

# **Improving Business Continuity Capability through Business Reforms in Normal Times**

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large-scale disasters predicted to occur in the future—**

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Major earthquakes are predicted to strike Japan in the near future. A predicted massive earthquake in the Nankai Trough would cause damage inflicted by shaking, liquefaction and tsunami over very wide areas. In addition to the Tokai region, the entire Pacific Ocean belt zone is expected to suffer catastrophic damage.

A major earthquake occurring in the Nankai Trough would affect Japan's economic centers—Tokyo, Osaka and Nagoya, none of which has experienced a major disaster in recent years. In particular, because the Tokai region is home to many production facilities in the manufacturing industry, any major earthquake would have a significant impact on production and distribution functions.

In preparation for these massive earthquakes, more and more companies are either establishing or reviewing their business continuity plans (BCPs), reflecting the lessons learned from the Great East Japan Earthquake. Nevertheless, if a company only applies a paradigm of formulating and improving a BCP in a pedantic manner, it is difficult to ensure its practicability. Inevitably, the practicability of a BCP deteriorates due to factors such as revised damage assumptions, changes in the business environment and reduced motivation.

To stem the degradation of the practicability of a BCP and instead maintain and improve it, it is necessary for a company to continually pursue the enhancement of its business continuity capability, while working to overcome problems and inconsistencies that are inherent in a BCP.

The authors believe that the creation of incentives that are tied to a BCP is particularly important for the improvement of an organization's business continuity capability. In particular, it is vital for a company to continue to plan and implement measures to enhance its business continuity capability and improve its strength by taking the opportunity presented in the process of formulating a BCP to facilitate business and structural reforms.

# I Assumptions regarding the Next Large-scale Disaster

## 1 A major earthquake is certain to occur in the near future

The Great East Japan Earthquake that occurred on March 11, 2011, has been referred to as an unprecedented disaster that might occur once every 1,000 years. However, Japan's history of major earthquakes tells us that another major earthquake is certain to strike.

In 2002, the Central Disaster Management Council (which falls under the jurisdiction of the Cabinet Office, Government of Japan) established the Committee for Technical Investigation on Countermeasures for the Tokai Earthquake and the Committee for Technical Investigation on Countermeasures for the Tonankai and Nankai Earthquakes in order to strengthen measures to be taken in preparation for major sequential earthquakes by estimating the damage likely to result. Based on the lessons learned from the Great East Japan Earthquake, investigations are underway to enhance countermeasures for predictable, largest-ever earthquakes including a massive Nankai Trough earthquake (under the jurisdiction of the Cabinet Office). On August 29, 2012, the Japanese government published a scenario predicting probable damage caused by a magnitude 9 earthquake in the Nankai Trough.

In addition, regarding an assumed near-field earthquake with a focus directly under the Tokyo Metropolitan area, the government also reviewed an existing scenario predicting an earthquake with a seismic intensity of strong 6 at the maximum and started investigations with a possibility of a seismic intensity of 7 in mind. The results of these investigations are expected to be published by the end of March 2013.

Since the occurrence of the Great East Japan Earthquake, there has been considerable interest in disaster management among company stakeholders such as shareholders and customers. Because of such increased interest, on occasions such as at annual shareholders' meetings, corporate executives are required to give clear explanations of their plans for dealing with major disasters. It is very likely that the suppliers that make up the supply chain will also be required by their customer companies to strengthen their risk mitigation measures as a prerequisite for continuing business with the customer companies. To safeguard their survival, corporate executives will inevitably have to make decisions on investments in disaster management.

## 2 Damage would be inflicted on extremely broad areas and cut Japan's main corridors

As part of its actions in preparation for a massive earthquake in the Nankai Trough, the government is studying how best to enhance the country's readiness under the

assumption of a mega magnitude-9 earthquake, as mentioned in Section 1. However, this paper discusses the probable damage caused by magnitude 8 earthquakes in the Tokai, Tonankai and Nankai regions, for which urgent responses are required from the perspective of corporate management.

### (1) Shaking, liquefaction and tsunami would simultaneously strike wide areas

Probable earthquakes striking the Tokai, Tonankai and Nankai regions would be characterized by massive damage inflicted over very wide areas. The size of the affected areas would be so large as to include the Tokai region, which is Japan's largest production center, as well as the entire Pacific Ocean belt zone. Compared to the Great East Japan Earthquake, the seismic sources of such earthquakes would be much closer to land so that shaking, liquefaction and tsunami would all strike simultaneously, causing catastrophic damage over broad areas, primarily in the Pacific coastal regions.

### (2) Production bases would be severely affected

The Tokai region, which is Japan's largest production center, is projected to be seriously affected. In particular, in the case of the automotive industry, a large company's head office, its production facilities and diverse parts and components suppliers that support its production are all clustered in this region. A major disaster simultaneously striking the head office, production facilities and suppliers, which is a situation that had never been experienced in the past, could well have an effect that would far outweigh that of the Great East Japan Earthquake.

