



BANK OF ENGLAND

Financial Market  
Infrastructure



Supervisory Statement

# Operational Resilience: Central Counterparties

March 2021





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## 1 Introduction

1.1 This Supervisory Statement (SS) is relevant to all Bank of England (Bank) supervised central counterparties (CCPs) and any CCPs seeking authorisation by the Bank. It explains the Bank's supervisory approach to operational resilience, which is relevant to many areas of a CCP's operations. The Bank considers disruption to cleared markets to be a financial stability issue, meaning that a lack of resilience amongst CCPs represents a threat to the Bank's financial stability objective.<sup>1</sup> The Bank therefore considers that improvements in operational resilience should be facilitated by supervisory expectations.

1.2 The policy objective of this SS is for CCPs to be resilient to operational disruption events. This SS contains a set of actions the Bank expects CCPs to undertake in order to achieve a level of operational resilience which, in the Bank's view, is sufficient. Taken together, the aim of this framework is to ensure that CCPs' risk management frameworks cover both minimising the likelihood of an operational disruption occurring and mitigating and recovering from an operational disruption once such disruption crystallises.

1.3 The final policy set out in this SS has been designed in the context of the UK having left the European Union and the transition period having come to an end. Unless otherwise stated, any references to EU or EU derived legislation refer to the version of that legislation which forms part of retained EU law.

### Relationship with EMIR and associated technical standards

1.4 The actions that the Bank expects CCPs to take as a result of this SS is grounded in the requirements established in Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (EMIR) and Commission Delegated Regulation (EU) No 153/2013 of 19 December 2012 supplementing Regulation EU No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on requirements for central counterparties (RTS 153/2013).

1.5 In particular, Article 4 of EMIR RTS 153/2013, which specifies further Article 26 of EMIR, establishes a requirement that a CCP 'shall have a sound framework for the comprehensive management of all material risks to which it is or may be exposed', and 'shall establish documented policies, procedures and systems that identify, measure, monitor and manage such risks'. This SS is consistent with this requirement. The Bank has developed expectations that a CCP will establish an 'Operational Resilience Framework', as part of which a CCP will identify its important business services, establish an 'impact tolerance' for these services and identify and map their dependencies, and use scenario testing to establish whether they can stay within their impact tolerances. Definitions for these terms are provided in Chapter 2.

1.6 This SS introduces the concept of important business services. This concept is broader than the concept of 'critical business functions' established in Article 17(2) of RTS 153/2013, which specifies further Article 34 of EMIR. The expectation for a CCP to set impact tolerances for its important business services is complementary to the requirement in Article 17(6) of RTS 153/2013 for a CCP to achieve a maximum recovery time for its critical functions of not more than two hours. Furthermore, the expectation for a CCP to carry out scenario testing to establish whether its important business

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<sup>1</sup> 'Financial stability objective' means the objective set out in section 2A of the Bank of England Act 1998.

services can stay within their impact tolerances is complementary to the requirement in Article 18(2) of RTS 153/2013 for a CCP to identify how various scenarios affect the risks to its critical business functions.

1.7 The Bank will supervise the operational resilience policy in line with its existing supervisory approach for financial market infrastructure firms (FMIs). The Bank's supervision of FMIs is judgement-based and forward-looking. It is carried out using a supervisory risk assessment framework to identify risks that FMIs may be exposed to and the mitigants that FMIs have in place to guard against those risks.

1.8 CCPs must continue to meet the requirements established by EMIR and its associated technical standards. No additional requirements are imposed by this SS beyond those imposed by EMIR and its associated technical standards and the Bank considers all expectations set out in this SS to be consistent with the general requirements of Article 26 of EMIR and Article 4 of EMIR RTS 153/2013, as set out above.

