

**Guidance on Continuity of Access to Financial Market
Infrastructures (“FMIs”) for a Firm in Resolution**

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Guidance on Continuity of Access to Financial Market Infrastructures (“FMIs”) for a Firm in Resolution

Summary of arrangements to support continuity of access to FMIs

This guidance is split into three sections: the arrangements at the level of providers of critical FMI services, firms and the relevant authorities of firms and providers of critical FMI services.

1. Providers of critical FMI services should take appropriate steps to consider and plan for the interaction between the resolution regimes of their FMI service users and their own risk management framework; thereby clarifying the actions they may take in a resolution scenario, to support firms and authorities in enhancing resolution readiness.

1.1 If, and to the extent that, the relevant legal framework that applies to the provider prevents or restricts the ability of the provider to terminate or suspend the access of an FMI service user for reasons related to resolution (or otherwise facilitates the continued access by a firm or its successor or transferee (including a bridge institution) to those critical FMI services), this should be reflected in the rules, contractual arrangements or procedures of the provider of critical FMI services. Where contractual rights, obligations or other legally binding procedures would be triggered by entry into resolution of an FMI service user, its parent or affiliate, these should be clearly set out by the provider of critical FMI services. A provider of critical FMI services should retain the right to restrict, suspend or terminate access to their services if FMI service users do not meet their contractual obligations as set out in its rules or contractual arrangements.

1.2 Subject to adequate safeguards, the provisions from rules or contractual arrangements of a provider of critical FMI services that would be triggered by entry into resolution of an FMI service user, its parent or affiliate, should be generally applicable irrespective of whether the firm entering into resolution is a domestic or foreign FMI service user.

1.3 Providers of critical FMI services should engage with their FMI service users to discuss and communicate the range of risk management actions and requirements they may impose on an FMI service user, where it (or its parent or affiliate) is in resolution. Each provider should seek, to the extent appropriate, to apply a common set of expectations and processes for dealing with its FMI service users in resolution.

1.4 Providers of critical FMI services should be required to test regularly the effectiveness of their relevant rules, contractual arrangements and procedures addressing a resolution scenario.

2. Firms should take measures to facilitate their continued access to critical FMI services in resolution. This should be based on analyses on how the firm would maintain access to critical FMI services, including by ensuring that obligations to FMI service providers are met throughout resolution and through the provision of information to the relevant authorities, both as part of resolution planning and in contingency planning by a firm ahead of, and during, resolution.

2.1 Firms should be required to prepare contingency plans detailing how they would maintain access to critical FMI services. These contingency plans – together with other relevant

information supplied by firms – should assist resolution authorities in developing their resolution plans.

2.2 Firms should be required to provide information about their reliance on critical FMI services. This should include a mapping of service providers and key services. It should also cover requirements and conditions needed for continuity of access and the usage and size (if known) of committed and uncommitted credit facilities received from providers of critical FMI services.

2.3 Firms should engage with providers of critical FMI services to understand how they are likely to respond to a firm in resolution and assess the nature and extent of any additional requirements. Contingency plans should also cover operational, governance and communication arrangements, including human resources that would be deployed to operationalise the plan during resolution.

2.4 As part of contingency plans, firms should specifically develop and document how they would meet the financial requirements necessary to maintain continuity of access to critical FMI services. Contingency plans should detail any anticipated liquidity requirements and how the firm would expect to meet them.

2.5 Contingency plans should provide a high-level impact analysis on the ability of the firm to continue performing its critical functions should access to providers of critical FMI services be terminated or suspended.

3. The relevant authorities of firms and providers of critical FMI services play a significant role in facilitating continuity of access to critical FMI services for a firm in resolution and should therefore have adequate cooperation arrangements in place.

3.1 The relevant authorities for providers of critical FMI services together with resolution authorities of FMI service users should, as part of resolution planning, seek to address and manage the financial stability implications of continuity of access of FMI service users in resolution to FMIs and FMI intermediaries on the one hand and the risk management of the providers of critical FMI services on the other.

3.2 The resolution authorities of FMI service users should identify and engage periodically with the relevant authorities of each provider of critical FMI services in order to discuss the resolution authority's preferred resolution strategy or strategies, the credibility and feasibility of firms' contingency plans and any barriers to continuity of access to critical FMI services.

3.3 Resolution and supervisory authorities of FMI service users should have in place appropriate information sharing arrangements with the relevant authorities of providers of critical FMI services. The relevant resolution and supervisory authorities and the relevant authorities of providers of critical FMI services should seek to give each other as much advance notice as possible about intended actions and possible risks with regards to maintaining continuity of access.

3.4 Resolution and supervisory authorities of FMI service users should have arrangements or understandings in advance with the relevant FMI authorities on what information to share and how that information may be shared with the provider of critical FMI services or other stakeholders both in the lead-up to, and during, resolution.

3.5 Resolution authorities should consider the credibility and feasibility of plans for preserving access to critical FMI services in resolution as part of resolvability assessments.

Introduction

Since the adoption of the *Key Attributes* in November 2011¹, authorities and Crisis Management Groups (CMGs) have been working to develop resolution strategies and plans for firms that could be systemically significant or critical in failure.

One of the main objectives in the design of those strategies and plans, as underscored in the *Key Attributes*, is to ensure as far as possible that a firm's critical functions – that is, the activities performed for third parties, the failure of which would lead to the disruption of services that are vital for the functioning of the real economy and for financial stability – can be maintained in resolution.

To maintain continuity of critical functions in resolution, it is necessary to ensure at the same time the continuity of the services that underpin them. In August 2016, the FSB published guidance on Arrangements to Support Operational Continuity in Resolution.² That guidance set out arrangements to support the operational continuity of critical shared services³ in resolution. However, the scope of that guidance did not extend to critical FMI services: the clearing, payment, settlement and custody shared services that are necessary to maintain the provision of a firm's critical functions in resolution.

Resolution of FMI service users is covered under the FMI-Annex to the *Key Attributes*, which sets out certain objectives as regards resolution planning for FMI service users and FMI rules and procedures to ensure consistency with and support for actions by a resolution authority to manage the failure of a participant that could be systemically significant or critical in failure. However, the FSB's 2015 and 2016 Resolvability Assessment Process (RAP)⁴ found that FMIs and intermediaries to FMIs reserve wide discretion under their rules and contractual arrangements to terminate or suspend access (or modify the conditions of access) both in the lead-up to and during the execution of a resolution strategy.

Maintaining access to critical FMI services is essential to ensuring that a firm's critical functions can be maintained throughout resolution without disruption and for restoring stability and market confidence after resolution. As such, continuity of access to critical FMI services represents a key aspect of resolution planning for individual firms.

¹ See “Key Attributes of Effective Resolution Regimes for Financial Institutions” (http://www.fsb.org/wp-content/uploads/r_141015.pdf), November 2011 (updated in October 2014).

² See “Guidance on Arrangements to Support Operational Continuity in Resolution” (<http://www.fsb.org/wp-content/uploads/Guidance-on-Arrangements-to-Support-Operational-Continuity-in-ResolutionI.pdf>), August 2016.

³ Activities, functions or services performed for one or more business units or legal entities of the group, performed by either an internal unit, a separate legal entity within the group or an external provider.

⁴ The objective of the RAP is to promote adequate and consistent reporting on the resolvability of each Global Systemically Important Financial Institution (G-SIFI) and concerted action to address any identified remaining impediments.

This guidance is intended to assist in evaluating whether global systemically important banks (and, if considered appropriate by resolution authorities, other firms that are subject to their resolution planning requirements) have appropriate arrangements to support continuity of access to critical FMI services during or after entry into resolution by the firm or its parent or any affiliate.

The guidance builds on the FMI-Annex to the *Key Attributes* and complements the August 2016 guidance on operational continuity. It should also be read in conjunction with the FSB guidance on *Identification of Critical Functions and Critical Shared Services* published in July 2013⁵, as well as the guidance in the *Key Attributes* on Essential Elements of Recovery and Resolution Plans (I-Annex 4), to the extent it covers the contingency planning of FMI service users.

