

# ASIAN CRISIS, FINANCIAL RECONSTRUCTION AND INCENTIVE MECHANISM

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## SUMMARY

In the countries attacked by the Asian Crisis, many bad assets broke out and financial systems suffered damages. To cope with the situation, financial reconstruction has been under way in these countries. This report analyses the Asian Crises from the theoretical aspect of financial reconstruction.

In concrete, the financial reconstruction in Asian Crisis is examined from the viewpoint of the economic rationale for government intervention in financial reconstruction and several criteria in designing bank assistance. Bank restructuring instruments are also examined in regard to the theoretical effects.

One thing that is most characteristic when compared with financial reconstruction of the past is the huge public funds for financial restriction. This is because the governments tried to restore confidence among both domestic and foreign investors. However, this may lead to the moral hazard of repeated bailouts and excessive fiscal burden.

## INTRODUCTION

In the countries attacked by the Asian Crisis, many bad assets broke out and financial systems suffered damages. To cope with the situation, financial reconstruction has been under way in these countries.

This report analyses the Asian Crises from the

theoretical aspect of financial reconstruction. One thing that is most characteristic when compared with financial reconstruction of the past is the huge public funds for financial reconstruction, such as a broad guarantee for bank liabilities by the government. This is considered to be the result of placing importance on the prompt restoration of confidence among both domestic and foreign investors. However, this may lead to the moral hazard of repeated bailouts and excessive fiscal burden.

Thus, in attempt to restore confidence among investors, governments of Thailand, South Korea, Indonesia and Malaysia issued formal guarantees for bank liabilities. The guarantee of Indonesia is most comprehensive as it covers all deposits and credits, both in Rupiah and foreign currency and for on- as well as off-balance sheet liabilities, with equity and subordinated debt not covered. In the case of South Korea, the government guaranteed a substantial amount of the external debts incurred by merchant banks and other financial institutions. These claims have been restructured into loans with higher spread and maturities. However, as a result of these guarantees, the governments of these countries have limited the degree to which private creditors of financial institutions can be asked to share the burden of financial reconstruction. There are trials to make these guarantees more limited, such as deposit insurances, but these trials will be gradual in order to maintain confidence in their financial systems.

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Also, in regard to the point of making full use of the information that failed banks produced about debtor firms (many are private information), as proposed by Hart (1995), it cannot be said that financial reconstruction measures of those countries are sufficient.

However, some attempts that place importance on the incentive structure to prevent recurrence are also seen in their measures. For example, in the case of South Korea, the government-owned Korea Asset Management Company could take over some of distressed assets from financial institutions. Once corporations undertake adequate operational restructuring, they could be provided with financial relief through conversion of debt-to-equity claims. Also, in Thailand, the government adopted a measure to make capital injection using subsidies to capital increase in the market.

In Chapter I, the financial reconstruction in Asia is viewed. In Chapter II, we analyze government intervention in resolving banking problems and evaluate criteria and in Chapter III, we discuss various measures of financial reconstruction. Chapter IV concludes the paper and discusses its implications.

## CHAPTER I OVERVIEW OF FINANCIAL RECONSTRUCTION

By the Asian Crisis that broke out in the latter half of 1990s, the financial sector of countries, including Thailand, Indonesia and South Korea, suffered serious damages. One of reasons for the outbreak of financial crises in these countries is financial liberalization with unmaturing infrastructures; financial systems, laws, accounting, regulations and supervision. For example, in these countries, the ratio of off-balance transactions were high, as shown in Table 1, but disclosure of information was slow, as shown in Table 2.

**Table 1 Off-balance Transactions (% of total asset)**

	(Unit: %)		
	1994	1995	1996
Thailand	21.8	20.3	25.1
Malaysia	45.9	54.8	56.4
Indonesia	43.3	42.8	63.3
South Korea	38.9	26.5	26.2

Source: Delhaise (1998) p. 69.

**Table 2 Disclosure of Information in Asian Banks (as of 1993)**

	Degree of Information Disclosure in Specified Fields					
	Profit & loss account	Liability	Assets	Other figures	Non-digital information	Total
Thailand	94	93	144	96	15	442
Malaysia	87	90	110	96	40	423
Indonesia	75	118	107	72	29	401
South Korea	54	101	94	24	56	329

Note: This table is the scoring sheet giving a subjective weight to every point of bank accounting disclosure, including non-quantitative information. (Developed by Capital Information Service, rating company handling banks in Asia)

Source: Delays (1998).

**Table 3 Indicators on Accounting and Prudential Standard**

	Definition of non-performing loans (NPL) (number of months overdue)	General provision (loan ratio, %)	Loss provision (NPL *ratio, %)	Capital-asset-ratio (%)
Malaysia	3	1.5	1.5, 20, 50, 100	8 (present) 10 (by 1999)
Indonesia	3 (by 2001)	1.0	5, 15, 50, 100	4 (present) 12 (by 2001)
South Korea	3	0.5	2, 25, 50, 100	8
Thailand	3 (by 2000)	1.0	2, 25, 50, 100	8.5

Note: \* Special mention, substandard, doubtful, loss provision standards

Source: World Bank (1998) p.42.

**Table 4 Foreign Ownership Limits for Existing Institutions**

Malaysia	30% of total equity
Indonesia	No limits
South Korea	10% of total equity, and 25-30% with special permission
Thailand	100% for 10 years

Source: World Bank (1998) p. 42.

**Table 5 Indicators on Consolidation Progress**

	Initial number of financial institutions	Closed/suspended	Nationalization/under supervision	To be merged	Bought by foreigners, joint venture
Malaysia	90	0	4	31	0
Indonesia	222	16	54	4	0
South Korea	169	16	2	5	0
Thailand	56*	2	0	0	0

Note) \* Excluding thrift and rural banks.

Source: World Bank (1998) p. 42.

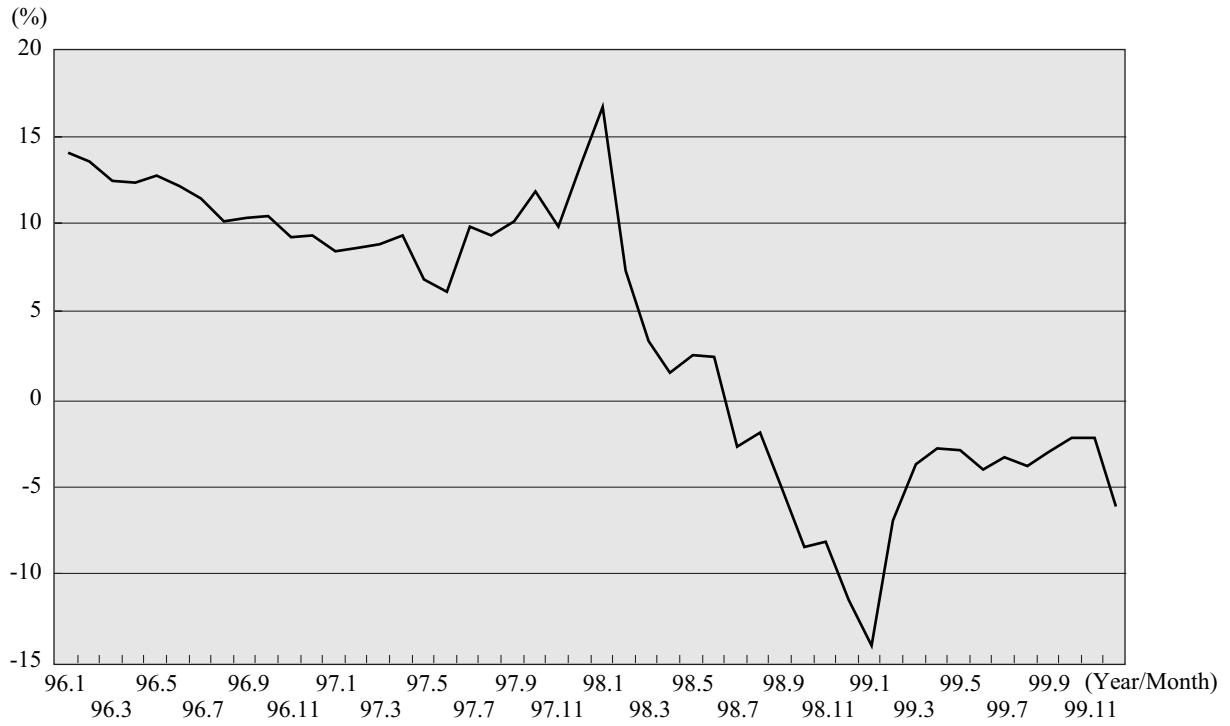
In these countries that suffered the Asian Crisis as above, regulations and supervisions are being improved (Table 3). In concrete, they started to make efforts to improve standards for capital adequacy, loan classification, loan provisioning in order to move closer to the world standards. All these requirements are not done at a time but are implemented taking time. In addition, they are also establishing legal and systematic means for resolving distressed banks and for dealing non-performing assets, including reinforcing regulations on information disclosure, clarifying legal responsibilities of bank operators at time of bankruptcy, and enhancing bank governance by external stockholders and creditors. They also increased the degree of opening of the domestic financial market to overseas investors (as shown in Table 4). Along with the improvement of these systems, these countries proceeded with financial reconstruction (Table 5). In Thailand, more than half of the 91 finance companies were closed. In South Korea, several commercial banks were closed. In Indonesia, 16 finance institutions were closed.