1.9 Relevant EMIR standards are embedded in the body in the text and following each relevant section.

*(Article 17(2) of EMIR RTS 153/2013)*

*(Article 17(6) of EMIR RTS 153/2013)*

*(Article 18(2) of EMIR RTS 153/2013)*

## **Contents**

1.10 Chapter 2 establishes the definitions and concepts used in the SS.

1.11 Chapter 3 sets out the Bank's expectations regarding a CCP's Operational Resilience Framework.

## **2 Definitions and Concepts**

### **Use of terminology**

2.1 The terminology used in this SS is consistent with the terminology used in those SSs relating to operational resilience published by the Prudential Regulation Authority and Financial Conduct Authority. This is to ensure the UK authorities have a consistent supervisory approach to operational resilience across regulated firms. However, the relevant articles of EMIR and associated technical standards are referenced throughout.

### **Operational resilience**

2.2 Operational resilience is the ability of an FMI and the sector as a whole to prevent, respond to, recover and learn from operational disruptions.

### **Important business services**

2.3 A business service is a service that a CCP provides, delivering a specific outcome or utility to an identifiable participant. The Bank considers that a business service is an 'important business service' if a prolonged disruption of that business service would significantly disrupt the orderly functioning of a market which a CCP serves, thereby impacting financial stability.

2.4 This definition of important business services is broader than the concept of ‘critical business functions’ established in Article 17(2) of RTS 153/2013.

2.5 CCPs are expected to identify whether a business service is important by considering a variety of factors. Examples of factors that are relevant to the identification of a business service might be:

- the market share of the CCP;
- the number of members the CCP serves;
- the risk profile of the transactions conducted through the business service;
- the substitutability of the business service; or
- regulatory driven activity (such as enabling the clearing obligation to be met) or external obligations.

2.6 This identification process should identify specific market or product business services that a CCP provides but it should also consider operational activities that support or comprise elements of market or product business services, which could also be deemed important business services. Such operational activities could include:

- trade acceptance and matching;
- treasury and collateral management;
- margin calculation;
- settlement instructions;
- default management; and
- regulatory driven activity (such as enabling the clearing obligation to be met) or external obligations.

*(Article 17 (2) of EMIR RTS 153/2013)*

### **Impact tolerance**

2.7 Impact tolerance is the maximum tolerable level of disruption for an important business service, whereby further disruption would pose a significant impact to the market the CCP serves. CCPs should consider a range of possible measures by which to judge the appropriate impact tolerance for a given important business service. These factors could include for example: the length of time of an outage, the number of participants impacted, and the volumes of transactions affected. The Bank also expects CCPs to consider the implications for their impact tolerance should more than one important business service be disrupted at the same time.

2.8 The Bank views a CCP’s impact tolerance for an important business service as complementary to the 2 hour maximum recovery time for a CCP’s critical business functions established in Article 17(6) of RTS 153/2013. This 2 hour maximum recovery time for a CCP’s critical business functions must be met and should be identified and catered for in a CCP’s business continuity plan.

2.9 As noted above, the Bank views the definition of important business services as broader than the concept of ‘critical business functions’. The 2 hour maximum recovery time need not, therefore, apply to all important business services, but only to those that are also considered to be ‘critical business functions’.

*(Article 17 (6) of EMIR RTS 153/2013)*

### **3 The Bank’s expectations regarding a CCP’s Operational Resilience Framework**

3.1 The Bank expects a CCP to produce an Operational Resilience Framework and associated material. This framework is an approach which will establish how the CCP will meet the operational resilience objectives set out in this SS. The Framework should ensure that a CCP identifies and targets for investment where necessary those aspects of its business most sensitive to an operational disruption. The extent of the work required to develop the Operational Resilience Framework should be comprehensive but proportionate to the outcomes expected by the Bank.

3.2 The Bank views a CCP’s production of an Operational Resilience Framework as consistent with the requirement in Article 4(1) of RTS 153/2013 for a CCP to have a sound framework for the comprehensive management of all of the material risks to which it is or may be exposed, and establish policies procedures and systems to identify, measure, monitor and manage such risks. The Bank views the Operational Resilience Framework as consistent with the business continuity policy and disaster recovery plan referred to in Article 34 of EMIR and Article 17(1) of EMIR RTS 153/2013, and not in conflict with those requirements.