This guidance is split into three general sections. The first section considers arrangements to support continuity of access to FMIs at the level of the providers of critical FMI services. The second section considers the arrangements at the level of the firm, whilst the third section considers the role of the supervisory and resolution authorities of a firm / FMI participant, and oversight and supervisory authorities of providers of critical FMI services (hereinafter, relevant authorities) in preparing for and facilitating continuity of access to critical FMI services by FMI service users.

Definition of key terms

Consistent with the guidance on operational continuity, continuity of access to critical FMI services is defined in the context of critical functions and critical services of a firm. For the purposes of this guidance, the terms referred to below have the following meaning:

- An “FMI” is, as defined by the *Key Attributes*, “a multilateral system among participating financial institutions, including the operator of the system, used for the purposes of recording, clearing, or settling payments, securities, derivatives, or other financial transactions”. As used in this guidance, an FMI includes payment systems, central securities depositories (CSDs), securities settlement systems (SSSs), and central counterparties (CCPs). It does not extend to trade repositories or to trading platforms. For the purposes of this guidance, an FMI is an entity outside the firm’s corporate group that provides direct access to critical FMI services to one or more legal entities in the firm’s corporate group. FMIs owned and operated by central banks are not subject to the *Key Attributes*. Consequently, the guidance set out in Section 1 does not apply to FMIs owned and operated by central banks, although such FMIs are encouraged to take the guidance into consideration voluntarily where appropriate.⁶ However, references to FMIs in section 2 of this guidance, insofar as they set expectations on FMI service users and not on FMIs, should be read to include all FMIs within this definition including those owned and operated by central banks.

⁵ See “Guidance on Identification of Critical Functions and Critical Shared Services” (http://www.fsb.org/wp-content/uploads/r_130716a.pdf), July 2013.

⁶ See CPMI-IOSCO “Application of the principles for financial market infrastructures to central bank FMIs” (<http://www.bis.org/cpmi/publ/d130.html>), August 2015, in particular Paragraph 4.

- **“Critical functions”** are activities performed for third parties where failure would lead to the disruption of services that are vital for the functioning of the real economy and for financial stability due to the size or market share of the financial institution or group, its external and internal interconnectedness, complexity and cross-border activities.⁷
- **“Critical FMI services”** are clearing, payment, securities settlement and custody activities, functions or services, the discontinuation of which could lead to the collapse of (or present a serious impediment to the performance of) one or more of the firm’s critical functions. They include related activities, functions or services whose on-going performance is necessary to enable the continuation of the clearing, payment, securities settlement or custody activities, functions or services. Critical FMI services are identified in the course of the resolution planning for a firm and may be provided to a firm either by an FMI, or through an FMI intermediary.
- An **“FMI intermediary”** is an entity that provides clearing, payment, securities settlement and/or custody services to other firms in order to facilitate the firms’ direct or indirect access to an FMI.
- An **“FMI service user”** or **“firm”** is used interchangeably in this guidance to mean a legal entity that is part of a global systemically important bank (G-SIB) and which has direct or indirect access to critical FMI services.
- A **“Provider of critical FMI services”** is an FMI or FMI intermediary that provides critical FMI services.
- **“Resolution”** refers to the exercise of resolution powers or tools by any resolution authority in relation to a firm (including in relation to a parent company and/or any of its affiliates) pursuant to the resolution regime in the firm’s jurisdiction. For the purposes of this guidance, ‘entry into resolution’ also includes any other measures taken by a provider of critical FMI services prior to resolution for which a statutory power exists to override or stay a right of termination or suspension.

⁷ See supra note 5. The FSB guidance on Identification of Critical Functions and Critical Shared Services also notes that a critical function has the following two elements: (i) it is provided by a firm (Global Systemically Important Financial Institution, ‘G-SIFI’) to third parties not affiliated to the firm; and (ii) the sudden failure to provide that function would be likely to have a material impact on the third parties, give rise to contagion or undermine the general confidence of market participants due to the systemic relevance of the function for the third parties and the systemic relevance of the G-SIFI in providing the function.

1. Continuity of access arrangements at the level of the provider of critical FMI services⁸

FMI need to manage their own risks and protect their participants from contagion risk within the FMI following the failure of a participant. Accordingly, FMIs often have the right under their rules to terminate or suspend access to their services or take other measures with consequences for the conditions of access and the services provided. Termination or suspension rights usually apply in circumstances where an FMI service user fails to meet its payment and delivery obligations. By contrast, resolution strategies are designed to ensure that a firm remains in a position to continue to meet financial obligations to providers of critical FMI services. Given the risks to an orderly resolution that could arise from a lack of continued access to FMIs, the FMI-Annex states that:

“Jurisdictions should ensure that the participation requirements and rules and procedures of an FMI governing a participant’s default (see Principle 13 of CPSS-IOSCO Principles for Financial Market Infrastructures)⁹ (“FMI rules”) are not likely to hamper unnecessarily the orderly resolution of participants in the FMI.”¹⁰

The FMI-Annex further states that:

“The entry into resolution of an FMI participant or use of a resolution tool should not lead to an automatic termination of its participation in the FMI. Jurisdictions should ensure that laws and regulations applicable to FMIs should not prevent FMIs from maintaining the participation of a firm in resolution provided that the safe and orderly operation of the FMI is not compromised. FMI rules should provide the FMI with sufficient flexibility to cooperate with the resolution authority of the FMI participant in order to prepare for and implement an orderly resolution in a way that does not increase risk to the FMI, its risk management, or its safe and orderly operations.”¹¹

To this end, the statutory resolution regimes in many FSB jurisdictions confer powers on the resolution authority to delay or override rights of termination where the exercise of such rights are directly related to the use of resolution powers or tools. These powers are designed to ensure that entry into resolution of an FMI service user, its parent or affiliate, or the use of resolution powers or tools on an FMI service user, its parent or affiliate, do not lead to termination of its participation in the FMI, provided that the firm or its successor entity continues to meet its payment and delivery obligations when due and complies with any other obligations under the rules of the FMI.

Providers of critical FMI services should take measures to help facilitate FMI service users’ continued access to critical FMI services in resolution.

⁸ As set out in the definitions, the guidance in Section 1 does not apply to FMIs owned and operated by central banks, although such FMIs may choose to take it into consideration.

⁹ See “Principles for financial market infrastructures” (<http://www.bis.org/cpmi/publ/d101a.pdf>), April 2012.

¹⁰ See Section 1.1 (i) of Part II of II-Annex 1 of the *Key Attributes – Resolution of Financial Market Infrastructures (FMIs) and FMI Participants*.

¹¹ *Ibid* Section 1.2.

Termination or suspension of critical FMI services under contractual arrangements between indirect participants and FMI intermediaries can give rise to the same potential risks to an orderly resolution as termination by FMIs of a direct FMI participant's access. The ultimate goal in terms of achieving a sufficient level of assurance around maintaining continuity of access should therefore be the same irrespective of the type of critical FMI service or whether a firm's access is direct or indirect. In referring to providers of critical FMI services, the guidance in this section therefore does not differentiate between FMIs and FMI intermediaries, except where the term FMI or FMI intermediary is specifically used. However, the way in which this guidance is applied in practice may differ both as between providers of different types of critical FMI services and as between FMI and FMI intermediaries. For example, references in the guidance to potential heightened liquidity requirements may have little or no application in practice to FMIs or FMI intermediaries that do not extend credit or liquidity to their participants.

A number of factors may drive these differences in implementation of this guidance between FMIs and FMI intermediaries. These include that:

- FMIs and FMI intermediaries are subject to different regulatory regimes. FMI rule books are subject to more detailed regulation, supervision and oversight than contractual terms of FMI intermediaries;
- FMI intermediaries typically have customised bilateral contracts and may offer more than one type of critical service to their customers. FMIs generally offer a single type of critical FMI service and their relationships with direct participants are usually governed by a common rule book;
- G-SIBs that are FMI intermediaries may be both providers and users of critical FMI services to and from each other, and their wider commercial relationship may complicate the nature of their engagement on continuity of access issues.