### (3) The core functions of Tokyo, Osaka and Nagoya would be disrupted

The three major metropolitan areas of Tokyo, Osaka and Nagoya all have many high-rise buildings with large-scale petrochemical complexes built along the coastline. Because the natural period (frequency) of these large-scale structures is relatively long compared to that of ordinary buildings, the structures are very susceptible to resonating with long-period earthquake ground motions. Since the source regions of major multi-segment sequential earthquakes (Tokai, Tonankai and Nankai earthquakes) are likely to be no more than 100 km from Tokyo, Nagoya and Osaka, any critical, long-period ground motions would not only affect high-rise buildings in Tokyo and Osaka, but could also damage other large-scale structures such as the petrochemical complexes scattered along the coast. In Nagoya, the thermal power plants that are concentrated in the coastal areas of Ise Bay would be affected. Such damage would cause a major disruption to the core functions.

### (4) Japan's main corridors would be severed

The country's main transport links such as the Tomei Expressway, Shin-Tomei Expressway and the Tokaido

Shinkansen line run through areas in which the strength of the earthquake is likely to reach an intensity of strong 6 or 7, and cross major rivers such as the Tenryu River, Oi River and Fuji River. If there were large-scale ground movements, particularly around the river estuaries, the resulting displacement or even collapse of bridges would result in transport links being cut for a very long time. In the areas around the ports of Nagoya and Osaka, there is an extremely high risk of liquefaction, raising the possibility that the access roads to the ports would be severed. As such, the country's main land and sea links could well be out of commission for a very long time, which would essentially separate the country into several large blocks that would be isolated from each other.

## II Common Problems Seen in a Business Continuity Plan (BCP) under the Traditional Paradigm

### 1 Grouping according to the extent of BCP preparation

In response to the government's review of damage estimates, as described in Chapter I, companies are creating or reviewing their business continuity plans (BCPs).<sup>Note 1</sup> According to the extent to which a company has prepared its BCP, companies are classified into the following three groups.

- (1) Unprepared group: Companies that have not yet prepared their BCPs but are now planning the preparation of BCPs
- (2) Preparing group: Companies that have been improving their existing risk management procedures to create BCPs and are moving towards the preparation of BCPs
- (3) Advanced group: Companies that have already prepared their BCPs and that are now focusing on the dissemination of BCPs

Obviously, each group faces different challenges.

### 2 Common challenges faced by each group

#### (1) Unprepared group

Given all the attention that is being paid to reviewing damage assessments, why are these companies not addressing the risks presented by a major disaster?

In short, the main reason for this lack of preparation is low interest on the part of corporate executives. Some companies say that there are no personnel within their companies who have the necessary skills and expertise to develop a BCP. While this reason is frequently stated

by relatively small companies, the fact is that Japan's Small and Medium Enterprise Agency (<http://www.chusho.meti.go.jp/bcp>) has published a BCP template that is available free of charge. In addition, bookstores carry many texts on the subject, such that the necessary expertise can be obtained at low cost. In this sense, the cost incurred to obtain expertise and acquire personnel cannot be seen as a decisive reason for not formulating a BCP.

Essentially, the reality of the unprepared group is that corporate executives have not developed a strong awareness of the issues, or that they continue to give top priority only to immediate, popular management themes.

#### (2) Preparing group

The preparing group faces two common challenges. The first is related to the content of a BCP, and the second concerns the BCP formulation process.

The challenge posed by the BCP content hinges on the degree of detail that the person in charge of BCP formulation should strive to attain. Although it is possible to formulate a BCP in accordance with a general flow, many persons find it difficult to determine the extent to which it should be detailed when committing a BCP to paper.

The issue facing the BCP formulation process is a so-called battle against solitude. Many persons who are charged with preparing a BCP are fighting alone throughout the entire process from learning the basics of a BCP to actually preparing one. It would probably be fair to assume that many corporate executives do not check the BCP content even though they may approve it. Even if the person who formulated the BCP has a good understanding of the BCP, the management and other employees of a company will be unfamiliar with the prepared BCP if the notification and explanation provided by the person in charge is insufficient. The result would be a "BCP in form only," where no one can do any more than provide an outline of the BCP to the public.

#### (3) Advanced group

Common issues faced by the advanced group include "dissemination" and "improving plan practicability." Dissemination generally involves making employees fully aware of the BCP through education and training. Improving practicability refers to the efforts to reflect the issues, such as problems arising during training as well as any points felt to be incongruous when surmising the plan implementation, in the preparation for the BCP and other disaster management and mitigation measures. The persons responsible for formulating the BCP in the advanced group are faced with the following challenges: (1) reflecting all the issues raised by careful training in the BCP so that the accuracy of the BCP can be improved and (2) ensuring that employees do not become complacent about the need for being ready to deal with disasters.

