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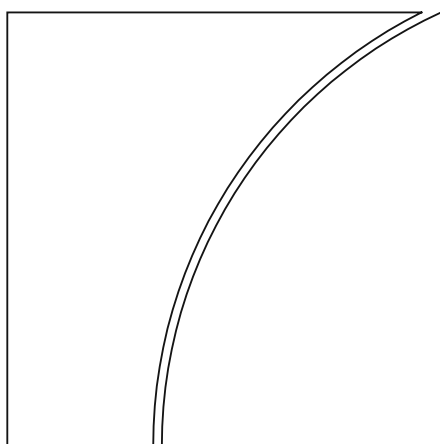
### Cross-border crisis simulation exercise in sub- Saharan Africa

By Financial Stability Institute

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Authorised by the Chair of the FSI, Fernando Restoy.

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## Abstract

In February 2023, the BIS's Financial Stability Institute (FSI), with the support of experts from the advisory firm Oliver Wyman, conducted a cross-border crisis simulation exercise (CSE) involving authorities with responsibilities for crisis response and bank failure management from eight jurisdictions in the sub-Saharan region: Botswana, Eswatini, Ghana, Kenya, Lesotho, Namibia, Nigeria and South Africa.

During the CSE, participants responded to events in a fictional scenario that modelled the increasing financial distress and eventual failure of a regionally systemic cross-border banking group. The objective was to provide an opportunity for authorities to test their crisis management frameworks and arrangements for domestic and cross-border cooperation.

This report was prepared by the FSI and consultants following the CSE. It sets out general observations about the conduct of the exercise, divided into three categories: cross-border cooperation, domestic inter-agency cooperation and resolution frameworks and tools.

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# Cross-border crisis simulation exercise in sub-Saharan Africa

## Section 1 – Introduction

Crisis simulation exercises (CSEs) offer an effective means for authorities to test their policies and capabilities and improve their crisis preparedness. While they do not aim to predict the circumstances of actual failures, simulations should be sufficiently realistic to prompt participants to act, as far as possible, in the way they would if confronted with similar challenges in real life. Accordingly, a simulation is designed to model plausible events and complications, although simplifications are inevitable to keep the exercise targeted and manageable.

In February 2023, the central banks, supervisory and resolution authorities, and deposit insurers of Botswana, Eswatini, Ghana, Kenya, Lesotho, Namibia, Nigeria, and South Africa took part in a CSE to simulate the failure of a systemic banking group. The participating authorities were responsible for managing a banking crisis under their national frameworks. Each was represented by senior decision-makers (eg deputy governors, directors), supported by a team of experts from relevant operational units. Each authority was assigned an observer who was present at all the internal interactions and meetings of that authority. Feedback provided by the observers was used as one of the inputs for this report.

The fictional scenario used in the simulation was designed to test cross-border cooperation and communication in managing the failure of a regionally systemic banking group. The fictional entity was “Cape Bank” (CB) – a leading regional banking group headquartered in South Africa, with a locally systemic presence in each of the other participating jurisdictions, where the domestic subsidiaries ranked among the top financial players. CB had a group recovery plan that specified a range of options (eg sale of subsidiaries, raise of capital at group level). Some of those recovery measures were taken during the exercise but were unsuccessful. However, CB did not have an agreed resolution plan. As a result, the authorities had to develop resolution options during the exercise, without the benefit of prior planning.<sup>1</sup>

The fictional timeline of the CSE started with the bank ailing and attempting recovery measures and ended shortly after each jurisdiction had decided how it would manage the bank’s failure. The exercise was divided into three rounds: round 1 focused on understanding the bank’s situation, overseeing the bank’s attempted recovery and imposing any supervisory early intervention measures; round 2 focused on keeping the distressed bank afloat through liquidity support and preparing for a probable resolution; and round 3 centred on the decisions about resolution options. To stimulate cross-border debate and coordination, the impact of the failure across subsidiaries was asymmetric and reliance on an intragroup service company increased interdependencies and operational complexity. The scenario and material were designed with a project team comprising staff from the participating authorities, who worked closely with the central team to ensure the exercise was relevant and realistic for their own jurisdictions.

Participants managed the simulated crisis well and the exercise prompted authorities to reflect on their frameworks and cooperative arrangements. Participants undertook the necessary analyses, developed strategies, prepared and implemented decisions while fostering a constructive exchange among the authorities. This report compiles the observations made during the exercise and suggests recommendations for reflection by authorities as they continue to shape and improve their internal frameworks and cross-border cooperative arrangements.

<sup>1</sup> In most of the participating jurisdictions, there is no “resolution” framework, as that concept is understood in international standards. This report uses the term in a broad sense to refer to the set of failure management measures that were chosen, whilst acknowledging that this is not a “resolution” within the technical sense of a special resolution regime.

## Section 2 – Observations and findings

### 2.1 Overview

The main purpose of the exercise was for participants to test their current cross-border collaborative arrangements for managing systemic bank failures. Accordingly, the main findings focus on cross-border and domestic coordination between the authorities and their ability to consider and, where relevant, support a group-level resolution. Assessing the resolution frameworks of participating jurisdictions against international standards was not an objective of the exercise. For this reason, the exercise did not benchmark or grade those frameworks against the FSB Key Attributes (KAs).

While the primary focus of the exercise was to test cross-border cooperation, observations were also collected on jurisdictions' resolution frameworks and domestic coordination. This was inevitable in that effective cross-border crisis management depends to a large extent on whether the measures available to authorities under their national regimes enable them to support and give effect to a group-level approach. The CSE tested policies and prompted discussion within and between authorities on the adequacy of their frameworks, tools and cooperative activities to respond to the failure of a banking group. Therefore, the report also includes observations on the tools available to authorities under their legal frameworks, with an emphasis on their effectiveness from this cross-border perspective.

The findings set out in this section are organised into three categories: cross-border cooperation, domestic inter-agency cooperation and resolution frameworks and tools.

### 2.2 Cross-border cooperation

The exercise was designed to encourage participants to communicate, collaborate and consider the trade-offs between available measures with a view to reaching a cooperative solution that accommodates local priorities. The scenario entailed actions and decisions with cross-border implications such as the provision of liquidity and emergency funding; preparing for entry into resolution or insolvency proceedings; agreeing a failure management strategy at local and regional subgroup level; evaluating investor offers for the sale of subsidiaries and loan portfolios; ensuring the operational continuity of the shared services provided by the intra-group service company (ServCo); and, where applicable, providing funding to support the resolution strategy. Because no resolution plan (RP) was in place for the fictional banking group, there was no preferred strategy to guide authorities. Similarly, the design of the exercise did not point conclusively towards a particular solution. Rather, it included elements that might have favoured a group approach, such as group offers and the operational complexity of splitting up the group, and others that might have induced authorities to consider national solutions, such as attractive investor offers for domestic entities. To introduce additional conflicts of interest that tested coordination, the financial and operational situation of subsidiaries differed, with some jurisdictions in a slightly better financial and competitive position than the rest and not all subsidiaries receiving investor offers.

Cross-border communication between authorities was largely effective. All authorities identified cross-border issues and requested meetings with counterparts from other jurisdictions. Authorities were open to sharing information and to organising bilateral meetings or meetings of CB's supervisory college or cross-border crisis management group (CMG). The home authority naturally had a more prominent role in managing the cross-border crisis, chairing the supervisory college and CMG, and played a key role in facilitating transparency. There was a healthy working relationship between participating authorities, even though levels of familiarity differed. Some authorities had clearly established relationships, with contacts between officials, due to existing collaboration arrangements. However, since those arrangements were largely regional – for example, among countries of the Common Monetary Area (CMA) – not all authorities were included. As a result, some participants did not know each other well. In general, communication was

observably better between authorities that already knew each other. However, this is to be expected, and a lack of existing relationships probably indicates that these countries do not share interests or concerns that would require cooperation.

