Guiding Principles

For

Central Banks to address impact of natural disasters and climate change on banking system and financial stability

Arab Monetary Fund
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Background

Natural disasters and climate change challenges have gained the attention of regulatory authorities across world, given the potential impact on financial stability. In this context, the International Monetary Fund has classified the climate-related risks affecting the banking sector and financial stability into two categories, namely “Physical risks” and “Transition risks “. Physical risks include those related to natural disasters that lead to loss of property, assets and infrastructure, which affects negatively the public finances, financial sectors, insurance, individuals and businesses. The insurance sector, for example, would be negatively affected by the increased costs of the impact of natural disasters on obligations (an increase in compensation for loss or property damage and victims) and assets (investment losses in real estate or ownership of companies affected by climate-related events). As for the risks of transition, the potential financial losses of the value of investments as a result of combating climate change or the change in the priorities of consumers and investors towards environment-friendly products and practices.

In the same context, World Bank statistics indicate that losses resulting from damage caused by natural disasters and climate change have quadrupled since the eighties rising from 50 billion to about 200 billion in the last decade. Several studies on climate change indicate that temperatures rise, and negative repercussions are expected to slow global economic growth and adversely affect the performance of financial markets. Also, the $ 143 trillion non-bank financial assets, according to the Financial Stability Board, may be affected negatively by global warming. A study by the London School of Economics indicates that if temperatures rise by two and a half degrees by the end of the century, it is expected that roughly $ 5.2 trillion of financial assets would be at risk. The same study expected 0.5 per cent of total financial assets would be at risk, according to an optimistic assumption, and to 17 per cent according to severe assumptions.

In this context, some countries have developed stress tests to measure the extent of financial soundness against the effects of climate change risks. Stress tests are intended to assess the occurrences of a comprehensive financial shock caused by the climate change, such as a sudden drop in economic growth or a significant fall in real estate prices.

Additionally, stress tests measure the ability of financial institutions, such as banks and insurance companies, to continue providing financial services even under severe adverse assumptions. The inclusion of climatic factors to the current methodology of stress tests would provide hypotheses of potential impacts that contribute in guiding governments and private sectors in taking a proper prudential measures according to their circumstances, thus preparing to face potential financial shocks that may arise from the risks of climate change.

Stress tests cover also physical risks resulting from property damage, the transitional risks resulting from changing policies and technologies that affect the global transition to a low carbon economy, and the impact on financial stability. In addition, stress tests include the assumption of natural disasters (such as a typhoon causing property losses and negatively affecting the tourism sector). Direct losses are realized due to destruction of assets or collateral assets or their impairment, which affects the value of the financial institutions' exposure to businesses and households. In some countries, total economic losses were estimated to exceed 200 percent of GDP. Hurricane Maria that struck the Dominican Republic in 2017, was cited as an example too.

Several central banks, such as the Bank of England, have conducted stress tests that include multiple hypotheses measuring the impact of climate change on the financial stability. In light of the foregoing, policymakers in the Arab region have showed an increasing interest in developing appropriate mechanisms and methodologies that enable them to monitor risks related to natural disasters and climate changes on financial stability, particularly by designing stress tests that measure the impact of climate threats on the financial sector.

In this regard, the Arab Monetary Fund, in line with its mandate and strategy, has released the following general guiding principles to support Arab central banks and monetary authorities in addressing the implications of natural disasters and climate change on the banking system and financial stability across the Arab region.

COUNCIL OF ARAB CENTRAL BANKS AND MONETARY AUTHORITIES GOVERNORS

صندوق النقد العربي
ARAB MONETARY FUND

Guiding Principles for Central Banks to address impact of natural disasters and climate change on the banking system and financial stability

Principle (1)

The central bank should adopt a comprehensive governance framework in managing natural disasters and ramifications of climate change and addressing the potential impact.

Principle (2)

To establish an ad-hoc specialized Natural Disaster Management Committee (or adding disaster management to the scope of the crisis management committee) within the central bank, specifying its tasks and responsibilities which include the preparation of a recovery plans to achieve return to normal situation.