3.3 The Framework should focus on a CCP’s ability to:

- minimise the likelihood of an operational disruption event; and
- mitigate and recover from an operational disruption event.

3.4 The Bank expects an Operational Resilience Framework to include as a minimum, policies and procedures:

- for the identification of important business services;
- in relation to the approval of impact tolerances for important business services;
- aligned to its broader operational risk framework, for the identification and mapping of people, processes, technology, facilities and information (operational assets) underlying each important business service;
- for identifying risk of disruption to important business services;
- to ensure that important business services, if disrupted can be recovered within the set impact tolerances; and
- for utilising the results of such testing to make improvements to its procedures and capabilities for minimising the likelihood of, and facilitating recovery from, disruption to important business services.

3.5 The Bank further expects an Operational Resilience Framework to include communications planning. This should take into consideration the potential impact of operational resilience disruption on interdependent FMIs, or the effect of disruption across multiple jurisdictions, markets and products.

3.6 The Bank views a CCP's communications planning as consistent with the requirement in Article 23(1) of RTS 153/2013 that a CCP shall have a communication plan which documents the way in which communication will take place during a crisis.

*(Article 4(1) of RTS 153/2013)*

*(Article 17(1) of RTS 153/2013)*

*(Article 23(1) of RTS 153/2013)*

### **Identification of important business services and risks to important business services**

3.7 A CCP should consider the chain of activities which make up the business service, from taking on an obligation, to delivery of the service, and determine which part of the chain is essential to delivery.

3.8 The Bank expects a CCP to be capable of identifying important business services in order to understand both the implications of disruption of a particular business process to a participant and the interrelationship and interdependency between important business services in the way they support a participant.

3.9 The Bank expects a CCP, having identified its important business services, to undertake an assessment of the operational risks that are relevant to these important business services. The list of relevant operational risks is expected to be used in the design of disruption scenarios for the purposes of testing, but should also have wider usage in the CCP for the purposes of managing operational resilience. Each CCP is expected to use its own risk assessment based upon its own circumstances, markets, products and operational structure to understand which operational risks are relevant, and where operational resilience issues exist.

3.10 The Bank views the concept of important business services as broader than the concept of 'critical business functions' established in Article 17(2) of RTS 153/2013 but consistent with the general requirements of Article 26 of EMIR and Article 4(2) of RTS 153/2013, which requires a CCP to take an integrated and comprehensive view of all relevant risks.

3.11 However, the Bank views the expectation that a CCP should identify its important business services and the risks to these business services as consistent with Article 4(2) of EMIR RTS 153/2013, which require a CCP to take an integrated and comprehensive view of all relevant risks.

3.12 A non-exhaustive set of examples of the types of risks that the Bank might expect to be considered by a CCP are listed below.

- **Data breach:** participant or other business data compromised, for example through a cyber attack.
- **Internal fraud:** transactions intentionally mis-reported, mismarking of positions.
- **External fraud:** theft/robbery.
- **Employment practices:** compensation and/or benefit failure, termination issues, organised labour activity.

- **Clients, Products & Business practices:** legal breaches, regulatory breaches, breach of privacy, account churning, misuse of confidential information.
- **Damage to physical assets:** natural disaster losses, human losses.
- **Business disruption and system failures:** hardware or software failure, telecommunications or utilities outages.
- **Execution delivery and process management:** miscommunication, model or system mis-operation, delivery failure, collateral management failure.