Meetings of the supervisory college or cross-border CMG facilitated information exchange. The home authority convened and chaired several such meetings, which provided the main forum for coordination and demonstrated the benefits of having a platform for exchange of information. The meetings were loosely structured. The home authority typically opened the floor for authorities to share information about the domestic situation of the fictional bank's subsidiaries, any measures adopted or decisions taken. The stage was given to all jurisdictions, irrespective of the size of the subsidiary. Most participants were reasonably well prepared and had engaged with their technical support teams prior to the meeting to develop talking points. On the last day, the CMG was used by the home authority to present possible options at group level. An interested potential investor presented the terms and conditions of an offer for the group, which were questioned and discussed by the participating jurisdictions. Nevertheless, in most cases, the multilateral college or CMG meetings had no clear agenda or schedule, with the result that they were unfocused and lacked clearly defined objectives. However, that may have been a consequence of the limited availability of resolution tools that could have facilitated a group-level strategy. It may also have reflected the composition of the exercise, which brought together some jurisdictions that do not have a history of cooperation and communication.

While authorities demonstrated a strong willingness to share information, joint decision-making and collaboration were limited, as authorities gave primacy to domestic solutions. Meetings with foreign authorities were used largely to gather information and inform them about jurisdiction-specific measures – often after they had been taken – rather than to discuss the possibility of coordinated action. While the situation in other jurisdictions was monitored, the focus was mainly on how it could affect the local subsidiary and local circumstances (eg reputational risk). The starting point was one of a strong national bias despite the strong operational links within the fictional banking group and the indications of a possible group solution within the recovery plan. Most host authorities assumed they could not rely on support from the group or the home regulator.

Although an investor offer for the group prompted some effort to coordinate decision-making on the last day of the exercise, most authorities ultimately opted for a local solution. After participants considered an offer to acquire the entire group at the final CMG, four of the eight jurisdictions still opted for a solution that focused on their national entity, finding the benefits of preserving the bank as a whole (and the terms of the offer) unconvincing. Most jurisdictions prepared a “plan B”, assuming that the group solution would not succeed in practice. When discussing its merits, there was limited consideration of the advantages of the group offer relative to nationally focused measures and of the impact that unilateral national action would have on other jurisdictions.

Several factors may explain the limited consideration of a coordinated group-level solution. The available options were narrowed because many of the jurisdictions did not have a full range of resolution tools. This includes the fictional bank's home jurisdiction, where a new framework had been adopted but was not yet in effect at the time of the exercise.<sup>2</sup> Additionally, the lack of a group resolution plan meant that participants did not have a preferred strategy that would have formed a basis for collaboration.<sup>3</sup> Furthermore, time pressure may have induced authorities to take unilateral action to address the deepening crisis within their own jurisdiction, since this may have offered a more rapid solution.

<sup>2</sup> The simulation was conducted based on the existing framework by the home authority and did not anticipate the new powers.

<sup>3</sup> This was consistent with the likely reality since group resolution planning is not yet advanced in the region.

Issues arising from the operational continuity of the shared services provided by the ServCo were not considered extensively, even though it affected critical functions in each country. The fictional banking group had a ServCo located in one of the participating jurisdictions that provided (non-financial) critical shared services to the banking entities. Participating authorities did not attempt to coordinate an approach to ensuring that the ServCo had sufficient funds to support its continued operation, for example, by focusing on sustaining the solvency and liquidity of the subsidiary that owned the ServCo. Only the home authority of the ServCo reflected on providing liquidity to that entity. The operational challenges were considered by participating authorities when discussing a domestic resolution strategy, but less attention was given to this topic in the CMG meetings. Moreover, it did not feature in most discussions about the relative merits of group and domestic solutions.

Significant differences were observed in the timing of authorities' ELA decisions. Some authorities granted liquidity assistance very early, while others did not do so until much later in the exercise. This divergence reflected the uncertainty in the scenario. The timing of such a decision was not clear-cut based on the information provided, and authorities had to exercise judgment about when to provide, and take on the potential exposures of, emergency liquidity. This mirrors reality, since any decision to grant extraordinary liquidity depends on a range of case-specific factors. For example, the timing of the decision was heavily dependent on the severity of the subsidiaries' situation, which varied between jurisdictions.

When considering the investor offer for the group, the practical implications of the transaction were not taken into account or discussed in detail. Moving ahead with the purchase would have led to a long and complex negotiation and implementation process both domestically in all the countries where the group was established and at a cross-border level. For example, no consideration was given to the process and time frame for obtaining required regulatory "change of control" approvals or to the implications under competition and antitrust frameworks (given the size and likely market dominance of the potential purchaser). While the failure to consider these issues may have been due in part to the time constraints of the exercise and its fictional nature, these regulatory hurdles and potential obstacles would need to be factored into any transaction of the kind under consideration.

Communication to the public was not coordinated at cross-border level. Half of the authorities seemed aware of the importance of communication to the public and published press statements. However, authorities generally did not align such statements. Authorities issued statements at different times, with different key messages and a varying degree of detail on the failing bank and how it would be managed. In a world of social media and the related risks that misinformation will be rapidly disseminated, timely, considered and coordinated public communication is an important factor in successful crisis management. The potential impacts that such uncoordinated communications could have on financial markets and depositor, consumer and market confidence were largely not considered.

While no legal impediments to cross-border cooperation were identified, authorities would have benefited from a better understanding of foreign frameworks. Authorities showed limited familiarity with the frameworks and tools of other jurisdictions, which constrained collaboration and may have reinforced the observed predisposition towards strategies focused on the domestic entity. For example, in some cases authorities discarded an option that would have facilitated collaboration due to legal or regulatory issues, such as the conditions for providing parent guarantees to subsidiaries, uncertainty about cross-border liquidity flows or local capital adequacy requirements. Rather than bringing such issues for discussion to the CMG, only limited attempts were made to establish a common basis of understanding (eg in the first college meeting or in written communication).

There were no evident obstacles to cross-border information-sharing and no legal barriers were observed. Potential obstacles to cooperation identified by some countries included a lack of a memorandum of understanding (MoUs) with foreign authorities or some general uncertainty about what information could be shared with whom at particular points of the timeframe simulated in the exercise. Information-sharing took place largely during supervisory college or CMG meetings, with limited cross-



border interaction outside that forum. The absence of MoUs could also have limited collaboration on the operational arrangements relevant for deposit insurance and payout of insured depositors.

### 2.3 Domestic inter-agency cooperation

Communication between domestic authorities was fluid and in line with legal mandates. In jurisdictions with more than one participating national authority, those authorities shared information and communicated well, with frequent meetings and exchange of written messages. This was helped by the fact that in most cases the teams of each authority were physically in the same place for the exercise. There was good coordination between national authorities in advance of colleges and CMG meetings. However, in some cases, authorities did not designate a spokesperson, which may have impeded the clarity of their communication during those multilateral meetings.

Decision-making took place in accordance with the authorities' legal mandates, but do not appear to have relied on formal arrangements for that purpose. National authorities met frequently to discuss areas in which they could collaborate, consulted each other and took joint decisions where required under the legal framework. In some cases, there was a policy outlining the involvement of different authorities or departments or participants referred to internal MoUs, which set out the areas of decision-making in which each national authority should be involved. However, elsewhere there was limited evidence of formalised structures for coordination such as documented engagement protocols or existing inter-authority arrangements such as coordination committees. Participating authorities largely used their mandates as guidance on which decisions they should be involved in or lead on. In the absence of formal domestic agreements or MoUs, some authorities lacked clarity about how to collaborate. In those cases, it appeared that participants did not abide fully with the institutional allocation of responsibilities between authorities or functions, and banking supervision teams took a more prominent role than would be expected once the bank was non-viable.

