

Financial and Settlement Systems as Social Infrastructure: Disaster Management Perspective

November 28, 2019

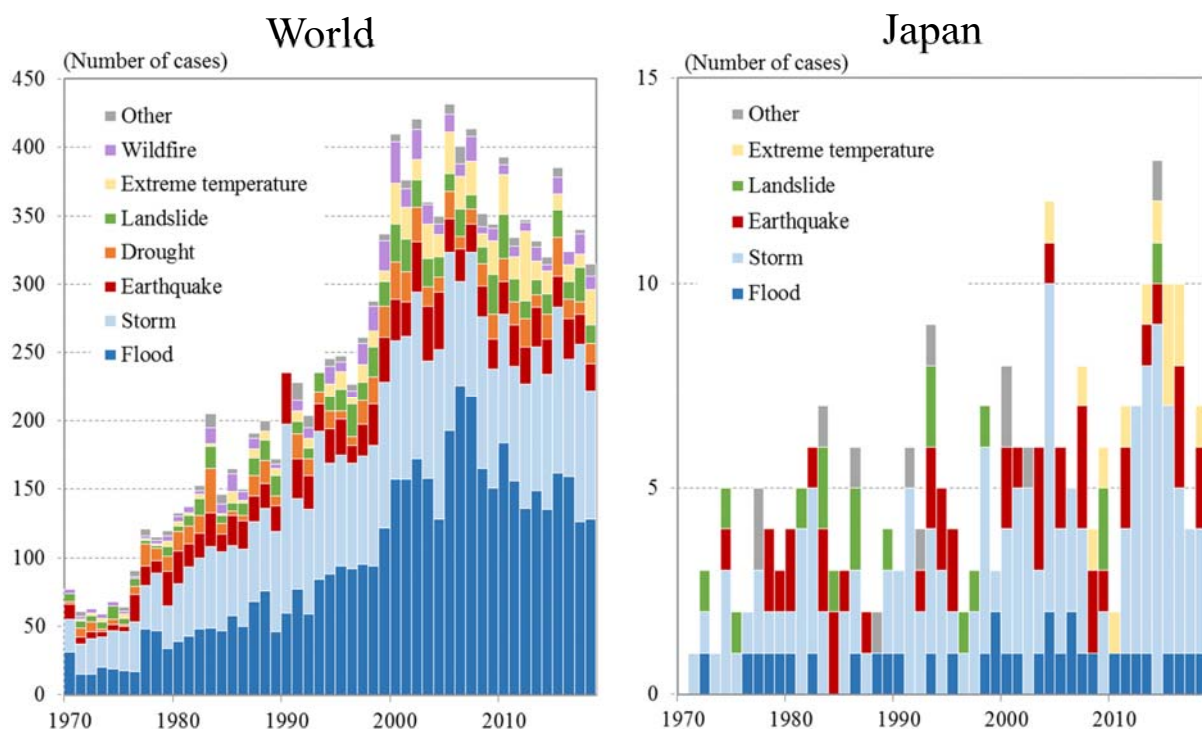
*The Symposium "The Impact of Natural Disasters on Financial Markets and
Financial Institutions" Held at Nagoya City University Graduate School*

