



Strengthening Financial Sectors

Lessons Learned Series

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World Bank Crisis Simulation Exercises

What Is at Stake in Coordinating and Making Decisions in a Crisis

Introduction

Financial crises are known to cause public panic and, if systemic, can take an economy down a negative spiral. Liquidity dries up, and bankruptcies follow. Such a crisis is a state of emergency in uncertainty. Managing a financial crisis requires speedy actions before the effects become systemic. Knowing what information to share, when, and with whom, both among a jurisdiction's official channels and with the public, is critical because that decision can exacerbate the crisis or moderate it. A financial crisis cannot be managed merely by one institution, requiring coordination and collaboration among key stakeholders.

In such a stressful and unpredictable environment, how might the authorities in charge of managing financial crises be better prepared to handle the situation? Crisis simulation exercises can be a powerful tool.

Simulation exercises are used in various industries from aviation to health care. Pilots and surgeons alike undergo many hours in simulations before they are deemed ready to serve the public. Through countless simulation exercises, they, along with their respective teams of co-pilots, flight attendants, and air traffic controllers or nurses, anesthesiologists, and others, practice doing their jobs, thus dealing with various critical situations to gain a certain comfort level so that they do not panic when they face similar situations. The same idea is behind the World Bank's financial sector Crisis Simulation Exercises (CSEs). In these exercises, financial sector authorities with responsibilities of financial sector surveillance, regulation, supervision, stability, crisis management, and resolution gather to practice decision making in the face of a financial crisis. The process starts with the World Bank team and the authorities constructing a plausible crisis scenario.

With funding from sources such as the FIRST Initiative,¹ the World Bank Group's Finance and Markets Global Practice has been mobilizing the



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delivery of CSEs for financial sector regulators in client countries across the globe since 2009.²

What Is a Crisis Simulation Exercise?

The World Bank's CSEs aim to provide an opportunity for the authorities to practice communication, coordination, and decision making in crisis situations in their given framework. Facilitators use scenarios that are built to fit the jurisdiction's unique circumstances because realities and concerns vary by country. The exercise is dynamic. The prewritten messages are only factual triggers to the participants—the full story of the scenario depends on what the participants do with the information received. Participants in the CSEs may be the central bank (the governor's office, board of directors, financial stability unit, supervision department,

Crisis simulation exercises are not a stress test done with numbers on a spreadsheet or a "gap analysis" of a crisis framework but asymmetric information games to practice communication, coordination, and decision making.

and market operations department), ministry of finance, deposit insurance agency, and/or the nonbank financial supervisory authority, depending on what operation applies to each country.

Lessons Learned

This Lessons Learned note draws from the experience of delivering nearly 30 exercises and addresses the key factors that authorities might find useful in their efforts to prepare for and manage a potential crisis.

FIGURE 1. Key Lessons in Crisis Simulation

Awareness of information asymmetry is important and may lead to more information sharing

The same information can be interpreted differently

Clear understanding of respective roles and mandates is missing

Handling the problem depends much on individual and collective behavior of everyone involved

Human elements play a bigger role than crisis management plans

No two major crises are similar, so exercises should be held regularly

Lesson 1: Awareness of information asymmetry is important and may lead to more information sharing

Across a jurisdiction's web of financial system authorities, information asymmetry exists by design. Each authority has its own mandate, roles, and powers, and subunits at various levels within and outside a particular institution have their own part to play in the functioning of the system. To do its part, each team in a unit of a department within an institution receives some particular information and is a potential source of information for someone else in the system. Decisions are being made constantly about what, when, and with whom to share the information at hand.

Given the existence of natural information asymmetry, information sharing among relevant authorities is key. However, the importance of information sharing may be forgotten amid the chaos of a crisis. In one exercise in a jurisdiction with separate banking, insurance, and markets regulators, a crisis simulated in one bank of a financial group led to swift action by the banking supervisor (in this case, residing in the central bank). Central bank officials moved to close the bank in crisis, but the banking supervisor had not informed or discussed the case with the insurance or markets regulators, thus overlooking the fact that the bank was an important custodian bank for an affiliated financial company and that it housed much of the deposits and back office information technology functions of a large insurance company in the group. The securities and insurance regulators found out about the bank closure

only through reading a press release. The situation created panic and raised important questions for the regulators, whose options had already been limited by the bank's closure. The exercise highlighted the need for a framework for resolution to be coordinated among the relevant authorities that, along with many other elements, involves assessing the impact of one authority's actions on affiliated companies of a group.