There was limited consideration of other, non-participating, domestic authorities such as ministries of finance (MoF). Role plays with such stakeholders were available in the exercise, and some authorities requested to meet the MoF. Participants from a few jurisdictions were clear about how and when involve other authorities of the financial safety net, including those not represented in the simulation. For example, participants from one jurisdiction referred to a domestic committee comprising all relevant authorities which is regularly convened and can be used to discuss resolution cases. However, most did not engage with the available role players even though there were prompts in the exercise material for them to do so. Some participants seemed to be uncertain about how exactly the MoF should be involved, eg, whether it had to approve specific measures or simply be informed.

Although half of the authorities considered external communications, coordination between domestic agencies on this topic was not well structured. Authorities in four of the eight countries attempted to keep the public informed and to maintain confidence in the deposit insurance system and other financial safety net institutions. However, in several instances statements were published without coordinating with relevant stakeholders or verifying the information thoroughly (eg information about a potential buyer), which in real-life situations could have increased uncertainty in financial markets and done little to restore public confidence. External communications did not always feature in internal discussions and was perhaps seen more as a supporting activity.

### 2.4 Resolution framework and tools

The CSE provided an opportunity for participating authorities to test existing crisis management frameworks. The primary objective was to enable participants to practice internal crisis management and decision-making processes in a cross-border crisis, based on imperfect information and against mounting

time pressure. While the agreed purpose was not to test the adequacy of jurisdictions' frameworks and tools, the CSE allowed participants to assess how they took resolution decisions based on the options available under their current frameworks and used the available tools to manage the simulated failure.

Most authorities engaged in initial fact-finding to understand the situation of the bank (eg convened the intervention team, requested additional information from the bank, ordered on-site inspections and more frequent reporting). This was followed by measures to address immediate pressure by strengthening the liquidity position of the subsidiaries. As the bank approached non-viability, participants proceeded to determine the appropriate measures to deal with its failure. Given the lack of other resolution tools, this focused on investor offers.

In most of the participating countries, the resolution frameworks are not currently aligned with FSB Key Attributes. The legal frameworks in most jurisdictions centre primarily on liquidation, curatorship or sale of the bank, and many lack suitable tools for the resolution of a systemically important bank. Most authorities considered that the exercise highlighted the need for a special resolution framework and the desirability of exploring greater harmonisation of resolution frameworks across the region. Indeed, there is already work ongoing both domestically in a number of countries to upgrade their framework, and at a regional level to consider the need for cross-border alignment and compatibility of toolkits.

In general, there was good understanding of the available crisis management tools and actions that could be taken. At the start of the exercise, most jurisdictions imposed supervisory measures such as more frequent reporting and limits to bonuses and dividend distribution. As the situation worsened, there was an effort to preserve liquidity, which in some cases led to limits on cross-border transfers, and decisions were taken to replace the bank's management. However, when it was clear that the bank was no longer viable, authorities had to choose between the limited tools available, even if they were not the most suitable for managing the simulated events.

In most jurisdictions there was no evidence of a formal process or playbook to guide the decision-making process. Most authorities appeared to lack internal procedural material such as guidance on the options and tools when resolution is imminent, criteria for selecting particular options, procedures for executing resolution, checklists of required actions, or guidance on communication and coordination arrangements. In some cases, it was not clear to authorities when to take early intervention measures and participants engaged in extensive debates. There was no consensus within authorities about the gravity of the situation and, consequently, there were different opinions as to which supervisory tools to employ.

Decisions were largely reactive and based on experience rather than following established criteria or decision frameworks. Nevertheless, in general, justifications for decisions were thoroughly discussed. Most participants explicitly considered consistency between previous and expected actions. However, at the start of the exercise, some authorities struggled to assess the full scale of the crisis and, consequently, the implications of early intervention actions were not fully analysed. Most authorities evaluated the entity using a set of indicators which did not appear to be structured in a concise framework and the link between the state of the entity and the measures taken was based largely on ad hoc judgment. Financial stability was a key consideration for all participants, with some explicitly referring to their mandate. Regardless, there were no (fictional) requests for, or consideration of the need for, a formal analysis of the impact of the failure of CB on the financial sector or its possible contagion effects.

Most authorities granted emergency liquidity assistance (ELA) to their domestic subsidiary, with the decision based on an evaluation of the entity against both quantitative and qualitative criteria. The information provided was limited and, despite requests for additional details from the bank (about, for example, its financial situation and collateral), significant uncertainty remained. This is realistic since, in an evolving crisis, the decision will likely be based on imperfect information. Five authorities granted ELA and one authority provided support with overnight and seven-day repos. Generally, ELA decisions were based on established criteria. Two authorities did not grant liquidity assistance.

The maturity of ELA frameworks differed across jurisdictions. In some cases, they had been recently reviewed and tested, while in others the exercise confirmed a lack of effective ELA arrangements. For those authorities with a well-developed ELA framework, discussions revolved around the correct timing for liquidity assistance. In some countries, authorities assessed their framework to be too restrictive. Others considered there to be a lack a clarity about core features such as the conditions for ELA, collateral eligibility and valuation, terms and conditions, disclosure and exit arrangements. Additionally, some authorities lacked internal governance and authorisation procedures for granting ELA. This resulted in a lack of certainty about matters such as the responsibilities of different departments for ELA-related matters. As a result, there was a perception in some cases that insufficient thought was given, and that the due diligence conducted before granting liquidity assistance was also insufficient. Additionally, most authorities did not appear to consider the impact that granting ELA would have on resolution (for example, through greater asset encumbrance and indebtedness to the central bank), or the potential consequences of not granting ELA, including contagion to other entities. The possibility of ELA being used to fund subsidiaries in other countries was not an explicit part of the deliberations, although some authorities prohibited intragroup cross-border flows. The home authority of the ServCo discussed providing ELA to the ServCo, which was possible under the domestic ELA framework.

In most jurisdictions, there was no clear demonstration of a formal communication strategy. Most authorities did not issue communication specifically to bank customers and depositors to address their particular concerns, and communication with the general public was less coordinated and strategic. Authorities did not work with the bank as it approached non-viability on a joint communication, nor did they give guidance on the communication strategy. They did not require the bank to prepare a communication plan or to ensure a coordinated communication strategy for all the jurisdictions in which it operated. However, this may have been a deliberate decision given the design of the exercise, which focused on authorities' actions and did not involve the bank.

Only some authorities considered internal capabilities and operational readiness. Given the time frame modelled in the simulation, domestic and CMG discussions focused on short-term stabilisation options. Post-stabilisation measures to secure the longer-term viability of the banks' operations were not considered.

The lack of a deposit insurance scheme in some jurisdictions further limited the options for managing the failure and exacerbated the implications of insolvency (since depositors would not be protected). Even where a deposit insurance scheme existed, in some cases it was acknowledged to be insufficiently funded for protecting depositors of a bank of the size of the fictional bank in the exercise. This would have implied the need for backup funding, potentially from public funds, and the fiscal implications of that were of concern for some countries.