Principle (3)

Should the insurance sector be not subject to the supervision of the Central Bank, it is advisable to represent the insurance supervisory authority in the Natural Disaster Management Committee referred to in Principle No. (2).

Principle (4)

To develop and implement a cooperation framework that organizes coordination and exchange of information between the central bank and the research centers and institutions concerned with the environment and natural disasters in the framework of a strategic partnership. Thus enabling the central bank to gather and process information on the possibilities of occurrence or recurrence of natural disasters of various kinds, aiming at being better to formulate policies to deal with the repercussions of those disasters on the financial and economic systems.

Principle (5)

To take into account the harmonization and coordination of the Central Bank's efforts for business continuity plans[1] to include adequate measures and determine alternative workplaces for the central bank in the event of natural disasters, such as earthquakes, floods and hurricanes, considering advisable geographical distance between alternative work sites, and the adequacy and robustness of communication networks with the primary data-center, in addition to the periodic testing of the effectiveness and safety of the replication procedures and mobilisation to work at alternative work centers on a regular basis to cover all potential failure hypotheses, thereby enhancing the ability of the central bank to play its role in disaster and emergency situations.

Principle (6)

To set a charter, memorandum of understanding, or a joint action plan for cooperation in a disaster situation between the central bank and the relevant official authorities, including arrangements for conducting exercises and simulation tests on a regular basis, to train employees to deal with natural disasters.

Principle (7)

To develop and update plans to ensure the continuity of operations as of the critical central systems, such as the instant settlement system (RTGS), the SWIFT network, investment portfolio management systems, debt issuances, foreign currency reserves and open market operations. Strengthening the IT infrastructure, access to ATMs, and the identification and analysis of risks to which payment systems may be exposed to during natural disasters. Taking the necessary measures preserve the operations and activities of the central bank and the banking sector to fulfil domestic and international obligations.

[1] The business continuity plan should meet the "ISO 22301" standard.

Principle (8)

The Central Bank should issue instructions and guidelines for the financial sector. The required measures and preparations are regulated, including the minimum requirements by the financial sector in relation to dealing with natural disasters, and updating the instructions whenever the need arises.

Principle (9)

To continuously monitor and evaluate business continuity plans and risk management policies adopted by banks and financial institutions, and verify through field visits and office reviews that banks and financial institutions have put in place and duly approved by their boards, relevant plans and procedures that address effectively the consequences of natural disasters, ensuring continued implementation of activities and banking and financial operations in the event of disasters.

Principle (10)

The central bank and the financial sector to develop stress tests that include progressive severity hypotheses, including the potential impact of natural disasters and climate changes on the banking and insurance sectors. Among such hypothesis are the occurrence of material losses in the financial sector assets and investment portfolios, the occurrence of losses in the property of clients, individuals and companies, and the occurrence of natural disasters in the country of the parent bank or bank branches across borders, or correspondent banks in other countries.

Principle (11)

To urge the financial sector to adopt measures to deal with the expected impact of natural disasters and climate changes on credit, operating, and market risks.

Principle (12)

To evaluate and analyse potential so-called “transition risks” from loss of value of investments as a result of combating climate change or shifting consumer and investor priorities into environmentally friendly products and technologies. The stress testing referred to in Principle 10 include hypotheses regarding the risks of converting to environmentally friendly products.

Principle (13)

To assess and analyse the impact of the transition from carbon "products" and services to "carbon" products and services that are low, and the impact of that on the sectors concerned. Adopt policies to study and address negative impacts on sectors that may be affected by the transformation.

Principle (14)

To develop a strategic plan that drives the gradual transformation to environmentally friendly products in coordination and cooperation between the Central Bank and the official government agencies concerned with climate and environmental changes, in order to reduce the risks of transformation.

Principle (15)

The central bank to adopt support programs directed to incentive environmentally friendly projects, through appropriate concessional financing terms and interest rates, leading to strengthen sustainable and responsible financing, to commercial banks and environmentally friendly project owners in a thoughtful manner.

Principle (16)

To ensure coordination and cooperation between the Central Bank, the Ministry of Finance and other relevant government agencies to enhance the role of financial policy in supporting the environmental shift towards low-carbon projects.