### 3 Approaches to dealing with the identified issues and a fundamental question common to every group

#### (1) Unprepared group

The main issue faced by this group is the fact that business growth is given priority over a BCP. Then, how is it possible to impress the importance of a BCP on corporate executives? Based on the authors' experience, gaining the understanding of corporate executives would take time. If that were the case, a possible approach would be to create a BCP in a short time even if such a BCP describes only the initial responses for mere form's sake and even if creating such a BCP would be against the will of people who want to create a well-prepared BCP.

#### (2) Preparing and advanced groups

These two groups face many technical problems such as those related to creating BCP documents and designing training programs. Generally, a possible approach to addressing these problems is to draw on the expertise of external organizations and refer to case studies of other companies. By making use of BCP templates and drawing on the support of outside experts in the field of training, it would be possible to overcome these technical issues.

#### (3) A fundamental question

While each group must address different issues, the authors believe that there is a fundamental question that is common to all three groups. The question involves the way in which a company perceives a BCP when it formulates such a plan. This question is about the basic concept of a BCP.

For the above-mentioned trends related to BCP preparation and the grouping of issues, a paradigm (preconceived notion) is applied as a prerequisite. This paradigm is "formulating a BCP to ensure business continuity in

the face of a disaster and making sure that both corporate executives and employees are fully aware of such a plan through events such as training." This paradigm does not give specific consideration to the usual behavior and custom of companies and people, incentives and constraints. However, though manuals are drafted and action plans drawn up, companies cannot act as instructed when faced with an actual incident. Furthermore, even if a BCP is designed to address an unprecedented large-scale disaster, a BCP will become nothing more than an unattainable pipe dream if it is based on a lack of constraints such as those related to people, materials, funds and geographical conditions.

As shown in Figure 1, the practicability of a BCP tends to deteriorate over time. If a BCP is formulated and managed under the traditional paradigm, such deterioration is inevitable. To prevent this, management is essential for ensuring that a BCP remains effective. Then, how can the practicability of a BCP be continually enhanced?

## III A New Paradigm for the Formulation of a BCP

### 1 A new BCP paradigm

#### (1) What is a BCP?

"What is a BCP?" The authors believe that there are only few companies that can produce their own "original" responses, rather than a commonplace answer, to this simple question.

Figure 2 illustrates a range of the definitions adopted for a BCP by different companies. Most companies place emphasis on their "initial responses," which are defined in Item C in Figure 2. The BCP falling under this approach indicates the actions that must be taken by corporate executives and employees in chronological order in response to a large-scale disaster, and focuses

Figure 1. Deterioration of practicability of a BCP over time and problems posed under the traditional paradigm