Rehabilitation of finance institutions that can survive but weakened is also in progress. In South Korea, the government placed two insolvent banks under its control and planned to sell these banks to foreign capitals after capital restructuring. In South Korea and Indonesia, the government support the reconstruction of commercial banks by taking over dis-

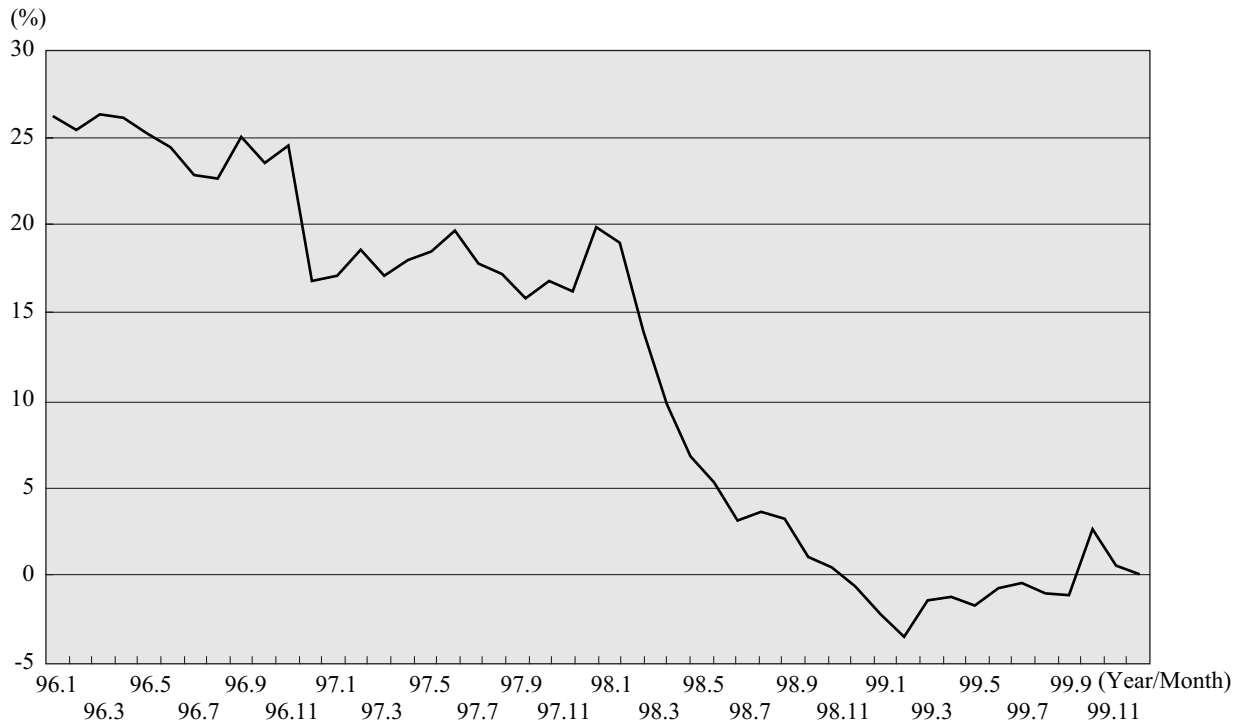
tressed loans and providing balance sheet support. Also, in Indonesia, the government placed 54 banks, including several major banks, under the control of its bank restructuring agency. In Thailand, several commercial banks receive capital injection and some others receive capital participation of foreign capitals. In Malaysia, mergers and closures of finance institutions, including 31 finance companies, is in progress, as well as a buy-out plan of bad assets of finance institutions by an agency for bank restructuring, is under way.

On the other hand, these countries have also limited the number of options for dealing with distressed financial institutions. That is, in order to restore confidence among both domestic and overseas investors, governments of countries of Thailand, South Korea, Indonesia and Malaysia have issued statement on the solvency of their financial systems. Especially, the debt guarantee of Indonesia is most comprehensive as it covers all deposits and credits, in both Rupiah and foreign currency and for on- as well as off-balance sheet liabilities, with equity and subordinated debt not covered. In the case of South Korea, the government guaranteed the considerable amounts of external debts of merchant banks and other financial institutions. These claims are restructured into more long-term and high-spread loans. As a result of these guarantees, the governments of these countries are deprived of the freedom of formulating financial

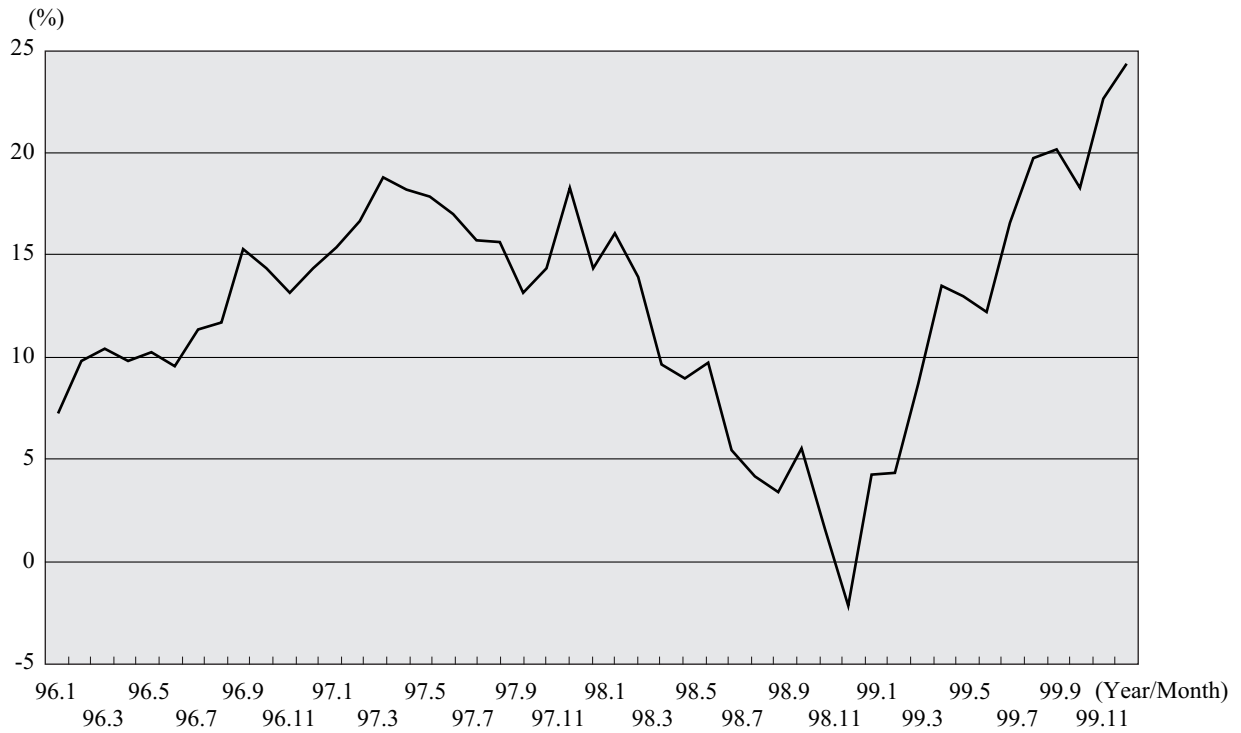
**Table 6 Volume of Substantial Finance Intervention in Thailand (year on year)**



