

FINANCIAL MARKET INFRASTRUCTURES STANDARDS: EXPOSURE DRAFT

*Comparison of the Pillar II FMI Standards Exposure Drafts
and the Principles for Financial Market Infrastructures.*

September 2022

Principle Standard 1 Legal Basis

Requirements

~~1) An operator must ensure the FMI has rules, policies and responsibilities. The following set of procedures that are consistent and legally enforceable in respect of all aspects of principles provides guidance on (a) the legal basis for the FMI's activities, (b) the governance structure of the FMI, and (c) the framework for the comprehensive management of risks, to help establish a strong foundation for the risk management of an FMI.~~

Key considerations

~~3)1) An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.~~

~~4) —~~

~~2) The legal basis should provide Further to the requirements in clause (1) an operator must ensure that:~~

~~a) in operating the FMI it:~~

~~i) provides a high degree of certainty for each material aspect of the FMI's activities in all relevant jurisdictions;~~

~~ii) An FMI should have is supported by a legal opinion that demonstrates the enforceability of the FMI's rules, procedures, and contracts that, across all relevant jurisdictions; and~~

~~iii) this legal opinion should be reviewed at least every two years or whenever there are material changes that may have an impact on the opinion, and updated where it is reasonable to do so;~~

~~b) it has rules, procedures, and contracts in relation to the FMI that are clear, understandable enforceable, and consistent with relevant laws and regulations; all relevant jurisdictions in which the FMI operates, including New Zealand;~~

~~c) An FMI should be able to articulate it can demonstrate the legal basis for its enforceability of the FMI's activities to relevant authorities the regulator, participants, and, where relevant, participants' customers, in a clear and understandable way;~~

~~d) An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should there must be a high degree of certainty that actions taken by the FMI an operator under such the rules and procedures will not be voided, reversed, or subject to stays; and~~

~~— An where the FMI conducting business operates in multiple jurisdictions should identify, an operator identifies and mitigate mitigates the risks arising from any potential conflict of laws across those jurisdictions.~~

(See Guidance for Standard 1: 'Legal Basis', in Guidance for the FMI Standards for more detail).

Principle Standard 2: Governance

Requirements

- 1) An FMI should have An operator must ensure that governance arrangements ~~that~~ pertaining to the operation of the FMI:
- a) are clear and transparent;
 - b) promote the safety and efficiency of the FMI; and
 - a)c) support the stability of the broader financial system, and other relevant public interest considerations, and the objectives of relevant stakeholders.

Key considerations

- 2) An FMI should have Further to the requirements in clause (1) an operator must also ensure that:

- b)a) it has documented objectives for the FMI that place a high priority on the safety and efficiency of the FMI and ~~that~~ explicitly support financial stability and other relevant public interest considerations;
- b) Anthe FMI should havehas documented governance arrangements that:
 - i) provide clear and direct lines of responsibility and accountability. These arrangements should be; and
 - ii) are disclosed in an appropriate manner to owners, relevant authorities the regulator, participants, and, at a more general level, the public;
- c) Thethe roles and responsibilities of an FMI'sits board of directors (or equivalent) should beare clearly specified, and there ~~should~~ must be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. ~~The board should review both its overall performance and the performance of its individual board members regularly;~~
- d) Thethe board should containof directors consistently reviews both the board's overall performance and the performance of its individual directors in relation to the FMI;
- e) the board of directors contains suitable members with the appropriate skills and incentives to fulfil its ~~multiple~~ roles. This typically requires as operator of the inclusion of FMI (including non-executive board member(s)-directors);
- f) Thein relation to the FMI's management, the operator should ensure:
 - i) the roles and responsibilities of management should beare clearly specified. An FMI's set out and delineated from the roles of the board of directors and documented; and
 - ii) management should havehas the appropriate experience, a mix of skills, and the integrity necessary to discharge ~~theirs~~ responsibilities for the operation

and risk management of the FMI;

- g) ~~The~~ operator's board ~~should establish~~ of directors has a clear, documented risk-management framework for the FMI that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. ~~Governance; and~~
- e) ~~h) it sets up governance~~ arrangements ~~should ensure~~ that ensures the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board. ~~of directors; and~~
- i) ~~The~~ its board ~~should ensure that~~ of directors must take responsibility for ensuring:
 - i) the ~~FMI's~~ design, rules, overall strategy, and major decisions ~~reflect~~ appropriately reflect the legitimate interests of ~~its~~ the FMI's direct and indirect participants and other relevant stakeholders. ~~Major; and~~
 - ii) that major decisions ~~should be~~ are clearly disclosed in a reasonable timeframe after the decision is taken to relevant stakeholders and, where there is a broad market impact, the public.

(See Guidance for Standard 2: 'Governance', in Guidance for the FMI Standards for more detail).

Principle Standard 3: Framework for the comprehensive management of risks

Requirements

- 1) An ~~FMI should~~operator must have a sound risk-management framework ~~for pertaining to the FMI that sets out how the operator~~ comprehensively managing/manages legal, credit, liquidity, operational, and other relevant and material risks.