The potential for different approaches in implementing certain parts of this guidance can be mitigated by engagement between relevant authorities, providers of critical FMI services and G-SIBs to ensure, as far as possible, a consistent outcome internationally and to avoid an uneven approach to the level of assurance that is provided for different critical FMI services and between direct and indirect access. That consistency can be delivered through establishing market practice, supported where necessary, by regulatory rules or policy.

Whether or not an FMI service is a critical FMI service that falls within this guidance will depend upon assessments made as part of resolution planning for the firm that relies on these services. Whether a particular service is a critical FMI service will depend on its role in maintaining the particular firm's critical functions and not on the systemic importance of the FMI service more generally. A provider of critical FMI services is not therefore responsible for making a determination in respect of its members or customers as to which of its services is critical to them.

Provision of critical FMI services may involve activities, functions or services that are related to the primary clearing, payment, securities settlement or custody functions, but whose on-going performance is necessary to enable the continuation of the clearing, payment, securities settlement or custody. Such services are within the scope of this guidance, and responsibility for ensuring the continuity of those services lies with the user of the service. Other services

(whose on-going performance is not necessary to enable the continuation of clearing, payment, securities settlement or custody functions), are captured by the FSB guidance on operational continuity, to the extent that their continuity is necessary to support the continued provision of other critical functions in resolution.

1.1. Establishing rights, obligations and applicable procedures in the event of an FMI service user, its parent or affiliate entering into resolution

If, and to the extent that, the relevant legal framework that applies to the provider prevents or restricts the ability of the provider to terminate or suspend the access of an FMI service user for reasons related to resolution (or otherwise facilitates the continued access by a firm or its successor or transferee (including a bridge institution) to those critical FMI services), this should be reflected in the rules, contractual arrangements or procedures of the provider of critical FMI services.

Where contractual rights, obligations or other legally binding procedures would be triggered by entry into resolution of an FMI service user, its parent or affiliate, these should be clearly set out by the provider of critical FMI services.

A provider of critical FMI services should retain the right to restrict, suspend or terminate access to their services if FMI service users do not meet their obligations as set out in its rules or contractual arrangements.

Resolution is designed to enable a firm to continue to meet its obligations and should therefore be a risk-reducing measure for those providing it with critical FMI services. It follows that entry into resolution of a firm (or its parent or affiliate) should not, by itself, constitute an event under the rules of the FMI or the contractual arrangements of the FMI intermediary that would enable the FMI or the FMI intermediary to terminate or suspend access to critical FMI services, or materially restrict access such that it effectively amounts to a termination or suspension.

However, if it is likely that a specific set of contractual rights, obligations or legally binding procedures would be triggered by the entry into resolution of a firm (or its parent or affiliate), these should be set out in a clear and transparent manner. Such contractual rights, obligations and procedures, if any, should be set out separately from any rules or provisions pertaining to events of default in the contractual arrangements of FMI intermediaries or in the rules of FMIs.

In addition to clarifying legally binding rules or arrangements, any non-binding procedures, play-books or protocols developed between providers of critical FMI services and a firm to cover expected actions in response to entry into resolution should be documented, readily accessible and periodically reviewed as part of the engagement set out in section 1.3 of this guidance.

FMI rules and contractual arrangements of critical FMI service providers should allow for a firm or successor entity to maintain its participation during a resolution process. This is subject to adequate safeguards to protect the continued safe and orderly operations of the critical FMI service provider, including the condition that the firm or successor entity continues to meet payment and delivery obligations when due and comply with any other obligations of participants under the rules of the FMI or contractual arrangements of the critical FMI service provider.

Whether or not an FMI service user (or its parent or affiliate) is in resolution, the provider of critical FMI services should retain the ability, as specified in its rules or contractual arrangements, to terminate, suspend or restrict participation or continued provision of critical FMI services where the firm fails to meet payment, delivery or other obligations or where the safe and orderly operations of the provider of critical FMI services could be compromised. Where a firm in resolution or a successor entity fails to meet payment, delivery or other obligations, the critical FMI service provider should follow its normal defined procedures to determine the exercise of its rights to terminate, suspend or restrict access to its services, with no discrimination based on the firm's entry into resolution.

Consistent with Principle 2 of the PFMI, FMIs specifically should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders. Consequently, any exercise of a right of termination or suspension of continued access to critical FMI services during resolution should be consistent with the governance framework established by the the FMI, which may include consultation with the relevant authorities. To this end, information sharing by resolution authorities of a firm with the relevant authorities of FMIs (as discussed in Section 3 of this guidance) will help to facilitate cooperation between the FMI and the relevant authorities. These recommendations also apply to FMI intermediaries to the extent that their regulatory and supervisory frameworks prescribe or allow for similar governance arrangements and consultation with relevant authorities.

1.2. Non-discrimination between domestic and foreign FMI service users by a provider of critical FMI services

Subject to adequate safeguards, the provisions from rules or contractual arrangements of a provider of critical FMI services that would be triggered by entry into resolution of an FMI service user, its parent or affiliate, should be generally applicable irrespective of whether the firm entering into resolution is a domestic or foreign FMI service user.¹²

Any restrictions on the rights of the provider of critical FMI services (including termination or suspension provisions) that arise as a result of entry into resolution and that are applicable under the provider of critical FMI service's rules or contractual arrangements to FMI service users incorporated in its jurisdiction, should, subject to adequate safeguards, also be applicable to the entry into resolution of foreign FMI service users, their parents or affiliates.

Applying the same arrangements to a foreign FMI service user is based on the presumption that the resolution framework in the jurisdiction in which the foreign participant is located provides adequate safeguards to the provider of critical FMI services. Adequate safeguards, with respect to a resolution regime of a jurisdiction other than that of the relevant provider of critical FMI services, should reflect international practice regarding appropriate creditor

¹² As set out in PFMI Principle 18, Key Consideration 2: "An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit."

safeguards applicable to financial transactions generally as well as those that protect the continued safe and orderly operation of the provider of critical FMI services.

These safeguards should be the subject of further development to ensure appropriate and consistent application, taking into account the applicable regulatory, supervisory and oversight requirements for FMIs and the regulatory and supervisory requirements for FMI intermediaries. They are also without prejudice to the general desirability of establishing comprehensive statutory regimes for giving cross-border effect to resolution action.¹³

1.3. Establishing expectations regarding the heightened or additional requirements for a firm in resolution

Providers of critical FMI services should engage with their FMI service users to discuss and communicate the range of risk management actions and requirements they may impose on an FMI service user, where it (or its parent or affiliate) is in resolution. Each provider should seek, to the extent appropriate, to apply a common set of expectations and processes for dealing with its FMI service users in resolution.

Whilst the resolution plan of a firm is intended to ensure that the firm continues to meet its obligations to the providers of critical FMI services, a provider of critical FMI services may still consider it appropriate or necessary to take actions to manage its potential risks.

The FMI-Annex already states, the case of FMIs that:

“FMI rules and procedures should provide the FMI with sufficient flexibility to cooperate with the resolution authority of the FMI participant, parent or its affiliate in order to prepare for and implement an orderly resolution in a way that does not increase risk to the FMI, its risk management or its safe and orderly operations.”¹⁴

Accordingly, to support the specific discussions between firms that are undertaking contingency planning and their providers of critical FMI services, the relevant authorities should consider engaging with each FMI and FMI intermediary that has been identified as the provider of critical FMI services to such firms to ensure that the provider is taking appropriate steps to consider and plan for the interaction between the resolution regimes that are applicable to these firms and its own risk management framework.¹⁵ This should include the authorities providing a general explanation of the implications of different resolution strategies and the provider of critical FMI services identifying the processes and information necessary for it to make decisions regarding the need for risk management actions and requirements.