Investor offers were central to participants' discussions of resolution strategy. Indeed, selling the group or subsidiaries to a suitable investor was the only resolution option considered owing to a lack of other feasible group-level and domestic options under the current resolution or insolvency frameworks. The group home authority led investor negotiations for the group offer and, with the knowledge of the home authority, host authorities engaged in negotiations with potential purchasers for the local subsidiaries. Some participants raised the impact of the high NPLs on the valuation of the bank. In the final CMG, authorities discussed the consequences of a subsidiary sale for the group, but more weight was given to domestic interests. Some authorities were open to supporting acquisitions by providing access to additional ELA or resolution funding. However, there was limited focus on the implications for market competition domestically and at group level, or on operational implications such as the time required to proceed with a sale or to obtain the required regulatory approvals. Overall, authorities did not evaluate sale as a resolution strategy against alternatives or assess broader considerations such as how beneficial the sale would be (beyond the immediate benefit to the authorities of avoiding a liquidation); the

consequences of the decision (for example, for depositors and customers and for ongoing supervisory oversight); or the operational implications of implementation.

## Section 3 – Recommendations

### 3.1 Review of resolution framework and available tools

National legal frameworks should be further improved and aligned with the FSB KAs. The core tools and arrangements set out in that standard are considered international best practice, so it is generally beneficial for countries to implement the KAs to the extent appropriate to their market.<sup>4</sup>

Resolution authorities should be empowered to develop resolution strategies and take action tailored to market conditions and the circumstances of the bank at the point of failure. Resolution frameworks and toolkits should be reviewed to assess whether they give authorities a sufficient range of powers. The KAs specify that these should include:

- general resolution powers (eg powers to take control of and operate the bank, either directly or through an administrator; purchase or sell assets; terminate or continue its contracts, or enter into new ones to ensure the continuity of essential services and functions; and restructure or wind down its operations);
- powers to transfer all or selected assets and liabilities of the failed bank to a third party (such as a private sector purchaser or a bridge bank);
- the power to establish and operate a bridge bank to take over and continue operating certain critical functions and viable operations of a failed bank;
- to power to write down unsecured liabilities of the failed bank or convert them to equity in the bank or a successor institution to absorb losses and/or general capital (ie, powers to carry out bail-in within resolution, without putting the failed bank into insolvency);
- ancillary powers to support a resolution, such as powers to remove and replace senior management; powers to ensure continuity of essential services provided by affiliated entities or third-party providers; and powers to prevent or stay enforcement actions by creditors of the bank in resolution; and
- powers to secure the orderly wind-down and liquidation of parts of the failing bank.

Authorities must be able to exercise any resolution power without needing the consent of shareholders or creditors of the failed bank.

<sup>4</sup> Several key attributes are specific to G-SIBs, but most of the provisions are applicable to any bank that could be systemic if it fails. While some resolution powers, such as bail-in, may not be appropriate for countries with a banking system that is predominantly deposit-funded, the transfer-based tools, funding arrangements and provisions on administrative resolution authorities, recovery and resolution planning, domestic and cross-border cooperative arrangements and information-sharing are relevant and can be adapted for all jurisdictions.

## General findings on bank resolution and liquidation frameworks

As part of the exercise preparation, the project team analysed the countries' existing frameworks for bank crisis management. Participating authorities provided information on their current legal framework and institutional setup, including governance and decision-making arrangements.

While participating countries have tried-and-tested frameworks to deal with bank failures, these are mostly centred on liquidation. International policy development on bank resolution has significantly advanced since the Great Financial Crisis through the development of the FSB Key Attributes of Effective Resolution Regimes (KAs) and related standards and guidance. Material progress has also been achieved in cross-border cooperation through work on coordination arrangements and cross-border recognition of resolution actions. However, to date, the countries that have undertaken reforms to align their national regimes with the KAs are the larger, advanced economies, and in particular those with global systemically important banks (G-SIBs). This is largely because, as members of the G20, these countries have committed themselves to implementing the post-GFC reforms.

The current frameworks in the participating countries fall materially short of being fully KA-compliant. The most significant differences, found in most participating countries, are as follows:

- Frameworks focus primarily on the closure and liquidation of failing banks, rather than resolution that maintains continuity of critical functions. Whilst some jurisdictions have transfer powers, they lack a full suite of resolution powers that enable continuity of systemically important functions through bridge banks or recapitalisation through creditor write-down or conversion (bail-in).
- Most frameworks do not provide for resolution planning and resolvability assessments and, relatedly, there are no requirements for systemic banks to improve their resolvability, for example by changing the organisation of their business to facilitate transfers or issuing sufficient debt that could be written down in resolution to absorb losses and recapitalise the core activities.
- Funding arrangements for resolution are either non-existent or likely to be inadequate for a large bank (eg deposit insurance funds are not available to support resolution transfer transactions).
- There are no explicit mandates for cross-border coordination or the requirement to consider the impact of domestic measures on other jurisdictions.

These differences do not imply that the current frameworks are inadequate for failures of smaller banks. In addition, the legal frameworks currently in place might still allow certain KA resolution tools to be applied, even if they are not explicitly provided by law. Doing so, however, exposes the measures and authorities to legal risk, something the KAs aim to minimise.

Nevertheless, the stated objective of the KAs is to provide a framework for any bank that could be systemic in failure, either domestically or regionally. They have been adopted as an international standard for resolution frameworks with general application,<sup>①</sup> and are therefore a starting point for reform of bank failure management frameworks. Core provisions such as administrative transfer powers, legal safeguards, recovery and resolution planning and cross-border cooperative arrangements are relevant for any country and banking system.

<sup>①</sup> For example, the IMF and World Bank use them in the Financial Sector Assessment Programme (FSAP), applying proportionality and tailoring to reflect the legal and institutional framework, banking system and financial markets of the jurisdiction being assessed.

In parallel with reforms to resolution frameworks, MoUs should be developed and reviewed to ensure they facilitate cooperation and address the lack or inadequacy of domestic and cross-border MoUs identified by participants during the exercise. It is important that authorities can share the information necessary for resolution planning and for coordination before and during a crisis without any concern that it will breach their duty of confidentiality. In addition, various operational aspects of information sharing can be agreed in advance. This includes the channels that will be used and any special arrangements for particularly sensitive information. Ideally, MoUs would also set out agreed expectations about when authorities will be informed about events in the run-up to a failure, and when and how to intervene. The

limitations of MoUs are also important to note. Specifically, they do not create a legal power for an authority to share information in the absence of specific provision – a “legal gateway” – in the relevant legal framework. As MoUs are developed, laws should be reviewed to ensure that the necessary legal powers to share confidential information with all the necessary authorities are in place and to identify any impediments to information-sharing.

Review of the resolution toolkit should also consider sources of funding and the conditions under which they may be used. For banks that are too big or too interconnected for liquidation, an increase in their loss-absorbing capacity should be considered. This may be particularly important if their failure would overload existing public safety nets (eg the deposit insurance fund (DIF)) and backstop funding. However, additional loss absorbency for resolution may not be feasible in all cases. The maturity of local capital markets and the banks’ ability to access those markets needs to be considered. The aggregate sufficiency of the financial safety net, and the funds that would be available for resolution within that framework (eg from the DIF and any resolution fund), should be regularly reviewed. Similarly, the conditions for access to those funds should be periodically reviewed to ensure that they remain aligned with the broader crisis management objectives and resolution policy. The target funding level should be adequate for addressing bank failures, so that resort to a public backstop is limited to the most systemic cases (eg severe economy-wide shock, several banks failing at the same time).

Box 2

## Deposit insurance and resolution funds

A deposit insurance fund (DIF) is designed to protect insured deposits, and its funding level needs to be calibrated accordingly.