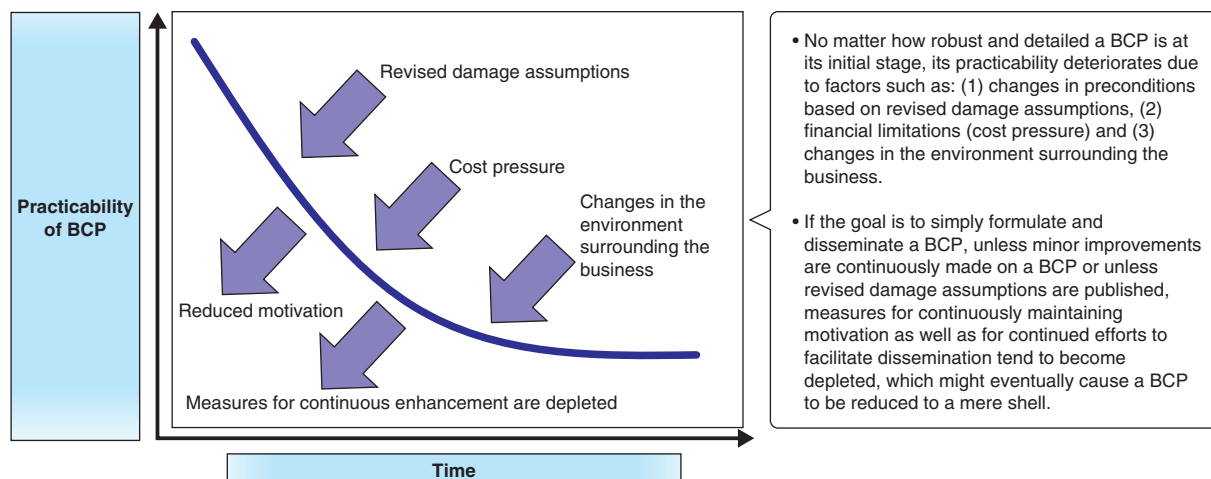
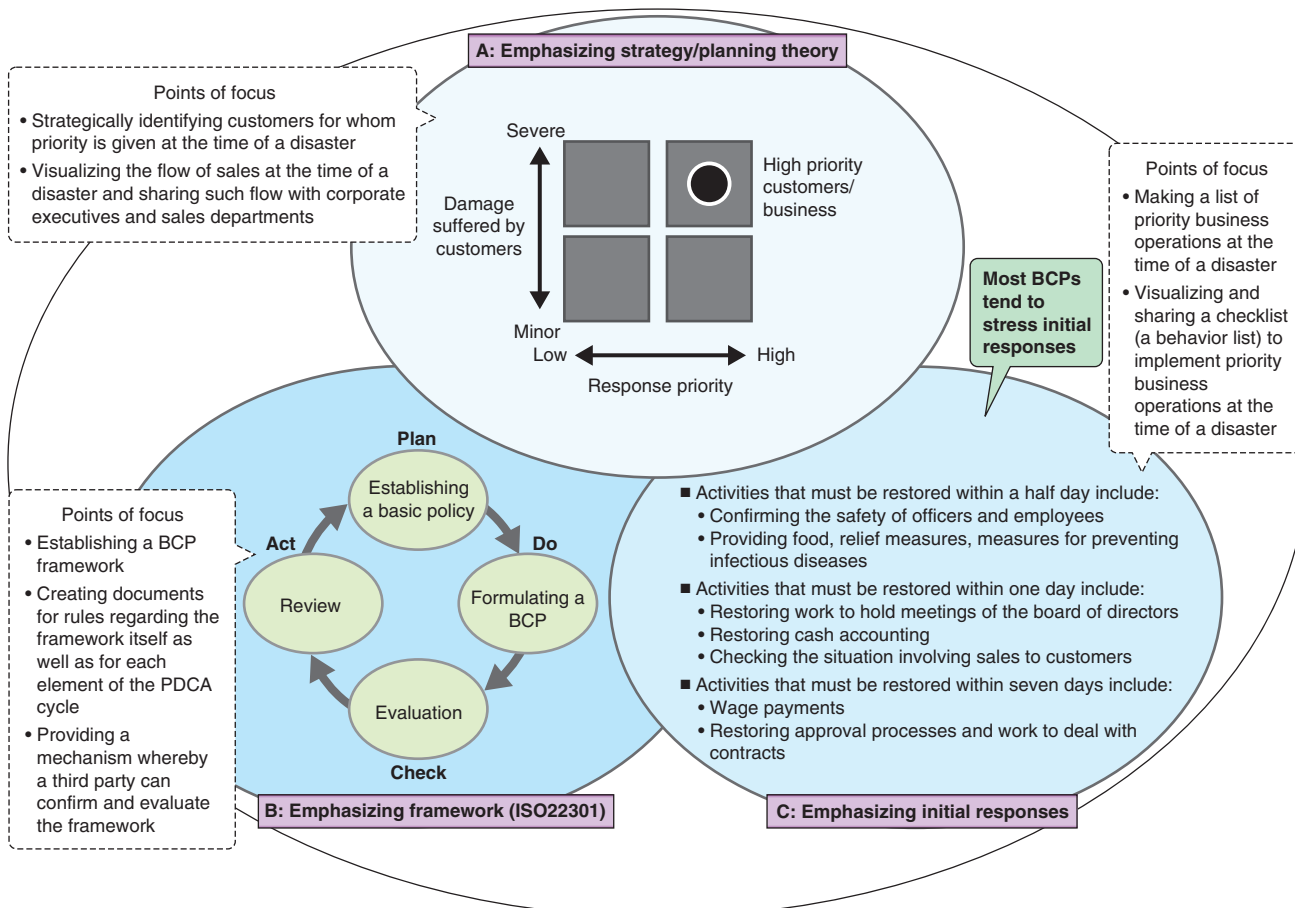


Figure 2. Varying definitions of a BCP adopted by different companies



Note: ISO22301 is the international standard for business continuity management.

on the rapid restoration of the status quo. On the other hand, least prevalent are those companies that adopt the approach indicated in Item A, whereby emphasis is placed on “strategy and planning theory.” The Cabinet Office of the Government of Japan sees a BCP as a “plan that pursues business continuity.” If this definition is followed, the BCP must cover not only initial responses but also all of the other elements shown in Figure 2, including a plan for pursuing business continuity.