Principle (17)

To consider the possibility of establishing a Disaster Recovery Fund under the supervision of the Central Bank, to be funded by annual contributions from banks and donations from the private sector, provided that the Natural Disaster Management Committee determines how the fund is managed and governed.

Principle (18)

To provide the financial sector with trained and qualified personnel in the field of natural disaster management and develop their capabilities through relevant training on an ongoing basis.

Principle (19)

To maximize the benefit of FINTECH, as implementing digital financial operations during natural disasters contributes to reducing business interruptions and implementing financial operations. At the same time, it is important to assess ways to enhance cybersecurity and information security measures, and to provide adequate infrastructure and technical support[2].

Principle (20)

To task financial stability administration at the central bank with responsibility of monitoring and assessing systemic risks arising from climate changes, and assessing the impact on a number of economic sectors such as individuals, real estate, industry, trade, and others

Principle (21)

The Banking Supervision Department at the Central Bank to evaluate the readiness, plans and preparations of banks to face potential climate events. This is equally relevant in the case of the Insurance Supervision Department regarding

[2] See guidelines for cybersecurity safety for financial infrastructure in Arab countries, issued by the FINTECH Working Group of the Arab Monetary Fund, 2020.

insurance companies. External auditors are also called upon and mandated to assess readiness.

Principle (22)

To take necessary measures by the authority concerned with credit information management and bank risk management in the central bank to address the negative impact on the credit rating of customers, while maintaining the integrity and credibility of credit rating reports.

Principle (23)

To constantly evaluate the insurance sector's ability to manage and absorb the potential losses arising from natural disasters. Working in parallel to strengthening the protection of consumers of financial services and ensure their rights, encouraging the use of automated means to deal with customer complaints during natural disasters.

Principle (24)

To convene seminars, workshops, training programs and awareness sessions in normal times for employees of the Central Bank and the financial sector, that focus on how to prepare for crises arising from climate change and natural disasters and reflect on international best practices in this regard.

Principle (25)

To strengthen and promote cooperation between the Central Bank and international institutions concerned with the consequences of climate change and natural disasters and their impact on the international economy and the global financial system.

Principle (26)

To adopt a media policy for the central bank during the period of natural disasters aiming to reassure depositors and investors, thus enhancing their confidence in the financial sector. Encouraging financial institutions to adopt a communication policy consistent with the media policy of the Central Bank on disasters.

Principle (27)

The Central Bank to undertake a comprehensive post-disaster evaluation of the strategies for dealing with natural disasters, the extent of success or failure in managing the challenges of the disaster and the human and material losses arising and taking the necessary measures to address the deficiencies identified during the disaster.

Principle (28)

Financial and banking institutions should provide the central bank with a comprehensive report about the evaluation of their plan in dealing with natural disasters, the extent of success or failure to manage the crisis and emerging human and material losses, and proposals to develop their plans in the future to address the shortcomings identified during the disaster.

Principle (29)

In the context of applying the guiding principles contained in this document, the Central Bank are encouraged to:

- Assess and update the current business continuity and disaster plans that already exist at both the Central Bank and the banking sector, in line with the above guidelines.
- Recognize the differences from a country to another in the geographical aspect and type of natural disasters to which they may be exposed, and accordingly the nature of the repercussions, their effects, and the measures to address them.
- Coordinate with relevant authorities at country level in charge of national business continuity plans and disaster management, as well as with any other government agency in charge of financial stability.

- Benefit from previous experiences and lessons learned in addressing natural disasters implications, as well as to benefit from the COVID-19 pandemic experience and the related measures and implications[3].
- Define basic indicators to monitor the performance of financial and banking institutions to ensure the safety of financial stability during the period of natural disasters.
- Cooperate with other central banks by sharing experiences and applied assumptions in stress tests exercises as well as plans to overcome the related effects. Such cooperation would support building hypotheses according to factual information derived from real events (for example, the transition from a high-carbon economy to a low-carbon economy, or a natural disaster that causes loss of life and property).

[3] See general guidelines for Central Banks to deal with COVID-19 implications on Financial Stability. Arab Monetary Fund, 2020.