The purpose of a resolution fund (RF), if it exists, is to support liabilities other than insured deposits that would need to be preserved in resolution to maintain critical functions or otherwise achieve the resolution objectives. Such a fund might therefore require a higher funding level than a DIS. If the backstop is used, its repayment through industry assessments should be feasible in the medium term without overburdening the banking system. If the target funding level is regarded as too high for the banks to cope with, an alternative may be to require the banks to internalise such funding through additional loss-absorbing capacity.

The case for establishing a separate RF may not be strong in jurisdictions where the banking sector is largely deposit-funded. RFs are a relatively new addition to the architecture of the financial safety net, and (outside the European Union) there is little experience with them (although in several jurisdictions the DIF is funded beyond the levels needed to protect insured deposits and may be used in ways that are analogous to a RF). Arguments for having a separate RF include the expectation, based on the nature of the banking sector, that additional funding would be needed to protect uninsured creditors, to prevent contagion and preserve financial stability in a bank resolution. In those circumstances, a RF would supplement the funding available from the DIF and insulate it from the costs that typically arise when a systemic bank fails. In countries where deposit insurance is not fully pre-funded or under-funded, authorities should consider increasing the DIF paid-in resources and making it available to fund bank resolution, subject to safeguards as set out in the IADI Core Principles (see CP 9).

Authorities should consider formalising the conditions and procedures for the use of public funds more clearly, even if it is an instrument of last resort and only used in exceptional cases. Irrespective of the range of tools and privately sourced funding arrangements that are available, it cannot be excluded that public resources might be required to address a case of systemic failure. This is particularly the case if the safety net capacity is not sufficient to deal with a systemic bank failure or full use of that capacity could exhaust the DIF (which risks undermining depositor confidence generally) or impose stress on the banking sector through increased contributions to replenish the DIF. Situations where fiscal support may be needed should be identified in advance, ideally as part of firm-specific resolution planning. Measures should be taken to limit the probability and amount of such support. Crisis management protocols should cover

those situations and ensure procedures are clear (eg who needs to approve the support and the process for doing so), not excessively burdensome or time-consuming. The design of public support arrangements should include provision for the eventual recovery of losses incurred by the state.<sup>5</sup>

Given the sensitivity of funding needs for cross-border banks, specific arrangements on burden-sharing arrangements across borders are advisable when public funding comes into play. Measures to prevent such situations from occurring, such as the review of cross-border funding relations and risk transfers or repositioning of capital and liquidity, should be evaluated in a balanced way.

### 3.2 Review of ELA framework

Funding in resolution emerged as a key topic and ELA frameworks should be reviewed in the light of the exercise. Effective governance and clear approval procedures, with due regard to all relevant aspects of the decision, would allow for rapid decision-making, which is fundamental to emergency measures. Those aspects are both quantitative (eg the amount of liquidity and of collateral required and haircuts to be applied) and qualitative (eg collateral eligibility, terms of ELA). Developing internal guidance on the suitability of different funding facilities based on the financial situation and viability of the requesting bank would help frame the exercise of judgment, while ensuring that a reasonable degree of flexibility and “constructive ambiguity” is maintained. This is especially relevant for jurisdictions in which the current ELA framework was considered too rigid. Authorities could benefit from cross-border knowledge sharing in this regard, given differences in the maturity of ELA frameworks. In cross-border cases, there should be a clear procedure that considers the situation of the group before granting ELA to a local subsidiary and, where applicable, any constraints to be attached (eg limiting use or transfer of the ELA granted).

Any other available options for liquidity support, and the implications of their use, should be reviewed. Options to supplement central banks’ standard and ELA facilities, which may not be suitable in all cases, might include bespoke resolution funding facilities supported by provision of government backstops to protect the balance sheet of the central bank or guarantees to facilitate market funding. Separate resolution funds might also be considered, although the argument for such arrangements is not strong in countries where the policy priority is to strengthen the deposit insurance system. For all options, knock-on impacts for financial markets should be considered, especially in countries that do not have international reserve currencies (eg impact on exchange rates and implications). In this regard it can be beneficial to consider the total size of the banking system, private sources of the resolution funding and the available public funds to estimate the impact of the liquidity request.

<sup>5</sup> The KAs specify that, to minimise the moral hazard associated with public support, there should be arrangements to recover funds as far as possible from the shareholders and creditors of the failed bank and, where appropriate, from the industry more generally through mechanisms such as assessments or levies. The Key Attributes Assessment Methodology for the Banking Sector further specifies that the mechanism for recovery from the industry of losses arising from the provision of public funding should be based on explicit provision in the legal framework.

## Best practices in internal procedures for ELA

Given that ELA may be needed quickly, central banks must have procedures for managing requests for liquidity support and doing so very rapidly. To accomplish this, central banks need to have a detailed crisis plan that can be put in place within very short notice. The crisis plan should include the following types of information:

### Organisational structure

- A division of responsibilities for analysis, information and decision-making.
- Staffing requirements for different tasks, with substitutes.

### Analysis plan

- A description of the information necessary to decide on whether a systemic crisis may occur.
- Necessary information about systemically important individual banks.

### Information strategy

- A plan for informing and coordinating information and decisions with the other domestic agencies involved in the crisis.
- A plan for informing authorities in other countries about the situation.
- A plan for communicating with the financial markets.
- A plan for spreading information to the public and media (ex-ante and ex post transparency).

### Plan for implementing ELA

- A clear description of the routines which must be followed and the legal requirements which must be met for ELA.

### Legal procedures

- An inventory of the instruments available for implementing ELA.
- Guidelines for acceptable collateral and appropriate haircuts.

## 3.3 Engage in bank-specific recovery and resolution planning

Banks should be required to develop credible recovery plans during normal times, which serve as roadmaps for measures during stress. Recovery plans should be required at group level and for at least those material subsidiaries that are systemically significant in their host jurisdiction. Home and host authorities should discuss the group recovery plan as part of their college activities, whereas country-specific recovery plans for individual group entities are generally reviewed by the relevant host supervisor.

Bank-specific resolution plans setting out the preferred resolution strategy should be developed and maintained, at a minimum, for banks that could be systemic if they fail. Resolution authorities should have primary responsibility for resolution planning since the plan sets out the actions that the authority would expect to take under the resolution framework. Nevertheless, resolution planning requires detailed information from the bank. Developing a firm-specific resolution strategy and operational plan in advance of any failure should give a common starting point for discussions and a shared understanding of the implications of the strategy, such as risks and contagion effects. For a banking group, the strategy would indicate whether it should be resolved at the level of the parent entity by a single resolution authority (single point of entry, SPE), or through a coordinated application of resolution powers to several group



entities in different jurisdictions (multiple point of entry, MPE). The strategy is highly dependent on the legal, financial and operational structure of the banking group, the nature of its activities and how they are organised in the group, operational dependencies between group entities or with third parties, and the nature of its funding arrangements.

Box 4

### Essential elements of a recovery plan

Firms should identify possible recovery measures, the necessary steps and time needed to implement such measures and assess the associated risks.<sup>①</sup> The range of possible recovery measures should include:

- (i) actions to strengthen the capital situation, for example, recapitalisations after extraordinary losses, capital conservation measures such as suspension of dividends and payments of variable remuneration;
- (ii) sales of subsidiaries and spin-off of business units;
- (iii) a voluntary restructuring of liabilities through debt-to-equity conversion; and
- (iv) measures to secure sufficient funding while ensuring sufficient diversification of funding sources and adequate availability of collateral in terms of volume, location quality. Proper consideration should also be given to possible transfers of liquidity and assets within the group.

<sup>①</sup> See Financial Stability Board, *Key Attributes of Effective Resolution Regimes for Financial Institutions*, I-Annex 4 – Essential Elements of Recovery and Resolution Plans, 2014, pp 47 ff.