Masazumi Wakatabe

Deputy Governor of the Bank of Japan

Chart 1

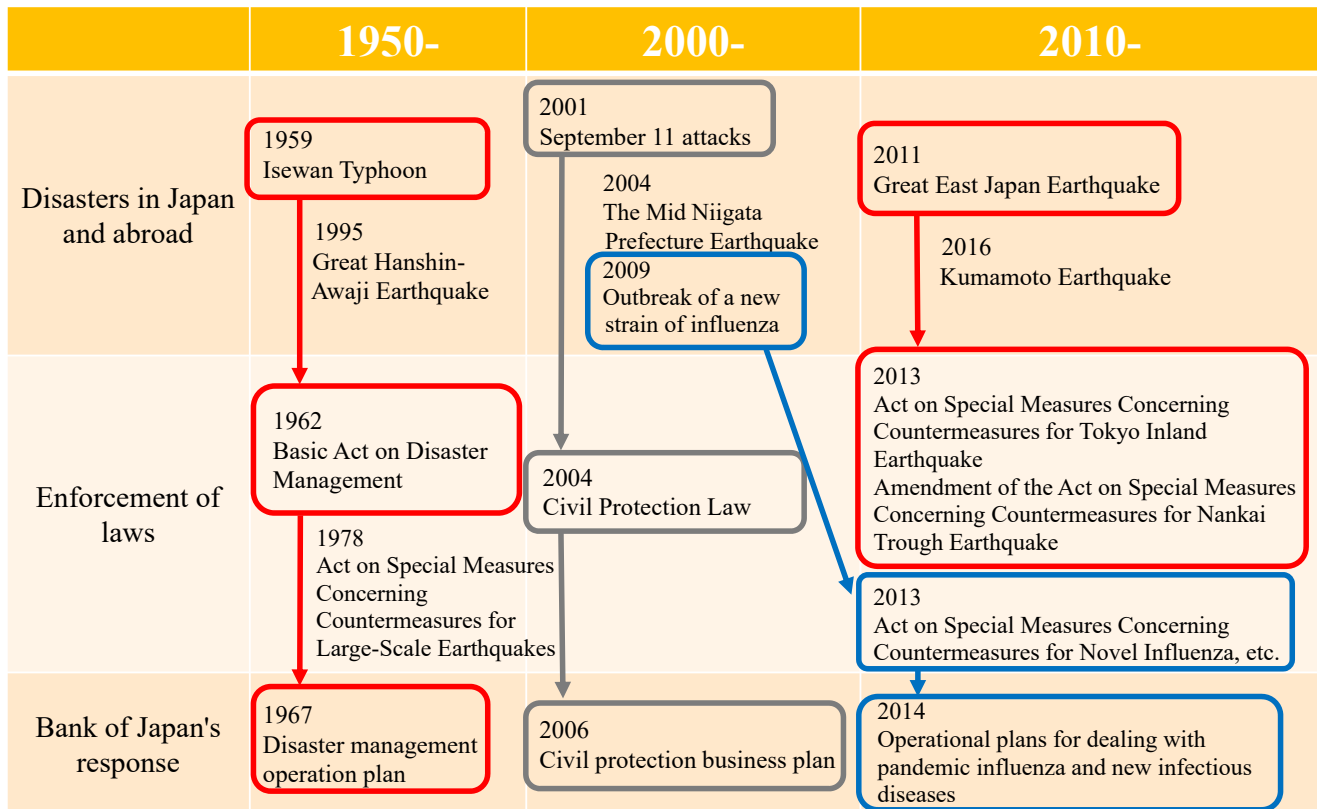
Number of Natural Disasters



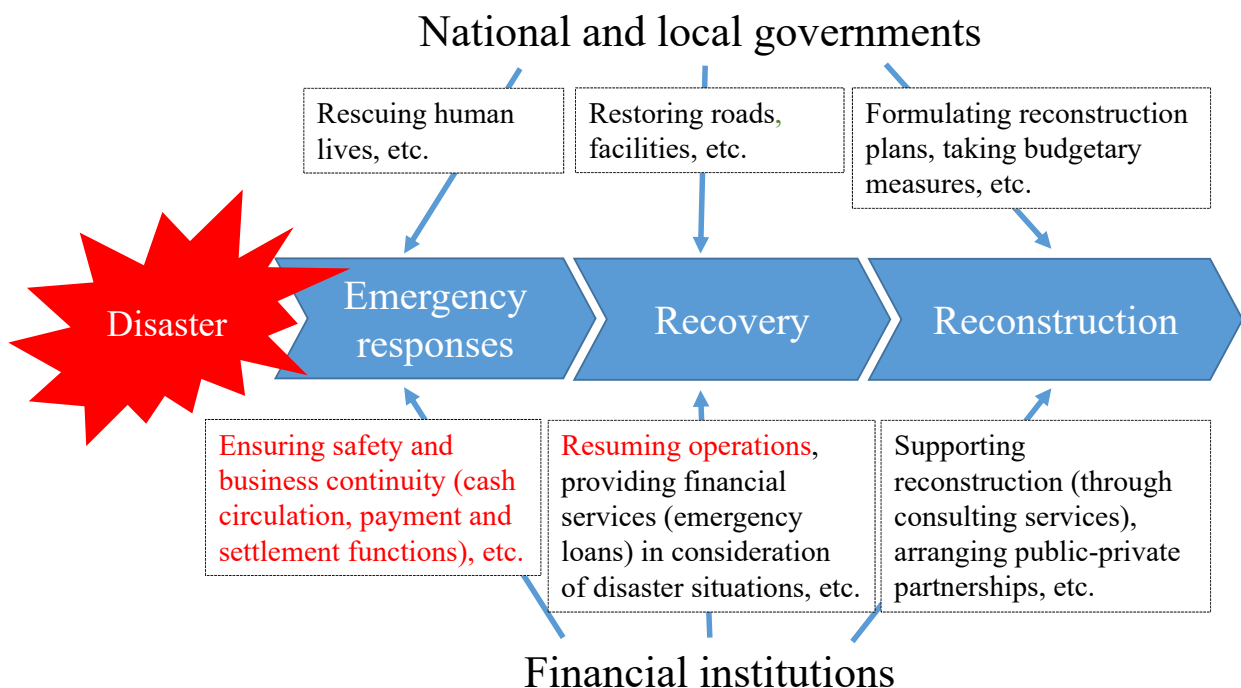
Note: Excludes biological disasters such as epidemic diseases.