Key considerations

- 2) An~~Further to clause (1) an operator must ensure that:~~

a) it has, in relation to the FMI~~should have,~~ risk-management policies, procedures, and systems that enable it/the operator to identify, measure, monitor, and manage the range of/all risks that arise in or are borne by the FMI.~~Risk;~~

a)b) it reviews the risk-management frameworks~~should be subject to periodic review-framework relating to the FMI on at least an annual basis and whenever the risk to the FMI materially changes;~~

b)c) An FMI should provide/it provides incentives to FMI participants and, where relevant, their customers to manage and contain the risks they pose to the FMI;~~and~~

c)d) An FMI should regularly review/it reviews the material risks it/the FMI bears from and poses to other entities/parties (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies with other parties annually or whenever the material risk changes, and develop/develops appropriate risk-management tools to address these risks.

1. ~~An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.~~

(See Standard 17A: 'Contingency plans' for further requirements and Guidance for Standard 3: 'Framework for the comprehensive management of risks', in Guidance for the FMI Standards for more detail).

Principle Standard 4 Credit Risk

Requirements

1) An operator must

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

Key considerations

2) An operator must ensure that:

- a) the FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise This includes credit exposures arising from both current exposures, and potential future exposures, or both; and
- b) An in relation to the FMI should identify, it identifies sources of credit risk, routinely measure measures and monitor monitors credit exposures, and use that it uses appropriate risk-management tools to control these risks.

A payment system or SSS should cover its

Rules and procedures addressing credit risk

3) Further to the requirements in clauses (1) and (2) and in accordance with the requirement to have contingency plans in Standard 17A 'Contingency plans', an operator (where it bears credit risk) must establish explicit rules and procedures that fully address any credit losses it may face as a result of any individual or combined default among participants with respect to any of their obligations under the rules of the FMI. These rules and procedures must:

- a) address how potentially uncovered credit losses would be allocated, including the repayment of any funds an operator or FMI may borrow from liquidity providers; and
- b) indicate the process to replenish any financial resources that it may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

Payment systems and central securities depositories

- 4) Further to the requirements in clauses (1) and (2), an operator of a pure payment system and an operator of a central securities depository must ensure that:
- a) it covers current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Standard 5: 'Collateral'); and ~~collateral and other equivalent financial resources (see Principle 5 on collateral).~~ In the case of FMI maintains sufficient resources to cover the exposures of the two participants and their affiliates, who create the largest aggregate credit exposure in the system.
- 5) Clause (4) applies in a DNS payment system or DNS SSS situation where the FMI operates with deferred net settlement in which there is no settlement guarantee but where ~~its~~the FMI participants face credit exposures arising from its payment, clearing, and settlement processes, such

Central counterparties

- ~~5)6) Further to the requirements in clauses (1) and (2), an FMI should maintain, at operator of a minimum, sufficient resources to cover the exposures of the two participants and their affiliates~~ central counterparty must ensure that would create the largest aggregate credit exposure in the system.:
- a) ~~A CCP should cover its~~ it covers current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see ~~Principle Standard 5 on collateral:~~ 'Collateral' and ~~Principle Standard 6 on margin).~~ In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should maintain: 'Margin');
 - a)b) it maintains additional financial resources to cover a wide range of potential stress scenarios that ~~should~~must include, but are ~~not be~~ limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure ~~for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains in extreme but plausible market conditions; and~~
 - c) ~~A CCP should determine~~ it determines the amount, and ~~regularly test~~ tests on a monthly basis, the sufficiency of ~~its~~the FMI's total financial resources available in the event of a default, or multiple defaults, in extreme but plausible market conditions through rigorous stress testing. ~~A CCP should have clear procedures~~

7) Further to report the requirements in clauses (1) and (2), an operator of a central counterparty must ensure that the results of all its stress tests are reported to the appropriate decision makers at within the CCP operator or FMI and to use these results to evaluate the adequacy of, and adjust its, the FMI's total financial resources. Stress tests should be performed. In addition, the operator must:

a) on a daily basis, perform stress tests using standard and predetermined parameters and assumptions. On at least; and

b) on a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's FMI's required level of default protection in light of current and evolving market conditions. A CCP should perform;

i) this analysis of stress testing should be done more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's FMI's participants increases significantly. A full validation of a CCP's risk management model should be performed at least annually. increases; and

c) on an annual basis, perform a full validation of a central counterparty's FMI's risk-management model;

d) in conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should must include;

i) relevant peak historic price volatilities;

ii) shifts in other market factors such as price determinants and yield curves;

iii) multiple defaults over various time horizons, simultaneous pressures in funding and asset markets; and

iv) a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.

1. An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

(See Guidance for Standard 4: 'Credit Risk', in Guidance for the FMI Standards for more detail).

Principle Standard 5: Collateral

Requirements

- 1) An FMI operator that requires collateral for the purposes of operating the FMI, to manage ~~its~~ the FMI's or its participants' credit exposures ~~should accept~~, must ensure it only accepts collateral with low credit, liquidity, and market risks. An ~~FMI~~ ~~should~~ operator must also set, and enforce appropriately, conservative haircuts and concentration limits.

