International Securities Services Association

Recovery, Resolution & Resilience Working Group

2021 Review of Critical Functions and Stress Scenarios

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ABOUT ISSA

ISSA is a Swiss-domiciled association that supports the securities services industry. ISSA's members include CSDs, custodians, technology companies and other firms who are actively involved in all aspects of the securities services value chain.

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CONTENT

1. Introduction

This paper provides an overview of the Recovery, Resolution and Resilience Working Group's (hereafter Working Group) key deliverables and achievements in 2021. The Working Group was established with the aim of developing a common understanding of critical functions and services among the market participants, i.e. Global Systemically Important Banks (GSIBs) and Financial Market Infrastructures (FMIs) who participated in the Working Group.

Furthermore, the Working Group developed a set of stress scenarios and testing criteria in order to foster exchange of information between the FMIs and GSIBs and as such assess the impact on the industry which could potentially arise from those scenarios. The results have been summarized in section 5 of this paper.

2. Summary of Key Achievements in 2021

The Working Group initiated a series of workshops in 2020. While the milestones in 2020 were primarily aimed at achieving a common understanding of critical functions and services, the workshops in 2021 focused on defining appropriate stress scenarios and discussing them in order to assess the impact on the industry and market participants.
The objective was to identify whether the critical functions offered to the market would be affected by a scenario and negative events consequently would cascade to the market.

Overall, the Working Group agreed that the progress with regard to the establishment of feasible and credible recovery and resolution tools in recent years has strengthened the industry's ability to deal with market shocks without significantly affecting participants and markets, as the liquidity and capital profiles became more resilient. Moreover, the importance of a regular testing has been highlighted to ensure that the recovery tools are robust, the stakeholders are familiar with their roles and responsibilities, and also for firms to be able to improve the measures and processes on a continuous basis.

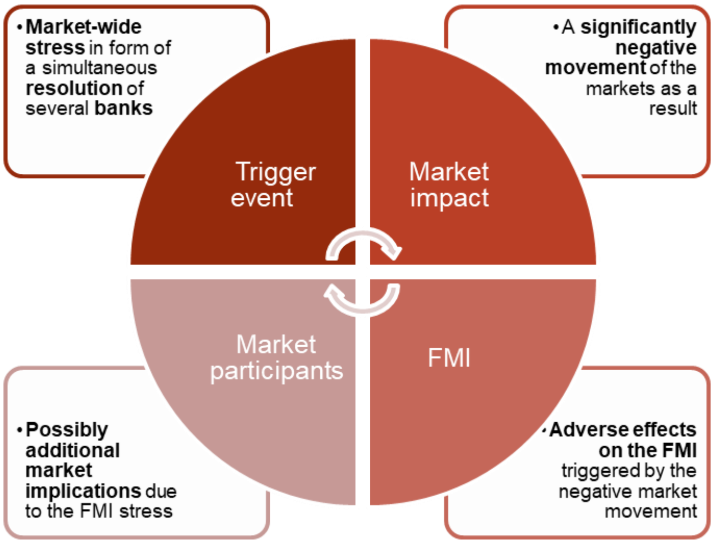
3. Defining Trigger Events and Testing Methodology

When discussing the suitable trigger events, the Working Group aimed to identify, which trigger events would probably simultaneously impact both the FMI and the GSIBs.

It has been concluded that rather a systemic market-wide event arising from a crisis of multiple GSIBs than an idiosyncratic event at an FMI would be the most likely triggering event.

Nevertheless, the Working Group agreed that a further analysis should be done to see whether the crisis at an FMI could be an additional trigger for a cascade of negative systemic events, since the critical functions provided by the FMI could be adversely affected by the initial systemic event.

The following figure shows the expected sequence of triggering events based on which a methodology for the testing of scenarios has been developed.



