



# **BOJ** *Reports & Research Papers*

Paper Series on Risk Management in Financial Institutions

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## Questionnaire Survey on Business Continuity Management (November 2008)

Financial Systems and Bank Examination Department  
Bank of Japan

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# Contents

Introduction

Survey Respondents

Key Findings

Survey Results

1. Overview
2. Objectives of Developing BCM (multiple answers allowed)
3. Formulating a Business Continuity Plan (BCP)
4. Securing Managerial Resources
5. Establishing Decision-making Procedures and Communication Arrangements (multiple answers allowed)
6. Compilation of Manuals
7. Implementation of Testing/Training and Reviewing of BCP
8. Measures against Pandemic Influenza
9. Future Challenges

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## Introduction

- This paper summarizes the results of the fourth Questionnaire Survey on Business Continuity Management conducted during October and November 2008.

The survey has been conducted every other year since 2002 on financial institutions that have current accounts at the Bank of Japan with a large volume of transactions in payment and settlement systems. The objectives of the survey are to grasp the current situation of respondents (84 financial institutions for this survey) in developing business continuity management plans, and also to contribute to the discussion on business continuity issues within the financial arena.

- This survey was conducted as a self assessment by respondent financial institutions on their actual developments in line with the checklist given in “Toward Effective Business Continuity Management: A Check List and Instructive Practices” released in May 2008 (English translation in July 2008).
- The Bank expects related financial parties to continue to develop their business continuity management while taking the survey results into consideration. The Financial Systems and Bank Examination Department of the Bank of Japan looks forward to further discussions with financial institutions on such occasions as on-site examinations and off-site monitoring with a view to improving the effectiveness of business continuity management.

## Survey Respondents

	<b>2008 Survey</b>		<b>2006 Survey</b>		<b>2004 Survey</b>		<b>2002 Survey</b>	
<b>Survey period</b>	Oct.-Nov. 2008		Dec. 2006-Feb. 2007		Sep.-Nov. 2004		Aug.-Oct. 2002	
<b>Response rate</b>	100%		100%		100%		100%	
	Number of institutions	Share (%)						
<b>Major banks</b>	12	14.3	12	14.3	14	16.3	14	20.6
<b>Regional banks</b>	17	20.2	16	19.0	16	18.6	10	14.7
<b>Japanese securities firms</b>	10	11.9	10	11.9	13	15.1	13	19.1
<b>Foreign banks and foreign securities firms</b>	29	34.5	32	38.1	26	30.2	16	23.5
<b>Others *</b>	16	19.0	14	16.7	17	19.8	15	22.1
<b>Total</b>	84	100.0	84	100.0	86	100.0	68	100.0

\* “Others” includes central organizations for cooperative financial institutions, money market brokers, trust banks affiliated with securities firms, and trust banks specializing in custodian business, etc.

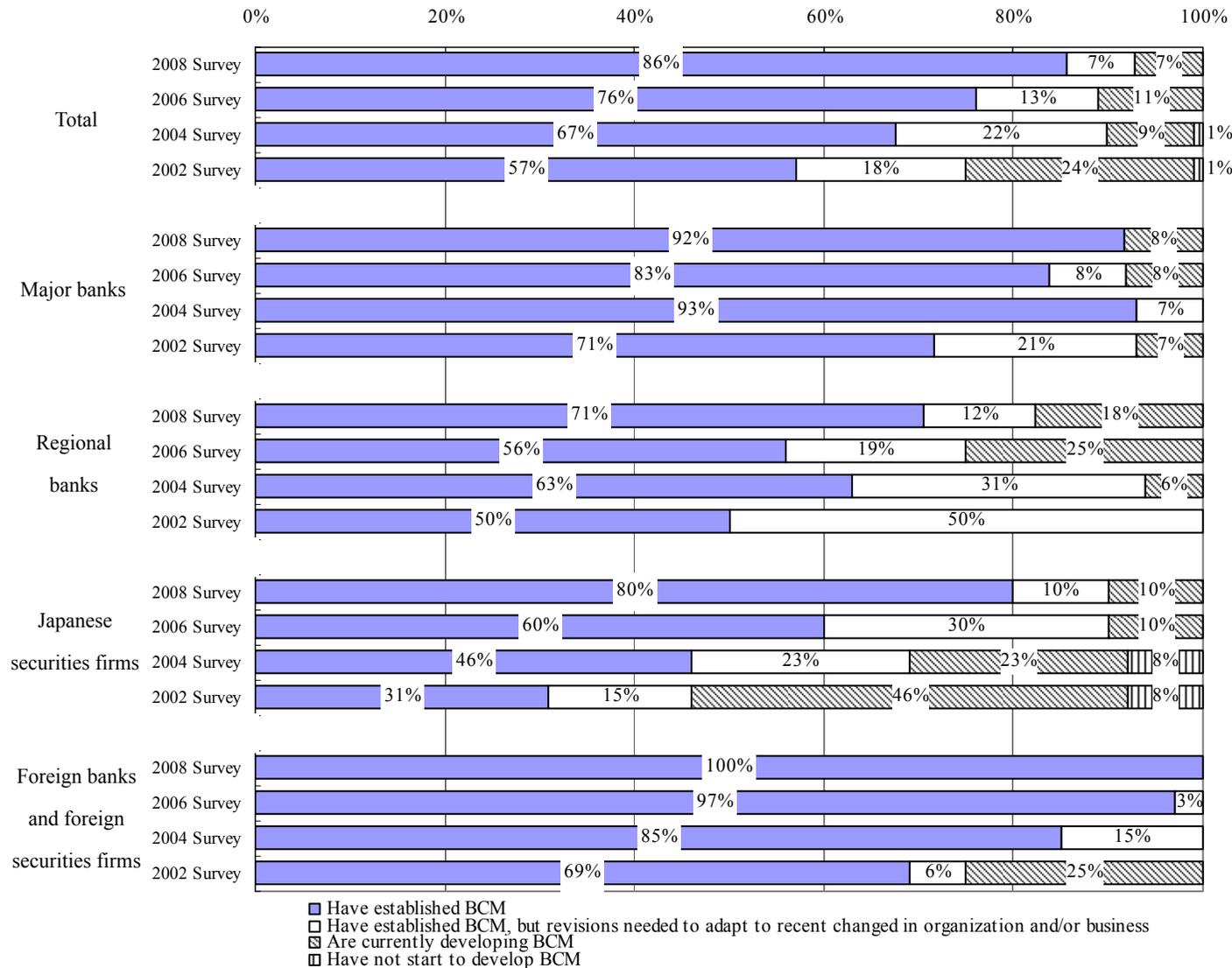
## Key Findings

- Overall, the framework for developing business continuity management (BCM) has continued to progress steadily, and more respondents have become increasingly aware of the need to secure an effective framework.
- Specifically, disaster scenarios have continued to assume that workplaces and/or computer centers become out-of-service due to natural disasters such as earthquakes and large-scale system failures. However, awareness of an outbreak of a pandemic such as a new type of influenza (pandemic influenza) has also been increasing.
- In developing business continuity plans (BCP), “critical operations” that would be recovered on a priority basis in case of disaster were identified and most respondents have made efforts to ensure that “the most critical operations” would be recovered “within the same day.” Specific details of “critical operations” differed by type of financial institution reflecting differences in their business operations.
- As for necessary managerial resources for business continuity (staff, equipment, workplaces), progress has been made in securing workplaces such as back-up offices, but many respondents are still considering how to secure critical staff and system resources.
- Decision-making procedures, communication arrangements and compilation of manuals have made progress.
- Testing/training programs have been conducted on a regular basis more than once a year, and institution-wide drills in which departments and sections related to business continuity participate simultaneously has become a common practice. With regard to future issues, testing/training programs for pandemic influenza were first on the list, followed by improvement in cross-sectional institution-wide drills and implementation of “street-wide exercises”, demonstrating relatively strong interest towards items that verify the consistency of business continuity plans from a broad perspective.
- With regard to countermeasures against pandemic influenza, respondents, fully aware of the urgency, have made efforts to develop countermeasures. Nevertheless, views on specific measures of business continuity during a peak flu period varied considerably among the financial institutions.
- Many respondents named budget and human resource constraints and difficulty in verifying the consistency of business continuity plans between the respondent and other companies/business sectors as challenges faced in developing business continuity management.