Key considerations

- 2) An FMI should generally limit the assets Further to the requirements in clause (1) an operator must ensure that:

- a) ~~it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.~~
- b) a) An FMI should establish establishes prudent valuation practices and develop develops haircuts that are regularly tested at least annually and that take into account stressed market conditions;
- c) b) In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that for collateral are established, and that these haircuts are calibrated to include periods of stressed market conditions, to the extent practicable and prudent, to reduce the need for procyclical adjustments;
- d) c) An FMI should avoid it avoids concentrated holdings of certain assets where this would significantly impair ~~the~~ its ability to liquidate such assets quickly without significant adverse price effects;
- e) d) An FMI that where an operator accepts cross-border collateral should mitigate for the FMI, it mitigates the risks associated with ~~its~~ the use of that collateral and ~~ensure that~~ ensures the collateral can be used in a timely manner; and
- f) e) An FMI should use it uses a collateral management system that for managing collateral for the FMI that is well-designed and operationally flexible.

(See Guidance for Standard 5: 'Collateral', in Guidance for the FMI Standards for more detail).

Principle Standard 6: Margin

Requirements

- 1) ~~A CCP should~~ An operator of a central counterparty must cover ~~its~~ credit exposures to ~~its~~ the central counterparty's participants for all products through an effective margin system that is risk-based and regularly reviewed.

Key considerations

Margin system

- 2) ~~A CCP should~~ Further to the requirements in clause (1), an operator must have:

- a) a margin system for the central counterparty that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves; and
- b) ~~A CCP should have~~ a reliable source of timely price data for ~~its~~ the central counterparty's margin system. ~~A CCP should~~ An operator must also have procedures and sound valuation models for addressing the central counterparty that address circumstances in which pricing data are not readily available or reliable.

Initial Margin

- 3) ~~A CCP should~~ Further to the requirements in clause (1), an operator must:

- a) adopt initial margin models and parameters for the central counterparty that are risk-based and generate margin requirements sufficient to cover ~~its~~ the operator's potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. ~~Initial; and~~
- b) ensure that initial margin ~~should meet~~ meets an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. ~~For a CCP that calculates; and~~
- c) if margin is calculated at the portfolio level, apply this requirement ~~applies~~ to each portfolio's distribution of future exposure. ~~For a CCP that calculates; or~~
- d) if margin is calculated at more granular levels, such as at the subportfolio level or by product, ~~the~~ apply this requirement ~~must be met~~ for the corresponding distributions of future exposure. ~~The model should (a); and~~
- e) ensure the initial margin models:
 - i) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the ~~CCP~~ central counterparty (including in stressed market conditions). ~~(b);~~
 - ii) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, ~~and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes; and~~

iii) A CCP should to the extent practicable and prudent, limit the need for destabilising, procyclical changes.

Variation margin

4) Further to the requirements in clause (1) an operator must mark participant positions to market and collect/collects variation margin at least daily to limit the build-up of current exposures.-

Margin call ability

2)5) A CCP should have Further to the requirements in clause (1), an operator must ensure that the central counterparty has the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.

~~In calculating margin-~~

Margin calculation

6) Further to the requirements, a CCP may in clause (1), an operator must:

- a) only allow offsets or reductions in required margin across cleared products that it clears or between (including products that it cleared by the central counterparty or the central counterparty and another CCP clear, if a linked FMI) where the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer; and
- a)b) if a central counterparty offers cross-margining, they must have ensure the central counterparty has appropriate safeguards and harmonised overall risk-management systems.

~~A CCP should analyse and monitor its-~~

Review of the margin model and system

7) Further to the requirements in clause (1), an operator must:

- a) conduct rigorous daily back testing of the central counterparty margin model performance and overall margin coverage by conducting rigorous daily backtesting and;
- b) on at least a monthly, and more frequent where appropriate, basis, conduct sensitivity analysis. A CCP should regularly of the central counterparty margin model;
- c) on at least an annual basis, conduct an assessment of the theoretical and empirical properties of the margin model for all products the central counterparty clears. It;
- b)d) in conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices; and

e)e) ~~A CCP should regularly review and validate its~~ the central counterparty's margin system annually.

(See Guidance for Standard 6: 'Margin', in Guidance for the FMI Standards for more detail).

Principle Standard 7: Liquidity Risk

Requirements

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

Key considerations

- 2) An operator's qualifying liquid resources for the purposes of clause (1) include the following liquid resources:
 - a) cash at the central bank of issue and at creditworthy commercial banks; and
 - b) committed lines of credit; and
 - c) committed foreign exchange swaps; and
 - d) repos; and
 - e) highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions; and
 - f) access to routine credit at a central bank of issue to the extent the relevant FMI ~~should~~ has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the central bank.
- 3) Further to requirements in clause (1), an operator must:
 - a) not assume the availability of emergency central bank credit as a part of the FMI's liquidity plan; and
 - a)b) have a robust framework to manage ~~its~~ liquidity risks for the FMI from its participants, settlement banks, nostro agents, custodian ~~banks~~, liquidity providers, and other entities; and
 - b)c) An FMI ~~should~~ have effective operational and analytical tools to identify, measure, and monitor ~~its~~ the FMI's settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.

Liquidity providers

- 4) Further to the requirements in clause (1) and clause (3), an operator must obtain a high degree of confidence, through rigorous due diligence, that each provider of the FMI's minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage the provider's associated liquidity risks, and that the provider has the capacity to perform its commitment as required.

- a) If relevant to assessing a provider's performance reliability with respect to a particular currency, a provider's potential access to credit from the central bank of issue may be taken into account.
- b) An operator must annually test the procedures for accessing liquid resources on behalf of the provider.