These steps should include defining and describing what the provider of critical FMI services considers to be the range of risk management actions and requirements that it would anticipate

¹³ See “Principles for Cross-border Effectiveness of Resolution Actions” (<http://www.fsb.org/wp-content/uploads/Principles-for-Cross-border-Effectiveness-of-Resolution-Actions.pdf>), November 2015.

¹⁴ See Section 1.2 of Part II of II-Annex 1 of the *Key Attributes – Resolution of Financial Market Infrastructures (FMIs) and FMI Participants*.

¹⁵ See PFMI Principle 13, explanatory note 3.13.8 which states that “...part of an FMI’s participant-default testing should include the implementation of the resolution regime for an FMI’s participants, as relevant. An FMI should be able to take all appropriate steps to address the resolution of a participant...”

taking or imposing on an FMI service user (or its parent or affiliate) in resolution as a result of financial distress.¹⁶

The following potential requirements FMI service users may face in resolution should be considered by providers of critical FMI services to support the contingency planning by firms as well as resolution planning by resolution authorities:

- requirements, if any, to contribute additional amounts to default or guarantee funds, secure additional liquidity commitments, or to pre-fund part or all of payment and settlement obligations (including by way of increased collateral and margin amounts);
- changes, if any, to operational or information requirements, including those needed because certain services might not be available; and
- requirements, if any, that may apply in relation to a successor entity (either a bridge institution or third party purchaser) to which functions have been transferred.

Any additional requirements that a provider of critical FMI services would expect to impose on a firm during its resolution to maintain adequate risk management should be appropriate in light of the risk that the firm poses to the provider and/or other participants.

Moreover, with respect to FMIs, any such additional requirements should be consistent with the FMI's framework for the comprehensive management of risks.¹⁷ Flexibility should be embedded in the timing and process for imposing such additional requirements, to include communication with relevant authorities.

Consistent with the PFMI, FMIs in particular should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and taking into account other public interest considerations.¹⁸ These public interest considerations should include the implications on the FMI and on FMI service users, as well as the broader financial system, of a failure by a direct member to meet the additional requirements and the potential consequences thereof (declaration of default by the FMI and/or loss of access to the critical FMI service).

This information regarding the steps that providers of critical FMI services would take and potential requirements should support firms in preparing contingency plans and form the basis of the engagement between providers of critical FMI services and their FMI service users.

1.4. Arrangements and operational processes to facilitate continued access in resolution

Providers of critical FMI services should be required to test regularly the effectiveness of their relevant rules, contractual arrangements and procedures addressing a resolution scenario.

Specifically regarding FMIs, the FMI-Annex states that:

¹⁶ It is not necessary for the purposes of this guidance to consider actions taken by a provider of critical FMI services in response to an operational failure at a firm (e.g. as a result of a cyber-attack).

¹⁷ See Principle 3, Key Consideration 4.

¹⁸ See Principle 2, Key Consideration 1.

“FMIs should be required as part of their contingency arrangements to test the effectiveness of their rules and procedures if a major participant were to enter into resolution, including the conditions and requirements for continuing participation or admitting as a new participant in the FMI an entity to which that participants’ activities have been transferred.”¹⁹

FMI rules should facilitate, for example, through a fast-track application process, the participation of a third-party successor or bridge institution that assumes particular functions or positions of the failing firm, subject to the maintenance of adequate risk management standards and compliance with regulatory requirements. To support the continuity of critical FMI services, FMI rules should also facilitate, where appropriate, the transfer of positions of the clients of a participant in resolution to other participants in the FMI.²⁰

In particular, FMIs should consider the operational, technology, financial and legal implications arising from the transfer of functions or positions to a successor (either a bridge institution or a third-party purchaser). This should include the technological changes needed to implement the resolution measures (for example, transfer or integration of IT systems), the preparations needed to facilitate the rapid execution of such transfer or integration, and legal and financial information pertaining to the bridge or successor.

Further, the FMI should consider establishing governance and operational rules and procedures that facilitate, whether through delegations of authority or otherwise, the ability of FMI management to make prompt decisions in response to a member’s resolution (including during a period where the FMI is closed for business).

Equally, FMI intermediaries should seek to have governance and operational arrangements and procedures in place to support continued access for their firms, including in case of a transfer.

Providers of critical FMI services should test the effectiveness of governance and operational arrangements regularly to address scenarios where a firm enters resolution.

2. Continuity of access expectations and requirements applicable to firms

Firms, as FMI service users, should take measures to facilitate their continued access to critical FMI services in resolution.²¹

This includes the analysis that the firm should be expected to undertake and the information it should provide to the relevant authorities, both as part of resolution planning by resolution authorities and in contingency planning by the firm ahead of, and during, resolution. This section seeks to provide further guidance to support the implementation of the Annex to the

¹⁹ See Section 2.2 of Part II of II-Annex 1 of the *Key Attributes – Resolution of Financial Market Infrastructures (FMIs) and FMI Participants*.

²⁰ Ibid Section 1.3(ii) and (iii).

²¹ As set out in the definition of ‘FMI’, references to FMI in section 2 of this guidance should be read, insofar as they set expectations on direct members, to include FMIs that are owned and operated by central banks.

Key Attributes on Essential Elements of Recovery and Resolution Plans (I-Annex 4) which provides that:

“Firms should assess the additional requirements to which they may potentially become subject during crisis situations in order to maintain their membership of FMIs, for example, as regards pre-funding or collateralising of positions, and identify options for addressing the additional requirements (for example, plan for the sourcing of additional collateral, and assess potential constraints on the firm’s total payment flows).”²²

2.1. Resolution planning for firms as FMI service users

Firms should be required to prepare contingency plans detailing how they would maintain access to critical FMI services. These contingency plans – together with other relevant information supplied by firms – should assist resolution authorities in developing their resolution plans.

Whilst FMI rules and FMI intermediaries’ contractual arrangements should not unnecessarily hamper the orderly resolution of FMI service users (or their parents or affiliates), the ultimate responsibility for ensuring the financial and operational capability to continue to meet the conditions for access to critical FMI services lies with the firm itself. Planning by firms should represent the primary means for delivering this assurance by providing the basis on which resolution authorities can develop or refine their own resolution plans and conduct resolvability assessments. These resolution plans will be based on a resolution strategy for the G-SIB involving the application of resolution powers either to a single entity at the top of the group (a single point of entry strategy) or to more than one resolution entity within the group (multiple point of entry strategy) but with the remainder of the companies in the group left outside of resolution proceedings. An understanding of the resolution strategy should be sufficient to allow for contingency planning by the firm and engagement with providers of critical FMI services.

2.2. Information requirements for resolution planning

Firms should be required to provide information about their reliance on critical FMI services. This should include a mapping of service providers and key services. It should also cover requirements and conditions needed for continuity of access and the usage and size (if known) of committed and uncommitted credit facilities received from providers of critical FMI services.

The relevant resolution authorities and other authorities should expect to draw on information requested from the firm, including from the firm’s recovery plans as well as the firm’s own contingency planning, to develop resolution plans that address continuity of access to critical FMI services.

Consistent with the guidance in I-Annex 4 of the *Key Attributes* on Essential Elements of Recovery and Resolution Plans, firms should be required to have the capacity to provide a minimum set of information about their use of critical FMI services both to aid recovery and

²² See Section 3.2 of I-Annex 4 of the *Key Attributes* – Essential Elements of Recovery and Resolution Plans.

resolution planning as well as to be used in crisis situations.²³ The Annex to this guidance sets out the information that firms could be expected to provide. This recommended set of information is intended to complement the information included in the Annex of the FSB guidance on operational continuity.

As part of that information, firms should maintain an up-to-date mapping of:

- the FMIs and FMI intermediaries that provide critical FMI services to the firm, including a mapping of these critical FMI services (and the inter-dependencies between these services necessary for maintaining access) to the entities, business and critical functions within the firm;
- the firms for which they act as an FMI intermediary; and
- the relevant authorities of the providers of critical FMI services.