# Survey Results

## 1. Overview

### (1) Institution-wide Development of BCM

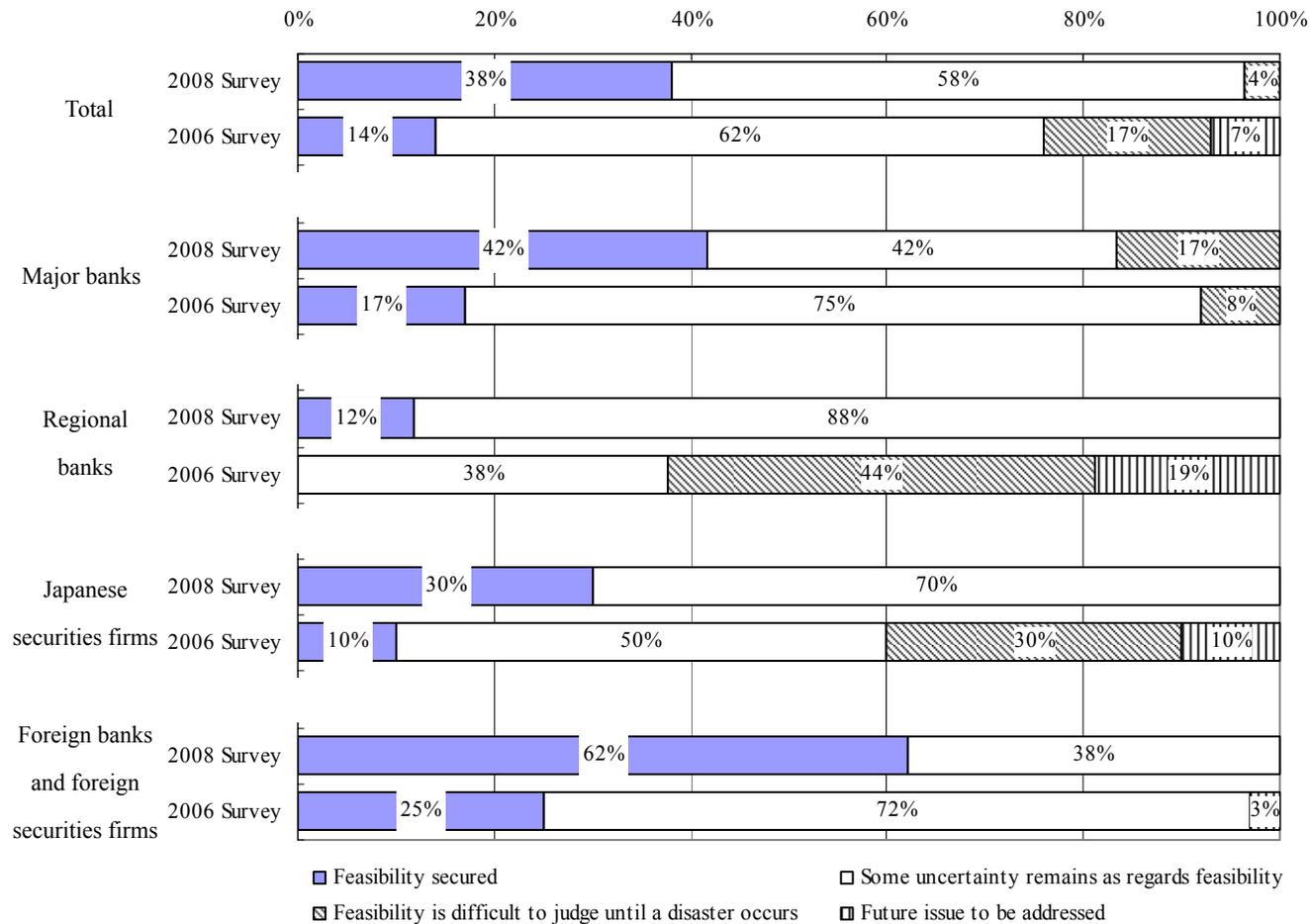


- Development of BCM continued to progress steadily and approximately 90% of the respondents answered that they “have established institution-wide BCM which is revised regularly.”

- This section confirms in general whether respondents have organizational support to promote BCM and have a business continuity plan (BCP) in place. As regards whether they are effective or not, refer to the survey results on the next page.

- By type of financial institution, the results showed that development of BCM has progressed notably among regional financial institutions and Japanese securities firms since the previous survey.

## (2) Securing Feasibility of Business Continuity

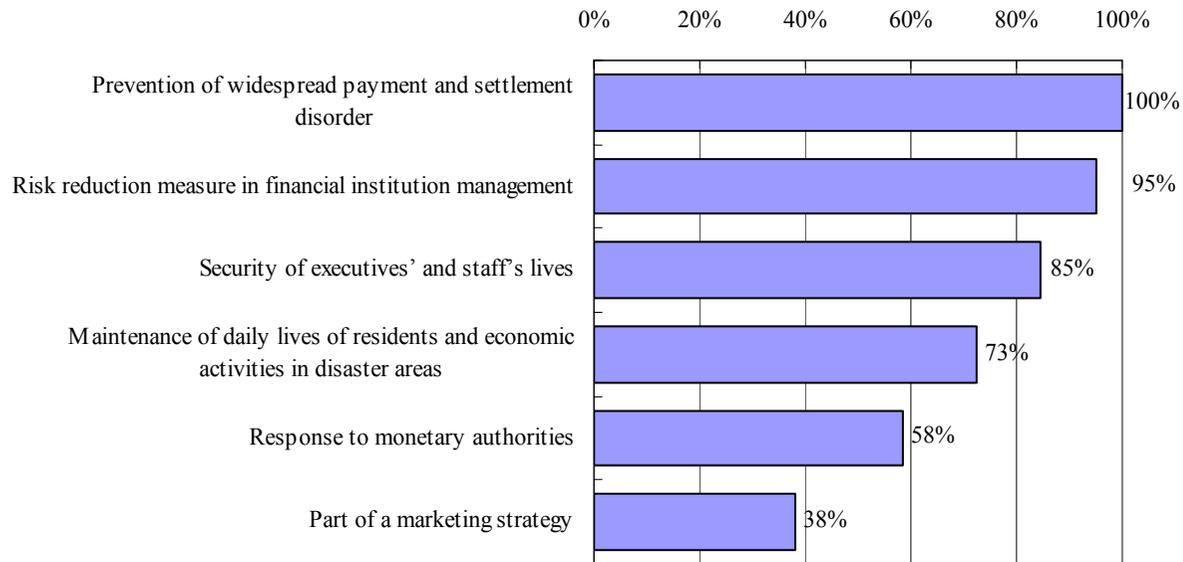


- From the perspective of whether such BCM will actually function when the envisaged risks occur, less than half of the respondents (around 40%) answered that “feasibility of business continuity has been secured”.

- Nevertheless, the number of respondents that have secured feasibility increased in each type of financial institution.

Such increase was the result of preparing back-up offices, familiarizing staff with the contents of manuals, conducting institution-wide exercises and reviewing BCP reflecting the results of such exercises (each will be described later).