Stress testing

- 5) Further to the requirements in clause (1), an operator must determine the amount of, and annually tests the sufficiency of, the FMI's liquid resources through rigorous stress testing. This includes that:
- a) an operator must have clear procedures for it to report the results of its stress tests to the Board of directors, and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework.
 - b) in conducting stress testing, an operator must consider a wide range of relevant scenarios, including:
 - i) relevant peak historic price volatilities; and
 - ii) shifts in other market factors such as price determinants and yield curves; and
 - iii) multiple defaults over various time horizons;
 - iv) simultaneous pressures in funding and asset markets; and
 - v) a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions;
 - c) scenarios must also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI, and where reasonable, cover a multiday period; and
 - d) an operator must appropriately document its supporting rationale for, and have appropriate governance arrangements relating to, the amount and form of total liquid resources the FMI maintains.

Procedures for settlement following participant default

- 6) Further to the requirements in clause (1), an operator must establish explicit rules and procedures that enable the FMI to effect same-day and, where reasonable, intraday and multiday settlement of payment obligations on time, following any individual or combined default among its participants. These rules and procedures must:
- a) address unforeseen and potentially uncovered liquidity shortfalls and must aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations; and
 - b) indicate the process to replenish any liquidity resources an operator may employ during a stress event, so that the FMI can continue to operate in a safe manner.

Pure payment systems and securities settlement systems

~~2)7) An operator of a pure payment system or SSSsecurities settlement system, including one employing a DNSdeferred net settlement mechanism, ~~should~~must maintain sufficient liquid resources for the FMI in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of confidence under a wide range of potential stress scenarios ~~that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme~~but plausible market conditions.~~

~~A CCP should~~

8) The scenarios in clause (7) must include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.

Central counterparties

9) Further to the requirements in clause (1), an operator of a central counterparty must maintain sufficient liquid resources in all relevant currencies ~~to~~for the central counterparty to:

a) settle securities-related payments; and

b) make required variation margin payments; and

~~meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the ~~two~~must include, but not be limited to, the default of the two largest participants and their affiliates that would generate the largest aggregate payment obligation to the ~~CCP~~FMI in extreme but plausible market conditions.~~

(See Guidance for Standard 7: 'Liquidity', in Guidance for the FMI Standards for more detail).

~~0. For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.~~

~~0. An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such~~

assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.

- 0. An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.
- 0. An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.
- 0. An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.
- 0. An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

Principle Standard 8: Settlement Finality

Requirements

- 1) An operator must ensure the FMI should provide provides clear and certain final settlement, at a minimum by the end of the value date. ~~Where necessary or preferable, an FMI should provide final settlement intraday or in real time.~~

Key considerations

2) An FMI's Further to clause (1), an operator must ensure that:

- a) rules and procedures ~~should~~for the FMI clearly define the point at which settlement is final;
- b) ~~An FMI should complete~~the FMI (unless it is a high value payment system or securities settlement system) completes final settlement no later than the end of the value date, ~~and preferably intraday or in real time,~~ to reduce settlement risk. ~~An LVPS or SSS should consider adopting RTGS;~~
- b)c) where it is the operator of an FMI that is a high value payment system or securities settlement system, it adopts real time gross settlement or multiple-batch processing during the settlement day; and
- e)d) ~~An FMI should~~it clearly ~~define~~defines the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.

(See Guidance for Standard 8: 'Settlement Finality', in Guidance for the FMI Standards for more detail).

Principle Standard 9: Money Settlements

Requirements

- 1) An ~~FMI should~~operator must conduct ~~its~~the FMI's money settlements in central bank money where ~~practical~~reasonable and available, ~~to avoid credit and liquidity risks~~. If central bank money is not ~~available or cannot be reasonably used~~, ~~an FMI should~~ the operator must minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Key considerations

- ~~3) An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.~~

2) Further to the requirements in clause (1) an operator must:

- a) if central bank money is not used, ~~an~~ensure the FMI ~~should conduct its~~conducts money settlements using a settlement asset with little or no credit or liquidity risk;
- b) if an FMI settles in commercial bank money, it ~~should~~must monitor, manage, and limit ~~its~~the credit and liquidity risks for the FMI arising from the commercial settlement banks. ~~In particular, an FMI should;~~
- b)c) establish and monitor adherence to strict criteria for ~~its~~commercial settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. ~~An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks;~~
- d) monitor and manage the concentration of credit and liquidity exposures to the FMI's commercial settlement banks;
- e)e) if an FMI conducts money settlements on ~~its own~~the operator's or FMI's books, ~~it should~~ minimise and ~~strictly~~ control ~~its~~ credit and liquidity risks. ~~in the FMI; and~~
- d)f) ~~An FMI's legal agreements~~ensure that contracts with ~~any~~ settlement banks ~~should state~~ clearly state when transfers on the books of individual settlement banks are expected to occur, that transfers are ~~to be~~ final when effected, and that funds received ~~should be~~are transferable as soon as possible, ~~at a minimum by the end of the day and ideally intraday~~, in order to enable the ~~FMI operator~~ and ~~its~~the participants to manage credit and liquidity risks.

(See Guidance for Standard 9: 'Money Settlements', in Guidance for the FMI Standards for more detail)

Principle Standard 10: Physical Deliveries

Requirements

- 1) ~~An FMI should~~operator must clearly state its obligations under the FMI's rules and procedures with respect to the delivery of physical instruments or commodities ~~and should~~for settlement.
- 0) ~~An operator must~~ identify, monitor, and manage the risks associated with ~~such physical deliveries~~.