When designing a resolution strategy, different scenarios should be taken into account. For example, host authorities should be prepared for the event that the parent bank cannot provide funding to subsidiaries and that strong operational interdependencies within the group are likely to complicate any strategy based on separating subsidiaries. As banks increasingly make use of outsourced and digitised services, this can increase such intergroup dependencies.

Where the resolution strategy contemplates a sale of parts of the bank, the resolution plan should identify the potentially viable entities or business lines that could be sold. This should facilitate the search for investors and increase the likelihood of achieving a reasonable sale price. Banks should be required to prepare for such transactions by ensuring they are able to provide the required information and documentation rapidly in a stress scenario. For example, where a “purchase and assumption” transaction is contemplated as the preferred resolution strategy, the bank should have the capacity to set up a data room to enable potential purchasers to examine and assess the options offered. Considering the complexity and time pressure of sales transactions, authorities should prepare for handling such negotiations by developing guiding principles and a playbook and ensuring the necessary capabilities and skills are available in-house or on call externally. It might also be helpful to explore options during good times, such as by taking market soundings and maintaining details of potentially interested purchasers for specific types of business.

The description of the resolution strategy should be accompanied by an operational plan that details how the strategy would be implemented. This includes the resolution tools that would be used to execute the strategy and how they would be applied, assumptions about sources of liquidity and funding for the bank while in resolution, the intragroup and third-party support arrangements needed to ensure that the bank’s critical functions can continue to operate during and immediately after resolution, and identified obstacles to the effective application of those tools and how they will be addressed. The operational plan might also consider how the authority’s general valuation policy would apply to the asset classes the banking group is exposed to.

## Essential elements of a resolution plan

Authorities should identify potential resolution strategies and assess the necessary conditions and operational requirements for their implementation, including arrangements for cross-border coordination.<sup>①</sup> This includes identifying and understanding:

- regulatory thresholds and legal conditions for specific actions (including thresholds for entry into resolution) and authorities' scope of discretion (for example, the extent to which authorities can refrain from taking actions under certain conditions);
- critical interdependencies and the impact of resolution actions on other business lines and legal entities (would other entities be able to continue to operate?); financial contracts (do authorities have powers to limit or suspend termination or close-out rights?); markets and other firms with similar business lines;
- a comparative estimate of losses to be borne by creditors and any premium associated with various resolution strategies;
- the available sources of resolution funding;
- the process for disbursements by DIF and other insurance schemes (including, for example, identification of insured and uninsured depositors);
- the processes for preserving uninterrupted access to payment, clearing and settlement facilities, exchanges and trading platforms;
- the internal processes and systems necessary to support the continued operation of the firm's critical functions;
- processes for their cross-border implementation; and
- proper communication strategies and processes to coordinate communication with foreign authorities.

<sup>①</sup> Financial Stability Board, *Key Attributes of Effective Resolution Regimes for Financial Institutions*, I-Annex 4 – Essential Elements of Recovery and Resolution Plans, 2014, pp 48 ff.

Authorities should monitor institutions' capacity to support the implementation of the resolution strategy as part of the ongoing process of resolution planning and resolvability assessment. Authorities should ensure that banks build the appropriate capabilities and can mobilise them quickly as stress increases. For example, authorities can work with banks to ensure that their information management systems can support resolution. This may involve testing the ability to provide detailed and accurate information in the format and (short) time frame needed by the resolution authority, to conduct different types of valuation in the run-up to resolution (or supporting external parties in doing so), or to assess the funding and liquidity situation and accessibility of collateral. Banks should be required to demonstrate that they have governance and funding arrangements to support protection of critical functions and services in any resolution strategy.

Recovery and resolution plans should be reviewed regularly to ensure they remain credible and could be feasibly executed as market and bank's circumstances change. Resolution plans should also be reviewed as soon as material aspects of the banking group, its business model, legal entity structure and risk profile changes. Resolvability assessments should be carried out by the responsible resolution authority to evaluate whether the strategy that is being developed is credible and can be feasibly executed under the detailed operational plan. Resolution planning and resolvability assessments are an iterative process. A key objective of those assessment is to identify potential obstacles to the banks' resolvability. Authorities should have adequate powers to require banks to make changes in their legal or capital

structure or business organisation that are necessary to remove impediments to their resolution under the strategy that are identified during this process.

### 3.4 Enhance cross-border cooperation in resolution planning

The exercise underscored the importance of strong cooperation and frequent exchange of information and the challenges of achieving this as pressure intensifies. For banks with a significant cross-border presence, cooperative resolution planning is imperative. Resolution colleges are a suitable forum for building and maintaining a high level of trust and establishing a pattern of cooperation. In addition to information exchange and coordination on resolution planning, they can be used for consideration of the implications of a resolution decision for the jurisdictions where the bank has material operations. A resolution college is generally bank-specific and may be a free-standing arrangement or an extended formation of a supervisory college that may include additional members (eg if the resolution authorities of all the countries material to the resolution to the bank in question are not represented in the supervisory college). Colleges typically consist of the relevant authorities from the bank's home and material host jurisdictions and are chaired by the home authority. It would be beneficial to establish resolution colleges with a CMG-like formalised structure and an agreement on information-sharing for regionally material groups, even if non-GSIB banks are not formally required to have a CMG.

Colleges can be used to build a shared understanding of other jurisdictions' frameworks and tools, and the impacts of the firm's preferred resolution strategy. Authorities should invest time in education about the resolution frameworks of the participating jurisdictions, including the conditions for entry into resolution or grounds for insolvency and any conditions relevant to the implementation of the resolution strategy. College members should have a clear understanding of how a resolution would proceed during the run-up and its execution and the tools available in other jurisdictions. The exchange should also increase members' understanding of the impacts of the preferred resolution strategy on the participating jurisdictions and their financial stability concerns in the event of a resolution. This is to foster a mutual understanding and trust among the host jurisdictions in the actions that may be taken.

The process of building knowledge can be assisted through the preparation of college playbooks. Such playbooks typically detail decisions and actions to be taken, conditions that must be met, and procedures and time frames, including the following information for all material jurisdictions:

- Triggers for escalating resolution contingency planning.
- Resolution powers available (with timely notification of any changes to those powers).
- The authorities responsible for exercising those powers, including relevant internal functions and time frames for decision-making (eg consultation requirements or approvals that need to be accommodated).
- Conditions for entry into resolution and use of those powers, and any constraints on the exercise of powers.
- Domestic procedural requirements (eg any requirements for court approval, information needs) required for the resolution actions to be effective.
- Other matters relevant to implementing the resolution strategy (eg possible public disclosures, requirements under securities regulation or rules of trading venues, required regulatory approvals, communication protocols, valuation frameworks).

## Good practices for crisis management groups<sup>①</sup>

### Structure and operation of CMGs

- CMG membership and structures reflect the specificities of the firm, its business model and geographic footprint. In “business as usual” and when working to enhance crisis preparedness, CMGs generally include the resolution authorities and prudential authorities of the home and relevant host authorities. Some also include central banks, deposit insurers, ministries of finance and other regulatory bodies, largely reflecting the allocation of responsibilities for bank crisis management in the jurisdictions represented. Some home authorities have supplemented a CMG with regional structures.
- Members’ representation in a CMG meeting combines decision-making capacity and relevant expertise. Meetings are generally attended by key decision-makers and technical experts from each authority.
- The CMG is underpinned by an institution-specific cooperation agreement (CoAg) that facilitates the necessary crisis management planning, cooperation and information-sharing between the member authorities. CoAgs have been adopted for most CMGs. However, their existence has not been a prerequisite for the CMG to operate in practice.