## 2. Objectives of Developing BCM (multiple answers allowed)

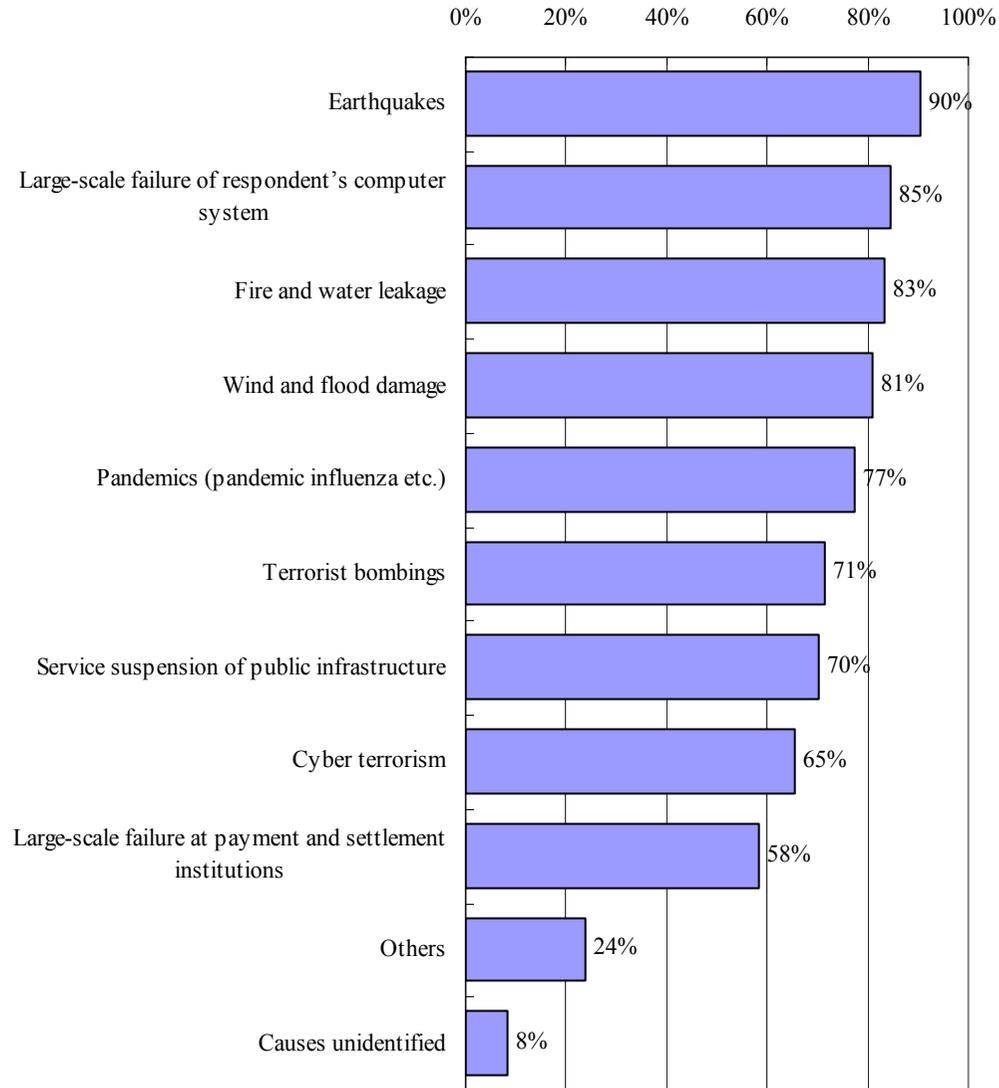


- BCM has been developed from various perspectives, notably “prevention of widespread payment and settlement disorder” and “risk reduction measure in financial institution management.” Financial institutions seemed to consider business continuity as a managerial challenge that should be tackled voluntarily.

### 3. Formulating a Business Continuity Plan (BCP)

#### (1) Identification of Disaster Scenarios

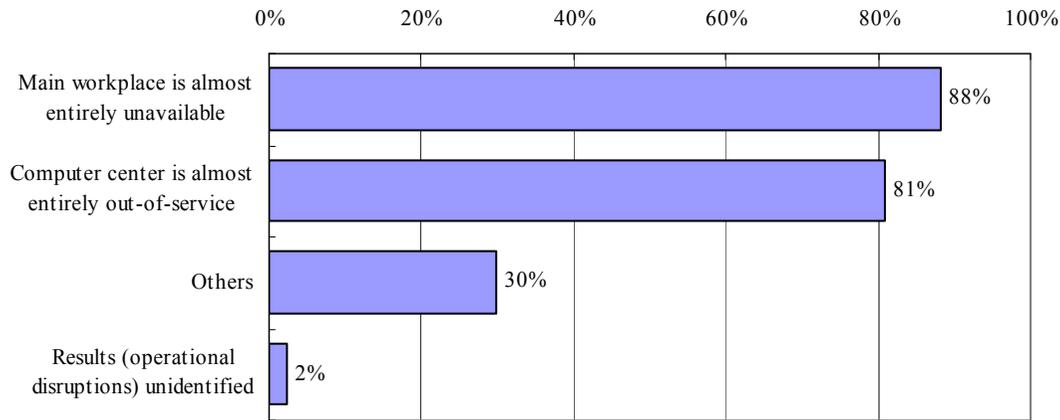
##### A. Causes of Disaster Scenarios (multiple answers allowed)



- Causes of disaster scenarios (potential threats faced by respondents) were mainly natural disasters such as “earthquakes”, “fire and water leakage”, and “wind and flood damage”, as well as “large-scale system failure of respondent’s computer system.”

- Nearly 80% of the respondents identified “pandemics (pandemic influenza etc.)” as the causes of disaster scenarios which had increased significantly since the previous survey (55%).

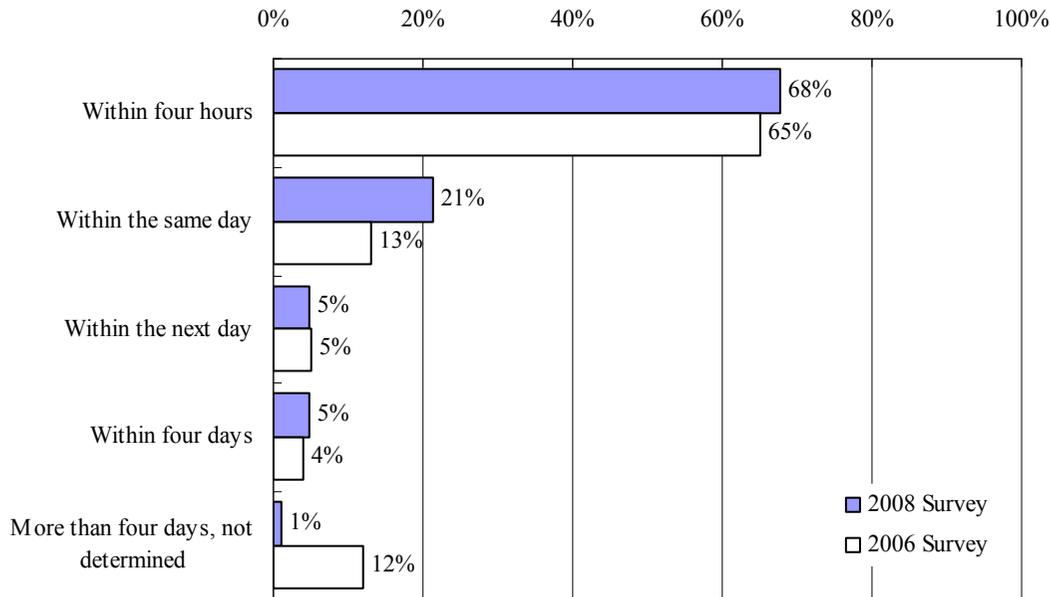
B. Results (Operational Disruptions) of Disaster Scenarios (multiple answers allowed)



- With regard to the results of disaster scenarios (envisaged damage to managerial resources such as staff, equipment and workplaces), the percentage of respondents envisaging that a “workplace” or “computer center” would become almost entirely out-of-service was more than 80% respectively.

- The majority of respondents that answered “others” named “large decrease of staff that could come to the office.”

(2) Recovery Time Objectives for the Most Critical Operations

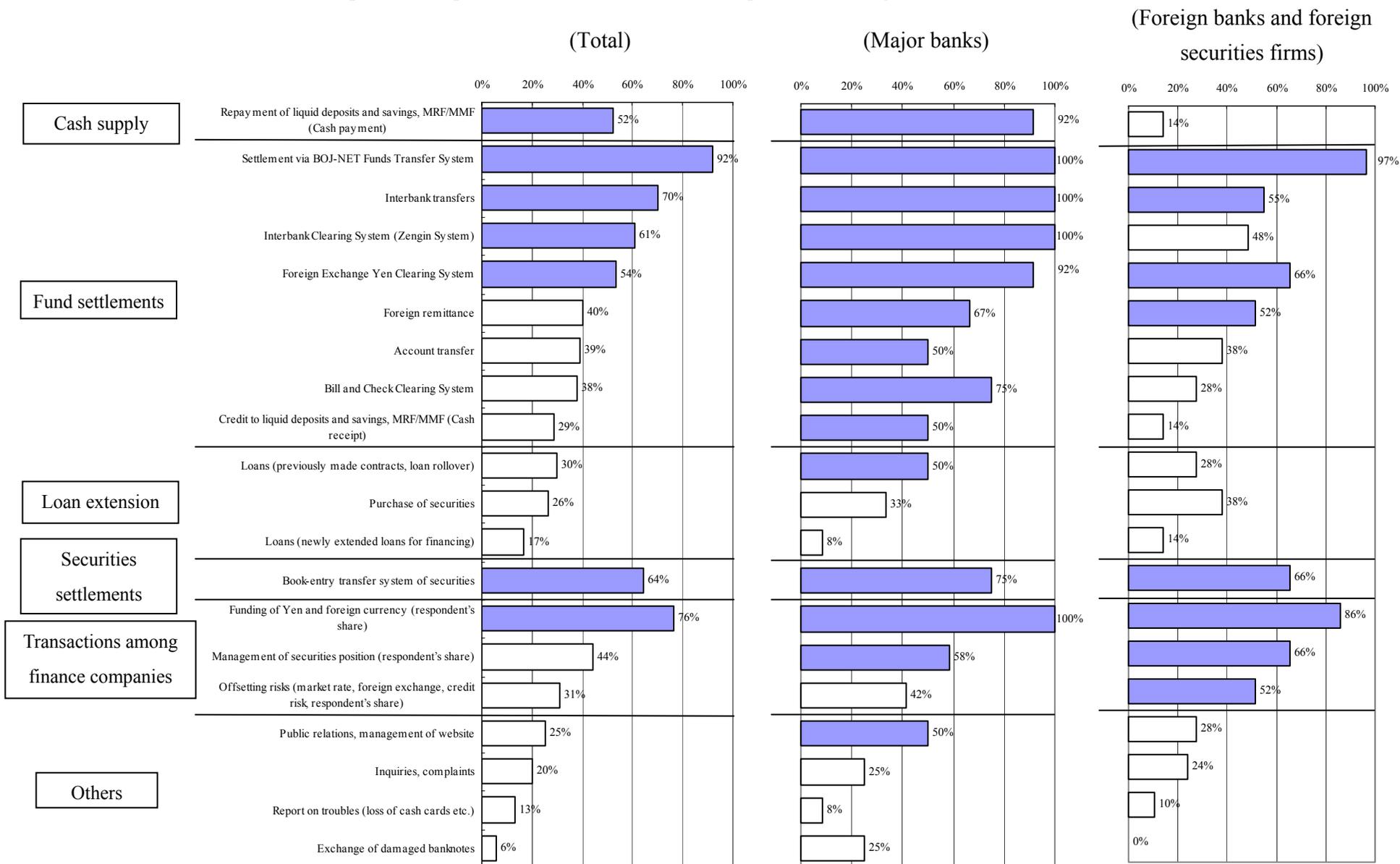


- Respondents that set a recovery time objective for “the most critical operations” at “within four hours” or “within the same day” accounted for around 90% and almost none answered “more than four days” or “not determined.”