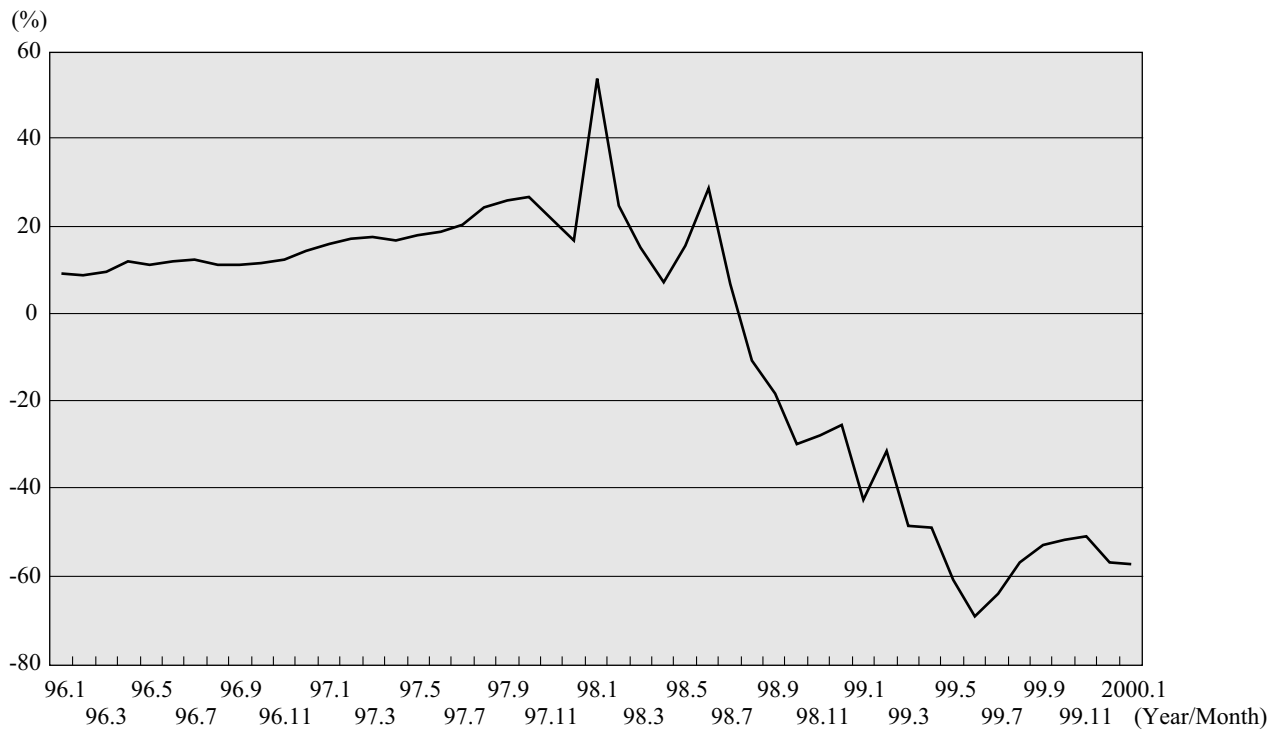
**Table 7 Volume of Substantial Finance Intervention in Malaysia (year on year)**



**Table 8 Volume of Substantial Finance Intervention in South Korea (year on year)**



**Table 9 Volume of Substantial Finance Intervention in Indonesia (year on year)**



reconstruction as to how to get those involved to share the cost of financial reconstruction. There are movements to make these guarantees more limited, such as deposit insurances, but it can be assumed that the real situation necessitated such movements to be moderate in order to maintain general confidence in their financial systems.

Next, we overview the effects of the crisis on the real economy. In Indonesia, South Korea and Malaysia, the growth rate of loans, adjusted for inflation declined sharply since the crisis (Tables 6 - 9). This drop in loan is said to have given a negative influence on the production and export, even excluding the factor of decline in demand side due to a macro-negative shock.

When many uncertainties exist in a crisis, many of banks preferred to cut back on lending and invest in safe assets like government bonds. This is called "credit crunch".

Several attempts may be considered in order to activate the flow of credit. First example is promotion of financing to debtors that are viable but illiquid. This type of financing is generally applied on the private basis as means of corporate reconstruction even in a normal time. If an extensive crisis breaks out, when required loan amounts are large and not many individual banks can cope with corporate relief, government invention is made. However, a problem of this means is whether or not the government can distinguish "firms that can survive but lacks liquidity only" and "firms that cannot survive and lacks liquidity." As another approach, a support measure focused on finance of a specific field, such as trade finance, can also be considered. In Indonesia, South Korea and Thailand, support programs for trade finance have already been established. Since export has a backing of money due to the future export amount, it may be a field where the central bank and government can offer financial support relatively easily.

However, in order to avoid credit crunch and return the flow of credits to a normal condition, not

only macro-stimulative measures such as to increase the volume of money but it is also essential to take structural and microeconomic policies. That is, to expect effects of these short-term measures last long, a fundamental financial reconstruction is necessary. Next, we overview the financial reconstruction.

In the countries attacked by the Asian Crisis, finance systems suffered serious damages. According to estimations by the private sector, the amount of non-performing assets is between 10 - 40% of the GDP, taking into differences in each country \*<sup>1</sup>. The bank's capital adequacy positions are also very weak. Likewise according to the estimations by the private sector, in the countries attacked by the Asian Crisis, the "capital to asset ratio after write-offs of non-performing loans, of the worst period, is reported to have dropped to levels between -17% (Indonesia) and -4% (Malaysia) \*<sup>2</sup>.

Since the government of each country have provided guarantees for liabilities of many finance institutions, it is quite possible that most costs of bank reconstruction will be borne by the governments, though partly borne by private sectors. According to estimations by the private sector, in the worst case the burden may reach up to 30% of the GDP \*<sup>3</sup>. In the case of the bank crisis in Chile in 1982, which is known for the large financial burden, the burden of national finance was about 40% of the GDP. The Asian Crisis can be said to feature the level very close to this case.

Doing bank reconstruction early by public funds may have an effect as to lower the cost of reconstruction, while viewed from the financial aspect, when the worst scenario is applied, it cannot be denied that certain countries are doubtful about the government ability to secure such funds without causing inflation.

For financial reconstruction, not only the allocation of current losses but the distribution of ownership and future control in the economy is also necessary. For the rehabilitation of financial system, there are two types of approach, centralized approach

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\*1 World Bank (1998) p.49.

\*2 World Bank (1998) p.48.

\*3 World Bank (1998) p.48.

and decentralized approach. One in which mid/long-term subjects, such as dealing bad assets and improving management, are left to each bank is the decentralized approach, and the other in which all subjects are settled concentrically by a special organization is the centralized approach. In the case of revolutions in Eastern Europe during the first half of 1990s, which to take as the best was discussed, but in the Asian Crisis, more realistic approaches combining both were conspicuous.

In South Korea, a combination of centralize and decentralized approach was adopted. In concrete, while banks received public support for capital restructuring, bad assets were transferred to the government-owned organization (KAMCO: Korea Asset Management Corporation).

In Thailand, FRA (Financial Restructuring Agency) was established and supervised the rehabilitation of banks. Also, AMCO (Assets Management Company) was installed to acquire bad assets from finance companies and to sell them out to the private sector, taking time. On the other hand, banks received liquidity support from the Central Bank.

In Indonesia, IBRA (Indonesian Bank Restructuring Agency) was installed, and placing 54 banks under its control, and initiated restructuring of their portfolios.