*(Article 4(2) EMIR RTS 153/2013)*

*(Article 17(2) of EMIR RTS 153/2013)*

### **Setting the impact tolerance for important business services**

3.13 The Bank expects a CCP to define an impact tolerance in order to set a measure for each important business service in respect of which procedures can be developed and testing carried out. The Bank expects a CCP to ensure that each important business service remains within the impact tolerance which the CCP has set for it. The Bank also expects a CCP to consider the implications for their impact tolerance should more than one important business service be disrupted at the same time. A CCP may be unable to meet the impact tolerance in all circumstance, in this instance the Bank expects a CCP to take steps to return the important business service to within its impact tolerance where there has been a breach of that important business service's impact tolerance.

3.14 The Bank considers that an impact tolerance differs from a risk appetites. One key difference is that impact tolerances assume a particular risk has crystallised rather than focusing on the likelihood and impact of operational risks occurring.

3.15 The Bank views the impact tolerance as complementary to the two hour maximum recovery time for a CCP's critical business functions established in Article 17(6) of RTS 153/2013. This is because the Bank views the definition of important business services as broader than the concept of 'critical business functions'. The two hour maximum recovery time, therefore, only applies to those important business services that are considered to also be 'critical business functions'. This two hour maximum recovery time for a CCP's 'critical business functions' must be met and should be identified and catered for in a CCP's business continuity plan.

3.16 The Bank views the expectation that a CCP should set an impact tolerance for its important business services as consistent with Article 4(4) of RTS 153/2013, which requires that a CCP's board shall define, determine and document an appropriate level of risk tolerance and risk bearing capacity for the CCP. The Bank's expectations of a CCP's board are outlined in paragraphs 3.30-3.36.

3.17 The Bank expects that in setting an impact tolerance for important business services, a CCP should leverage existing risk management frameworks to determine the acceptable level of disruption it is able to tolerate for the relevant important business service. A CCP may already be setting its own risk appetites based on its existing risk management framework.

3.18 The CCP should also set out the metrics that it will consider and monitor when setting a tolerance, which may be qualitative or quantitative. These metrics need not necessarily be time-based, but could instead be based on financial loss to participants, or counterparties impacted as a result of market disruption. The Bank does not propose any specific metrics for this purpose.



3.19 The Bank expects a CCP to take reasonable actions to evidence that it can operate within the impact tolerance for each important business service in the event of disruption to its operations.

*(Article 4(4) of EMIR RTS 153/2013)*

*(Article 17(6) of EMIR RTS 153/2013)*

### **Mapping and identification of dependencies**

3.20 The Bank expects a CCP to map dependencies. Mapping of dependencies should entail a CCP identifying and documenting the necessary people, processes, technology, facilities and information required to deliver each of the CCP's important business services. This mapping should facilitate the gathering of evidence to diagnose and remedy vulnerabilities in a CCP's important business services. The Bank considers this a necessary step to ensure a thorough understanding of the ways in which operational disruption could occur.

3.21 The Bank considers that the mapping and identification of dependencies process is consistent with the requirement in Article 18(1) of RTS 153/2013 for a CCP to identify the business functions which are critical to ensure the services of the CCP. However, the Bank expects this mapping exercise to be broader in scope and application as it encompasses important business services, whose definition is broader than the concept of 'critical business functions' established in Article 17(2) of RTS 153/2013, as explained in paragraph 2.4 above.

3.22 Mapping of the dependencies within important business services should allow a CCP to comprehensively understand how interconnected or concentrated its important business services, products, and markets are. This is necessary in order to design, understand and evaluate the full implications of scenarios (as described in 3.25 below). This will help the CCP to prioritise its mitigation and recovery actions by identifying specific vulnerabilities.

3.23 The Bank proposes that the mapping of dependencies process should include any outsourced providers, including critical service providers that the CCP considers to be involved in the supply of important business services. CCPs should review the risks to its important business services from other parties as a result of inter-dependencies, and develop appropriate risk management tools.