- In response to various guidelines such as the “Policy Framework for Tokyo Inland Earthquakes”, efforts to recover critical operations within the same day seem to be spreading among financial institutions dealing with large volumes of transactions in payment and settlement systems, that are also survey respondents.

(3) Specific Content of “the Most Critical Operations” (multiple answers allowed) (colored graph shows items that exceed 50%)

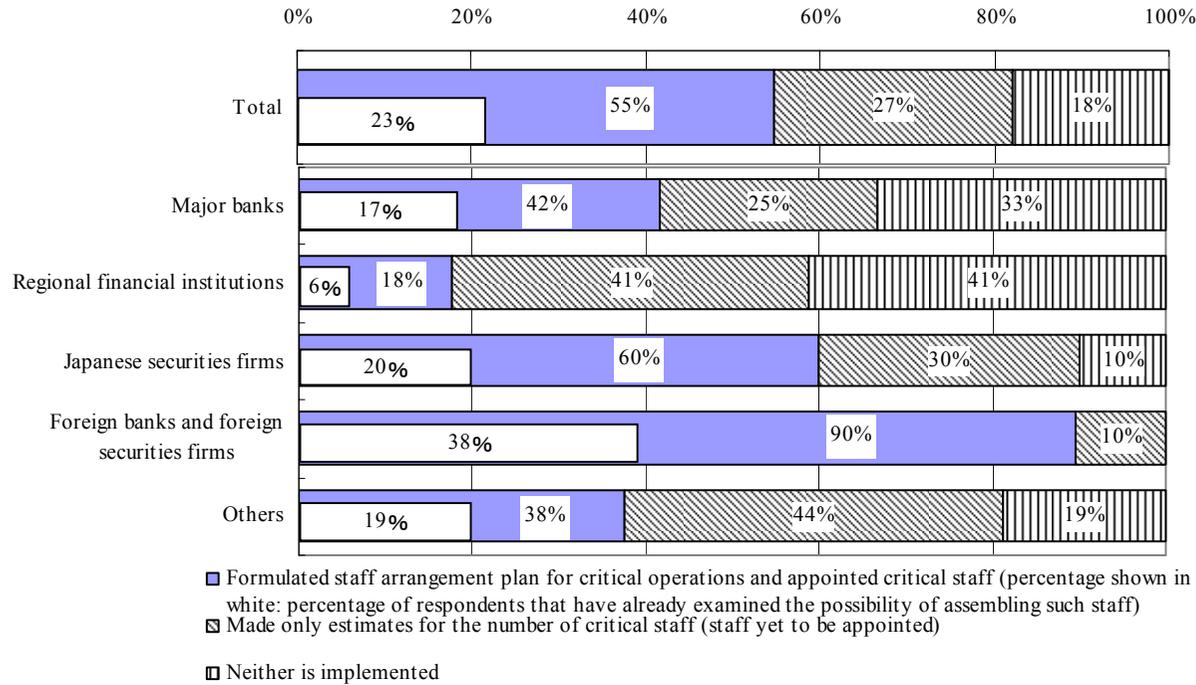
— Answers to a multiple-choice questionnaire based on business operations of major banks



- In identifying “the most critical operations”, all types of financial institution gave high priority to “settlement via BOJ-NET funds transfer system.” Reflecting differences in business operations, features for each type of financial institution were as follows:
- Major banks covered a wide range of operations centering on operations related to “cash supply”, “fund settlements”, and “transactions among finance companies”.
- Foreign banks and foreign securities firms focused on operations related to “fund settlements” and “transactions among finance companies” and operations covered under “fund settlements” were a little narrower than those covered by major banks.

## 4. Securing Managerial Resources

### (1) Business Continuity Staff

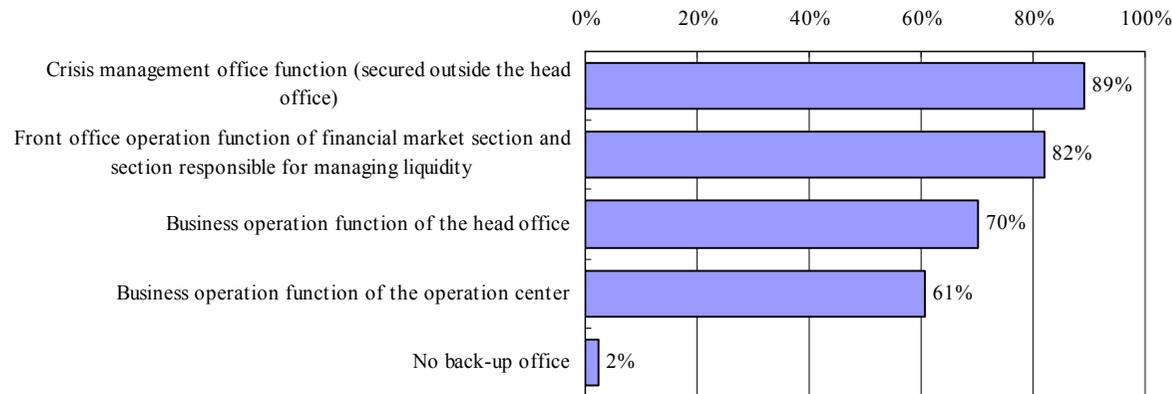


- 80% of the respondents had “made estimates for the number of staff” necessary for recovering “critical operations” but only just over 50% had “formulated a staff arrangement plan and appointed critical staff” and only around 20% had “examined the possibility of assembling such staff.”
- By type of financial institution, foreign banks and foreign securities firms made progress in securing business continuity staff, while such regional financial institutions remained at around 20%.

### (2) Workplaces

#### A. Back-up Office\* Secured Operations and Functions (multiple answers allowed)

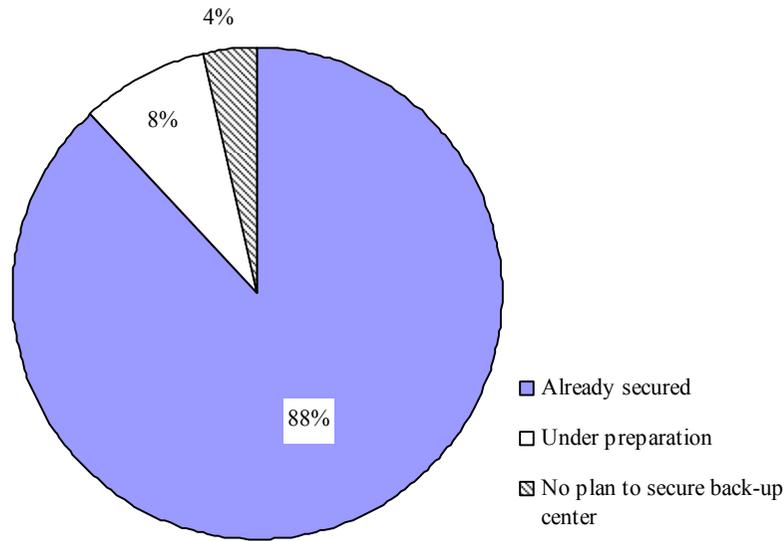
\*Back-up facilities for business operations



- Most respondents had secured back-up offices for at least one of the following functions: crisis management office function, front office operation and various other operations. Respondents with “no back-up office” decreased to almost zero since the last survey (24%) reflecting progress in securing back-up offices.