Key considerations

- 0) ~~An FMI's rules should clearly state its obligations with respect to~~ the delivery of physical instruments or commodities.
- 0) ~~An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities~~.

(See Guidance for Standard 10: 'Physical Deliveries', in Guidance for the FMI Standards for more detail).

Principle Standard 11: Central Securities Depositories

Requirements

- 1) ~~A CSD should~~ An operator of a central security depository must have appropriate rules and procedures to help ensure the integrity of the issue of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. ~~A CSD should~~ An operator must maintain securities in an immobilised or dematerialised form for the central securities depository for their transfer by book entry.

Key considerations

- 2) ~~A CSD should~~ Further to the requirements in clause (1) an operator must have appropriate rules, procedures, and controls, including robust accounting practices, for the central securities depository to safeguard the rights of securities issuers and holders, ~~prevent~~ including by ensuring that it:
 - a) prevents the unauthorised creation or deletion of securities, and ~~conduct~~ conducts periodic ~~and at least daily~~ reconciliation of securities ~~issues it maintains~~ issued by participants and held by the central securities depository, at least once a day; and
 - b) ~~A CSD should prohibit~~ prohibits overdrafts and debit balances in securities accounts.
 - e) ~~b) A CSD should maintain with the central securities in an immobilised or dematerialised form for their transfer by book entry. Where appropriate, a CSD should provide incentives to immobilise or dematerialise securities depository; and~~
 - c) ~~A CSD should protect~~ maintains securities in an immobilised or dematerialised form for their transfer by book entry;
 - d) protects assets against custody risk through appropriate rules and procedures ~~consistent with its legal framework;~~ and
 - e) ~~A CSD should employ~~ employs a robust system for the central securities depository that ensures:
 - i) segregation between the CSD's central securities depository's own assets and the securities of its participants; and
 - ii) segregation among the securities of participants. Where supported by the legal framework, the CSD should
- 3) An operator must also ~~support~~ ensure it operationally supports the segregation of securities belonging to a participant's customers on the participant's books and ~~facilitate~~ facilitates the transfer of customer holdings.

~~A CSD should~~

- 4) An operator must identify, ~~measure, monitor,~~ and manage ~~its~~ the risks from other activities that ~~it~~ the central securities depository may perform; ~~additional tools may be necessary, in order to address these risks.~~

(See Guidance for Standard 11: 'Central Securities Depositories', in Guidance for the FMI Standards for more detail).

Principle Standard 12: Exchange of Value Settlement Systems

Requirements

- 1) ~~If an FMI settles~~ An operator settling transactions ~~that involve~~ involving the settlement of two linked obligations ~~(for example, securities or foreign exchange transactions), it should eliminate~~ must ensure it eliminates principal risk for the FMI by ~~conditioning~~ making the final settlement of one obligation contingent upon the final settlement of the other.

Key consideration

- 1) ~~1. An FMI that is an exchange of value settlement system should eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs,~~
- 4)2) Paragraph (1) applies regardless of whether the FMI settles on a gross or net basis and regardless of when finality occurs.

(See Guidance for Standard 12: 'Exchange of Value Settlement Systems', in Guidance for the FMI Standards for more detail).

Principle Standard 13: Participant- default rules and procedures

Requirements

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

3) Key considerations

1) ~~An FMI should have default rules and procedures that~~which will enable the FMI to continue to meet its obligations when facing potential losses and liquidity pressures.

2) Further to the requirements in clause (1) an operator must have default rules and procedures for the FMI that:

a) enable the FMI to continue to meet the FMI and/or operator's obligations in the event of a participant default; ~~and that~~

a)b) address the replenishment of resources following a default, where the FMI is exposed to credit or liquidity risk;

b)c) ~~An FMI should~~ be well-prepared to implement ~~its default~~the FMI's rules and operational procedures for default, including any appropriate discretionary procedures provided for in ~~its~~the FMI rules;.

e)d) ~~An FMI should~~ publicly disclose key aspects of ~~its default~~the FMI's rules and operational procedures. ~~for default;~~

e) ~~An FMI should involve its~~include participants and other stakeholders in the testing and review of the FMI's default rules and operational procedures, including any rules and operational procedures relating to close-out ~~procedures. Such~~rights; and

d)f) conduct the testing and review ~~should be conducted at least~~referred to in clause (2)(e) annually or following material changes to the rules and operational procedures to ensure that ~~they~~the rules and procedures for participant default are practical and effective.

(See Standard 17A: 'Contingency plans' for further requirements and see Guidance for Standard 13: 'Participant-Default Rules and Procedures', in Guidance for the FMI Standards for more detail)

Principle Standard 14: Segregation and Portability

Requirements

- 1) ~~A CCP should~~ An operator must have rules and procedures for the FMI that enable the segregation and portability of positions of a participant's customers and the collateral provided to the ~~CCP~~ FMI with respect to those positions.