### Resolution policy, strategy and resolvability assessments

- CMG members are kept informed of firm-specific and regulatory resolution planning-related developments in home and participating host jurisdictions. CMG members have shared updates on ongoing or planned policy developments relating to resolution, and in some cases recovery, and firm-specific effects of the application of new international standards or guidance.
- CMG members review the resolution strategy and operational resolution plan annually or when there are material changes to a firm’s business or structure.
- The CMG serves as a forum for coordinating resolvability assessments, sharing findings and discussing any remaining barriers to resolvability and plans to remove them.

<sup>①</sup> Financial Stability Board, *Good Practices for Crisis Management Groups*, 2021, pp 1 ff. This box summarises selected practices from that paper. While the paper is based on the experience of home and host authorities that are involved in CMGs for G-SIBs, many of the practices highlighted are relevant to other forms of cross-border cooperative arrangements for regional banking groups.

The process of compiling this information and incorporating it in a playbook is a good discipline that promotes detailed understanding and exposes gaps and uncertainties. The preparation of a procedural playbook, in conjunction with an operational resolution plan, is an opportunity to focus on the practical dimensions of a resolution. This will be beneficial in any bank failure even if the plan and playbook need to be modified in the circumstances of an actual failure.

Informal networks are important for effective coordination in a resolution, and authorities should attempt to build those networks further. This can be done both by building on existing supervisory structures and colleges and by creating further arrangements for engagement, such as non-firm specific regional study groups and joint knowledge-sharing sessions on crisis management-related topics. Additionally, authorities should continue to engage in activities with the purpose of enhancing crisis preparedness (eg tabletop exercises or simulations).

Authorities should review domestic resolution regimes to ensure that they can support the preferred resolution strategy. Any features that may hinder the successful execution of firm’s resolution plan should be identified, so as to understand and, where possible, remove obstacles to group solutions.

### 3.5 Engage in crisis preparedness activities

Regular engagement in crisis preparedness activities, such as developing and testing internal protocols or conducting simulation exercises, can further enhance authorities' readiness. These activities are especially important as many jurisdictions lack practical experience with bank failures.

A protocol with detailed guidance on early intervention and crisis management tools can facilitate decision-making. A domestic "supervisory protocol" of general actions organised in accordance with crisis severity would provide authorities with guidance about use of the toolkit and structure to decision-making. Identifying actions in advance for a given crisis severity, combined with supervisory judgment, may allow authorities to place ailing institutions on a wider spectrum of increasing stress and to respond appropriately at each stage. While protocols contain guiding principles and structural support, they are not intended to be rigid or deterministic. Such a protocol should be designed to be consistent with the overall supervisory strategy including any applicable "prompt corrective action" (PCA) frameworks and could include the following types of action by the supervisor:<sup>6</sup>

- *Interaction with supervised entities.* During "normal times", supervisors typically interact with banks in accordance with a risk-based and procedurally oriented protocol that defines the scope and frequency of meetings, data deliveries and on- and off-site examinations following a schedule set on a yearly basis. As stress increases, the intensity of interactions needs to be stepped up significantly, and a protocol can help authorities to structure such interaction. Using qualitative triggers, it can guide an increase in the scope and frequency of information and data requirements and interactions with senior management with a view, where appropriate, to encouraging corrective action by the bank. Appropriate quantitative triggers may also help guide action tailored to the appropriate crisis "severity" (for example, if certain capital buffers are breached while core capital remains above regulatory minima). However, a purely mechanical approach based on quantitative triggers is not advisable.
- *Response to activation of a bank's recovery plan.* Typical recovery options include strengthening the bank's capital base through equity injections by existing or new shareholders, disposal of business lines or assets, and mobilisation of collateral. As most of these actions may have side effects, supervisors' protocols should also consider whether specific recovery options may have implications for the bank's preferred resolution strategy. Supervisors need to be clear about the timing of measures set out in the bank's recovery plan. For example, action to raise additional capital might fail if taken too late as the crisis intensifies. Protocols should therefore provide for a level of judgment, which should be applied in a way that does not incentivise forbearance.
- *Assessment of bank's situation.* This could include, for example, asset quality reviews, stress tests or on and off-site inspections through which a supervisor may test a bank's assessment of its recovery measures or request additional measures to remove uncertainties in the balance sheet and/or protect or restore market confidence.
- *Engagement with investors in advance of failure.* Investor offers, if available, will be an important resolution option. Playbooks to facilitate and structure authorities' interactions with investors could include operational considerations, an overview of incentives available to facilitate a transaction and conditions of their use, and criteria for assessing offers.

It can also be beneficial to elaborate the cooperative arrangements between domestic authorities by detailing the nature of their involvement at each stage of the process. This includes mapping data and information requirements between authorities to ensure that decisions are taken on a sufficiently informed

<sup>6</sup> See also J-P Svoronos, "Early intervention regimes for weak banks", *Financial Stability Institute Insights*, no 6, 2018.

basis. Key contact points should be identified in advance for swift exchange and decision-making. Additionally, setting up a joint IT platform can facilitate secure and fast information exchange.

A communication strategy and plan should be developed to support robust and consistent messaging by authorities and the banking group. This should include guidance on the types of communication that are expected to be issued throughout the timeframe of a bank failure; the process of communication development with agreed templates for the core communications where possible; the responsibilities for communication across the financial safety net organisations; and the classes of stakeholders to whom communications will be directed – domestically and on a cross-border level. Communications by the bank and the authorities should be closely aligned. The role of social media should be considered, as the messaging on those fast-moving channels can increase the speed of a failure and accelerate a bank run. Some authorities engage in communication activities as part of business as usual to educate the market and the general population. For example, resolution authorities may publish explanations of resolution frameworks and strategies, targeted at both market participants and the general public, with an appropriate focus and level of complexity depending on the intended audience, while deposit insurers routinely conduct publicity campaigns to educate depositors on the coverage of deposit guarantee scheme and how they will retain access to their funds if their bank fails.

Authorities should continue to engage in tabletop and crisis simulation exercises to test different elements of the recovery and resolution planning framework and to further enhance crisis preparedness. Tabletop exercises and simulations provide an opportunity to gain practical experience and to identify potential enhancements to existing frameworks and tools. Playbooks can be tested and refined, while informal networks across participating departments, authorities and jurisdictions will be strengthened. Those exercises could be included in the annual workplan of authorities and tailored in content and scope to current needs (eg a tabletop exercise every year, a cross-border simulation every three to five years).

## Annex

### A.1 Participants

The participating authorities comprised central banks, supervisory authorities, resolution authorities and deposit insurers. This composition was based on the roles of those authorities in managing bank failures. It also accounted for the different institutional models (eg in some cases the central bank is also the banking supervisor, or the deposit insurance scheme is also the designated resolution authority). Central banks participated given their role as macroprudential authorities responsible for financial stability and providers of emergency liquidity (in addition to supervision or resolution functions, where relevant).

Finance ministries did not participate in the exercise. Despite significant progress on bank liquidation and resolution frameworks, it is still likely that fiscal resources would be required if a systemic banking crisis were to exceed a certain scale. However, this should be the exception, not the norm. For this reason and to limit the complexity of the exercise, it was decided that ministries of finance and treasuries would not be represented. This also helped to increase incentives for participants to work out a solution that would not require the use of public solvency backstops.

The private sector did not participate. Effective crisis management requires strong cooperation with banks and industry participation could have increased the realism of the exercise, and simulations do take place involving banks and authorities. However, such exercises are of a very different nature. For example, they typically involve fewer authorities and are generally more limited in scope than this exercise – for example, focusing on technical competencies to carry out operational procedures rather than official sector decision-making and cooperation. The inclusion of banks in this exercise would have been inconsistent with the stated objectives of testing the crisis management frameworks and arrangements of the public sector participants.