Lesson 2: The same information can be interpreted differently

Not everyone comes to the same conclusion about information or can agree what happened and why. Individuals might understand the same piece of information differently depending on the different functions they perform. Whether each person recognizes that certain information would be useful to someone else in the system requires each party to have a clear understanding of how the various pieces are interlinked in a system, including how each person's own piece fits and what others need to do their parts. During a crisis, the need to understand how a system works is highlighted dramatically because time is scarce, stakes are high, and confusion often reigns.

In one exercise in which a medium-size bank suffered a cyberattack that prompted it to temporarily shut down its systems, the central bank's financial stability department recommended to the central bank's board that the bank be placed in conservatorship. The targeted bank was the only depository bank for investment funds in the country, so others in the exercise, including the securities market regulator, evaluated the problem very differently. In another case, the minister of finance demanded a detailed picture on the deposit structure (distribution by size and currency denomination) of the questionable banks. In increasing crisis mode, with requests not fully satisfied, officials spent a great deal of energy trying to decipher what was being requested and whether the central bank had and could share the information. After the exercise, the participants determined that the level of detail required was not being collected from banks by the central bank, and the minister and governor committed to work together on an information-gathering format suitable for both sides.

Lesson 3: Clear understanding of respective roles and mandates is missing

In another exercise involving the various departments of a central bank, the supervision and market operations departments created a tangled knot of information requests and instructions to others. Ultimately, the only thing that was clear was that neither department knew the details of who was supposed to do what in a crisis, as well as at normal times. That case is not unique. The phenomenon is commonly observed in the simulations and could easily happen in reality for reasons as disparate as the individuals themselves. Whether in a hurry to respond to the information received or in frustration about not receiving information, administrators might overstep their roles or might stall into inertia trying to gather more perfect information before doing anything they think is too hasty. Without anyone

realizing, a confusion could start snowballing until something else significant happens to negate the need for action or clarity on the issue.

Indeed, it is critical for individuals to know each other's powers and roles, and even their existence. In more than one instance, the mere gathering of some of the individuals of various agencies was an achievement. In many cases, authorities recognized their lack of knowledge and the importance of clarifying the roles and responsibilities of each department within and outside their institutions.

Lesson 4: Handling the problem depends much on individual and collective behavior of everyone involved

Rarely do things happen in isolation, and many actions one takes are reactions on those of others. Even cases that seem straightforward taken in isolation, behaviors of others influence how one reacts to new information. This interaction is inevitable to a degree, and understanding this may help, in particular, to aim to maintain the level of awareness and coverage over one's responsibilities under any circumstances.

One exercise introduced a bank already in a dire solvency situation from the beginning to elicit the practice of quick discussion and action. Unexpectedly, the focus of the top decision makers was set on the effects of mildly problematic news articles coming from an important neighboring country—news on which many businesses in the jurisdiction relied. While the central bank board kept them busy handling requests about the potential impact of other news, officials in the bank supervision department were the only recipients of information on the worsening situation at the bank. The supervisors failed to warn the others of the serious matter quickly enough. In a case in which discussions of the use of a deposit guarantee fund and public funds were necessary, important information was stuck in one place because the officials did not share information with key counterparts quickly or at all. Even though it is difficult to divert attention from seemingly urgent issues at hand, it is important to maintain coverage on the respective responsibilities so as to not miss new pieces of information that may end up being critical. As such, it is important to be aware that one can become myopic under pressure, missing key information pertinent to one's duties. Facilitators have observed considerable amounts of time and effort wasted on very small matters that they had expected to be resolved quickly in a scenario.

Lesson 5: Human elements play a bigger role than crisis management plans

Amid the fear and panic over a crisis, the exercises have signaled that the human element appears to be far more important than having solid crisis management plans. Having plans in place may help, but the tool is only as good as the people using it.