In South Korea, where banks are closely related with enterprises, the reconstruction of enterprises as well as the bank reconstruction is given importance. For this purpose, the government plays an important role in enterprise restructuring. What features this approach in South Korea is support to enterprise reconstruction by converting distressed loans into equity. KAMCO of South Korea buy in bad assets from financial institutions. When a debtor enterprise attempts management reconstruction, financial aid is given by converting their liabilities into equity. Equity held by an organization like this urges the development of the capital market, and it enables external governance to function. This is similar to the approach employed in the enterprise reconstruction in England during the 1990s, called the London Rule.

Next, in order to theoretically analyze finance reconstruction, government intervention in finance reconstruction is examined.

## **CHAPTER II GOVERNMENT INTERVENTION IN FINANCIAL CRISIS**

### **1. RATIONALITY OF GOVERNMENT INTERVENTION**

Economic rationale of government intervention in a bank crisis is generally based on two externalities, and these are related to the influence of banks on the real economy and their roles in payment system. In the case of enterprise failures, the interest parties is usually only a handful (viewed from the real economy). However, if a large-scale bank fails, a huge number of depositors (including other banks) and debtors are affected. Moreover, typically the speed of influence is considerably high compared with the collapse of enterprise failures.

First, externality is link to real economy. By not repaying liabilities to creditors and by calling in loans from sound debtor enterprises, the shock could expand and could cover the entire economy, and it could cause damages to many sound enterprises and other solvent banks. When a bank goes or expected to go bankruptcy, by asymmetry of information creditors, who cannot distinguish solvent banks from problem banks, draw out or may draw out their money from solvent banks. If there is no liquidity support, such a run would lead banks to dump its assets or may call in loans. Further, since banks have compilation of debtor information (e.g., knowledge about each debtor), a bank failure may extremely impede the fund flow to specific debtors. And, this may lead to credit crunch and collapse of a economic economy.

The second externality of bank failure is the possibility of the collapse of payment system. If the payment system collapses, economic activities would be severely affected. "Netting base" large-scale bank clearance systems are used in many countries, but these systems involve much of the risk. If a certain major bank were to fail pay settlement commitments to another bank, it might lead to collapse of the payment system. The total of amounts involved is huge; payment system as a whole in major industrial countries, turn over the equivalent of their annual GDP

every few days \*4.

However, bank collapse does not always cause these serious situations. It is also possible that solvent banks can get the benefit of bankruptcy of an insolvent bank. When a solvent bank is recognized as solvent in the market, depositors will deposit money in the bank. The solvent bank may establish a more solid banking system by purchasing assets of weak, small banks. Further, in a modern financial market in industrialized country, where thorough funds are supplied from the market to overcome short-term liquidity problems, a failure of an insolvent bank is less likely to lead to the liquidity crisis of solvent banks occurs so frequently. The collapse of payment system is also unlikely, since there is a function of last lender (LLR) of the central bank at default. Many countries, especially industrialized countries, use RTGS (real-time gross settlements) to reduce cascading if a bank fails \*5.

That is, presence of these externality accompanying bank failure is merely a necessary condition for government intervention and not a sufficient condition. These risks of failure in the market may involve the danger of exaggeration as well as the danger of overestimation of the government ability. From these viewpoints, generally government intervention in the bank system should be decided by examining conditions case by case; government ability, the leverage, a characteristic peculiar to banks, speed of loss occurrence, and the possibility of illegal actions. Also, the action of intervention itself can produce incentives for banks to change their behavior, suspecting "probably intervention will take place again in the future". This is the matter of moral hazard.

Next, the ideal of government intervention as above is examined more in detail.

## 2. DESIGN CRITERIA FOR GOVERNMENT

When making government intervention for financial

reconstruction, several general criteria can be mentioned. In concrete, these are minimization of reconstruction costs, minimum distortion caused in the incentive structure, avoidance of negative externality and soon. Between these criteria, there is a sort of trade off. For example, in a case where the government supply public funds to a problem bank for relief, while the bank can promptly recover strength, problems exist in fiscal burden and distortion in the incentive structure.

On the other hand, means such as liquidation/ payoff of the problem bank may not distort the incentive structure nor require much government fiscal burden, but these might collapse the bank system.

### (1) Cost Minimization

If other factors are constant, the government should choose the bank assistance strute option that entails the lowest fiscal cost. The approach that minimizes the fiscal cost is generally liquidation without protecting depositors and other creditors. The Bank of Credit and Commerce International of 1991 comes under the case.

Liquidation can reinforce the incentive structure centering in the bank system by getting interest parties of the insolvent bank (depositors, creditors, stockholders, operators, employees) to bear losses. Since a failure in management is subject to a penalty, the lender will be encouraged to be more selective and demanding. However, this option would lead to collapse of the financial system and confusion of economy. Also, liquidation to be successful require a market for bank assets with a sufficient number of able entrepreneurs who deal in.

To avoid a chain of collapse, banks are often relieved and continue management. For example, Goohart (1995) pointed out by a survey on 120 banks in 24 advanced countries, held between the beginning of the 1980s and the 1990s, that a third of failed banks were relieved. The approach of combining insolvent

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\*4 Systemic risk in a narrow sense means the risk of chain collapse of a payment system as shown by the second externality. Whereas, systemic risk in wide sense means the risk of chain collapse of the real economy as shown by the first externality.

\*5 Employment in 2001 is planned in Japan.



banks with solvent banks was commonly used in the United States and Japan. The approach was also used in the settlement of Bearings collapsed by BoE in 1995. Using this approach, it is possible to minimize fiscal cost burden by getting other solvent banks to absorb the capital loss in exchange with the franchise value of the insolvent bank, while assigning the problem bank efficient management.

However, this approach is not practical for many developing countries, including the countries attacked by the Asian Crisis, and transition countries. Because, merger requires a solvent bank willing and able to take over the problem bank. In those countries, often the free competition of the bank sector is impeded. What is more important is that if the insolvent bank has considerable capital losses, the solvent bank will not take over the insolvent bank unless monetary incentive is attached to. If the failed bank is a public finance institution, a choice of privatization is available, but even in the case similar problems accompany.

Except for the choices of liquidation, merger and privatization, the bank is supposed to go rehabilitation.

In order to make rehabilitation successful, requirements are (i) make the bank management more efficient, and (ii) reorganize the capital.

### **(i) Reconstruction of Bank Management**

To minimize future costs of the budget and of the entire economy, restructuring of the insolvent bank is of importance. Recapitalizing banks that cannot be competitive is not only costly but also useless. Therefore, any government intervention should be linked with a reliable comprehensive reconstruction plan. Also, no additional loan to the defaulted bank borrowers be made. Other lending should be limited before the government fund is injected. To watch for illegal actions, reliable external accounting audit should also be required. For example, external accounting audit was employed in the financial reconstruction program in Chile in the middle of the 1980s.

As for the condition of bank management reconstruction in countries after the Asian Crisis, each country intends to employ reliable accounting audit, but in the case of a country like Indonesia where

political/social confusion continues, it does not seem that not all the attempts have turned out to be successful.

Attention is also required not to expand the final loss of the bank due to delay in financial support. Because, in the case of weak, small banks, where losses deteriorate the management strength, incentive and management efficiency, the speed of expanding of excess liabilities tends to be accelerated.

Another aspect on a comprehensive reconstruction plan affecting fiscal cost is whether a uniform approach or a case by case approach is adapted. In the former, financial reconstruction of banks is done based on uniform criteria, while in the latter, reconstruction is tailored to the specific need of each bank.

The former has a tendency that the more apart the public financial support is from specific needs of banks, the more the financial cost is increased. However, this may be useful from the viewpoints of time and administrative resources. In the countries attacked by the Asian Crisis, cases that applied uniform reconstruction programs based on capital adequacy ratio, like South Korea, were noticeable. In order to ascertain whether or not these uniform construction programs were really efficient, a mid to long-term observation of development will be necessary.

### **(ii) Recapitalization**

The recapitalization is not a sufficient condition for the success of financial reconstruction, but it is a necessary condition. In the countries attacked by the Asian Crisis too, this approach is employed. The reorganization of capital enables the future bank management more efficient and will supply a buffer to an unexpected shock. As for the recapitalization, recovery to at least BIS standard level will be necessary.