**(2) BCP as a strategy for enhancing an organization’s business continuity capability**

Nonetheless, even when initial responses are identified, or even if a strategy/plan to ensure business continuity is merely created in a pedantic manner, the business continuity plan does not function properly. Therefore, in this paper, a BCP is defined as “a strategy for enhancing an organization’s business continuity capability.” Assuming that the practicability of a BCP degrades over time, this paper discusses measures for improving business continuity capability. Furthermore, the management of these measures, that is, “management to implement a strategy/plan for enhancing an organization’s business continuity capability” is defined as “business continuity management (BCM).”

Traditionally, reviewing and improving a BCP under the PDCA (establishing a basic policy, formulating a BCP, evaluation and review) cycle is considered BCM. However, BCM in this paper focuses on how best to manage business during “normal times” to enhance an organization’s business continuity capability. This is a new paradigm in which approaches taken by each company vary from company to company, and major differences arise in business continuity capability depending on the strategy/plan adopted.

**2 What is business continuity capability?**

**(1) What is business continuity capability?**

In this paper, an organization’s business continuity capability is not regarded as merely meeting requirements related to the abilities necessary to undertake recovery operations, which has traditionally been considered a business continuity capability. Rather, in order to enhance a business continuity capability, the behavior and custom of people, the culture of a company, and the concept of a company in its capacity as an entity conducting economic activities must be deeply understood. Based on such understanding, a strategy/plan must be established.

At Nomura Research Institute (NRI), we believe that if a BCP is not rational from the perspective of managing and operating an organization, it is unlikely that such an organization will ever be capable of achieving business continuity. A BCP based on a traditional paradigm often causes problems in terms of managing an organization.

## (2) Dilemma with a traditional BCP

### ① Irrational behavior

Regardless of how precisely an initial response manual is developed, the employees of a company will not be able to act as instructed in the manual in the event of a disaster. This inability is referred to as “irrational behavior.” Let’s consider the idea that “if actions to be taken are specified in the manual in detail, people will act as specified” is “rational behavior.” Based on this thinking, unconscious behavior and behavior based on previous experience and learning, which is expected to be exhibited by corporate executives and employees in the event of a disaster, is close to irrational behavior.

Many companies have begun to deeply recognize that there is a limit to the degree to which the actions to be taken by their employees in response to a disaster can be laid down in a manual. These companies believe that there is no point in spending a great deal of time and labor to specify any more than the barest minimum initial response to be adopted in the event of a disaster.

### ② Paternalism

The issue of paternalism derives from the fact that the responsible department creates everything from initial responses to a BCP and exercises control over them as well. Employees are seen as being passive and are not allowed to contribute anything to the formulation process. If this is seen from the perspective of governance, the paternalism can be thought of an extremely centralized approach to the formulation of a BCP.

A major problem with this approach is that the factories responsible for resuming operations and ensuring employee safety, as well as the employees who interact with customers, are less involved. Essentially, it is important for employees who are responsible for the factory lines and customer contact to be familiar with how to respond at the initial stage and how to ensure the continuity of business.

### ③ Mental accounting

“Mental accounting” is defined as “rough accounting that is done in a person’s head” and is another issue related to the formulation of a BCP. That is, it is extremely difficult (or, one is unwilling) to calculate the incentives for preparing human resources for a natural disaster that simply cannot be forecast, as well as for investing in backup information systems and production facilities or in disaster management measures. The restoration of production facilities and information

systems is extremely expensive if they suffer damage. Having said that, the provision of redundancy and the relocation of a data center in preparation for a disaster that has not yet occurred are costly.

Simulation provides the only means of overcoming this problem. If detailed estimates can be made, it would be possible to calculate the cost of providing redundancy for production facilities and information systems as well as for relocating a data center. However, if the cost is estimated without identifying specific damage assumptions or a specific location to which a data center would be moved, the majority of discussions tend to boil down to “high cost” and “taking a great deal of time and labor.” Why should this be so? Given the large number of assumptions that have to be made to enable simulation, many corporate executives see the process of conducting such simulation as being meaningless, regardless of how precise the simulation is. “Pulling numbers out of the air” gives rise to the problem of “mental accounting.”

## 3 Measures for improving business continuity capability

How should the dilemmas that arise in the formulation of a BCP be addressed?

### (1) Honing the action guidelines

As described above, it can be assumed that when a disaster strikes, neither corporate executives nor employees would act rationally. At such time, employees would tend to act on their instincts or go along with what those around them do, rather than act as prescribed in the manual. This tendency can be addressed from two main perspectives. The first involves separating initial responses from a BCP, while the second centers on minimizing the initial responses and simply instructing employees to follow the action guidelines. It would be virtually difficult to teach employees exactly what they should do in response to a disaster. Rather than attempting to impress on them exactly what they should do, demonstrating a “way of thinking” based on which employees are encouraged to act – as companies gain more and more experience in responding to accidents and conducting recovery work, there is a tendency to return to this approach.