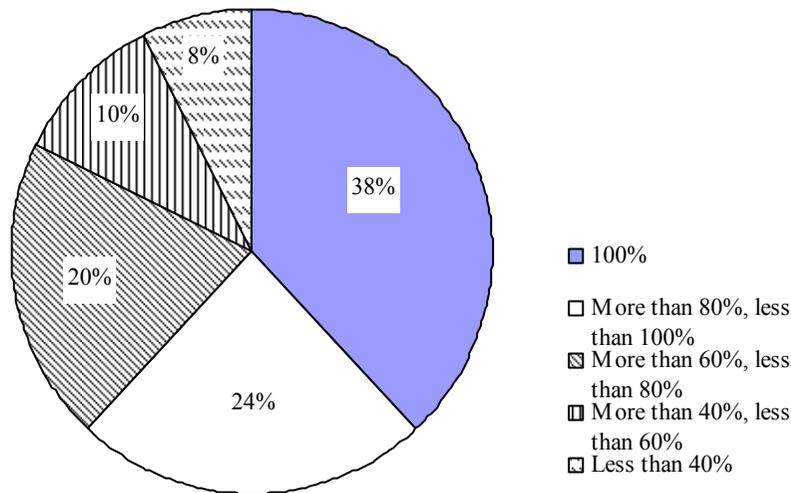
B. Securing Off-site Back-up Systems\*

\* Alternative systems located in areas other than the main computer center  
(the so-called back-up center)



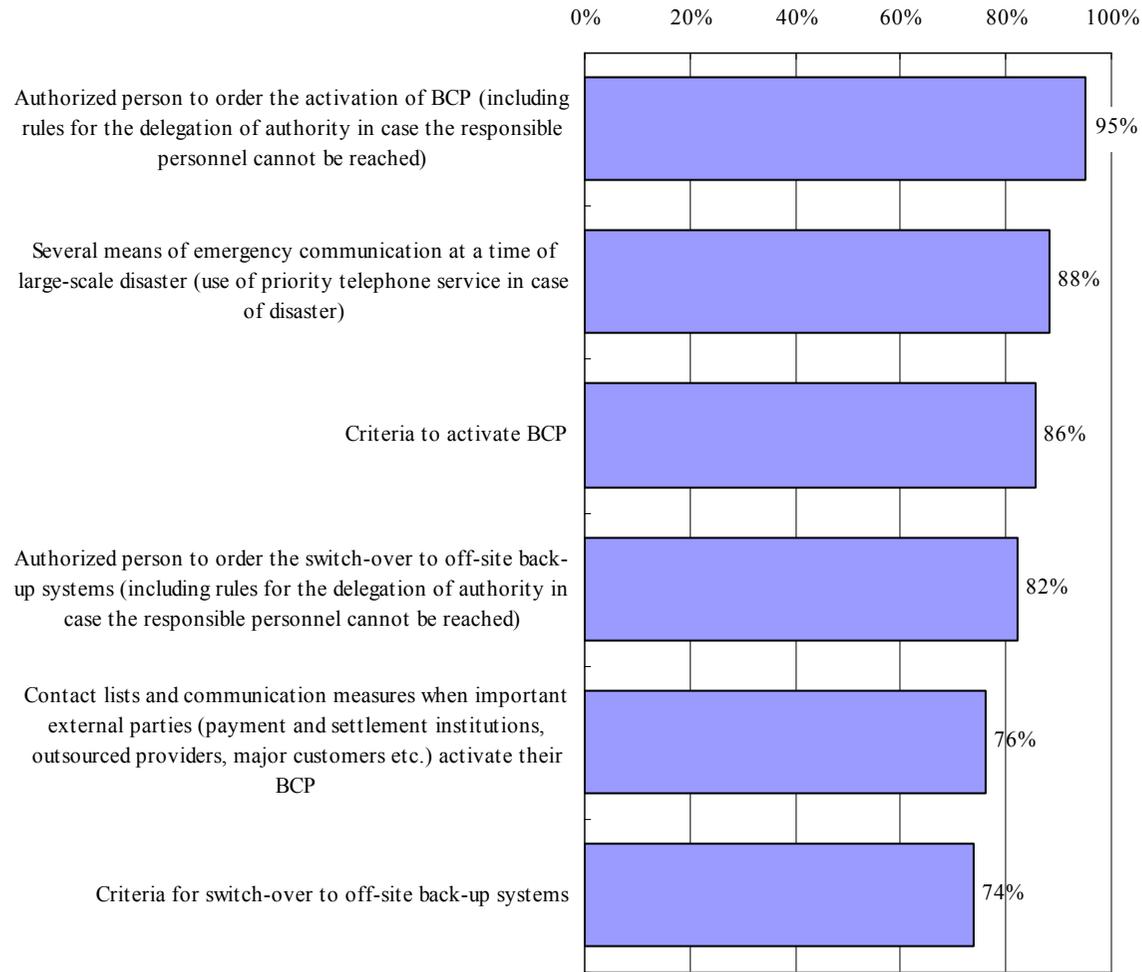
- Around 90% of the respondents had “already secured” an off-site back-up system. Including those that were “under preparation”, most respondents had secured an off-site back-up system.

C. Coverage Ratio of “Critical Operations” by Off-site Back-up System



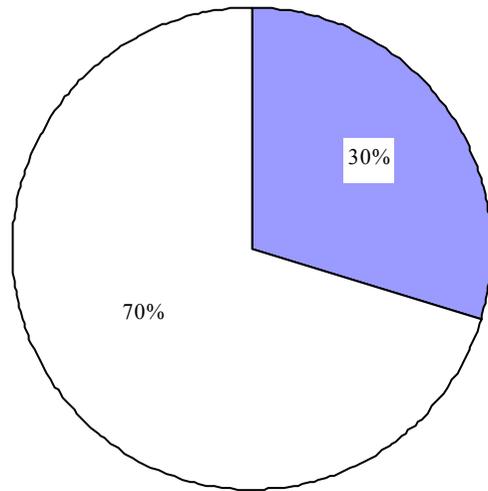
- Around 40% of the respondents “have off-site back-up system for all critical operations.”

5. Establishing Decision-making Procedures and Communication Arrangements (multiple answers allowed)



- Most respondents were in the process of establishing decision-making procedures and communication arrangements from various perspectives.

## 6. Compilation of Manuals

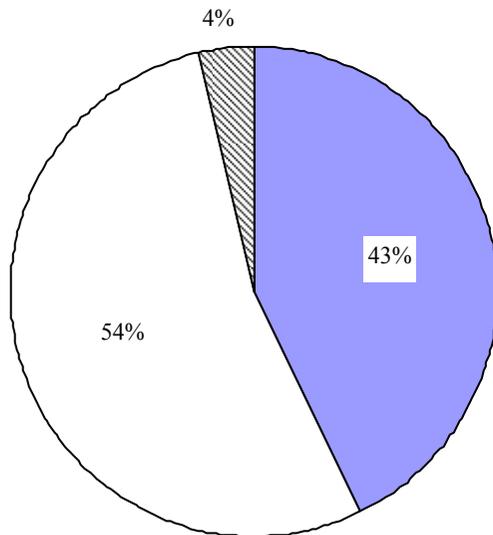


- Manuals prepared for all procedures of critical operations (including follow-up data input and manual processing such as collation).
- Manuals prepared only for major operational procedures
- ▨ No written manuals

- All respondents had prepared manuals for “major operational procedures” and around 30% of the respondents had manuals for “all procedures of critical operations.”

## 7. Implementation of Testing/Training and Reviewing of BCP

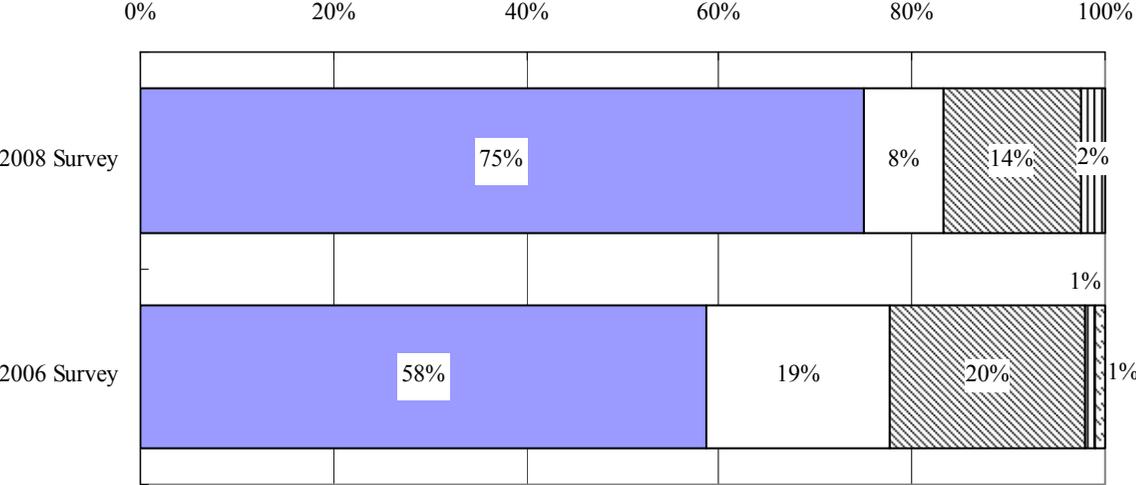
### (1) Coverage and frequency of testing/training



- Conducted on a regular basis (more than once a year) for all operations subject to testing/training
- Conducted on a regular basis (more than once a year) for at least one of the operations subject to testing/training
- ▨ Conducted on an ad hoc basis (or less than once a year)
- Not conducted

- Most respondents “regularly conducted testing/training more than once a year” for at least one of the operations subject to testing/training.