### **(2) Equitable Burden of Losses**

Generally losses of a insolvent bank are shared by a combination of tax payers and interest parties of the problem bank. When allocating the losses, the government should aim at a most equitable distribution, while maintaining an efficient, stable finance system. That is, the losses should be

distributed by combining those who get gains from the initial loss of the failed bank, those who are responsible, or those who get benefit from the relief.

For example, when a private bank is forced to make a low-interest loan to a public enterprise, from the fairness viewpoint, the government should bear more of losses incurred by the bank than the case in which the bank suffers losses, for example, from foreign exchange speculation. Possible agents for bearing losses are debtors, stockholders, creditors other than depositors, other banks, the government (tax payers) and depositors.

In general, the original cause of the failure of a bank is that debtors did not repay the liabilities. An attempt to collect as much fund from such debtors as possible meets the principle of fairness that those who get benefit from the generated loss should bear more of the recovery cost. Also, this will shift the fund from an inefficient enterprise to an efficient enterprise and at the same time give the present and future debtors strong incentive to repayment.

In fact, maximum recovery of bad assets was tried in many bank rescue operations. In that case, as already described, there are the centralized approach to provide an organization for concentrated collection (e.g., RTC in U.S.) and the decentralized approach that, even after the capital reorganization, the bank conducts collection by possessing bad assets, as are, (e.g., Poland in 1994).

Additionally, collecting bad assets as much as possible has many benefits but it also has problems. The most important thing is that the collectible amount is limited. Debtors not only lack the will of repayment but in most cases they do not have any repayment ability.

Asset collection requires experienced collectors and a well functioning legal infrastructure. Such resources are often scarce in developing countries, including the countries attacked by the Asian Crisis. Further, for bad loans, cases in which government policy, such as improper macro-policies, forced loans to bad debtors and excessive tax levying, are indirect factors, are also seen.

Like the case of bad debtors, sometimes good debtors could also share the cost of bank relief by paying high interests and by rapid debt amortization.

However, since attempts like this have already been made by banks before relief by the government, things like this should be avoided. This option is not merely unfair, since good debtors are not the cause of losses, but these debtors themselves might be driven to default.

Capital of stockholders (and bank reserves), from the fairness viewpoint, should be written off against losses and the stockholders should renounce the management right before relief from the government. On this point, approaches of the countries attacked by the Asian Crisis, except for part of Indonesia, seems to have been made relatively more smoothly than advanced countries where it tends to take time because of stockholders rights and the scale of influence.

Viewed from the depth of involvement in management of the problem bank, losses should be borne by stockholders, creditors and depositors.

The fairness of loss sharing is in fact deeply related with the maintenance of proper incentive structure of the entire of each economy. Further, maintenance of a proper incentive structure is also effective for the prevention of the recurrence of financial crisis. Next, this point is examined.

### **(3) Recurrence Prevention - Proper Incentive**

In order for bank assistance strategies of the government to be successful, it is essential to implement a certain bank reconstruction program along with these strategies. What is especially important in regard to the bank reconstruction program is that it does not distort the incentive structure of the bank.

If consideration to the incentive structure is neglected, the relief by the budget turns out to be granting subsidy to improper behavior of the bank, and as a result it aggravates the improper bank behavior and leads to the recurrence of crisis.

For example, it is pointed out that the four times of recapitalization in Hungary in 1991 has given incentive to continued improper lending of market banks.

When formulating an assistance package, two principles should be observed in order to avoid moral hazards.

- ***Parties responsible for behavior of the problem bank should bear reconstruction costs as much as possible and should not get benefits from government assistance program.***

In actuality, the degree of responsibility for a failure is diverse. On one side, in the case in which stockholders and executives who were or had to be deeply involved in management of the problem bank, the stockholders should be written down their capital, and management executives should be replaced. An approach like this often does not go smoothly in advanced countries, while in regard to the financial reconstruction in the countries attacked by the Asian Crisis, as discussed above, it seems the approach was made relatively smoothly, in terms of replacement of management people and reduction of capital.

Incidentally, in the case of public finance institutions, replacement of the management can be achieved by privatization.

On the other side, there are small depositors. These petty depositors most probably did not have chances to monitor behavior of the bank. However, when a cost burden for reconstruction is allocated small depositors, probably they will have an incentive to make more careful choice about which bank to take for their deposits in the future. And, they will try to get more information about bank behavior. For example, there is no deposit insurance in New Zealand. Instead, banks are required to issue audited accounting reports twice a year and the management is unlimitedly liable. Also, in the deposit insurance in Japan, the principal is guaranteed but the interest part is not (with an exception of special periods). One thing common to the approaches of countries attacked by the Asian Crisis is that small depositors did not bear losses almost at all. This is a result of prompt and frequent use of confusion-free government guarantees based on the financial policy of each government, but in regard to reinforcement of incentive of which bank to take for deposit, these governments abandoned an important choice early.

- ***Bank assistance should be accompanied with means for negating expectations for another relief in future.***

If bank assistance is a rare case and people believe that another assistance will not take place in the future, the problem of moral hazard is reduced. However, in general, it is doubtful if a government statement declaring “there will be no relief next time” is believed or not. Merely announcing such a policy is not sufficient. Because, it is possible that people may still believe that the government will apply relief measures again in a future crisis. For this reason, various measures are taken along with support measures.

For example, the recapitalized bank is privatized, control and supervision is reinforced by raising minimum adequacy ratios, or market competition is invigorated by accepting the entry of foreign banks. Also, for relief using a public bond, the discretion on liquidity can be limited by making it non-transferable, and thereby restrictions can be added to management discretion that may lead the bank under reconstruction to generation of future losses. Authorities of each country attacked by the Asian Crisis employ some of these measures, and apart from the degree of their effects, considerations are also given to recurrence prevention.

Meantime, preconditions for establishing financial disciplines of the private sector are a restrained fiscal stance and a competitive public sector. On this point, we will have to continue to observe the efficiency of the future financial disciplines and public sector of these countries.

#### **(4) Utilization of Corporate Information produced by Banks**

That a characteristic of financial institutions is the production of information of debtor enterprises has been pointed out from the viewpoint of information economics. Also recently Hart (1995) and others have pointed out that, on a precondition of asymmetry of market information, when reconstructing a failed bank, effective use of the debtor information (many

of which are private information) the bank has produced improves the efficiency of reconstruction.

That is, even when the responsibilities of the management is asked, when the private information compiled by the management is effective for financial reconstruction, an approach of reconstruction utilizing such information should be taken.

For example, Hart (1995) proposed that if the existing management that know the true value of the failed bank and debtors judge that continuation will produce more positive profits, measures that ease liquidity restrictions for buy-in should be taken. Moreover, Hart (1995), in addition to buying in cash, also proposed a system to buy in a failed company by stocks.

Using the decentralized approach of bank reconstruction, like in South Korea, probably means to effectively use the private information accumulated in existing banks.

However, with regard to the Asian Crisis, the countries do not seem to take any measures proposed by Hart (1995) who expressly aware of it.

### **(5) Sound Macroeconomic Environment**

If bank relief is not accompanied with an effective bank reconstruction program and if the form of relief by public funds bring about an excessive liquidity, the relief itself deteriorates the macroeconomic environment. One of the rationale of bank relief is the avoidance of influence on the macroeconomy, but if the situation is like this, the relief itself will incur deterioration in the macroeconomy.

Improvement in payment ability and profitability of the bank sector is linked with the performance of substantial economy. In this sense, the macroeconomic environment should be an important factor of financial reconstruction.

In Japan during the reconstruction period after the War, fiscal expenditure was expanded by additional currency issue to prevent bank disturbances due to the cut-off of wartime liability compensation. However, the intensification of inflation brought about cash evasion, which impeded financial intermediation.

With regard to the Asian Crisis, no signs of the progress of financial reconstruction in these countries causing any adverse influence on the macroeconomy,

in this sense, have not been seen to date. However, when considering financial reconstruction from the mid to long-term viewpoint, observation will be necessary to see how the scale of fiscal burden will affect the macroeconomy in the future.

### **(6) Securing of Transparency**

Whatever relief measures are employed, the transparency of fiscal resources should be secured so as to secure fiscal discipline and, accountability, more forward-looking policies, and effective governance.

If such clarity cannot be secured, budget evaluation is not possible, and efficiency and effectiveness of resource distribution is damaged. Economic evaluations are not easily possible.