Key considerations

2) ~~A CCP should, at a minimum,~~ Further to the requirements in clause (1), an operator must:

- a) have segregation and portability arrangements ~~that~~for the FMI to effectively protect at the positions of an FMI's participant's ~~customers' positions~~ customers and related collateral from the default or insolvency of that participant. ~~If;~~
- a) b) if the ~~CCP~~ additionally FMI offers protection of ~~such~~ customer positions and collateral against the concurrent default of the participant and a fellow customer, ~~the CCP should~~ take steps to ensure that such protection is effective. ~~;~~
- b) c) A CCP should ~~employ~~ ensure there is an account structure that enables ~~it~~ the operator readily to identify positions of a participant's customers and to segregate related collateral. ~~A CCP should~~ The operator must maintain participant customer positions and collateral in individual customer accounts or in omnibus customer accounts. ~~;~~
- e) d) A CCP should structure ~~it~~ the FMI's portability arrangements in a way that ~~makes it highly likely~~ ensures there is a high probability that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants. ~~;~~
- e) ~~A CCP should~~ disclose ~~it~~ the FMI's rules, policies, and procedures relating to the segregation and portability of positions of participant's ~~customers' positions~~ customers and related collateral. ~~In particular, the CCP should;~~
- f) disclose whether participant customer collateral is protected on an individual or omnibus basis. ~~In addition, a CCP should;~~ and
- d) g) disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.

(See Guidance for Standard 14: 'Segregation and Portability', in Guidance for the FMI Standards for more detail).

Principle Standard 15: General Business Risk

Requirements

~~1) An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.~~

Key considerations

~~4)1) An FMI should have robust management and control systems to identify, monitor, and manage general business risks.~~ operator must identify, monitor, and manage general business risk including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

~~2) An FMI should~~ operator must hold sufficient liquid net assets funded by equity ~~(, such as common stock, disclosed reserves, and/or other retained earnings), to cover potential general business losses~~ so that ~~the FMI~~ the FMI can continue operations and essential services ~~as if those losses materialise.~~

~~5)3) The operator (except where it is a going concern if it incurs general business losses. The amount of central bank) must ensure~~ liquid net assets funded by equity ~~an FMI should hold should be determined by its general business risk profile and the length of time required to achieve~~ are at all times sufficient to ensure a recovery or orderly wind-down, ~~as appropriate, of its critical~~ the FMI's essential operations and services ~~if such action is taken. For the purposes of this clause an operator may include equity held under international risk-based capital standards where relevant and appropriate.~~

~~4) An FMI should maintain~~ operator must ensure that it maintains a viable recovery or orderly wind-down plan for the FMI (see Standard 17A: 'Contingency plans') and ~~should hold~~ ensures it holds sufficient liquid net assets funded by equity (except where the operator is a central bank) to implement this plan. ~~At a minimum, an FMI should~~

~~6)5) An operator (except where it is a central bank) must~~ hold liquid net assets funded by equity equal to at least six months of current operating expenses. ~~(see also requirement in Standard 17A: 'Contingency plans'). These assets are~~ must be held in addition to resources held to cover participant defaults or other risks covered under ~~the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements~~ Standard 4: 'Credit Risk' and Standard 7: 'Liquidity Risk'.

6) An operator must ensure that:

- a) assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow so that the ~~FMI to~~ operator can meet ~~its~~ the FMI's current and projected operating expenses under a range of scenarios,

including in adverse market conditions; and

b) An FMI should maintain ~~it maintains~~ a viable plan for raising additional equity should ~~the operator's~~ the operator's equity fall close to or below the amount needed. ~~This, except where the operator is a central bank.~~

7) In relation to the plan should be referred to in clause (6)(b) an operator must:

a) review the plan annually; and

b) ensure the outcome of the review is approved by the operator's board of directors ~~and updated regularly.~~

(See Guidance for Standard 15: 'General Business Risk', in Guidance for the FMI Standards for more detail).

Principle Standard 16 Custody and Investment Risks

Requirements

- 1) An FMI operator must safeguard its own and its participants' assets held for FMI operations, including participant assets held for this purpose, and minimise the risk of loss on, and delay in access to, these assets. An FMI's investments should be These assets must be invested in instruments with minimal credit, market, and liquidity risks.

Key considerations

- 2) An FMI should hold its own and its participants' assets at supervised and regulated entities that have Further to the requirements in clause (1), an operator must:
 - a) ensure that assets described in clause (1) are held by custodians with robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets, and who comply with all legal and regulatory obligations;
 - b) An FMI should have prompt access to its assets and the assets provided by participants, when required, described in clause (1);
 - c) An FMI should evaluate and understand its exposures to its custodian banks, taking into account custodians, considering the full scope of its relationships with each custodian; and
 - d) An FMI should have an investment strategy which is consistent with its overall risk-management strategy and fully disclosed to the FMI's participants, and investments should. Investments must be secured by, or be claims on, high-quality obligors debtors. These investments should must allow for quick liquidation with little, if any, minimal adverse price effect.

(See Guidance for Standard 16: 'Custody and Investment Risks', in Guidance for the FMI Standards for more detail).

Principle Standard 17 Operational Risk

Requirements

1) An FMI should operator must:

- a) identify the plausible sources of operational risk for the FMI, both internal and external; and
- b) mitigate their impact through the use of appropriate systems, policies, procedures, and controls. ~~Systems should be designed to~~ on an ongoing basis.

