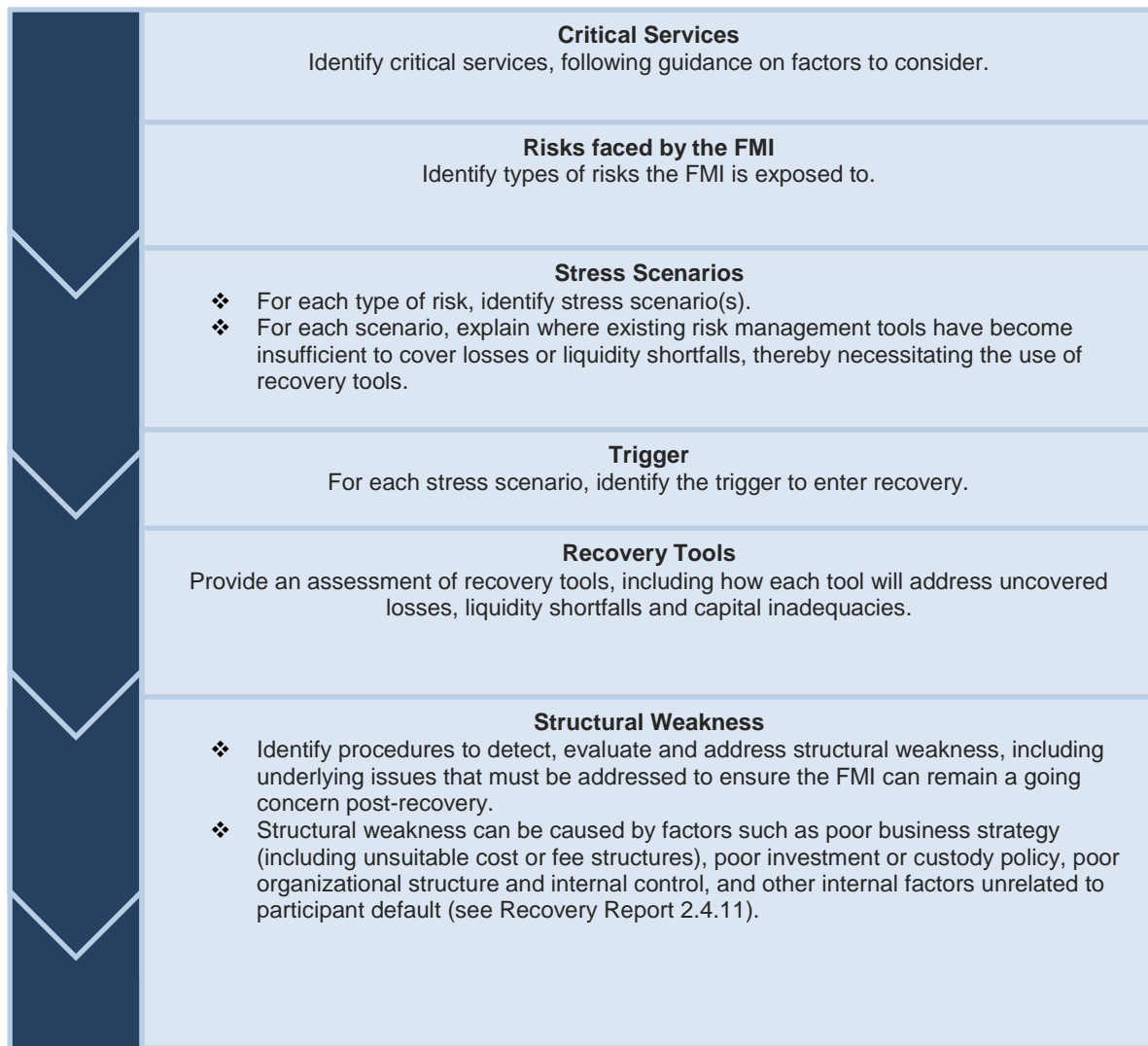
<sup>29</sup> Recovery Report, Paragraph 2.2.2.

An FMI should disclose sufficient information regarding the effects of its recovery and orderly wind-down plans on FMI participants and stakeholders, including how they would be affected by (i) the allocation of uncovered losses and liquidity shortfalls and (ii) any measures the CCP would take to re-establish a matched book. In terms of disclosing the degree of discretion an FMI has in applying recovery tools, an FMI should make it clear to FMI participants and all other stakeholders ahead of time that all recovery tools and orderly wind-down actions that an FMI can apply will only be employed after consulting with the relevant Canadian authorities.

Note that recovery and orderly wind-down plans need not be two separate documents; the orderly wind-down of critical services may be a part or subset of the recovery plan. Furthermore, Canadian FMIs may consider developing orderly wind-down plans for non-critical services in the context of recovery if winding down non-critical services could assist in or benefit the recovery of the FMI.

**Appendix: Guidelines on the Practical Aspects of FMI Recovery Plans**

The following example provides suggestions on how an FMI recovery plan could be organized.



## ANNEX E

### LOCAL MATTERS

#### **1. Authority for Instrument**

The proposed amendments to the Instrument would be made pursuant to the rule-making authority in the following provisions of the *Securities Act* (Ontario) (Act): (i) paragraph 11 of subsection 143(1) of the Act allows the OSC to make rules regulating the listing or trading of publicly traded securities or the trading of derivatives, including rules relating to clearing and settling trades; and (ii) paragraph 12 of subsection 143(1) of the Act allows the OSC to make rules regulating recognized clearing agencies, including prescribing requirements in respect of the review or approval by the OSC of any by-law, rule, procedure, interpretation or practice and prescribing restrictions on its ownership, control and direction.

#### **2. Alternatives considered**

The alternative to the Proposed Amendments would be not to proceed with making the amendments to the Instrument or changes to the Companion Policy. We do not believe the Proposed Amendments would impose any additional burden on clearing agencies, or to market participants more broadly. Overall, the Proposed Amendments are relatively minor.

#### **3. Unpublished materials**

In proposing amendments to the Instrument and changes to the Companion Policy, the CSA did not rely on any significant unpublished study, report, or other material.

#### **4. Anticipated costs and benefits**

Given the nature of the Proposed Amendments, we do not believe there will be any meaningful costs to clearing agencies or market participants. Implementing the Proposed Amendments, will, on the other hand, better align NI 24-102 with international standards, as well as improve its clarity and readability.