For each of these relationships, the firm should maintain up to date information regarding:

- the expected financial and non-financial requirements/conditions for continued access to the service, including in a resolution scenario; and
- a mapping of the usage and size (if known) of the credit facilities (committed or uncommitted) they may receive, if any, from providers of FMI services or from other third-party sources.

Firms should review and seek to develop their capability to segregate information regarding the outstanding activity, positions or obligations of their clients in respect of a critical FMI service from that of their own account.

2.3. Contingency planning by firms to meet conditions of access in resolution

Firms should engage with providers of critical FMI services to understand how they are likely to respond to a firm in resolution and assess the nature and extent of any additional requirements. Contingency plans should also cover operational, governance and communication arrangements, including human resources that would be deployed to operationalise the plan during resolution.

A firm should develop and document its contingency plan for how it would maintain uninterrupted access to critical FMI services in resolution and should share these plans with the relevant authorities to assist in resolution planning.

As part of the process in developing its plans, the firm should engage with its providers of critical FMIs services to understand, as far as possible, how each provider would expect to respond to the entry into resolution of the firm, its parent or affiliate. To support these discussions, firms are encouraged to share information with their providers of critical FMI services about how they would expect to continue to meet obligations and about the assumptions on which their contingency planning is based.

The exercise should take account of whether the action that a provider of critical FMI services expects to take would change depending upon which entity within the group is being resolved

²³ Ibid Section 5.

and whether or not the entity with access is meeting all its obligations. This could include circumstances where:

- the legal entity within the firm’s group that has direct access to the critical FMI services enters into resolution but continues to meet all of its conditions for access, including performance of its payment and delivery obligations;
- the legal entity within the firm’s group with direct access to the critical FMI services enters into resolution and continues to meet all of its payment and delivery obligations but is in breach of another condition of access (e.g., a credit rating downgrade or cross-default at another FMI); and
- the legal entity within the firm’s group with direct access to the critical FMI services continues to meet all of its obligations and does not enter into resolution but its affiliate (for example, the parent holding company or an affiliate that is a credit provider or guarantor) has entered resolution.

In engaging with the providers of critical FMI services to better understand their likely response in these scenarios, the firm should seek to assess and document within its contingency plan to the extent possible:

- the nature and extent of any additional requirements to which it may become subject as part of this response. In the case of additional financial requirements (e.g., liquidity and credit commitments, collateral or default fund contributions) that assessment should cover what it determines to be the ‘most likely’ amount of any additional requirement as well as what could be the maximum amount under the contractual arrangements with the provider of critical FMI services;
- whether the response would be automatic or subject to the discretion of the provider of critical FMI services;
- how the decision would be taken to impose additional requirements, how this would be notified to the firm and the timelines for compliance; and
- what actions the firm could take either in advance or during the applicable scenario to reduce or otherwise mitigate the additional requirements or to avoid termination or suspension of access.

The firm should make clear to what extent these assessments reflect the firm’s own analysis of the likely response and whether such responses have been discussed with the relevant provider of critical FMI services. Where the requirements/conditions of a provider of critical FMI services are unclear or do not enable the firm to assess within a reasonable range the likelihood that it would be able to meet the requirements, the firm should highlight the issue to the provider of critical FMI services and in its contingency plan.

Drawing on this information, the firm’s contingency plan should identify how the relevant entities within the group would expect to continue to meet the conditions for uninterrupted access to each of their critical FMI services, including the additional operational or financial requirements that the firm could be expected to satisfy.

When determining what resources could be relied upon in a particular scenario, the plan should take into account all of the additional requirements that could be imposed on the firm by its

providers of critical FMI services in that particular resolution scenario so that the firm does not double-count resources for use across more than one critical FMI service.

When developing its contingency plan, the firm should base it on the applicable authority's preferred resolution strategy or strategies, where this strategy is known to the firm. For instance:

- where the resolution would involve the transfer of access to a bridge institution or to a third-party institution, the firm's contingency plan should address the legal, financial and operational challenges of ensuring that the acquiring entity will retain access to the relevant provider of critical FMI services. These operational challenges include any technical changes needed to implement the resolution (e.g., transfer or integration of IT systems) and the operational arrangements necessary to ensure that all of the firm's obligations to the provider of critical FMI services can be met as they fall due, including margin, collateral and settlement obligations;
- where the resolution strategy (whether through a bail-in or a transfer to a bridge institution or third-party institution) leads to a direct or indirect change of control of the firm, the contingency plan should identify any applicable conditions and approvals (including the authorities competent for such approvals) that may apply and that would need to be satisfied to allow the firm in resolution or emerging from resolution to have immediate access to the relevant FMIs;
- where the resolution strategy includes the separation of the firm into separately owned corporate groups (e.g., a multiple point of entry resolution strategy or anticipated sale of the entity during resolution), the contingency plan should identify whether continued access would be affected by a separation from the group (which may be the case e.g. where an entity within the firm's group provides indirect access to a number of other group entities split across more than one resolution entity) and how to address the implications of such a separation; and
- where the resolution would involve the porting of clients, the contingency plan should include an assessment of the timing and feasibility of porting clients during resolution and the financial and operational implications for the firm of doing so.

In considering the implications of a particular resolution strategy, the contingency plan should assume the application of resolution powers or tools by the relevant resolution authority under that strategy, to the extent that these could be used to override certain requirements (e.g., the use of resolution powers to override a contractual requirement for counterparty consent to any change of ownership and control, or transfer of membership etc.)

The firm's contingency plan should also cover:

- the operational and organisational arrangements, including human resources that would need to be deployed to operationalise the plan during resolution; and
- the information the provider of critical FMI services has indicated would be essential for its risk-management decision-making, the plan for delivering this information and the potential constraints or risks in providing this, specifically bearing in mind the need for information to be delivered promptly.

2.4. Contingency planning by firms to meet liquidity requirements

As part of contingency plans, firms should specifically develop and document how they would meet the financial requirements necessary to maintain continuity of access to critical FMI services. Contingency plans should detail any anticipated liquidity requirements and how the firm would expect to meet them.

The issue of liquidity provision in resolution is likely to present one of the principal challenges for meeting continuing requirements for access to critical FMI services. Analysis of the actions necessary for maintaining funding of essential and systemically important functions is a requirement of credible recovery and resolution plans, as set out in I-Annex 4 of the *Key Attributes*.²⁴

Consequently, contingency plans for continuity of access to critical FMI services that rely upon the extension of credit or liquidity to the firm (whether from the provider of critical FMI services or other providers), should address the anticipated liquidity requirements. They should also address how the firm would expect to meet them, taking into account the particular resolution strategy for the firm, its credit usage and, if known to it, its credit limits. In estimating these requirements (including on an intra-day basis and taking into account potential prefunding requirements), the firm should identify what it determines to be the aggregated volume of business or activity that it would expect to maintain with the provider of critical FMI services during resolution, and the basis for this assumption.

2.5. Mitigation for dealing with termination or suspension of access to critical FMI services

Contingency plans should provide a high-level impact analysis on the ability of the firm to continue performing its critical functions should access to providers of critical FMI services be terminated or suspended.

Contingency planning by a firm based on maintaining existing channels of access to critical FMI services is more feasible than reliance on alternative channels. Accordingly, unless otherwise agreed with the resolution authorities, the firm's contingency plan should seek to ensure that access to critical FMI services is continued in resolution. Such continuity cannot, however, be guaranteed and there remains a risk that a firm's access would be terminated or suspended.

The firm's contingency plan should include a high-level impact analysis of the consequences of any termination or suspension to the firm's access to critical FMI services on its ability to perform its critical functions. The contingency plan should identify what actions the firm considers could be taken to mitigate this impact, including their feasibility and time to implement.