*(Article 17(2) of EMIR RTS 153/2013)*

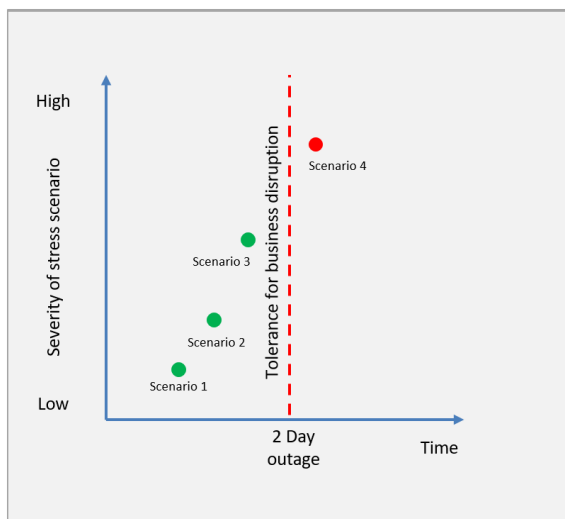
*(Article 18(2) of EMIR RTS 153/2013)*

### **Testing, Monitoring and Reporting**

3.24 The Bank expects that a CCP will test its important business services against a range of extreme but plausible disruption scenarios to establish whether these important business services can remain within impact tolerances. This is illustrated in **Figure 1**. Once a CCP has established what its important business services are, and an impact tolerance for each important business service, the CCP can more precisely define the types of scenarios which will cause disruption to a specific important business service and, therefore, the capacity to recover from the disruption event.

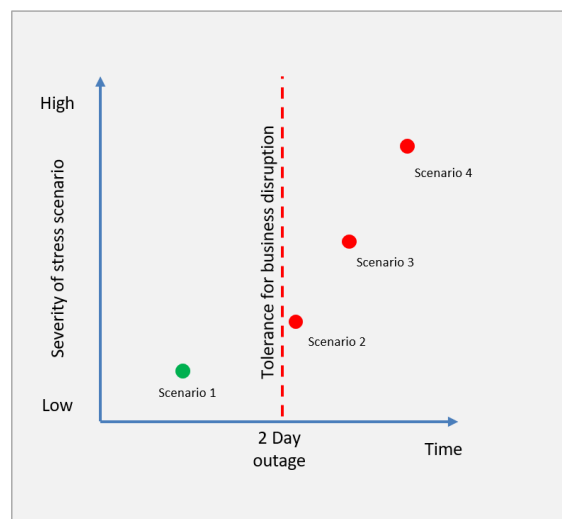
**Figure 1 – Extreme but plausible disruption scenarios**

**Case one:** A CCP considers its impact tolerance against extreme but plausible scenarios. Operational resilience is sufficient – it is disproportionate to expect the CCP not to breach its impact tolerance in the extreme scenario of scenario 4.

**Key**

- Scenario recovered within tolerance
- Scenario not recovered within tolerance

**Case two:** A CCP considers its impact tolerance against extreme but plausible scenarios. In this case, operational resilience is not sufficient – the CCP should take steps to improve operational resilience.

**Key**

- Scenario recovered within tolerance
- Scenario not recovered within tolerance

3.25 The Bank considers that the testing of important business services against disruption scenarios is consistent with the requirement in Article 18 (2) of EMIR RTS 153/2013 for a CCP to use scenario-based risk analysis to identify how various scenarios affect the risks to its critical business functions. However, the Bank's expectation of testing is broader in scope and application as it encompasses important business services, whose definition is broader than the concept of 'critical business functions' established in Article 17(2) of RTS 153/2013.

3.26 A CCP should:

- (i) conduct scenario analyses of its ability to meet its impact tolerance for each of its important business services in the event of extreme but plausible disruption to its operations;
- (ii) identify an appropriate range of adverse scenarios of varying nature, severity and duration, relevant to its business and risk profile, and
- (iii) consider the risks to delivery of its important business services in those scenarios.