Judging from the approaches of countries attacked by the Asian Crisis, including the prompt correction measures introduced in South Korea and others, transparency of authorities are improved compared with traditional ways.

However, problems such that the approach of administrative authorities partly left unclearness and that resources of public funds partly leave unclearness, due to insufficient disclosure of financial institutions, inadequate accounting system, are the subjects to be solved in the future.

## **CHAPTER III MEANS, FUNCTIONS AND EVALUATION OF FINANCIAL RECONSTRUCTION**

Here, we analyze the major instruments of financial reconstruction.

Instruments of financial reconstruction can generally be classified into three categories. They are financial instruments, operational instruments and structural instruments. Financial instruments mean generally direct financial transfer to the bank. This means is often expected of the immediate effect, though a short-term, of solving the problem. Operational instruments are intended to improve the governance, efficiency of management and profitability of the bank. Structural instruments are intended to solve basic problems causing deterioration of management on the industrial level.

These three types of instrument are in a complementary relationship with each other. To expect a successful bank reconstruction, in most cases it is necessary to properly combine these three instruments \*6.

## 1. FINANCIAL INSTRUMENTS

In the case of a bank crisis causing liquidity shortage extensively among many banks, a typical means that the government/central bank employs is this financial instruments. Financial instruments are immediate rescue measures as to promptly improve the balance sheet of the bank, and it is accompanied by direct transfer of funds. Financial instruments improve the balance sheet and help the bank return to solvency by improving asset quality, boosting of liabilities, directly raising capital.

To cope with a bank crisis, the use of financial instruments are indispensable in most cases, while they also involves a great risk as to “inject funds further to a failed business.”

In general, this financial instruments do not solve the underlying causes of individual banks or of the bank sector. Accordingly, in most cases, it is insufficient to restore confidence. Thus, combined employment with managerial instruments and structural instruments is required.

Here, financial instruments of public intervention for financial reconstruction is considered in terms of recapitalization, short/mid-term lending and others.

### (1) Recapitalization

In many cases, the government takes actions as to raise the net value of the troubled bank. In this case, there are three approaches \*7.

- ***Directly improve the capital account of troubled banks:***

The government can directly improve the capital account by purchasing new stocks of the troubled bank or by extending a long-term loan to the bank. As an example of governments' cash purchase of stocks, Philippines (1986), Mauritania (1993), Finland (1991-94) and Egypt (1991) can be mentioned. In Mauritania, the government's stock purchase was done in parallel with purchase by the private sector. Long-term loans were implemented in Argentina (1994-95), Azerbaidhan (1995), Finland (1991) and Hungary (1994). In each case loans carried a market-based interest. In Finland, however, a gradually increasing interest was adopted as an incentive for early repayment.

- ***Issue public debt to troubled banks:***

By issuing public bonds to the troubled bank, the government can increase the asset side of the balance sheet. Granting of public bonds is sometimes unilateral, but in many cases the public bonds are exchanged with bad debts of the troubled bank. Swap of bad debts and public bonds like this may be the most typical form of recapitalization. For example, this was implemented in Hungary (1992-93), Ghana (1990), Sri Lanka (1993) and Laos (1993). Bad debts are normally purchased at the face values. In Hungary (1993), purchase was made at considerably low prices.

Unilateral granting of public bonds was implemented in Poland (1993-94), Latvia (1994), Hungary (1993-94) and Ghana (1990). The form of the public bonds allocated to troubled banks were diverse. Most of the issued public bonds were non-transferable so as to

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\*6 As factors indispensable for bank reconstruction besides these instruments, powerful and independent legal authorities (e.g., Deposit Insurance Corporation), and improvement in infrastructures of the fields of accounting, laws and regulations can be mentioned.

\*7 The public executor of recapitalization is diverse. The central bank and public organizations (e.g., Deposit Insurance Corporation) can also function as an agency of the government through operations such as purchase of new stocks, issue of independent public bond, subrogation of liabilities etc. Other public finance institutions and public corporations can also buy stocks of problem banks or convert their assets into stocks. In Finland, for example, Finland Bank and the Finland Guarantee Foundation purchased stocks of problem banks. Also, in Kenya, deposits of public corporations were converted into stocks.

maintain soundness of management. In Poland (1993-94), Hungary (1992-93) and Algeria (1995), part of the public bonds were negotiable.

• **Subrogate liabilities of troubled banks:**

Subrogation of (net) liabilities of troubled banks by the government generally refers to redeem or subrogate, either by government bonds or in cash, claims of depositors and other creditors to troubled banks. In the Philippines (1986), subrogation of deposits by the government during recapitalization reached 17% of GDP.

Viewed from the easing of fiscal burden in future, not an increase on the asset side of the balance sheet (e.g., granting of public bonds, etc.) but a decrease on the liability side (e.g., subrogation of liabilities) tends more to reduce the fiscal burden in future. In the case of swap between bad assets and public bonds, the size of balance sheet is unchanged, and as a result, if others are supposed to be constant (e.g., management skills, etc.), potential future losses are unchangeable. However, if public funds of the same amount is invested by subrogation of liabilities, normally it can shift from troubled banks to solvent banks. That is, while the problem bank is reduced in size, the new worth ratio is increased.

This approach was employed for the reconstruction of three troubled banks in Venezuela (1995), where deposits equivalent to 3% of GDP was shifted to the public bank. From this viewpoint only, potential future losses are reduced.

In the countries of Asian Crisis, specifically South Korea, Thailand and Indonesia, the approach of capital injection by the government via aforementioned improvement on the asset side was employed. Also,

since liabilities of banks are guaranteed as the statement of the government, an approach of subrogation of liabilities by the government can be combined.

**(2) Short and Long-term Lending**

Another instruments of intervention in financial reconstruction is extending short/mid-term loans to troubled banks by the government (or the central bank), which has been employed in many financial bankruptcy cases in each country as well as in the countries attacked by the Asian Crisis.

Incidentally, theoretically a difference between temporary loans for solving a shortage of liquidity in solvent banks and loans to insolvent banks is important. The former is a financial operation that does not affect net assets of the government. The latter is an implicit transfer of resources from the government to the insolvent banks, aiming at easing the short-term influence of the insolvent bank, and it decreases net assets of the government. Also, if subsidies are implemented by the central bank, it may make financial operations frequent or incur inflation\*<sup>8</sup>. Like subsidies in other industries, any subsidy should be clear in terms of fiscal expenditure.

However, in the case of the countries attacked by the Asian Crisis where it is difficult to promptly evaluate the payment ability of banks, as a result, it is hard to know whether lending is to support the liquidity or the payment ability.

That is, even when the troubled bank is known to be in insolvent, it is difficult to evaluate which portion of the lending falls under the subsidy category\*<sup>9</sup>.

**(3) Other Financial Instruments**

Functionally similar to subrogation of liabilities of troubled banks, government guarantee of liabilities and deposit insurance are also financial instruments. This is used to prevent bank runs.

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\*<sup>8</sup> Also, lending from the central bank to private banks may conflict with bank supervision, monetary policies and liabilities related to LLR.

\*<sup>9</sup> Theoretically, lending from the central bank is support to banks suffering liquidity shortage, though not insolvent banks, and in this case, the lending should be accompanied with a collateral and the interest should be on a penalty rate. Practically, however, a prompt reaction is required for liquidity support, while normally it is not easy to judge whether or not the bank is solvent. Also, the actual situation is such that sometimes the collateral is insufficient or the interest cannot but be low.

However, even when guarantee is announced, sometimes runoff of deposits does not settle unless fundamental measures are applied. Thailand and Indonesia in the Asian Crisis might be the case. Guarantee is said to incur a moral hazard of creditors who supply funds to the bank, but sometimes measures to avoid it are taken in combination. In Sweden, the government extended the guarantee on all banks, but the government obligated special inspections of the banks before applying the guarantee.

Capital reinforcement using private assets is also applicable. In France, the Bank Law, Article 52 gives the central bank the authority to work on the stockholders assembly to increase the stocks held by stockholders without giving any commitment about the rescue by public funds. Like the case of Spain during the 1980s and Mexico during the 1990s, in addition to a capital increase in the private sector, public funds are also used as subsidies to cover bad loan losses. At time of the Asian Crisis, a similar approach of investing public funds was employed in Thailand.