### (2) Changing the system of governance

People act irrationally. Under this assumption, how should highly practical initial responses and BCPs be developed? The paternalism that is associated with a conventional BCP tends to lead to the creation of initial responses and BCPs that are inappropriate for actual situations by being overoptimistic in assuming that people will act rationally. Therefore, there is movement away from the paternalism and instead there is a trend towards thinking that a BCP “should be formulated by

employees who work every day on site, and a system of corporate governance should be confined to simply providing guidelines for formulating a BCP.”

There are cases in which initial responses and BCPs are formulated as special documents as part of company-wide rules and regulations, and are at odds with other rules and regulations or with the manuals created by each production site, sales office or department. Under no circumstances should the goal be confused with the means such as by thinking that “creating a document constitutes a BCP.” Furthermore, it makes little sense for a specific department to formulate a BCP for appearance’s sake by calling it a “company-wide” BCP. To avoid such a faulty approach, the matters that must be clarified include the person who formulates initial responses and a BCP, the person who is responsible for the formulation of such documents, and how these documents are managed so that the practicability of such documents does not deteriorate. At production sites and departments that have direct contact with customers other than administrative departments, the maintenance of documents for which the rules for maintenance have not been defined tends to be neglected. If such a corporate governance system is left as is, it will be very difficult to fundamentally resolve the issues as represented by the fact that the answer to the very basic question of “where is our BCP” is not known by all employees.

### **(3) Rethinking a BCP as part of business and structural reforms**

In this paper, a BCP is defined as “a strategy for enhancing an organization’s business continuity capability.” Engaging in work to study disaster management and mitigation measures to ensure business continuity means using employees’ time that should essentially be spent for the improvement of profitability and making investment to protect a company, which leads to concerns over a company’s weakened competitiveness. Then, where is the source of such concerns? The answer lies where the issue of mental accounting that stems from the fact that there are insufficient incentives to deal with a BCP is not properly addressed.

What are specific incentives? The answer to this question is a “non-zero-sum” approach that is realized through “ensuring business continuity (one win) and “achieving advantages through reforms (another win).” Specifically, business and structural reforms are facilitated through the process of formulating a BCP, simultaneously enabling reduced cost and increased added value. As such, a single incentive can bring about two advantages. Of course, costs should not be reduced to a point where lives would be endangered. How can a company’s business continuity capability be enhanced under a situation involving diverse restrictions with the protection of lives being a major prerequisite? The authors believe that discussions along this path are essential.

## **4 Common areas where business/ structural reforms and BCPs interact and the enhancement of business continuity capability**

### **(1) Identifying common areas where business/ structural reforms and BCPs interact**

Where can chances for incentives be found? As shown in Figure 3, common areas where the process of formulating a BCP interacts with business and structural reforms can be found in the following four areas:

- Company-wide areas
- Areas of corporate management functions
- Areas of sales functions
- Areas of product development, manufacturing and distribution functions

In order to identify the possible approaches to business improvement and structural reforms in each of these four areas, consideration is given to reform cases for which reports have already been published as well as to areas that present the possibility of reform.

### **(2) Reform cases involving common areas where business/structural reforms and BCPs interact**

**Company-wide areas: Office location**  
Office relocation based on the “evaluation of the possibility of reaching the disaster management headquarters” and with the aim of “cost reduction” Consideration should be given to whether the offices that have some head-office functions, branch functions or shared functions (integrated back office work) absolutely must be in their current locations. In the process in which an appropriate location for a disaster management headquarters in the event of a disaster is examined, the relocation of offices that have branch and shared functions merits attention not only from the perspective of formulating a BCP but also from the viewpoint of business/structural reforms aimed at reducing cost.

When a major disaster strikes, most companies set up a disaster management headquarters led by the president. However, here, the question of “can members of the headquarters staff actually reach the headquarters location” arises. Although many companies set up their disaster management headquarters at their head-office buildings, it is not unusual for all members of the headquarters staff to find that the location of such headquarters is remote from their homes.

Immediately after the Great East Japan Earthquake, the idea of decentralizing head-office functions was a much-discussed topic. However, in reality, there are very few companies that have sufficient management resources to own and operate surplus head-office functions.