3.27 Within any operational risk scenario identified, where the impact tolerance cannot be met for any important business service, or where there is uncertainty as to whether it can be met, the Bank expects a CCP to be able to provide an explanation as to why this has happened and what remedial actions the CCP will undertake to ensure the impact tolerance can be met in future. In such situations, the Bank expects that the CCP should explain how such risks will be managed as part of their risk management framework and what mitigating actions will be taken or how business continuity planning and disaster recovery will be enhanced to ensure the important business service can be brought within the firm's impact tolerance should disruption occur. In addition, the Bank

expects the relevant important business service to be prioritised when the CCP makes choices about remediation or improvements in its systems, processes and technologies.

3.28 In setting an impact tolerance for important business services, CCPs will be expected to incorporate these impact tolerances into the monitoring and reporting procedures of key qualitative and quantitative measures and processes which support delivery of these services, so as to guide management in taking actions to control risks to a CCP's ability to stay within the defined impact tolerance.

*(Article 17 (2) of EMIR RTS 153/2013)*

*(Article 18 (2) of EMIR RTS 153/2013)*

## **Documentation**

3.29 The Bank expects that a CCP will make a written record of the assessments made as a result of the Operational Resilience Framework procedures and to share this with the Bank only if requested to do so.

3.30 The Bank considers that this requirement for a CCP to maintain documentation relating to its Operational Resilience Framework is consistent with the requirement in Article 4(1) of RTS 153/2013 for a CCP to establish documented policies, procedures and systems that identify, measure and monitor the material risks to be which it may be exposed.

3.31 In particular, the CCP should make a written record of the determinations made in respect of:

- the identification of its important business services;
- the setting of its impact tolerances for those important business services;
- the mapping and identification of interdependencies in relation to those important business services; and
- the testing, monitoring and reporting of its important business services' ability to stay within their impact tolerance.

*(Article 4(1) of EMIR RTS 153/2013)*

## **Governance arrangements**

3.32 The Bank expects that a credible Operational Resilience Framework will not only take into account testing and improvement of the Framework, but will also be subject to a CCP's governance process.

3.33 The Bank considers that this expectation for a CCP's Operational Resilience Framework to be subject to a CCP's governance process is consistent with the requirement in Article 4(4) of EMIR RTS 153/2013 for the board of a CCP to assume final responsibility and accountability for managing a CCP's risks.

3.34 The Bank expects a CCP's board to assure itself that the Operational Resilience Framework is fit for purpose and to ensure that it regularly reviews and approves the Operational Resilience Framework, at intervals it deems appropriate or following an event where an impact tolerance has been breached.

3.35 The body designated by the board of directors with responsibility for risk management should:

- approve the CCP's identified list of important business services;
- approve the CCP's impact tolerances for the important business services;
- be satisfied that the CCP's important business services are mapped effectively;
- review the results of impact tolerance testing; and
- be satisfied that appropriate risk mitigation steps have been undertaken.

3.36 A CCP's Operational Resilience Framework should be subject to periodic assessment by the body designated with responsibility for audit by the board of directors, in line with its audit approach but taking into consideration material changes to the Framework.

3.37 This internal audit assessment should cover: i) the extent to which the Operational Resilience Framework satisfies the Bank's expectations as laid out in this SS; and ii) the effectiveness of the CCP's operational resilience processes.

3.38 This assessment should be reviewed by the CCP's body designated with responsibility for audit by the board of directors.

*(Article 4(4) of EMIR RTS 153/2013)*

## **Implementation**

3.39 The policy takes effect from 31 March 2022, where CCPs are expected to identify important business services; set impact tolerances; and regularly test their ability to meet tolerances with due regard to the mapping of dependencies. Within a reasonable time after 31 March 2022, and in any event no later than 31 March 2025, CCPs are expected to take all reasonable actions to ensure they remain within their impact tolerances in the event of extreme but plausible disruption to operations. CCPs must not wait until 31 March 2025 to take action to ensure they remain within impact tolerance.