In Indonesia, an attempt to promote a smooth recapitalization, by the government giving guarantees on the capital increase of banks in the market, is employed\*<sup>10</sup>.

## 2. OPERATIONAL RESTRUCTURING INSTRUMENTS

As a background of bad asset, there exists a problem of management efficiency. Because of this, in many cases replacement of the old management with a new management is done. This means includes examination of lending, price rating (margin setting), risk management skills and an internal audit system. Since this means cannot be achieved in a day, it can be said as more mid-term means. Also, dismissal of management executives and employees who are responsible for the collapse of the bank is preferable from the incentive aspect, too. For example, in South

Korea attacked by the Asian Crisis too, management of two failed banks were succeeded by the government, and thus the management was replaced and employees were dismissed.

A problem of the dismissal of the management and employees, in addition to the scale of burden of the retirement allowance, is, as discussed by Hart (1995) and Diamond (1999), the information related to debtor enterprises (especially private information) produced by the management and employees is lost by their dismissal. To make use of private information like this, Hart (1995) proposed a framework of a new bankruptcy law enabling old management to participate in the reconstruction of the enterprise.

An approach that a foreign bank with stable management purchases the stock of a domestic bank and participates in management also comes under this category. In South Korea, for example, purchase of domestic banks from abroad is liberalized and most of restrictions on stock holding are abolished. In Thailand too, stock holding of banks by foreign investors is permitted today. Also, in Indonesia, stock holding of financial institutions of all industries by foreign investors is permitted, with certain exceptional cases. (Table 4)

## 3. STRUCTURAL INSTRUMENTS

This means includes integration of inefficient departments by bank closure/merger, and participation of foreign banks in domestic banks.

When the legal system allows involvement of the bank itself in the decision of bank closure, generally bank closure is difficult. Including this problem, sometimes laws on bank closure are not established in developing countries and reorganized countries. The procedure of bank closure has not been applied in countries like Indonesia, South Korea and Thailand. In these countries, financial confusion was partly because the legal system for bank closure was not established.

When bank failures extends over a wide range,

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\*10 In Chile during the 1980s, an approach not to pay any dividend to existing stockholders until the completion of repayment of public funds was adopted to urge entry of new stockholders.

bank closure might lead to the collapse of financial system. So, sometimes it seems that the government employs a policy “too big to fail.” That is, taking into account the influence to an entire economy, they relieve big banks but close small banks. The Continental Illinois Bank that failed due to insolvency in 1984 was not closed, but at that time discussions were made as to whether the US supervisory authorities did not close a big bank like that from the fear of adverse effects on the payment system. However, the concept of FDICIA (1991) expressly abandoned the principle of “too big to fail” as a guarantee on not letting big banks fail.

In France, where a big bank was said to be relieved because of being large-scale, assets, branches and offices were sold by the piece, so as to reduce the scale. Through downsizing like this, the bank became so small as it would not bring about discussions on “too big to fail” in the future.

In Japan, there was a tradition of not letting major twenty banks fail, but breaking the tradition, Hokkaido Takushoku Bank, one of the major twenty banks, collapsed in 1997. As a background that bank relief by “too big to fail” has become increasingly avoided in advanced countries, that banks to be relieved and those not have become separable more than ever can be mentioned.

That is, the legal infrastructure has become developed so that deposits and credits are guaranteed and businesses of deposit, transfer payment and lending can continuously be done even when a bank fails, while the bank management and part of employees are dismissed and stocks are reduced \*<sup>11</sup>. It can be said that, by this, it has become possible to impose penalties to the management, stockholders and part of employees who are more responsible for management, while leaving assets of depositors who could not participate in management and loans of sound debtors, as are.

Viewed from approaches of the countries attacked by the Asian Crisis, in most cases the bank failure was taken as a crisis of the whole instead of merely taking it a collapse of a major bank, and it seems that

in no case banks were relieved because of being big, as a whole. As a typical example, the case of Indonesia where the government generally guarantees credits other than deposits to allow operations of almost all banks, while for troubled banks the government makes intervention through the specialist public organization (IBRA) and ask for the responsibilities of the management and stockholders.

Absorption/merger is also one of structural instruments. For the government that has protected various bank forms by subdividing the market, proceeding with absorption/merger after revising the related legal system is a more effective approach. Because, absorption/merger gives the enjoyment of the economic performance of scale/range.

In Argentine, the central bank promoted the absorption/merger of banks and gave legal advice about related contracts. In Japan, absorption/merger was initiated by the Ministry of Finance. However, absorption/merger initiated by the government like these also involves a risk of making unnecessary life extension by merging banks both of which cannot continue (resulting in an increase in financial reconstruction cost).

In the Asian Crisis, bank merger was often used in South Korea and other countries, but whether or not each case was reasonable should be judged through the future changes from the mid/long-term viewpoint.

Privatization is also a type of structural instruments. Privatization of a failed public financial institution can be expected to bring favorable results in terms of incentive structure, by replacing the management and by implementing streamlining including the dismissal of employees. Moreover, it is also expected of an efficiency improvement of each bank by an increase in competitiveness of the financial market. However, in a case like certain Indonesian financial institutions where the inefficiency seems to be due to connection with part of the government, it may be necessary to stabilize the political scheme based on the precondition of privatization.

Bad asset management procedures should also

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\*<sup>11</sup> In other words it stands on a concept that what is important for the entire financial and economic system is the principle of “too big to close” rather than the principle of “too big to fail.”



be considered as a type of structural instruments. Separation of bad assets from the bank body (centralized approach) has an effect of making the bank dedicate itself in the main business. Simultaneously with collecting as much of the separated bad assets as possible, installation of a specialist asset collection organization is done so as to maintain the moral of debtors.

In contrast to this is an approach to leave collection of bad assets to each bank (decentralized approach). This is to make use of the debtor information the bank has produced by leaving the relations of the bank with debtor enterprises and at the same time accumulate the know-how of asset collection in the bank. During the first half of the 1990s, collection was done by banks without leaving bad assets in Hungary and Poland, while in Czechoslovakia bad assets were gathered to a specialist organization. At the moment, it is not possible to generally say which is better. There are also some cases that combine both. Apart from which of these approaches to take, it seems that the keys are the fund management and skill of the asset collector.

In regard to the Asian Crisis, bad assets of problem banks are gathered to specialist public collection organizations in South Korea and Thailand. However, considering that, in South Korea, asset collection by individual banks is also considered depending on assets, and that, in Indonesia, IBRA places problem banks under its control and takes initiative of reconstruction, these can also be regarded as approaches combining both.

## **CHAPTER IV FINANCIAL RECONSTRUCTION, FISCAL IMPACT AND MACROECONOMY**

Through discussions made as above, it has been clarified that in bank reconstruction, there is a possibility of it requiring a huge government fund. This public intervention, in general, can give influence on a long-term fiscal balance and aggregate demand.

### **1. LONG-TERM FISCAL BALANCE - LONG-RUN SUSTAINABILITY OF GOVERNMENT LIABILITIES**

As discussed above, one of general bank relief measures is the issue of public bonds in exchange with bad assets or to make up losses. Like other liability means, cost of the issuer is the current value of the cash flow it generates. And, this must meet the future income.

The sustainability of government liabilities is deteriorated by issuing government bonds without increase of the future income to offset it.

In the countries attacked by the Asian Crisis, more or less public funds were used, and this indicates that the financial balance was more or less deteriorated.

However, since in most cases the use of public funds for redeeming on assuming bad debts is accompanied with uncertain government liabilities, such as guarantee on future bad debts to solvent banks that take over problem banks, a future fiscal burden cannot but be considered with a width to an extent. As discussed already, World Bank (1998)<sup>\*12</sup> suggested, according to various statistics of the private sector, the possibility of an expansion of government burdens up to 30% of GDP.

In the meantime, when considering the question of the long-run sustainability of government liabilities, political and social schemes are also important in a sense that in addition to the scale of fiscal burden generated by a crisis, influence is also exerted on economic fundamentals and further on the amount of collectible tax.