4. Scenarios and Testing Methodology

Scenario Description

The Working Group has identified several suitable scenarios, which are described in further detail in this chapter. The scenarios are developed around systemic crisis triggered either by multiple GSIB defaults, sovereign crisis or large trading losses affecting the industry. The following four scenarios have been discussed accordingly:

Scenario 1: European sovereign debt and corporate crisis

Scenario 2: Default of a GSIB not acting as a firm's Cash Correspondent Bank

Scenario 3: Default of a GSIB acting as a firm's Cash Correspondent Bank

Scenario 4: Sudden trading loss affecting many market participants

Testing Methodology and Criteria

To assess the impact of the scenarios, the Working Group has agreed to analyse them in line with the following criteria:

- How does the trigger event affect the general market development?
- What is the impact on the non-defaulting market participants (GSIBs)?
- What is the impact on the FMIs and the critical functions that they are providing to the markets?

To guide the debate the criteria applied to the scenario were the following:

Criteria for assessing the impact on the market

- Spill over effects expected?
- Spill over effects to be limited only to the European periphery or spread to all major European economies or even globally?
- Magnitude of spill over effects: significant, moderate, low?
- Rating downgrades?
- Market volatility expected?
- Defaults among GSIBs peers or smaller banking institutions?
- Adverse effects on the interbank lending?

Criteria for assessing the impact on market participants

- Are Working Group participants expecting that this scenario could affect their:
    1. overall financial stability significantly, moderately, not at all?
    2. liquidity / liquidity management significantly, moderately, not at all?
    3. asset quality significantly, moderately, not at all?
    4. capital situation significantly, moderately, not at all?
- Activation of Recovery and Resolution Planning (RRP) measures based on the scenario?
- Negative implications on RRP measures based on the scenario?

Criteria for assessing the impact on FMIs

- Are FMIs expecting that this scenario could affect their:
    1. overall financial stability significantly, moderately, not at all?
    2. liquidity / liquidity management significantly, moderately, not at all?
    3. asset quality significantly, moderately, not at all?
    4. capital situation significantly, moderately, not at all?
- Is FMI expecting to apply standard mitigating measures (e.g. tightening collateral requirements, etc.)?
- Activation of RRP measures based on the scenario?
- Negative implications on RRP measures based on the scenario?

These criteria were applied to each of the following scenarios taking into consideration the scenario specific trigger events. Where there was limited impact not all criteria are explored in full in this document.

4.1 Scenario 1: European Sovereign Debt and Corporate Crisis

Scenario specific trigger events

- Corona crisis slows down European economy, potentially in Mediterranean Europe.
- This leads to several defaults among the country's major corporates, in particular the tourism and real estate sectors.
- Rating agencies downgrade most Italian issuers, which leads to devaluation of collateral.
- The banking sector does not withstand the economic shock due to a high number of Non-Performing Loans (NPLs), which results in multiple financial institutions' default.

Discussion results

- The Working Group concluded that the trigger events simulated in the scenario do not pose material risks to the market participants and FMIs. This is also due to the already implemented RRP mitigating measures, which anticipate similar scenarios based on which the capital and liquidity position of GSIBs and FMIs is built upon. The main conclusions were:
  - The spill over effects are expected, mainly in the regions with a high concentration of impacted GSIBs, which could to some extent affect the behaviour of the markets.
  - A significant impact on capital or liquidity profile is not expected due to the robust measures, which were implemented by the industry since the last financial crisis in 2008/2009.
  - It is unlikely that such scenario would trigger the RRP responses at GSIBs and FMIs, and if it does, it is likely to be to a limited extent only.
  - The parameters liquidity and intraday exposures to the banks would be closely monitored and collateral criteria probably re-assessed.
  - Furthermore, a close communication with the regulators and customers would be established.

4.2 Scenario 2: Default of GSIB not acting as a Firm's Cash Correspondent Bank

Scenario specific trigger events

- A GSIB acting as a market Cash Correspondent Bank (CCB) defaults.
- The participants were asked to assess the impact from the perspective that the defaulting GSIB does not provide the CCB services to them while it provides the CCB services to other market participants.
- No additional systemic wide implications assumed by the scenario.