In one instance, an opportunity to conduct a CSE came about in a jurisdiction that had just finished preparing a crisis management "binder." The CSE was requested to test the binder's contents and the preparation of the authorities. Early in the exercise, it became clear that the authorities were simply checking off boxes: whatever was happening in the simulated world—even when the topic of discussion

ceased to matter anymore because of their delayed action—the authorities fixated on handling each problem presented in sequence. Participants cited the sections of the binder as they took the steps according to the binder instructions, in a perfect "if this, then do that" reaction. Finding the right or wrong solution according to the binder was the focus, rather than actually understanding and analyzing the issues at hand and coordinating timely solutions. Surely the participants made gains in the exercise because they had the opportunity to imagine how events might develop in crisis times. However, having a perfect plan on paper does not guarantee that conditions will be manageable in the way imagined. The individuals need to be prepared to handle each case before them as it unfolds. Especially in crisis situations, decisions have to be made with often imperfect and incomplete information in contrast to a plan or manual in which details can be neatly laid out. The task is compounded by the existence of a web of officials who need to work together to share information and analysis to make decisions that benefit the situation.

Lesson 6: No two major crises are similar, so exercises should be held regularly

Simulation exercises should be periodically repeated under different scenarios. The CSE is not to be done once and then marked off a checklist. Managing a crisis depends so much on the human elements and the individuals involved, as previously noted. Thus, no one will have control over what all the other individuals decide to do when the time comes to react to a problem that all parties understand in a certain (and usually different) way. Therefore, a CSE is necessarily a *practice* to be repeated periodically. Repeating the experience could smooth out the bumps in a speedy, efficient resolution of a crisis.





In one country in Latin America, authorities established their own capacity to conduct CSEs periodically by setting up a department in the central bank. The department has conducted several exercises. In another Eastern European jurisdiction that had previously conducted its own simulation exercise at the technical staff level, the World Bank–guided CSE raised awareness of the need to practice at the decision makers’ level. The deputy governor who experienced the World Bank exercise mandated a joint review of the exercise transcript so that participants could understand what happened and use the review as a lessons learned document of their own. Furthermore, after the World Bank CSE, the jurisdiction decided to continue to conduct exercises at the level of decision makers.

Conclusion

Crisis causes panic and stress. It is difficult to predict human behavior during a crisis because of many factors that influence individuals, including lack of trust between different authorities, political pressure, incomplete and asymmetric information, perverse incentives, and an interest in protecting one’s job. However, exercising and improving readiness to deal with a crisis are important. Firefighters do not try to determine if the hydrant is working only after they receive a 911 call.

Crisis simulation is an important exercise to practice communication, coordination, and decision making. By participating in simulations, authorities are better prepared when an actual crisis occurs. In the chaos of the crisis, problems such as information asymmetry and lack of communication and coordination only magnify and exacerbate the situation. Human elements play a bigger role than do solid

crisis management plans. No matter how good the crisis management plan is, the plan is only a tool as good as the people using it. CSEs allow the important human components to put their tools to the test and hone their skills at handling a crisis—a stress test on themselves.

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Endnotes

1. The FIRST (Financial Sector Reform and Strengthening) Initiative is a multidonor trust fund managed by the World Bank Group that finances technical assistance aimed at strengthening financial sectors in low- and middle-income countries.
2. World Bank CSE experience since 2009 spans 29 exercises to date, including 24 single-jurisdiction scenarios in 22 countries and 5 multijurisdiction exercises. Single-jurisdiction exercises have taken place in the following regions: eight in Europe and Central Asia, seven in Latin America and the Caribbean, three in Africa, two in East Asia and Pacific, and two in Middle East and North Africa. See Aquiles A. Almansi and Attila Csajbok, “Financial Crisis Simulation Exercises in Europe and Central Asia: Lessons Learned” (Financial Sector Advisory Center working paper World Bank, Washington, DC, January 2016), <http://pubdocs.worldbank.org/pubdocs/publicdoc/2016/1/150791453290633503/CSE-in-ECA-lessons-learned-Working-paper.pdf>.