For example, even if an additional fiscal burden is large, it is possible to sustain government liabilities when a high economic growth rate is realized.

On the other hand, even if the financial burden is small, the liability may not become sustainable when the political scheme is unstable and the ability of tax collection of the government is insufficient.

The sustainability of government liabilities in each of the countries attacked by the Asian Crisis

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\*12 World Bank (1998) p.49.

should be observed with these points taken into account \*<sup>13</sup>.

## 2. IMPACT ON MACROECONOMY

Here, mid/long-term impacts on the macroeconomy, including aggregate demand, is considered.

When recapitalization is not applied to weak banks during a mid/long period, generally the total demand will be declined. That is, if banks cannot solve the insolvency problem, troubled banks eventually go shortage of liquidity and bankruptcy. When confidence in the market deteriorates, deposit runoff takes place. When they draw out deposits and hold the amounts in cash or in other forms of financial assets, the availability of lending is decreased and financial disintermediation takes place. Further, it also affects exchange rates and foreign currency reserves.

Also, even in a stage before collapse, troubled banks attempts higher spread, aiming at improvement in management. This means to shift reconstruction costs to debtors and creditors, which leads to financial disintermediation and eventually to decrease in investment and economic growth.

On the other hand, when assets and earnings are increased by bank relief, the total demand is increased. Whereas the assets and earnings are affected by the reaction of the bank system and public to bank relief.

In order for financial reconstruction to be successful, not only the recovery of payment ability of banks but that their management itself is improved so that the payment ability can be maintained, is necessary. By this, these unfavorable influences can be avoided or at least eased.

Influences that bank relief exerts on the total demand has four channels, and they are interest spread, private assets, future capital reorganization and money supply.

### (i) Interest Spread

Changes in interest spread of banks is important in considering the total demand. If interest spread drops as a result of recapitalization, it has the same effect as tax reduction to depositors and debtors of the bank, an effect of stimulating the aggregate demand \*<sup>14</sup>. Spread decreases as the efficiency rate rises by management reconstruction of the bank. Verification analyses made in the past indicate that it decreases as bank reconstruction proceeds.

\*13 The sustainability of government liabilities is often verified by the statistic characteristics of real government expenditures and real government revenues. See Hakkio and Rash (1991), for example. Here, from the availability of data and restrictions on the later mentioned estimation method, whether or not the ratios of financial expenditures and revenues (excluding interest payments) to GNP are mean reverting was examined. Since, based on the past studies the unit root process as well as an accelerating dispersion of ratios of financial expenditures and revenues to GDP is a rare case, here the analysis is made in the form of the memory parameter estimation of fractional integration. When the parameter (=d) is 0, the time series is I(0), and when parameter (=d) is 1, the time series is I(1), and in this analysis, conditions with  $0 < d < 1$  and  $1 < d$  can also be verified. Table 10 shows the result of estimated the memory parameters. For all these countries, at least so far the assumption (I(0)) as a steady process is significantly rejected. However, except for Thailand, the assumption I(1) as a unit root process is also rejected. Also, for Thailand as well, the 95% lower band is on 0.7 level and the unit root process is not necessarily supported strongly. On the other hand, for each country, the assumption that the memory parameter is below memory parameter = 0.5, the limit of variance nonstationarity, cannot be rejected.

Since these results are based on a limited volume of information, a certain width should be given in observation. However, considering that these results highlight the fiscal stance in the past, at least these results may be useful as a reference in looking over the future sustainability of government liabilities.

\*14 Whether or not spread drops depends on the market structure and price rating behavior. If a bank sets interests based on markup and not for profit maximization, interest spread may be dependent on the degree of bad assets.

**Table 10 Memory Parameter of Fiscal Deficit Ratio to GDP**

	Memory parameter	95% lower band	95% upper band
Malaysia	0.727	0.479	0.975
Indonesia	0.485	0.212	0.759
South Korea	0.540	0.263	0.818
Thailand	1.002	0.765	1.236

Data source: IFS

**(ii) Asset Effect**

To issue government bonds and use them for the reconstruction of finance institutions means net asset shift from the government to the relieved economic agents. If (a) a decrease in government assets is not completely offset by an increase in savings rate of the private sector, and if (b) financial reconstruction cannot completely be forecasted, as a result, assets of the relieved economic agents will change.

Theoretically and empirically, especially in developing countries, it does not seem that the first condition, proposition of neutrality by Ricardo, is satisfied so well <sup>\*15</sup>.

However, it is not clear whether or not the second condition is satisfied. The manner of forecasting may differ by depositors, creditors, stockholders and management executives as well as by the presence of an institutional deposit insurance system, the form of bank ownership (private or public), and scale of the bank.

**(iii) Possibility of Recapitalization in the Future**

From the short-term viewpoint, recapitalization can increase aggregate demand by an improvement in the bank's ability to win deposits and an increase in lending. However, when the recapitalization by public intervention is not accompanied with penalties for recurrence prevention on the management executives who are responsible for management failure, recapitalization will exert adverse influence on the aggregate demand in the long run.

**(iv) Money Supply**

The money supply will tend to increase when financial restructuring increases the net assets of the central bank. This will occur when restructuring financed by loans from the central bank on external borrowing. Unless any increase in bank reserve is held as excess reserves or otherwise sterilized, broad money will expand.

For sterilization, attention is also required. When the bank system is made brittle by a financial crisis, banks tend to possess ready liquidity based on

precautionary motive. When the asset demand based on precautionary motive is increased, sterilization aiming to make the total reserve deposits of the market constant may bring about a tightening effect, contrary to expectation. Also, as the financial reconstruction proceeds, the asset demand based on preliminary motive decreases. Thus, attentive financial adjustments, with these taken into account, is required. For example, Japan in 1998 may fall under this category.

Additionally, above-mentioned impacts become clear accordingly as financial reconstruction, including management improvement, proceeds, and at the moment, it is difficult to demonstratively evaluate the degree of each effect in the countries involved in the Asian Crisis <sup>\*16</sup>, and thus future changes in these countries should be observed.

Further, the effectiveness of financial policies are assumed to decline when the bank sector becomes weak. For example, if a sound bank hesitates in lending to a troubled bank, the inter-bank market cannot function effectively. Also, the currency deposit ratio, currency demand function and currency to GDP ratio may become unstable. Because of this, the fiscal policy is expected to display a role aware of policy mix with the monetary policy more than ever. Financial reconstruction based on government liabilities can increase the aggregate demand by reducing interest spread, increasing assets and money supply. However, in order to make the financial reconstruction successful, economic policies by which the macroeconomy can steadily grow are also required. Excessive fiscal liabilities also involves a problem that it will endanger the long-term balance of national finance.

In regard to the Asian Crisis, each country has been achieving financial reconstruction and macroeconomic reconstruction relatively smoothly so far, though with differences in speed. However, important subjects, such as whether or not such a potential increase in fiscal burden can keep domestic and overseas economies stable in the future by the issuance of wide range of government guarantees

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\*15 See Hayashi (1982).

\*16 At the moment, it is hard to classify them, because there are but a few after-the-crisis samples and too many factors that can affect the after-the-crisis economy.

against bank liabilities, and whether or not the cost distribution without clarifying the responsibility of failure will bring about the recurrence of another financial crisis in the future, are still left to be solved.

## CONCLUSION

Approaches of the countries attacked by the Asian Crisis toward financial reconstruction are prompt and reforms have steadily been in progress. Individual approach measures include some with consideration given to the incentive structure. However, for each of these countries, investment of huge public funds into the liability guarantee on problem banks in order to promptly restore confidence in both domestic and overseas markets can be pointed out as a characteristic. It involves problems such as to shade off the responsibility of failure, cause distortion in the incentive structure and provide a hotbed for recurrence, and to impose excessive fiscal burdens to the government. It may be said that, after the outbreak of an extensive financial crisis, only these choices were left.

Perhaps this suggests a lesson that establishment of legal, institutional and human infrastructures to guarantee a more suitable incentive structure on the financial system, such as proper bank management functions, proper bank regulations/supervisory systems, functional legal systems/organizations for collapse settlement, establishment of markets where bad assets can smoothly be evaluated/dealt in, and disclosure of information, are necessary in an early stage to prevent an extensive crisis.

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