Discussion results

- The Working Group expects that the main market impact resulting from this scenario would be liquidity and treasury related.
- Hence, it is assumed that the market participants would mainly focus on shutting down any liquidity exposures as quickly as possible. Consequently, the first market impact will be a loss of liquidity, funding and financing.
- The Working Group also concluded that this scenario could affect the GSIBs far more severely than the FMIs, which tend to be seen as a 'save haven' and would probably end up with large liquidity inflows.
- However, the Working Group concluded that it should not mean that the other GSIBs are unable to meet their obligations to an FMI or to each other.
- The Working Group also confirmed that considering the defaulting GSIB from a customer perspective, it would be handled differently if it relates to being in resolution as opposed to being in insolvency. While insolvency would most likely trigger an automatic mechanism of mitigating measures, the GSIB in resolution would likely be treated differently as market participants would not immediately cut its access in order not to impose additional stress to the markets.
- The Working Group highlighted that for market participants to be able to act in a coordinated manner, the harmonization of the different laws in respective countries would be helpful. Comfort was taken from at least having the Bank Recovery and Resolution Directive (BRRD) available, however, it was recognised that local laws could apply, which might affect implementing resolution planning specific tools.
- From an RRP perspective, the Working Group believes that the failure of a GSIB would not necessarily lead participants into a recovery or resolution scenario or an FMI to take drastic market-wide action.

4.3 Scenario 3: Default of a GSIB Acting as a Firm's Cash Correspondent Bank

Scenario specific trigger events

- A GSIB acting as a CCB for a major currency default.
- The participants were asked to assess the impact from the perspective that the defaulting GSIB provides the CCB services to them and to other market participants.

Discussion results

- The Working Group concluded that this could cause a major market impact, as a major liquidity player in a specific market is no longer active.
- The participants would assess the impact on the payments that are scheduled to take place that day and may already have been instructed. The payment issues would very likely impact liquidity because part of the intraday liquidity management assumes participants are going to receive the cash expected.

- The Working Group agreed that the participants would act at the market level, leading to quite a lot of intraday liquidity reactions as it is expected that the banks would try to square their positions, close their books, and get everything paid and received as early as possible. This scenario could lead to a further drying up of liquidity through the day.
- The Working Group concluded that this scenario would affect both GSIBs and FMIs calling for RRP measures. These measures aim at switching to the back-up CCBs as soon as possible to re-route the payments and ensure a proper settlement and payment functioning.
- The Woking Group believes that an efficient switchover is only possible if there is already a working relationship in place. Hence, a good network management is a precondition to a successful switchover.
- Furthermore, a transparent and regular communication to the customers who need to re-route the payments, is a key for a smooth switchover to the backup CCB.
- The Working Group agreed that such scenario would not only lead to operational challenges but would very likely affect liquidity and probably even capital in case the market participants would have to book losses.
- Also, such a scenario is probably better managed at the end of the day rather than intraday, when liquidity positions are much larger.
- The Working Group confirmed that this type of scenario is already reflected in their recovery planning and highlighted the importance of testing it regularly to ensure infrastructure availability and to familiarise stakeholders with their roles and responsibilities.

4.4 Scenario 4: Sudden Severe Trading Loss Affecting many Market Participants

Scenario specific trigger events

- A sudden severe trading loss affects multiple market participants.
- The participants were asked to assess the impact of this scenario not only from the perspective that they must recover from the losses but also from the perspective that a number of market participants will simultaneously have to raise capital, which puts additional stress on the effectiveness and feasibility of the options as multiple participants are aiming at applying same or similar capital measures in a systemic stress.

Discussion results

- The Working Group concluded that all participants would apply their regular mitigating tools such as reviewing intraday exposures, suspending or reducing credit arrangements, asking for additional collateral or better-quality collateral. These measures should help to prevent a crisis in case the participants exposed to trading losses ultimately default.
- The Working Group agreed a default of multiple customers would not necessarily lead to a crisis on their side given the robust measures reflected in their recovery plans.