Source: EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium.

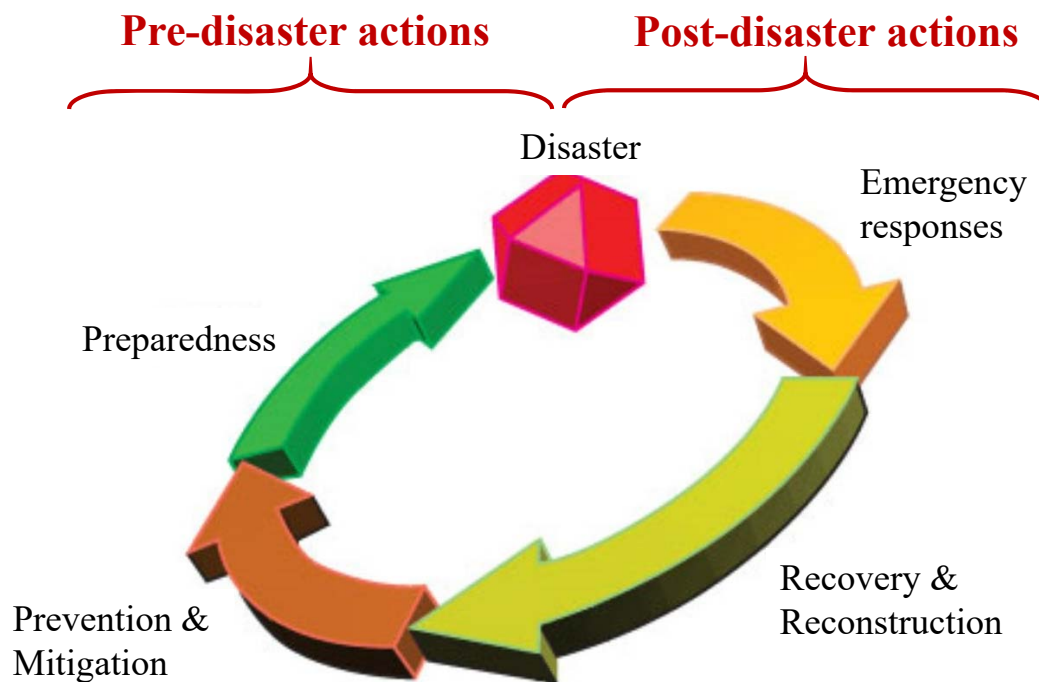
Past Disasters and Development of Related Laws