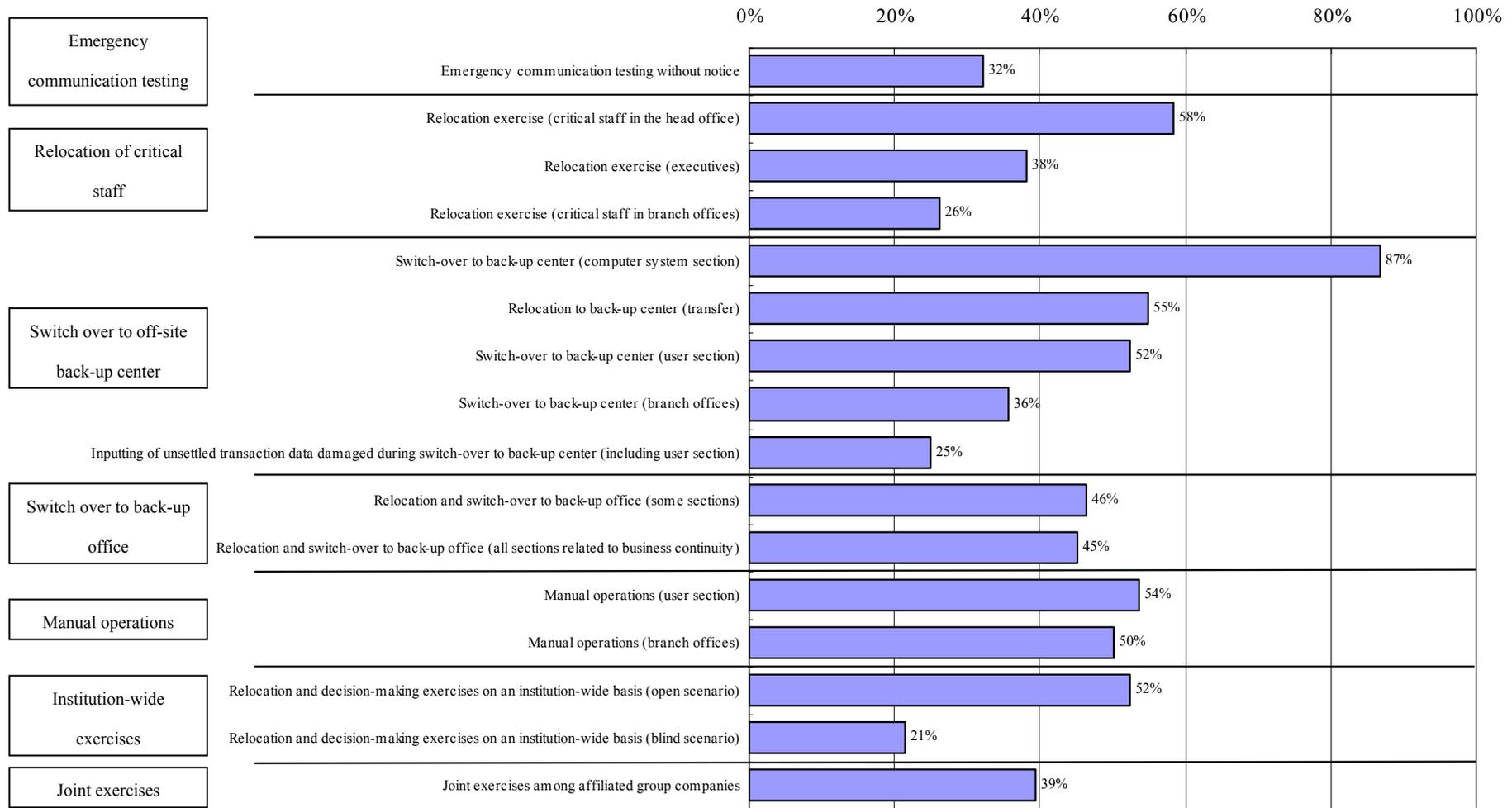
(2) Scale of Testing/Training



- Institution-wide testing/training (simultaneous participation by all sections related to business continuity including branch offices)
- Simultaneous participation of various sections involved in the same operation
- ▨ Section-wide testing/training (institution-wide control section coordinates cooperation among sections)
- ▤ Section-wide testing/training (neither cooperation nor information sharing among sections)
- ⊠ No implementation of testing/training

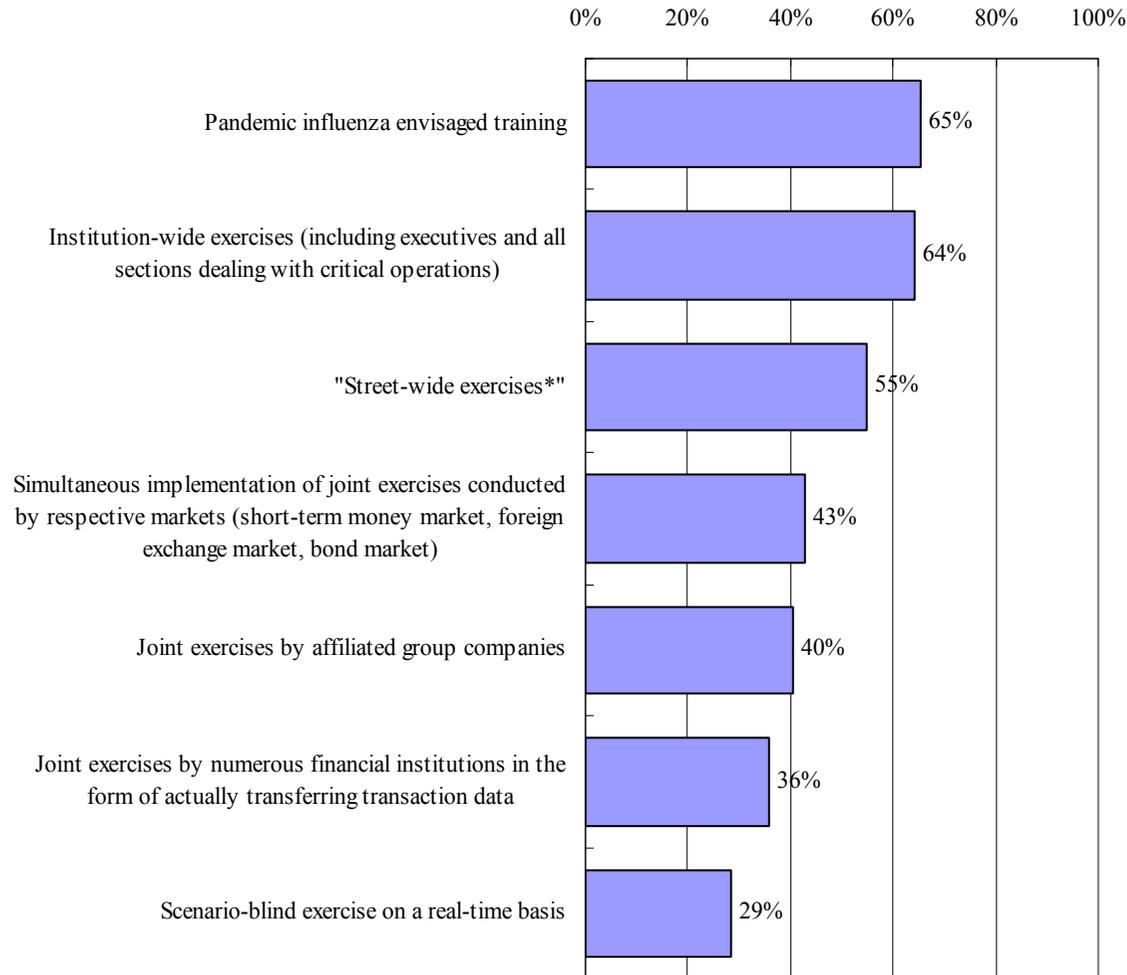
● The number of respondents that conducted “institution-wide testing/training” where all sections related to business continuity including branch offices participate simultaneously increased steadily, reaching 75% of the respondents in this survey.