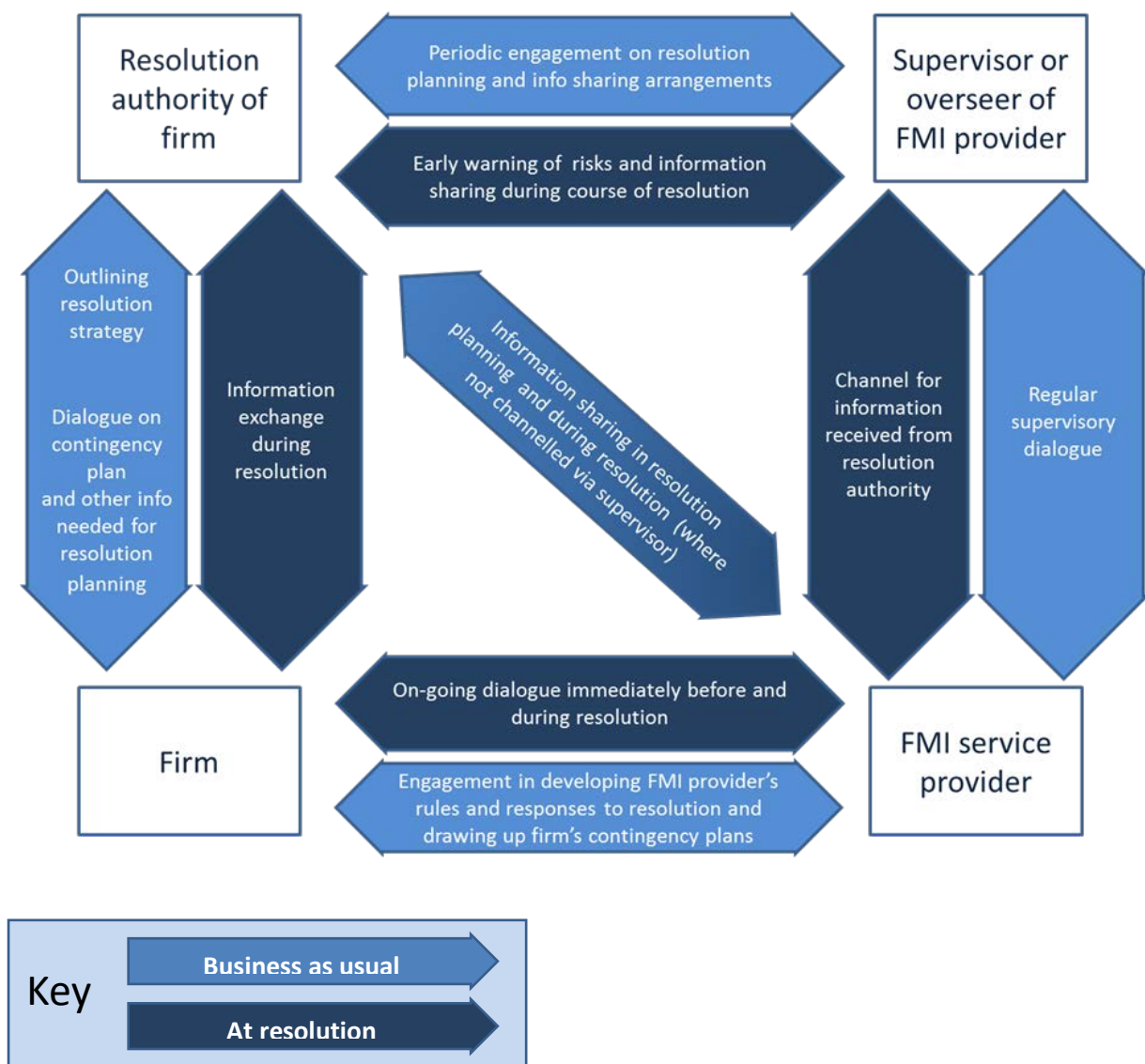
²⁴ Ibid Section 2.3 (ii).

3. Co-operation among authorities and communication between authorities, firms and providers of critical FMI services

The relevant authorities of firms and those of providers of critical FMI services each play a significant part in facilitating the continuity of access to critical FMI services of a firm in resolution. These roles extend both to setting expectations and requirements for providers of critical FMI services and for firms that have a bearing on continuity of access issues as well as in developing and ultimately executing recovery and resolution plans.

The appropriate exchange of information between resolution and supervisory authorities, FMI supervisors and overseers, firms and providers of critical FMI services is also essential to providing the levels of understanding and assurance necessary to support the execution of plans for maintaining access.

The diagram below sets out the main flows of communication that could be expected as part of business as usual resolution and contingency planning by a firm as well in the run-up and execution of a resolution.



The relevant authorities should take measures to enhance understanding and coordination between them both in resolution planning and during a resolution. This section provides guidance on these measures and elaborates on relevant provisions in the *Key Attributes* and its Annexes, in particular:

- I-Annex 3 on Resolvability Assessments, which states that authorities should assess whether the firm being resolved can retain membership of FMIs and whether bridge institutions will be able to have access;²⁵
- the FMI-Annex, which states that resolution authorities should inform FMIs and the relevant authorities responsible for oversight or supervision of FMIs of any impediments arising from FMI rules and procedures that could affect the effective implementation of a resolution of an FMI service user. The relevant authorities should consider whether rule changes (for example, introduction of carve-outs or exemptions in FMI rules or fast-track application processes) or other actions can be taken to address those reported impediments without compromising the risk management and safe operation of the FMI;²⁶ and
- the FMI-Annex, which states that resolution authorities should inform FMIs as soon as possible of the resolution of a participant, and if possible in advance of the firm's entry into resolution. Throughout the period that an FMI service user, its parent or affiliate is in resolution, resolution authorities should provide the FMI with information about the participant or any bridge institution to which its functions have been transferred relevant to the continued participation of that firm or bridge institution in the FMI.²⁷

3.1. Balancing the objectives of relevant authorities for providers of critical FMI services and resolution authorities of FMI service users

The relevant authorities for providers of critical FMI services together with resolution authorities of FMI service users should, as part of their resolution planning, seek to address and manage the financial stability implications of continuity of access of FMI service users in resolution to FMIs and FMI intermediaries on the one hand and the risk management of the providers of critical FMI services on the other.

The relevant authorities for the providers of critical FMI services should seek to ensure that such providers have appropriate prudent risk management processes and make decisions that are consistent with the objective of reducing the likelihood of the provider's failure and of preventing risks from spreading to other FMI service users.

Resolution authorities of FMI service users should develop, prepare for and execute resolution plans that achieve resolution objectives, including the maintenance of a firm's critical functions in resolution.

²⁵ See Section 4.7 of I-Annex 3 of the *Key Attributes* – Resolvability Assessments.

²⁶ See Section 4.1 of Part II of II-Annex 1 of the *Key Attributes* – Resolution of Financial Market Infrastructures (FMIs) and FMI Participants.

²⁷ Ibid Section 5.1.

The responsibilities of both sets of the relevant authorities are ultimately intended to contribute to financial stability. However, measures that are designed to facilitate a firm's continuity of access to critical FMI services in resolution could also impact risk management actions by providers of critical FMI services. Such repercussions could increase the risks for providers of critical FMI services, creating a need to combine and balance these priorities.

In recognising that such conflicting priorities exist, the relevant authorities should seek, to the extent possible, to consider and reconcile them as part of their resolution planning so as to reduce the risk that they take conflicting actions in resolution.

3.2. Periodic discussion between relevant authorities of matters affecting continuity of access to critical FMI services

The resolution authorities of FMI service users should identify and engage periodically with the relevant authorities of each provider of critical FMI services in order to discuss the resolution authority's preferred resolution strategy or strategies, the credibility and feasibility of firms' contingency plans and any barriers to continuity of access to critical FMI services.

Drawing on resolution planning information and the contingency plan provided by the firm, the firm's resolution authority should identify the relevant authorities for each provider of critical FMI services to the firm and determine which of these would play a material role in matters related to the continuity of access by the firm.