Phases of Post-Disaster Actions

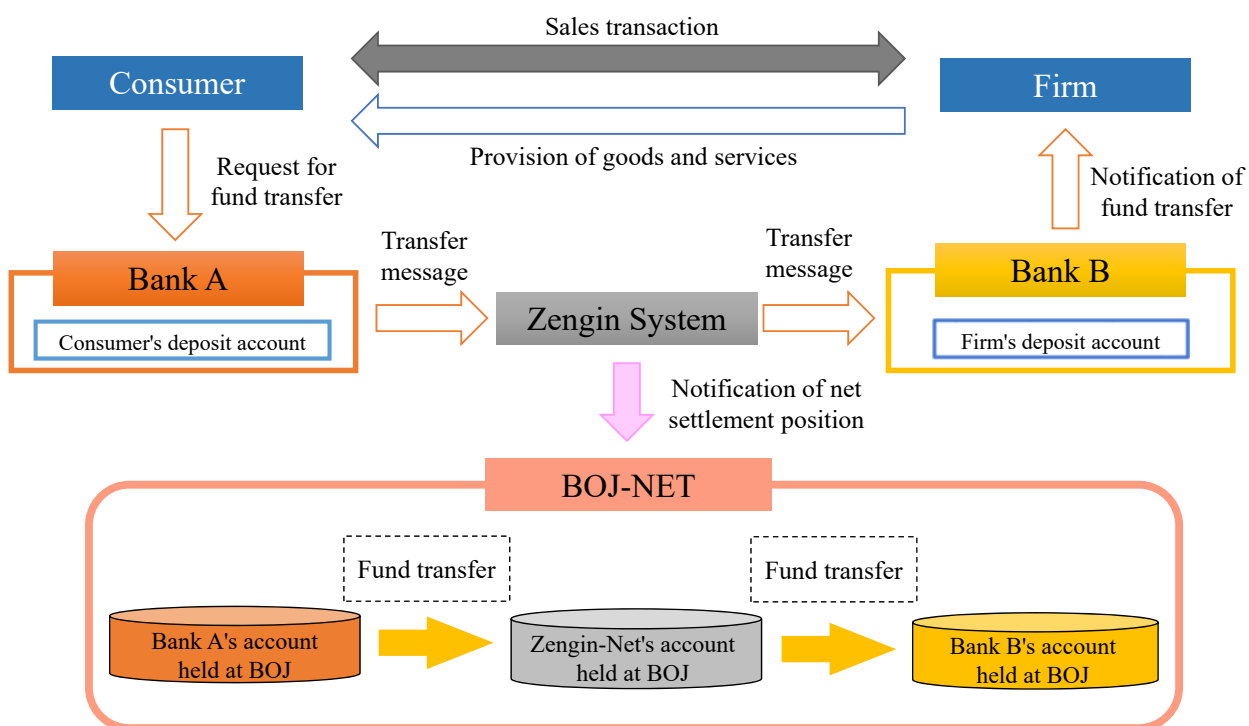


Disaster Management Cycle

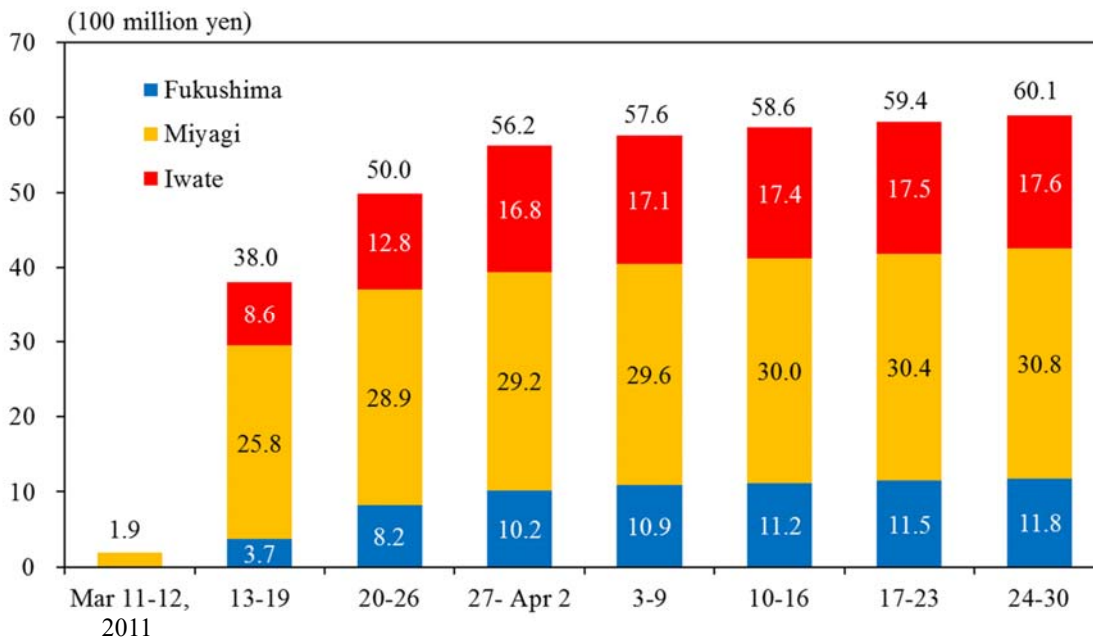


Source: Prepared based on Cabinet Office, "Heisei 17-nen-ban bōsai hakusho" [White paper on disaster management 2005], 2005, <http://www.bousai.go.jp/kaigirep/hakusho/h17/index.htm>.