(3) Types of Testing/Training Conducted (multiple answers allowed)



- Looking at the types of testing/training conducted by the respondents, most have already conducted “testing of switch-over to back-up center by computer system section.” Various other tests and training have been carried out according to the respective respondent’s judgment. Specifically, around 50% of the respondents have conducted various relocation exercises, manual processing drills and institution-wide exercises, and approximately 40% of the respondents have also carried out joint exercises among affiliated group companies.

(4) Testing/training that needs to be enhanced in the future (multiple answers allowed)



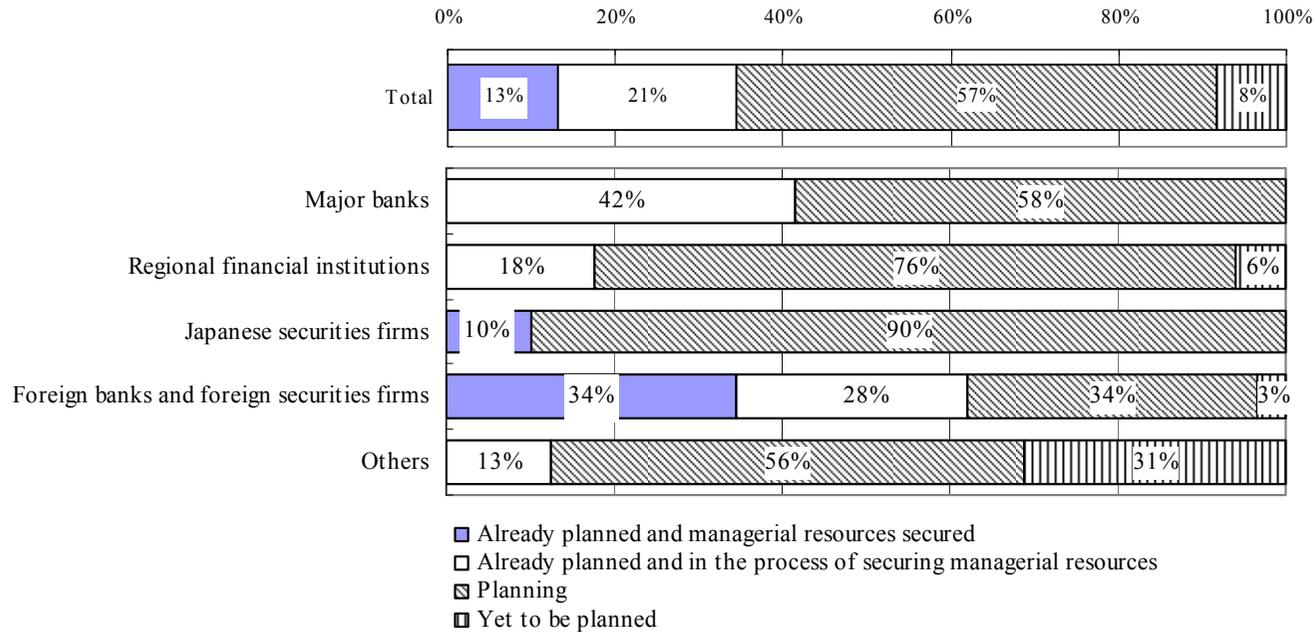
- Efforts to address pandemic influenza have just started, and in line with such efforts, "Pandemic influenza envisaged training" headed the list of testing/training that needs to be enhanced in the future.

- Around two-thirds of the respondents answered "institution-wide exercises" which were already being conducted by many respondents, and more than half went further and named "street-wide exercises\*." As such, respondents are relatively keen on checking the consistency of business continuity management from a broad perspective.

\* A joint exercise conducted by multiple institutions that are operationally interdependent on one another to mainly verify the consistency of their respective business continuity plan.

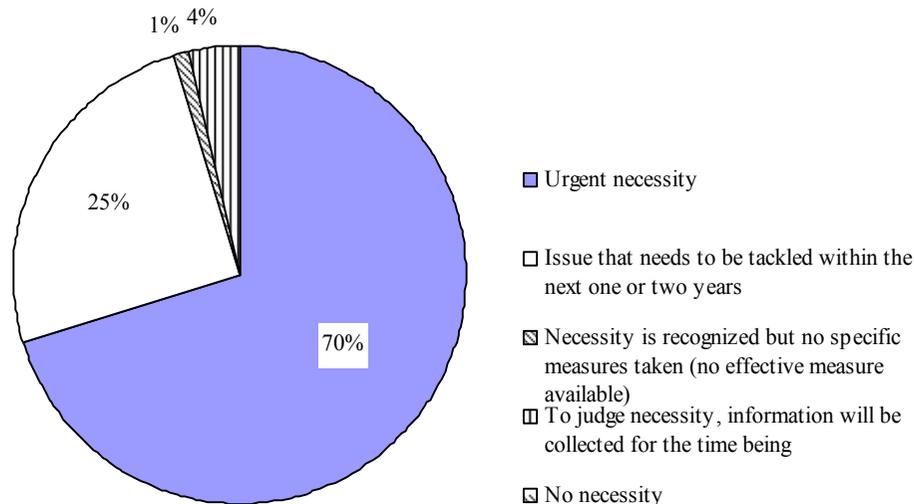
## 8. Measures against Pandemic Influenza

### (1) Planning of Measures against Pandemic Influenza



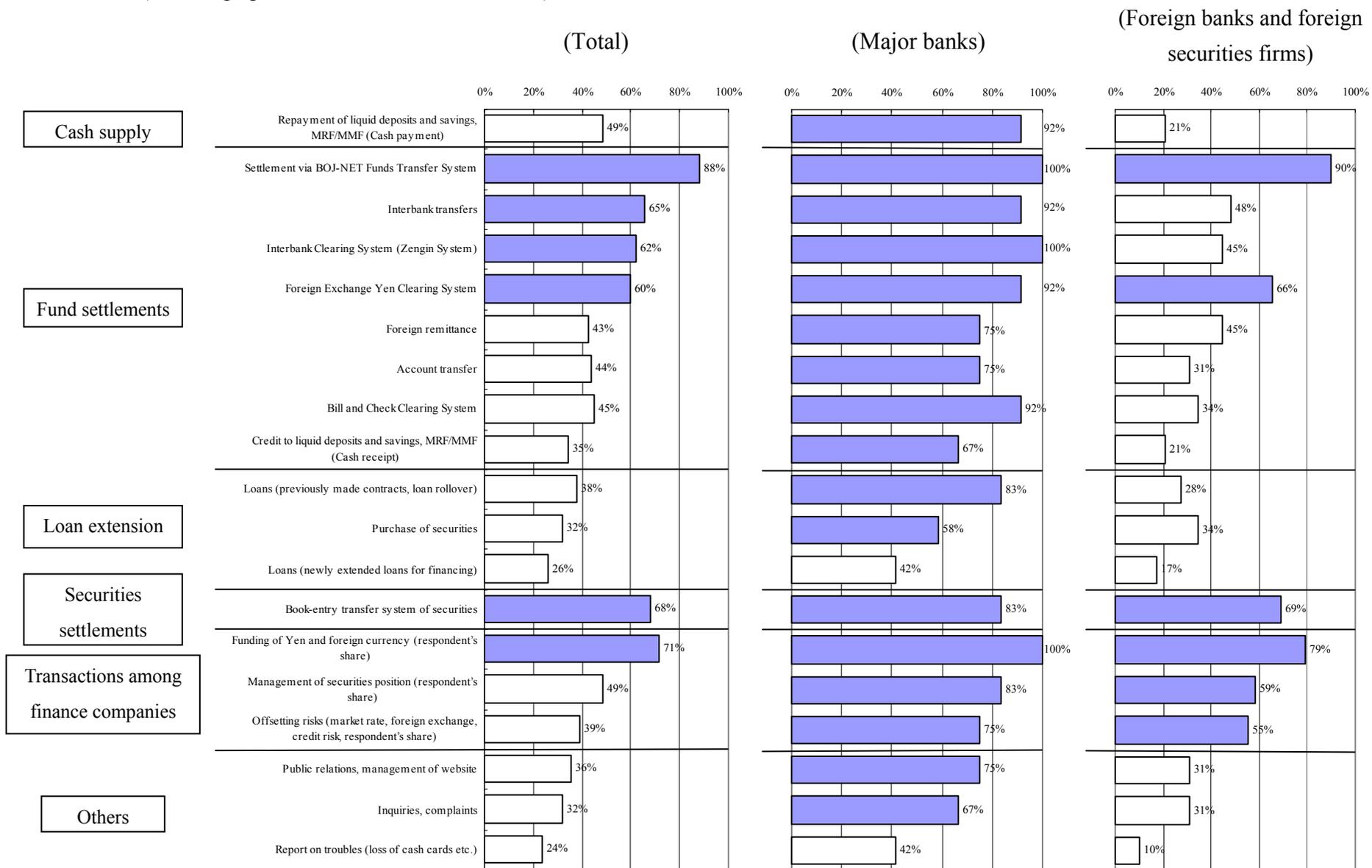
- With regard to business continuity plans that envisage a “staff shortage that continues for a certain period due to the outbreak of pandemic influenza”, most respondents were “planning” or had “already planned and in the process of securing managerial resources.”
- By type of financial institution, foreign banks, foreign securities firms and major banks were relatively well prepared.