- Especially, the FMIs concluded to be less affected by such a scenario given the degree of credit limit collateralization. Hence, even multiple defaults of participants would not lead to a financial crisis at the FMI and the scenario is not expected to affect their operational capability either. However, the FMIs agreed that the response strategy to this scenario depends on the type of activities that each FMI is performing because the approach is quite different between a Central Counterparty (CCP), a payment system and a Central Securities Depository (CSD). Similarly, it is different from a payment system in terms of technical approach and in terms of interaction between the participants and the FMI. These variances mean that each type of FMI would have a different practical approach.
- The Working Group also highlighted the importance of previously established arrangements which should ensure that an institution can recapitalize even under stressed market conditions. This is also backed by the requirements of the CPMI-IOSCO, which expect that these agreements are in place, together with the legal framework and a reasonable timeframe for their implementation. Otherwise, the participants indeed expect that the market would tighten if several participants try to apply similar capital measures in a stressed market environment.
- The Working Group agreed that raising capital in such a scenario without any previously established arrangements would only work if the participant has strong personal relationships to anchor-investors, who themselves have deep, liquid financial resources.
- The Working Group also discussed whether the participants believe that the access to each other's critical functions would be maintained in such a scenario, even for distressed institutions. They concluded that generally the objective is to maintain access for the participants where possible to ensure the market stability, unless this would pose financial and/or compliance risks to the entity, which provides the critical functions. For further details on this topic the Working Group participants referred to the answers in their Financial Stability Board (FSB) questionnaire.

5. Summary

The Working Group identified four stress scenarios that are assumed to impact markets, either because market participants are directly exposed to the scenario or because market participants' behaviour changes when they implement the mitigating measures. The Working Group also agreed that the RRP measures implemented and regularly enhanced by the industry have contributed enormously to the resilience of the capital and liquidity profile of market participants, making them and at the same time the industry more resilient to market shocks, even though market participants are highly interconnected.

6. List of Abbreviations

BRRD	Bank Recovery and Resolution Directive
CCB	Cash Correspondent Bank
CCP	Central Counterparty
CSD	Central Securities Depository
FMI	Financial Market Infrastructure
FSB	Financial Stability Board
GSIB	Global Systemically Important Banks
RRP	Recovery and Resolution Planning
NPL	Non-performing loans

7. Working Group Participants

Working Group Function	Salutation	First Name	Last Name	Firm Name
Executive Sponsor	Mr.	Philip	Brown	Clearstream Banking S.A.
Co-Chair	Mr.	Greg	Cracknell	Credit Suisse
Co-Chair	Mr.	Tim	Reimann	Deutsche Börse AG
Secretariat	Mr.	Martin	Watkins	Cournswood
Member	Mr.	Haroun	Boucheta	BNP Paribas Securities Services
Member	Ms.	Lavinia	Gheorghe	Depozitarul Central S.A.
Member	Ms.	Alejandra	Glass	DTCC
Member	Mr.	Peter	Gnepf	UBS Business Solutions AG
Member	Mr.	Mark	Haley	Citigroup
Member	Ms.	Aigul	Iksanova	National Settlement Depository
Member	Mr.	Andrei	Lazutkin	National Settlement Depository Russia
Member	Mr.	Will	Packard	Capco
Member	Mr.	Colin	Parry	ISSA
Member	Ms.	Marina	Radosevic	Clearstream Banking S.A.
Member	Ms.	Kanyarat	Sriaroon	Thailand Clearing House
Member	Mr.	Hariprasad	Subramani	Standard Chartered Bank
Member	Mr.	Jason	Teahon	Banque Lombard Odier & Cie SA
Member	Mr.	Augustine	Vargetto	Credit Suisse
Member				The Stock Exchange of Thailand
Member	Ms.	Laurie	Zeppieri	Citi