The resolution authority for the firm should seek to engage with the relevant supervisory and oversight authorities of providers of critical FMI services to discuss in particular:

- why access to the FMI service is critical to the resolution plan and the implications of disruption to that access;
- the home authority's preferred resolution strategy or strategies for the firm and its implications for the entity or entities within the firm's group that have access to the critical FMI services;
- the credibility and feasibility of the contingency plan prepared by the firm so far as it relates to facilitating continuity of access to the relevant critical FMI services. This should include an assessment of the credibility and feasibility of the contingency plan in respect of ensuring that payment, delivery and collateral provision obligations to providers of FMI services will be met in a timely manner, and the assumptions made by the firm regarding the expected response to entry into resolution and the additional requirements that the firm may be required to meet to maintain access to the relevant critical FMI services;
- the role that the relevant authorities would expect to play in the lead-up to, and during, the resolution, the actions they might expect to take and the information that they would need from other relevant authorities for the firm in order to help them perform that role and take decisions. This should include discussion of what information the relevant authorities would need or could expect in advance of resolution, to help them determine their response to plans by a provider of critical FMI services to terminate or suspend access where the firm is not yet in resolution, nor in default;

- the resolution plan for addressing continuity of access to the relevant critical FMI services, including any points of difference from the contingency plan developed by the firm; and
- any continuing impediments or contingent risks to maintaining continuity of access to the critical FMI services and a discussion of how these can be mitigated.

These discussions could be conducted on a bilateral basis between the resolution authority of an FMI service user and the relevant authorities of the particular provider of critical FMI services. That could be necessary where the relevant authorities identify issues specific to the relationship between a particular firm and a particular FMI. However, many of the issues to be covered are likely to be common across the participants of a specific provider of critical FMI services or else common between the providers of critical FMI services to a particular firm.

Accordingly, different approaches could be taken to establishing forums to discuss those common issues, some of which could provide greater efficiencies than a series of bilateral meetings. Given that CMGs are already established for G-SIBs and will contain many of the relevant authorities, there may be value in periodically holding sessions within (or adjacent to) those CMGs to which the relevant FMI supervisors and overseers could be invited.

The frequency of these periodic discussions may depend upon the criticality of the FMI to the resolution plan. However, in between these periodic discussions, the resolution authorities and oversight authorities should agree to notify each other of material developments that may have a bearing on the resolution authority's resolution planning assumptions regarding continuity of access, and consider whether further discussion is required ahead of the next periodic meeting.

3.3. Information-sharing between authorities and early warning of risks

Resolution and supervisory authorities of FMI service users should have in place appropriate information sharing arrangements with the relevant authorities of providers of critical FMI services. The relevant resolution and supervisory authorities and the relevant authorities of providers of critical FMI services should seek to give each other as much advance notice as possible about intended actions and possible risks with regards to maintaining continuity of access.

Where not already in place, the resolution and supervisory authorities of FMI service users should put in place appropriate information sharing arrangements with the relevant authorities of providers of critical FMI services in order to establish communication channels that facilitate efficient sharing of information both before and during the resolution of a firm.

This information sharing arrangement should seek to clarify what information can and cannot be shared with other authorities or with the provider of critical FMI services and the grounds on which any information would be shared with them, taking into account legal or policy restrictions (e.g., regarding confidential or market-sensitive information) and measures that can be taken to guard against leaks. The arrangements should provide the means for responding to urgent requests for information both in and outside of business hours.

As a general principle, the relevant authorities should seek to give each other as much prior notice as possible about intended actions and possible risks that could have a bearing on the ability to maintain a firm's continuity of access to critical FMI services.

Information sharing arrangements should set out the circumstances in which resolution or supervisory authorities of a firm and relevant authorities of a provider of critical FMI services would be expected to proactively notify the other of such actions or risk. This may include circumstances in which:

- the provider of critical FMI services has expressed an intention or indicated that it is considering whether to terminate or suspend access to a critical FMI service (whether before or after entry of the firm into resolution);
- the provider of critical FMI services has indicated that it intends to take action that departs to a material extent from previously established assumptions and expectations on which a resolution plan has been based; and
- the resolution authority has taken the decision, or is minded to take the decision, to place an entity within the firm's group into resolution.

3.4. Information sharing prior to and during resolution

Resolution and supervisory authorities of FMI service users should have arrangements or understandings in advance with the relevant FMI authorities on what information to share and how that information may be shared with the provider of critical FMI services or other stakeholders both in the lead-up to, and during, resolution.

As stated in the FMI-Annex with respect to FMIs, throughout the period that an FMI service user is in resolution, the relevant authorities should provide the FMI, FMI intermediary and other providers of critical FMI services with information, as permitted by law, about the FMI service user or any successor or bridge institution to which its functions have been transferred that is relevant to its continued participation including legal, operational and financial documentation, pertaining in particular to its credit quality.²⁸

Authorities should seek to agree in advance what information they may expect from each other during the course of resolution and how that information will be shared, and kept confidential.

Where critical FMI services are provided directly to an affiliate entity within the firm's group that is in a jurisdiction other than the entity that is being resolved, consideration should be given to the role that should be played by the relevant host authorities as a potential channel for information from the home resolution authority regarding the resolution action. Reliance on host authorities to act as the first point of contact for sharing information with a provider of critical FMI services may provide greater speed and efficiency in exchanging information during resolution in circumstances where a firm uses a large number of different providers of critical FMI services.

3.5. Resolvability assessments and engagement of resolution authorities with providers of FMI services

Resolution authorities should consider the credibility and feasibility of plans for preserving access to critical FMI services in resolution as part of resolvability assessments.

²⁸ Ibid Section 5.1.

The *Key Attributes* state that authorities should identify the processes for preserving uninterrupted access to critical FMI services as part of their resolution planning. Consistent with the *Key Attributes* Assessment Methodology for the Banking Sector, resolution regimes should ensure that resolution authorities, as part of their resolution planning for firms that are FMI service users, consider how the firm in resolution or a successor would maintain access to the critical FMI services that are necessary to support the critical functions of the firm.²⁹

Implementation guidance on resolution planning by resolution authorities and resolvability assessments for firms that are direct members of FMIs, and on engagement of resolution authorities with FMIs, is set out in the FMI-Annex.³⁰ This guidance should also be implemented with respect to FMI intermediaries.

Furthermore, the guidance set out in sections 1.3 and 2 of this report identifying the engagement and types of information and analysis that providers of critical FMI services and firms should provide to resolution authorities is designed to provide resolution authorities with the general information necessary to develop a resolution plan that meets these resolution planning requirements.

Liquidity provision and the availability of collateral in resolution is an important part of assessing the credibility and feasibility of plans to maintain continuity of access to critical FMI services. At the point of resolution, a firm may have relatively few high quality liquid assets available to secure funding or to meet conditions for access to critical FMI services. Accordingly, when developing resolution plans and assessing their credibility, a resolution authority should have regard to the FSB's 'Guiding principles on the temporary funding needed to support the orderly resolution of a G-SIB'; considering in particular the availability and use of temporary public sector backstop funding mechanisms, where necessary and appropriate.³¹

²⁹ See EC 11.7 (ii) of "Key Attributes Assessment Methodology for the Banking Sector" (<http://www.fsb.org/wp-content/uploads/Key-Attributes-Assessment-Methodology-for-the-Banking-Sector.pdf>), October 2016.

³⁰ See Section 2.1 of Part II of II-Annex 1 of the *Key Attributes* – Resolution of Financial Market Infrastructures (FMIs) and FMI Participants.

³¹ See "Guiding principles on the temporary funding needed to support the orderly resolution of a global systemically important bank ("G-SIB")" (<http://www.fsb.org/wp-content/uploads/Guiding-principles-on-the-temporary-funding-needed-to-support-the-orderly-resolution-of-a-global-systemically-important-bank-%E2%80%9CG-SIB%E2%80%9D.pdf>), August 2016.