### (2) Necessity of Measures against Pandemic Influenza



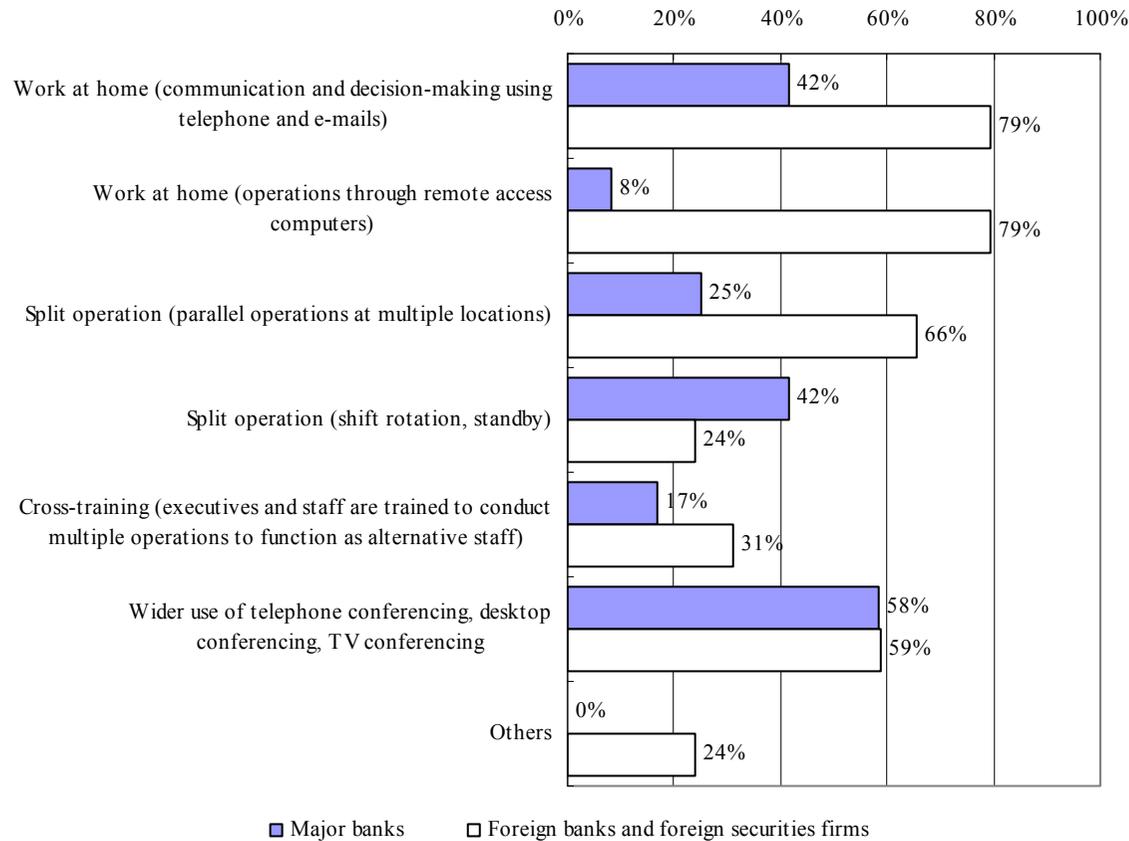
- Most respondents regarded that measures against pandemic influenza needed to be planned either “urgently” or “within the next one or two years.”

(3) Specific content of “the most critical operations” during peak flu period (multiple answers allowed)  
 (colored graph shows items that exceed 50%)



- In identifying specific “critical operations” that needed to be continued during a peak flu period, features of major banks, foreign banks and foreign securities firms that were relatively well prepared were as follows:
- Major banks envisaged continuance of a wider scope of operations compared to the case of natural disaster (refer to pages 9 and 10). The fact that, unlike natural disasters, longer term business continuity needed to be considered for the case of pandemic influenza (a single epidemic cycle is considered to be two months) and the fact that there was no need to envisage physical damage to offices, equipment and computer systems (no operational constraint accompanying switchover to back-up facilities) seemed to have been taken into consideration.
- Foreign banks and foreign securities firms, given their business operations, covered a narrower scope of operations, centering on operations related to “fund settlements”, “transactions among finance companies” and “securities settlements.”

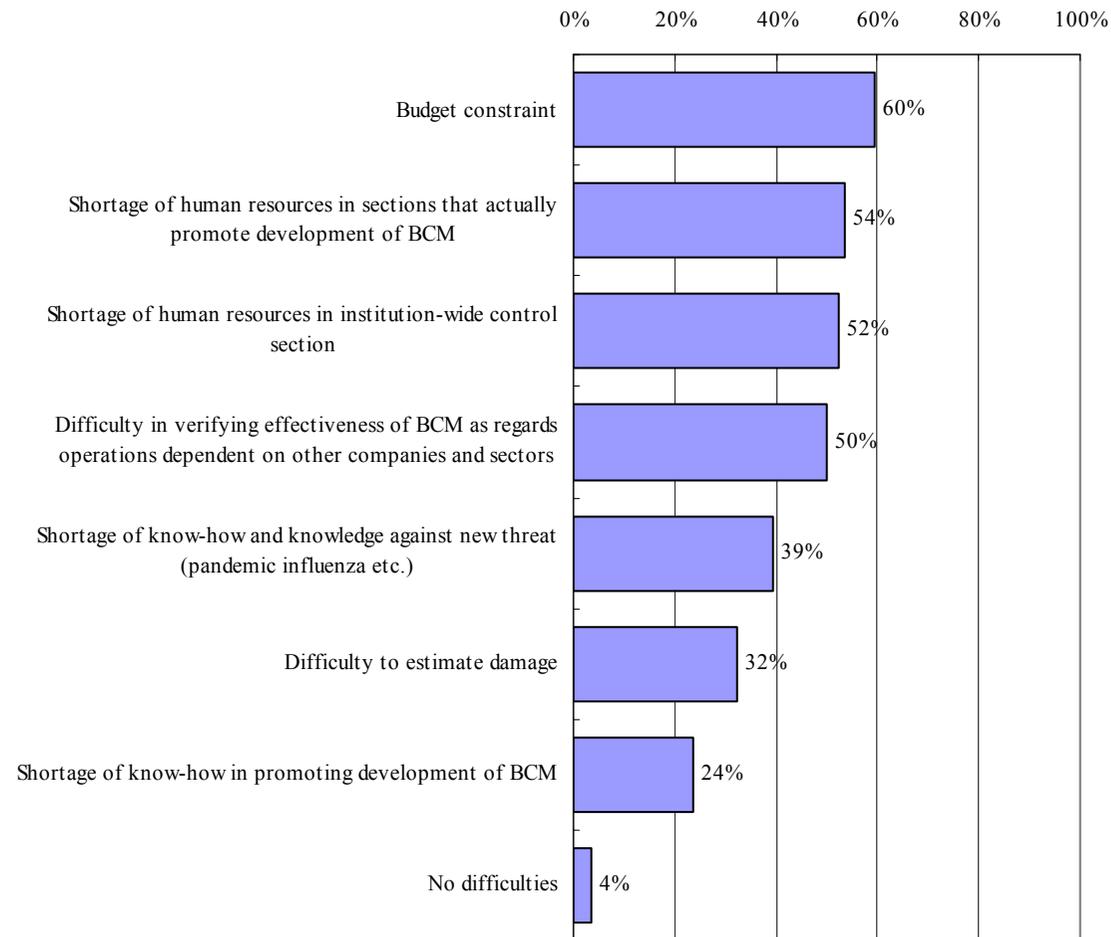
(4) Business Continuity Measures during an Outbreak of Pandemic Influenza (multiple answers allowed)



- Business continuity measures for “critical operations” during an outbreak of pandemic influenza varied among respondents. Nevertheless, a certain feature could be seen for each type of financial institution.
- Many major banks have made efforts to introduce “split operation (shift rotation, standby)” while making use of telephones, e-mails and available systems for TV conferencing, etc.
- Foreign banks and foreign securities firms mainly considered “work at home” as their business continuity measure. As for operations that require staff to come to work, many have developed a framework for “split operation.”

## 9. Future Challenges

### Difficulties in Promoting Development of BCM (multiple answers allowed)



- More than half of the respondents raised resource constraints such as “budget” and “human resources”, and “difficulty in verifying effectiveness of BCM as regards operations dependent on other companies and sectors (consistency of business management plan with other companies and sectors)” as difficulties in promoting BCM in the future.