There is little sense in stubbornly locating a disaster management headquarters in a head-office building under



**Figure 3. Areas of business and structural reforms from the perspective of a BCP**

Company-wide areas		Areas of corporate management functions	
1. Corporate vision	11. Performance indicators such as P/L, B/S and C/F	14. Management accounting system	22. Chain of command
2. Business domain	12. Financial indicators	15. Personnel management system	23. Interacting with industrial associations
3. Corporate strategy	13. Competitive strategy	16. Employee benefits and welfare system	24. Corporate planning
4. Business portfolio		17. Support for field operations	25. Financial management
5. Organizational structure		18. Collecting, analyzing and providing information	26. Advertising
6. Personnel assignment		19. Information systems	27. Risk management
7. Employee awareness		20. Meeting structure	28. Managing affiliated companies
8. Corporate/departmental culture		21. Facility management	
9. Internal rules			
10. Internal infrastructure			
Areas of sales functions		Areas of product development, manufacturing and distribution functions	
29. Sale/wholesale policy	37. Setting prices	44. Training and development (product development)	
30. Customer development	38. Personnel training	45. Identifying customer and on-site needs	
31. Customer management	39. Establishing offices	46. Technical strengths (in the strong/key technology areas)	
32. Work flow, business productivity	40. Cost management	47. Distribution	
33. Labor (regular and temporary employees) management	41. Numerical data management	48. Relationships with suppliers	
34. Inventory and fixed asset management	42. Providing motivation	49. Production	
35. Management of accounts receivable	43. Evaluating performance	50. Utilizing outsourcing services	
36. Credit management			

Notes: B/S = balance sheet, C/F = cash flow statement, P/L = profit and loss statement.

the circumstances where the percentage of corporate executives who can reach such headquarters is less than 10 percent. With the aim of reducing cost as part of business/structural reforms, one idea is to split off the functions of or relocate a disaster management headquarters to branch offices and/or shared function offices.

**Areas of corporate management functions:**

**Information systems**

**“Considering backups” versus “improving operations”**

In formulating a BCP, discussions usually focus on investments in backups and redundancy for information systems. However, because investments in preparative measures, rather than positive measures such as those for increasing productivity, might lead to weakened competitiveness, an examination should be made into a trade-off between information system investment options and the desired level of business continuity (service level). In other words, by analyzing and evaluating the existing information systems, efforts should be made to identify measures to achieve both goals, that is, minimizing investment and developing a BCP.

For example, in the case of a company in the service industry, which relies on interacting with customers, an investigation should be made into the extent to which the service level declines if some of the customer information processing and work data processing is done

manually, as compared to normal computer operations. It would be possible to determine if such a reduced level is acceptable in consideration of a company’s corporate vision and simulated damage caused by a disaster. Moreover, if the method of regularly recording important information on paper and storing it, which is reliable but inefficient, is partially adopted, it is possible to determine the possibility of reducing the information system investment related to a BCP. To do this, it is important to evaluate the possibility of substituting manual operations for those provided by existing information systems.

**Areas of corporate management functions: Intra-industry responses**

**“Responses made solely by a single company” versus “responses shared within the industry”**

When the Great East Japan Earthquake struck, there were cases in which inconvenience was caused to many customers. One case stemmed from limits on funds in a situation where responses were made within a company. The example of this case is a company being unable to provide full backups for a data center. Another case involved a situation where responses were made solely by a single company. An example of this case has been seen in the financial industry.

Specific measures to deal with these issues would include a partial joint ownership of a data center within an

industry. Furthermore, in the case of the financial industry, closer intra-industry relationships should be established so that the industry can exercise control over clerical work that differs from company to company as well as over the environment where competitive advantages are secured by prioritizing customer conditions. Such closer relationships within the industry will strike a balance between business continuity, cost reduction and the protection of consumers.

**Areas of product development, manufacturing and distribution functions: Inventory management**  
**“Holding inventory” versus “reducing inventory”**

For the manufacturing and distribution industries, minimizing the amount of stock and work in progress, while being able to maintain a supply of products/goods in the event of a disaster, can be said to be one of the ultimate challenges. How can such a trade-off be attained? An important point to attain such a trade-off is how to reduce the extra burden that is incurred by a BCP through day-to-day operations.

If the production functions of a company or any of its affiliates suffer catastrophic damage, how much time would be needed for recovery? The amount of time needed for recovery would be equal to the longest period during which inventory must be held. However, if the length of time needed for recovery is overestimated, excessive inventory would be kept on hand, which would place an extra burden on the company during normal operations. Cooperation within the existing supply chain can go some way toward reducing the amount of inventory that has to be kept on hand, making it important to strengthen the ties between a company and its suppliers and retailers. Rather than only the company whose name appears on manufactured products/goods holding inventory, a movement has already been started toward cooperation among companies constituting a supply chain including suppliers, wholesalers and retailers, thus reducing the burden on companies during normal operations.

**Areas of product development, manufacturing and distribution functions: Purchase management**  
**“Strengthening relationships with suppliers” versus “reorganizing suppliers”**

While suppliers can help a company reduce the amount of stock needed to keep on hand, they can also offer invaluable help in continuing vital operations. In the case of companies that do not have strong affiliations (such strong affiliations are often seen in the manufacturing industry), the prerequisite for a company to be able to continue to produce and sell its important products/goods is that the company must be selected by suppliers as an important customer and that materials and components must be delivered within a designated period.