Process of Payment and Settlement and Role of the Bank of Japan



Cash Withdrawals by Depositors Who Lost Passbooks



Note: Figures are cumulative and for regional banks (I and II) and *shinkin* banks headquartered in Iwate, Miyagi, or Fukushima Prefectures that were able to respond (3 regional banks I, 1 regional bank II, and 8 *shinkin* banks).

Source: Bank of Japan.

Examination of Damaged Banknotes and Coins for Exchange (1)

First, muddy banknotes brought to the Bank are washed.



The banknotes are then dried one by one using hairdryers, etc.

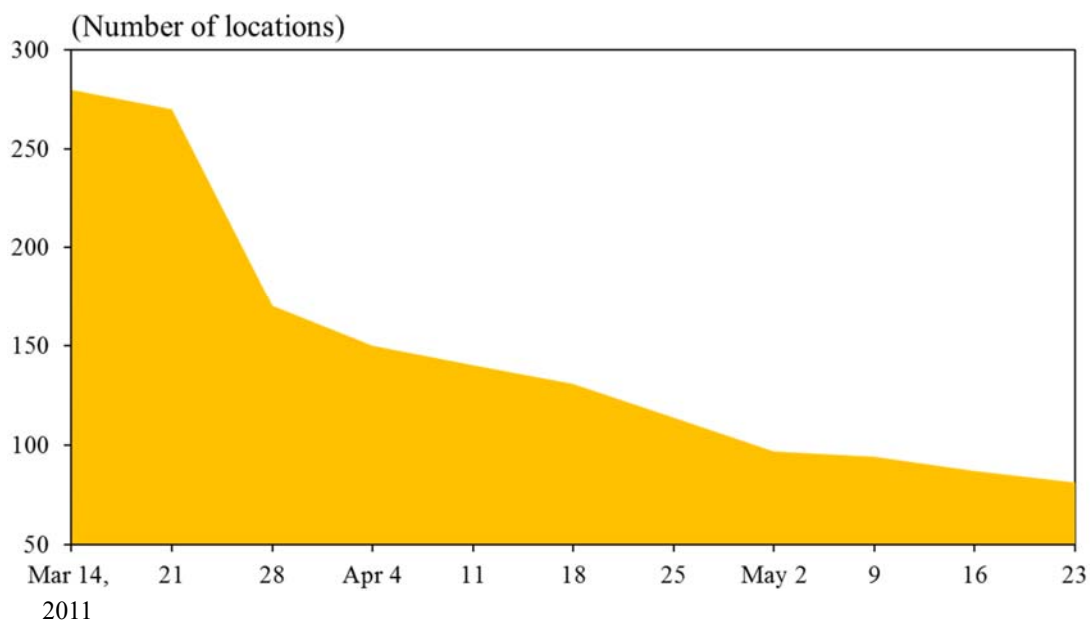
Examination of Damaged Banknotes and Coins for Exchange (2)

Finally, the dried banknotes are laid out and examined.