Annex: Indicative information requirements for firms to facilitate continuity of access to FMIs

Firms should be able to maintain and provide to the relevant authorities information to support their assessment of continuity under normal circumstances; and to ensure continuity is maintained during resolution. The indicative information requirements below are not meant to be comprehensive. Each jurisdiction should consider, taking into account any local requirements, the information that should, to the extent possible, be maintained and reported to authorities on a regular basis in normal circumstances, and the information that would need to be accessible in a short timeframe in the lead-up to or during resolution.

Membership and participation

Firms should maintain a record of 'Membership and Participation' information in order to identify and map their critical FMI, custodian and FMI intermediary relationships. Supporting section 2.2 of the guidance regarding information requirements for resolution planning, Membership and participation information aids in the recovery and resolution planning efforts of firms.

1. Identify critical FMIs and FMI intermediaries, including:
 - A description of critical services provided;
 - Whether access is direct or indirect; and
 - The jurisdiction where the provider of FMI services is incorporated, the governing law of the relationship and whether contractual amendments have been made to recognise home/third country resolution regimes.
2. Map contractual relationships with providers of critical FMI services to:
 - Critical functions;
 - Critical shared services (where the firm provides access to FMIs or FMI intermediaries as a service to other firms within the group);
 - Business lines;
 - Material legal entities; and
 - Supervisory, resolution or any other relevant oversight authorities by jurisdiction.
3. Identify material legal entities which act as intermediaries delivering critical FMI services to other firms and map such services to the other firms receiving them.
4. Identify the admission criteria and / or membership requirements (operational, financial, capital and other) of each FMI and the contractual conditions governing the firms' relationship with FMI intermediaries. Understand potential additional/heightened requirements that may be imposed (on the basis of discussions with providers of critical FMI services) during resolution including possible information and communication requirements.
5. Provide an inventory of the actions which the provider of critical FMI services may take to terminate or suspend access should the above requirements not be met, and their consequences for the firm in resolution. Where possible, discuss the likelihood and

circumstances in which these actions may be undertaken and the likely timeframe in which the FMI, custodian or FMI intermediary may implement such actions.

6. Identify ex-ante planning firms can undertake in normal circumstances, as well as during resolution, to mitigate the actions noted in para.5 and describe their potential impact (collateral uses, liquidity, capital, etc.), with a view to ensuring continuity of access.
7. Identify alternative arrangements in place or potential alternative arrangements that could be put in place to ensure the continuity of critical functions, should access to critical FMI services be terminated or limited by the providers of such services. If access to other FMIs or FMI intermediaries is set-up ex ante, assess how likely such accesses are to remain operational in resolution.

Transactions

Firms should maintain a record of transactions data detailing their relevant positions and usage of FMIs and FMI intermediaries. This will assist authorities in better understanding a firm's obligations to and patterns of usage at FMIs and FMI intermediaries.

8. Be able to maintain a record of and provide, if requested prior to or upon entry into resolution, the following information:
 - Collateral pledged by: type, aggregate values, which FMIs and FMI intermediaries the collateral is pledged to and the jurisdiction in which the security interest of the collateral is enforceable against the firm. Firms should also seek to be able to map the above information to their material legal entities.
 - An inventory of the types of collateral accepted by FMIs and FMI intermediaries and expected haircuts on various types of collateral.
 - The historical daily values of margin required at applicable FMIs and FMI intermediaries for a given look-back period.
 - The historical daily values of gross payments sent/received and time-critical obligations for a given look-back period and, where possible, specification of a time range in which most time-critical obligations would need to be fulfilled.
 - An inventory of material upcoming settlement and delivery obligations by value and type of asset for a specified upcoming period to and/or via FMIs and FMI intermediaries.

Note: The specific look-back and upcoming period should be determined as appropriate by national authorities based on regulatory needs and prevailing market conditions, also based on the expected duration of the stabilisation phase in resolution.

Liquidity

The guidance recognises liquidity provision as a principal challenge for meeting continuity of access to critical FMI services in resolution. Supporting sections 2.3 and 2.4 of the guidance regarding contingency planning by the firm to meet access and liquidity requirements, the information below assists in determining a firm's liquidity needs and anticipated liquidity needs in order to maintain continuity of access to critical FMI services in resolution.

9. Be able to maintain a record of and provide, if requested prior to or upon entry into resolution, the following information:

- i. The size of the total unencumbered, high quality liquid asset pool and the type of assets supporting the liquidity pool.
- ii. The size of liquidity and intra-day liquidity needs under business-as-usual required to meet/pre-fund all critical FMI service obligations, by FMI type and over a specified reporting period. In doing so, firms should also seek to address the sources of, uses of, expected size of and barriers to liquidity in meeting such obligations.
- iii. The size of anticipated liquidity and intra-day liquidity needs in resolution required to meet/pre-fund all critical FMI service obligations, by FMI type, taking into account expectations of heightened/additional requirements. In doing so, firms should address and provide at a minimum:
 - Any requirements to contribute additional amounts to default funds, liquidity commitments, payment and settlement obligations (including increased collateral and margin amounts or requirements to post better quality collateral);
 - Sources of, uses of, expected size of and barriers to additional liquidity; and
 - A sensitivity analysis of liquidity needs under additional/heightened requirements.
- iv. Where possible, identification and sizing of all intra-day liquidity, credit and overdraft lines received from FMIs and FMI intermediaries, mapped to the business lines of the firm's material legal entities.
- v. Description of the firm's liquidity management strategy and how this strategy may be able to mitigate termination or suspension of access to critical FMI services prior to (in distress) or in resolution.

Continuity of related services

The guidance recognises that continuity of access to related services, operational or financial, is critical in supporting continuity of access to critical FMI services. Pursuant to sections 2.2 and 2.3 of the guidance regarding information requirements and contingency planning; the identification of, mapping of, and contingency planning for access to such services in resolution is a key element of the overall recovery and resolution planning process.

10. Identify related services received by material legal entity and map such services to providers of critical FMI services. Include a description of the services (e.g. payment related services, securities lending, collateral management, access to other FMIs and operational services etc.) received. List conditions of usage under business-as-usual, as well as anticipated changes to these conditions in resolution.
11. Quantify to the extent possible, relevant metrics on the usage of the services in support of critical FMI services received.
12. Identify the legal entities within the firm's group which provide material services to FMIs or FMI intermediaries and provide an inventory of the FMIs and FMI intermediaries receiving those services, including type of service provided and relevant metrics on usage.

Communication and coordination

Communication and coordination information is essential for minimising the uncertainty of stakeholders involved in the resolution process, ex-ante and ex-post. The information below

supports section 3 of the guidance regarding co-operation, recognising that authorities, firms and providers of critical FMI services will each need to play a significant role in ensuring continuity of access to critical FMI services for a firm in resolution.

13. Summarise key communication and coordination plans in place to ensure continuity of access during resolution.
14. Provide a response as to whether continuity of access assumptions and arrangements have been reviewed and/or validated by the firm's critical FMI service providers.
15. Identify any barriers to communication and coordination in maintaining continuity of access, prior to (in distress) and in resolution, include possible actions to mitigate said barriers.
16. Provide a contact list with relevant information of key personnel assigned to ensure continuity of access, as well as key contacts at corresponding FMIs and FMI intermediaries. Note the frequency or the conditions for which this contact list will be updated.

Impact analysis of discontinuity of access

Impact analysis complements section 2.5 of the guidance regarding mitigation measures for dealing with a termination or suspension of access to critical FMI services. Firms should analyse the consequences of such a termination or suspension of access on their ability to carry out critical functions.

17. Assess, with reference to the critical functions identified as part of resolution planning, the impact a discontinuity of access would be expected to have. In particular, discuss the impact of a failure to meet potential liquidity needs identified in the sensitivity analysis of §9 iii. of these information requirements.
18. If relevant, assess the feasibility and challenges of porting should clients wish to do so prior to or during resolution, or should resolution authorities decide to do so during resolution.