There is a movement towards entering into stronger agreements and/or contracts between companies and

their primary suppliers. If this trend is viewed from a different angle, it implies the possibility of reviewing the relationships if a company does not meet the requirements of a BCP. Whether business continuity is possible varies depending on the power relationship with the supplier. For those companies that are thought to have a relatively weak interrelationship, it is important that they strengthen the relationships with their suppliers and business partners during normal operations.

**(3) Areas that present the possibility of reform**

**Areas of corporate management functions:**

**Employee benefits and welfare system**

**“Making structures earthquake resistant” versus “rethinking an employee benefits and welfare system”**

For example, it appears that dormitories and company housing belong to a domain that is different from a BCP. However, a total approach to risk management requires assessment of the earthquake resistance of old dormitories and company housing to determine whether earthquake-resistant construction or reconstruction is necessary. That is, evaluating and reviewing assets and operations that are likely to be exposed to risk, as well as rethinking the existing employee benefits and welfare system based on such evaluation results, constitutes a vital topic in corporate management.

In addressing this topic, again the ultimate goal is the protection of lives. Nevertheless, a comparison cannot be made between people’s lives and the budget needed for earthquake-resistant construction, reconstruction or relocation. Instead, a comparison should be made between (1) the projected investment required for earthquake-resistant construction or reconstruction if the existing employee benefits and welfare system is maintained and (2) the estimated cost incurred by the revision of the system and operational cost if the system is to be revised. A company should maintain a cost-optimal system or should review an employee benefits and welfare system from an overall perspective including the wage system. Rather than addressing this issue simply with “mental accounting” (rough accounting that is done in a person’s head), a company must take a very broad view of the overall situation in order to circumvent the greatest risk of losing people’s lives.

**Areas of sales functions: Sales structure succession plan**

**“Sales structure after a disaster” versus “sales structure in normal times”**

Regarding the process in which a company restores its business after a disaster, many companies have begun to discuss strategies to recover sales functions – how they will support their customers in the event of a disaster. One of the matters discussed is how much time is required for a sales representative to visit his/her customers. The important point here is that the follow-up

system for key customers should be incorporated into the sales process in normal times.

Even if a sales representative responsible for a key customer lives in a remote location and is unable to get to that customer as a result of a disaster, another employee who lives near that customer should be selected in normal times as a member of the post-disaster follow-up system. Such measures that are arranged for a disaster during normal operation would prove to be well balanced and practical. Setting up a special follow-up system for only the period following a disaster would result in the system failing to function successfully.

## 5 Future prospects for improving an organization's business continuity capability

Discussions under a conventional BCP tend to focus on how to recover a company's vital operations within a target time. As such, how quickly a company can restore operation after the occurrence of a large-scale disaster has been regarded as a key indicator of the level of its business continuity capability.

However, the authors consider a BCP under the assumption that corporate and organizational behavior as well as the behavior of people is not that simple, but instead is complex. Even if rules specifying initial responses are set up, it would be difficult for people to act as specified. Similarly, even if such rules call for making preparations for disaster management and mitigation, available resources are limited. Efforts must be made to identify the incentives that can motivate people and organizations in consideration of people's custom and instinctive behavior. Only when the identified incentives can actually be provided, can a BCP with a high practicability that can motivate people and organizations be formulated.

Given the inevitability of another massive earthquake striking Japan, a pressing question is how companies can use their ideas and wisdom to improve their business continuity capabilities and to undertake business and structural reforms. We will continue to follow the trends among companies as we move towards the future.

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Note:

- 1 "Business Continuity Guidelines Second Edition—Reducing the impact of disasters and improving responses to disasters by Japanese companies," which was published by the Cabinet Office, Government of Japan, defines a BCP as follows: "Even if damage is inflicted on a company by a disaster or an accident, its stakeholders such as customers want the company's vital operations to not be interrupted or, even if interrupted, that such operations can be resumed within the shortest time possible. Furthermore, a company itself should regard the issue of business continuity as a strategic challenge at the management level in order to prevent the company from experiencing a migration of customers to other companies, reduced market share or declined value in company valuation, all of which might result from the interruption of vital operations. A plan to pursue such business continuity is called a business continuity plan (BCP)."

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**Kazuchika ASANO** is a senior consultant in NRI's Social System Consulting Department. His specialties include disaster risk simulations, providing consultation in the areas of government and corporate disaster and risk management policies and the formulation of a business continuity plan (BCP).

**Takao YAMAGUCHI** is a group manager in NRI's Business Process Innovation Consulting Department. His specialties include risk management, business management and business strategy.

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Inquiries to: Corporate Communications Department  
Nomura Research Institute, Ltd.  
E-mail: [nri-papers@nri.co.jp](mailto:nri-papers@nri.co.jp)