Relevant stakeholders that did not participate directly were represented through written material and role players. While the core qualitative and quantitative information was provided in documentary form, role players brought the necessary interactivity. This allowed participants to ask questions and receive feedback on the decisions they took. Role players represented the ministries of finance (for questions related to public backstops, but also to put political pressure on participants), bank executives (for questions about the situation of the bank) and investors (for sales negotiations). The role players were provided by the FSI, Oliver Wyman and the participating authorities.

Participating authorities were each represented by a team of people up to the top leadership level. The teams from each authority were assembled from those departments that would be involved in a real crisis. Participants also used their established management frameworks such as coordination committees. Most notably, all authorities participated with their top leadership, who are the persons that would take the critical decisions in the event of a real banking crisis. This was important for several reasons. First, the decision-making structures and operational setups within the simulation mirrored reality, which strengthens the robustness of the simulation findings. Second, the direct experience of senior officials will foster understanding of the issues and high-level support for any follow-up action. Third, the involvement of top officials facilitated the authorities' decision to make significant resources available for the preparation and execution of the exercise. And finally, the exercise allowed senior decision-makers of various authorities to cooperate, which will strengthen confidence and mutual trust.

The exercise was run by a team comprising representatives of the Financial Stability Institute (FSI) and Oliver Wyman (OW). In addition, it involved role players and observers, some of whom were drawn from the participating authorities. The roles players acted as stakeholders such as senior management of the fictional bank and interacted with participants as required. An observer was allocated to each

participating authority. They were present at all interactions involving that authority and compiled observations on the conduct of the exercise, which was one basis for the findings.

## A.2 Operational aspects

The simulation was conducted in a virtual format, although most participating authority teams gathered physically and so internal interactions took place in person. Interactions across borders and with the operations team took place virtually. Video conferencing was used for cross-border discussions and negotiations. In addition to a “plenary room” where all participants gathered for introductions and debrief for each session, virtual “breakout rooms” were used to provide group rooms for each authority and additional “meeting rooms” for bilateral or multilateral discussions between authorities. Overall, the video conferencing facilities worked well. Although assigning the ~200 participants to virtual meeting rooms gave rise to some initial logistical challenges, this improved on the second and third day as a result of suitable naming conventions. Communication was mainly clear aside from occasional audio issues in physical meeting rooms’ conference systems.

A text messaging platform allowed participants and the operations team to exchange written messages and documents. The tool provided multiple “channels” so that messages could be exchanged within limited groups - for example, all participants of a single authority or jurisdiction. The operations team also disseminated scenario material and authorities recorded their decisions using that platform. This technology came with two important advantages: all interactions were recorded, so that the operations team could rely on these records in their analysis; and textual communication was confined to the platform, clearly separating simulation-related from real-life communication.

The exercise was tested with a “dry run” with project team. This was necessary to confirm that the exercise would work as planned and that the material provided to participants did not include unintended ambiguities. While the dry run did not reveal substantial problems, it helped identify issues that were addressed to make the exercise smoother, and to increase the confidence of the central team that the exercise was tightly scheduled with no material margin for error.

## A.3 Structure

The exercise was divided into three rounds, each focusing on a phase in a stylised crisis. A real-life crisis develops as a continuous stream of events over days, weeks or months, to which authorities and other stakeholders react in an equally continuous way. However, time, resource and conceptual constraints do not allow a simulation to fully replicate this, nor is it necessary to do so to achieve the stated objectives. For that reason, the team opted for a round-based approach. Round 1 focused on early intervention strategies. Round 2 centred on keeping the bank afloat in distress and preparing for resolution. Round 3 focused on the decisions to go ahead with resolution.

Each round took around three hours and started with the operations team providing a substantial amount of material to participants, setting the scene for required analysis and decision-taking. Information, including financial statements and mock media reports, was released at the start of each round. Additional information was provided during the rounds to increase the dynamism of the exercise and to nudge participants in certain directions when the operations team observed participants required more information to continue. Most of the information released was pre-scripted, although certain ad hoc adjustments were made to reflect the flow of the simulation or prior decisions by participants (eg ELA decision, imposition of curatorship).

Authority teams usually took some time to review and internalise the information received. In doing so, they relied on their team structure, which for many authorities had different subject-matter experts for the issues to be covered. Based on that, participants discussed and decided the course of



action. In addition to internal discussions, authorities could meet other domestic and foreign authorities to deepen their understanding of the situation, get additional insights on issues that might not have been conveyed to them by the material provided, and to discuss and coordinate actions. Authorities could take any decisions within their legal powers, and those decisions were communicated to the operations team at the end of each round.

#### A.4 Details of the scenario

Scenario and exercise dynamics were designed jointly with teams nominated by the participating authorities, who worked closely with the central team of FSI and OW staff to ensure the exercise was relevant and realistic for their respective jurisdictions.

The scenario design was guided by the following principles.

- The purpose of the CSE was to provide an opportunity for participating authorities to test existing crisis management and cooperation frameworks.
  - The CSE was not intended to constitute a test that is “passed” or “failed” by participants. Rather, the aim was to provide independent insights for participants’ consideration.
  - The CSE was not intended to test the capacity of internal toolkits to perform technical analysis. Any technical analyses required were simplified, since the focus was on testing policy and decision-making frameworks.
- The scenario should be realistic, although not overly complex, so as to focus on critical decision-making and cooperation.
- To simulate real-world experience, the design incorporated a significant degree of complexity and uncertainty, including gaps in information.
- Participants were expected to act in the same way as in reality (while recognising that the exercise was a simulation) – eg maintain a sense of urgency, act in accordance with own functions and within actual statutory powers, legal constraints and safeguards.

Following these principles, the scenario centred on the failure of a regionally systemic bank – the fictional “Cape Bank” (CB). It was designed to be relevant and realistic for all participating authorities, and to achieve a similar level of engagement for all jurisdictions. The scenario included a “background story” that framed the events in the simulation, including macroeconomic circumstances. CB was a regional banking group headquartered in South Africa, with a strong presence in each of the eight participating jurisdictions, where the domestic subsidiaries ranked among the top financial players and were considered locally systemic.

The crisis was rooted in a deterioration of regional macroeconomic conditions that caused the bank to lose viability in all participating countries. Although other causes, such as an idiosyncratic trading book loss or a cyber event, were considered while designing the exercise, a macroeconomic scenario that led to a broad recession and corresponding losses in the bank’s loan book was chosen because all participating countries could credibly be exposed to it. The balance sheet weakened and equity was consumed, due mostly to a growth in non-performing loans and increasing provisions. As in real life, participants were confronted with a significant degree of uncertainty about asset quality deterioration. The profitability of the group also diminished, undermining the bank’s ability to absorb losses through internal capital generation.

Idiosyncratic crisis events were included to add further challenges to the exercise. Real banking crises are often accompanied by exogenous shocks and unforeseen events – which may be unrelated to

the root cause of the crisis – that increase urgency, limit room for manoeuvre or require modification of agreed resolution strategies. For this reason, the simulation also included events such as deposit withdrawals, negative media and scandals.

The scenario did not have an “ideal outcome”. It was, however, designed to make cooperative solutions less costly from a broader perspective and better able to deal with intragroup operational dependencies. The objective was to trigger cross-border discussions and decision-making, while acknowledging that group-wide action must meet local objectives such as protecting domestic depositors, preserving jobs in the local entity, or containing spillovers to other banks in the system.