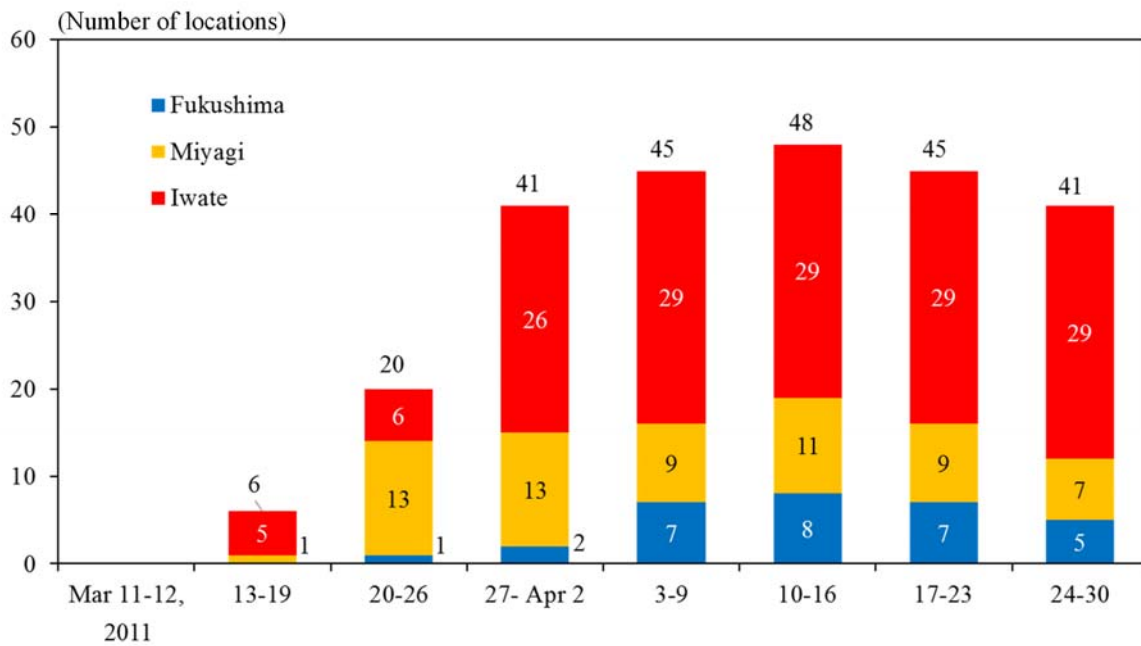
Similarly, coins are washed and examined.

Number of Bank Locations Closed



Note: Figures for financial institutions headquartered in one of the six prefectures of the Tohoku region or Ibaraki Prefecture. The total number of locations is about 2,700 of 72 financial institutions.
 Source: Financial Services Agency.

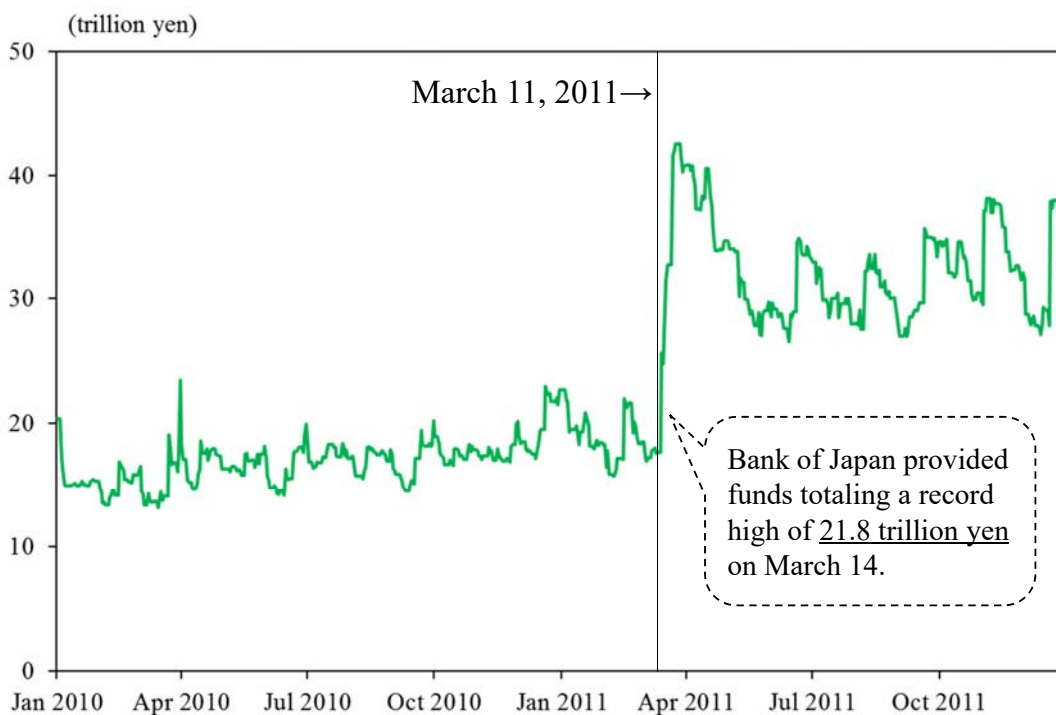
Number of Temporary Bank Locations Opened



Note: Figures are for regional banks (I and II) and *shinkin* banks headquartered in Iwate, Miyagi, or Fukushima Prefectures that were able to respond (3 regional banks I, 4 regional banks II, and 18 *shinkin* banks).