2) An operator must ensure that the FMI's systems are designed to ensure a high degree of security and operational reliability and ~~should~~ must have adequate, scalable capacity. ~~Business continuity management should aim for timely recovery of operations to continue to provide essential services.~~

Key considerations

3) Further to the requirements in clauses (1) and (2), an operator must:

- a) ~~implement and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.~~
- b) a) An FMI should establish/maintain a robust operational risk-management framework for the FMI, with appropriate systems, policies, procedures, and controls to identify, ~~monitor,~~ and manage operational risks;.
- b) An FMI's ensure the operational risk-management framework, as well as compliance with such framework, is assessed by way of an external assurance engagement, undertaken in accordance with applicable auditing and assurance standards, by a qualified auditor at least every two years or otherwise whenever a material incident or material outage has occurred. The report from the assurance engagement must be provided to the regulator on request;
- c) ensure the board of directors ~~should~~ of the operator clearly ~~define~~ defines the roles and responsibilities for addressing the FMI's operational risk and ~~should endorse~~ endorses the FMI's operational risk—management framework. ~~Systems;~~
- e) d) ensure that systems, operational policies, procedures, and controls ~~should be~~ are reviewed, ~~audited,~~ and tested ~~periodically~~ annually and after ~~significant~~ substantive changes. to those policies, procedures or controls;
- d) e) An FMI should have clearly defined operational reliability objectives for the FMI, and ~~should have~~ policies in place that are designed to achieve those objectives;.

- e) ~~An FMI should ensure that it~~the FMI has ~~scalable~~ capacity adequate to handle increasing stress volumes and to achieve its service-level objectives; and
- f) ~~An FMI should~~ have comprehensive physical and information security policies for the FMI that address all potential vulnerabilities and threats; and
- g) ~~An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.~~
- h) ~~An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to it~~the FMI's operations. In addition, an ~~FMI should~~operator must identify, ~~monitor,~~ and manage the risks ~~it~~the operations of the FMI might pose to other FMIs. and

(See Guidance for Standard 17: 'Operational Risk', in Guidance for the FMI Standards for more detail, also see Standard 17A 'Contingency plans', Standard 17B 'Critical service providers' and Standard 17C 'Cyber risk management' for further requirements).

Principle Standard 18: Access and Participation Requirements

Requirements

- 1) An ~~FMI should~~ operator must have objective, risk-based, and publicly disclosed criteria for participation in the FMI, which permit fair and open access to the FMI.

Key considerations

- 2) ~~An FMI should~~ Further to the requirements in clause (1) an operator must:

a) ~~allow for~~ allow fair and open access to ~~the FMI's~~ the FMI's services, including by direct and, where relevant, indirect participants and other FMIs; ~~;~~

b) ensure access requirements are:

i) ~~based on reasonable risk-related participation requirements;~~

ii) ~~An FMI's participation requirements should be~~ justified in terms of the safety and efficiency of the FMI and the markets ~~the FMI serves;~~ ~~be;~~

iii) tailored to and commensurate with the FMI's specific risks; ~~and be~~

iv) publicly disclosed.

c) subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit; and

d) ~~An FMI should~~ monitor compliance with its participation requirements for the FMI on an ongoing basis and ~~have~~ has clearly defined and publicly ~~disclosed~~ procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

(See Guidance for Standard 18: 'Access and Participation Requirements', in Guidance for the FMI Standards for more detail).

Principle Standard 19: Tiered participation arrangements

Requirements

- 1) ~~An FMI should~~The operator must identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Key considerations

- 2) ~~An FMI should~~Further to the requirements in clause (1), the operator must:

- 3) ensure that ~~the FMI's~~the operator rules, procedures, and agreements allow ~~the~~operator to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements;

- 4) ~~An FMI should~~ identify material dependencies between direct and indirect participants that might affect the FMI;

- 5) ~~An FMI should~~ identify:

- i) indirect participants responsible for a significant proportion of transactions processed by the relevant FMI; and

- ii) indirect participants whose transaction volumes or values are large relative to the operational and financial capacity of the direct participants through which they access the FMI ~~in order to manage the risks arising from these transactions;~~ and

- 5)6) ~~An FMI should regularly~~ review risks arising from tiered participation arrangements ~~and should take mitigating~~on at least an annual basis and taking action ~~when appropriate~~to mitigate risks all material risks following this review.

(See Guidance for Standard 19: 'Tiered Participation Arrangements', in Guidance for the FMI Standards for more detail).

Principle Standard 20 FMI Links

Requirements

- 1) An operator of an FMI that establishes a link with one or more FMIs ~~should~~must identify, monitor, and manage link-related risks.

Key considerations

- 2) ~~Before~~An operator must ensure that before entering into a link ~~arrangement~~ and on an ongoing basis once the link is established, ~~an FMI should identify, monitor~~the operator identifies, monitors, and ~~manages~~manages all potential sources of risk arising from the link ~~arrangement. Link arrangements should be designed.~~

Designing links to manage operational, legal and financial risk

- 3) Further to the requirements in clause (1), an operator must:
 - a) design links such that each FMI is able to observe the other ~~principles in this report.~~FMI's compliance with the applicable FMI Standards or relevant overseas standards; and
 - b) Ensure the link ~~should have~~has a well-founded legal basis, in all relevant jurisdictions, that supports ~~its~~the link's design and ~~provides adequate protection~~manages operational, legal and financial risk to the FMIs involved in the link.