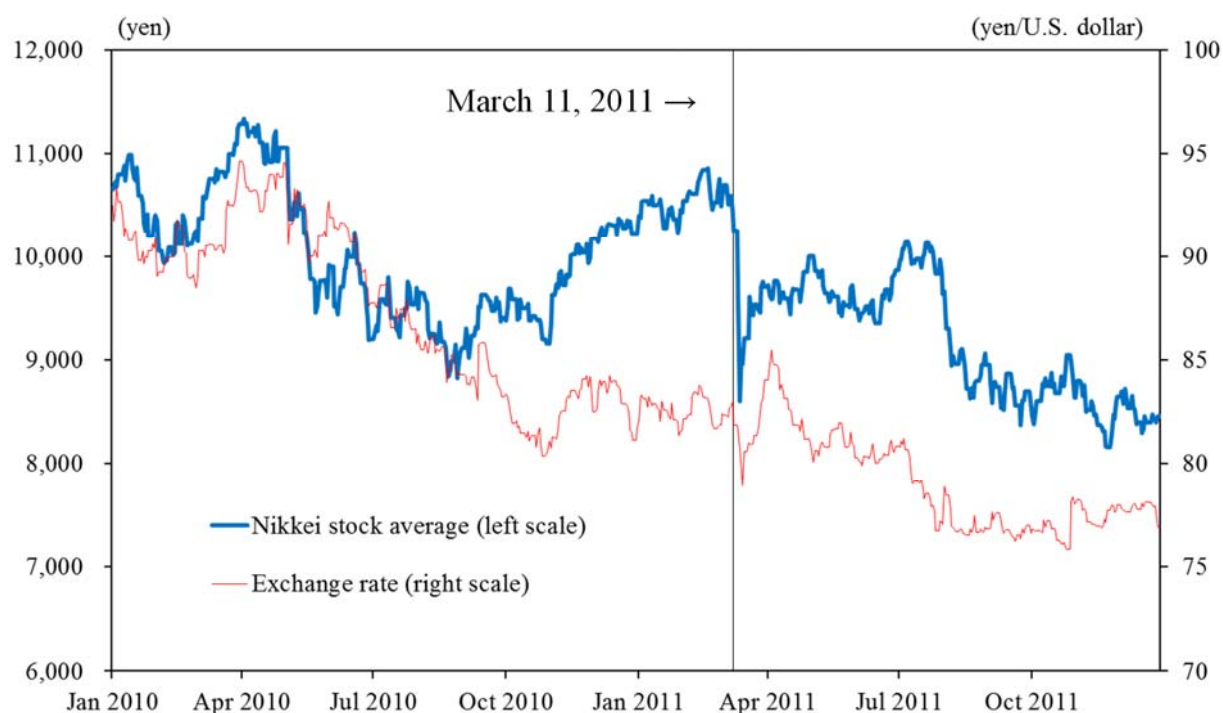
Source: Bank of Japan.

Developments in BOJ Current Account Balances before and after the Disaster



Source: Bank of Japan.

Developments in Stock Prices and Exchange Rates before and after the Disaster



Source: Bloomberg.

Initiatives Based on Lessons from the Great East Japan Earthquake

1. Self-help

→ Many financial institutions have recognized the importance of backup arrangements for computer systems and headquarters' functions, striving to enhance them.

2. Mutual assistance

→ Arrangements for mutual cooperation (in providing cash, etc.) among financial institutions and market-level frameworks have been made and enhanced.

3. Public assistance

→ Consideration on business continuity has progressed, partly reflecting upward revisions of disaster damage estimation by national or local governments.

What is expected of Financial Institutions

1. Enhancement of disaster preparedness

→ Continue to review business continuity arrangements to increase feasibility by taking the opportunity of coping with actual disasters and conducting periodic emergency drills.

2. Enhancement of inter-organizational cooperation

→ Build relationships in normal times with local governments, financial institutions, firms, and monetary authorities so that they can cooperate as necessary in times of disaster.

3. Enhancement of flexibility and imagination

→ Pay attention to changes in circumstances and new risks, reviewing with flexibility and a fertile imagination to see if there is any room for improvement in arrangements.