~~Linked CSDs should~~

Central securities depositories

- 4) Further to the requirements in clause (1), an operator of a central securities depository that is part of a link must:
 - a) measure, monitor, and manage the credit and liquidity risks arising from ~~each other.~~Any linked central securities depositories; and
 - a)b) ensure that any credit extensions between ~~CSDs should be~~the central securities depository and another central securities depository are covered fully with high-quality collateral and ~~be~~are subject to size limits;

~~Provisional~~

- 3)5) Further to the requirements in clause (1), an operator of a central securities depository must prohibit provisional transfers of securities between ~~linked CSDs should be prohibited or, at a minimum, the retransfer of provisionally transferred securities should be prohibited prior to the transfer becoming final.~~central securities depository and any linked central securities depository.

An

Investor central securities depositories

6) Further to the requirements in clause (1), an operator of an investor CSD should central securities depository must:

- a) ~~only establish a link with~~establishes a link between the investor central securities depository and an issuer CSD central securities depository if the arrangement provides a high level of protection for the rights of ~~the investor CSD's participants;~~ and
- b) ~~An investor CSD that~~if the operator uses an intermediary to operate a link with an issuer CSD ~~should central securities depository, the operator must measure, monitor, and manage the additional risks (including custody, credit, legal, and operational risks) arising from the use of the intermediary.~~

~~Before entering into~~

Central counterparties

7) Further to the requirements in clause (1), an operator of a link with another CCP, a CCP should central counterparty must:

- a) identify and manage the potential spill-over effects on the other central counterparty, participants of the central counterparties and the wider financial system from the default of the linked CCP. ~~If a link has three or more CCPs, each CCP should identify, assess, and manage the risks of the collective link arrangement.~~central counterparty; and
- b) ~~Each CCP in a CCP link arrangement should be able to cover, at least~~ensure the FMI can fully cover, on a daily basis, its current and potential future exposures to the linked ~~CCP~~central counterparty and ~~its participants, if any, fully with a high degree of confidence~~ participants without reducing the ~~CCP's~~ ability to fulfil its obligations to its own FMI participants at any time.

~~0. A TR should carefully assess the additional operational risks related to its links to ensure the scalability and reliability of IT and related resources.~~

(See Guidance for Standard 20: FMI Links, in Guidance for the FMI Standards for more detail).

Principle Standard 21: Efficiency and Effectiveness

Requirements

- 1) ~~An FMI should be efficient and effective~~ An operator of an FMI must ensure the FMI is operated efficiently and effectively in meeting the requirements of ~~its~~the FMI's participants and the markets ~~it~~the FMI serves. _

Key considerations

- 2) ~~An FMI should be~~ Further to the requirements in clause (1), an operator must ensure that the FMI is designed to meet the needs of ~~its~~the FMI's participants and the markets ~~it~~the FMI serves, ~~in particular, including~~ with ~~regard~~regards to:

- a) the choice of a clearing and settlement arrangement;
- b) the operating structure; scope of products cleared, settled, or recorded; and
- a)c) the use of technology and procedures.

~~An FMI should~~

- 3) Further to the requirements in clause (1), an operator must have clearly defined goals and objectives for the FMI that are measurable and achievable, ~~such~~ as including in the areas of minimum service levels, risk-management expectations, and business priorities.

1. ~~An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.~~

(See Guidance for Standard 21: 'Efficiency and Effectiveness', in Guidance for the FMI Standards for more detail).

Principle Standard 22 Communication Procedures and Standards

Requirements

- 1) ~~An FMI should use, or at a minimum accommodate,~~The operator must ensure the FMI uses relevant internationally accepted communication procedures and standards ~~in order to facilitate efficient payment, clearing, settlement, and recording.~~

Key consideration

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

(See Guidance for Standard 22: 'Communication', in Guidance for the FMI Standards for more detail).

Principle Standard 23: Disclosure of rules, key procedures, and market data

Requirements

- 1) An ~~FMI should~~ operator must have ~~clear,~~ and ~~comprehensive~~ publicly disclose, rules and procedures for the FMI that give participants and ~~should provide~~ future participants sufficient information to ~~enable participants to have~~ an accurate ~~a~~ reasonable understanding of the risks, fees, and other material costs they incur by participating in the FMI. ~~All relevant rules and key procedures should be publicly disclosed.~~

Key considerations

~~3) An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.~~

~~2) An FMI should disclose~~ Further to the requirements in clause (1), an operator must:

- a) publicly disclose, on an internet site maintained by or on behalf of the operator, clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, ~~so that participants can assess the risks they would incur by participating in the FMI.~~
- b) ~~An FMI should~~ provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.
- e) ~~An FMI should~~ publicly disclose ~~its~~ the FMI's fees at the level of individual services ~~the FMI~~ offers as well as ~~its~~ the FMI's policies on any available discounts. The ~~FMI should~~ operator must provide clear descriptions of priced services for comparability purposes.
- c) ~~An FMI should complete regularly,~~ and ~~disclose~~
- d) publicly ~~responses to the CPSS-IOSCO Disclosure framework for financial market infrastructures. An FMI also should, at a minimum,~~ disclose basic data on transaction volumes and values.

(See Guidance for Standard 23: 'Disclosure of rules, key procedures, and market data', in Guidance for the FMI Standards for more detail).