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# Financial Sector Reforms in Postwar Japan

## An Overview

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# Financial Sector Reforms in Postwar Japan\*

## An Overview

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### I. Introduction

The purpose of this paper is to provide an overview concerning financial reforms implemented in postwar Japan. It has been the conventional view that the remarkable industrial development Japan achieved in the postwar period from the mid-1950s to the early 1970s had something to do with its unique bank-led financial structure. There have already been some analyses showing that the long-term relationship between major banks and borrower firms contributed to rapid industrial development.<sup>1)</sup> However, it is still hotly debated to what extent Japan's development since the end of World War II was due to the government control of financial and capital markets, which some scholars regard as an aspect of the "industrial policy" implemented by the Ministry of International Trade and Industry (MITI).<sup>2)</sup>

It is an undeniable fact that the government intensively intervened in the market economy in postwar Japan. In particular, the financial system was heavily controlled by the government in many respects. As will be explained in the present paper, the purpose of the government control was to some extent related to the incompleteness of the capital market as of the period immediately after World War II. This was indicated, for instance, by the government's

endeavors in constructing the system of long-term credit banking based on government financial institutions such as the Reconstruction Financing Bank (RFB: *Fukkou Kinyu Kinko*) and the Japan Development Bank (JDB). As will be explained in the following, this endeavor seems to have contributed to quick reconstruction of the Japanese economy immediately after World War II.

However, it remains ambiguous what relationships there are between rapid economic growth and the government control of financial allocation mechanisms in postwar Japan.<sup>3)</sup> The main theme of this paper is to examine whether there existed a systematic set of policies for the financial system which contributed to industrial development in the high growth period. However, it is also important to investigate the mechanisms of government control over the financial system during both the wartime period and the period immediately after World War II, because most government financial controls and regulations were firstly introduced as a means of wartime control. Some scholars go so far as to say that the wartime financial controls actually provided the basis for the postwar financial mechanism. Thus, section II of the present paper roughly explains the process of wartime financial control, and the policy of reconstructing the banking system immediately after the war, which provided preconditions for a financial structure of a bank-led nature in the postwar period. This section shows that the government policy of coping with the fragile financial system immediately after World War II prepared the basis of the bank-led financial system that effectively functioned in the high growth period.

In section III, we discuss how Japan's capital markets were incomplete immediately after World War II, and investigate what implications government intervention had in the financial mechanisms in those days. It will be

emphasized that introduction of government financial institutions specializing in the long-term credit to selected "key industries" and establishment of the long-term credit banks system were efficient methods to overcome the difficulty of incomplete capital markets.

In the industrial development of postwar Japan, the bank-led financial system played undeniably important roles. Many scholars have noted the important role played by the nexus between banks and borrower firms called the "main bank relationship", and a new paradigm is now emerging regarding the main bank relationship. Section IV makes a short review of the new paradigm, which defines the role of the main bank relationship as an instrument of corporate control. This section also critically examines whether regulation was necessary for forming the bank-firm nexus in postwar Japan.

In section V, we proceed to investigate the control of interest rates in the postwar period. It has been a conventional proposition that Japanese policy makers adopted "a low interest rate policy" with a view to stimulating economic growth, and that they accomplished their objective. However, the validity of this conventional view has not been adequately examined. We critically examine the effectiveness of the control of interest rates in this section.

Inflation is often the most serious problem for developing and transforming economies. Japan also experienced rapid inflation during several years after the end of world war II. However, except for this short period, Japan's monetary authorities succeeded in controlling inflation in the postwar period. In other words, the Bank of Japan did not adopt a true low interest rate policy. Section VI assesses the BOJ's performance in terms of monetary control in the postwar period.

The government could control fund allocation directly by establishing some organizations whose role it was is to distribute credit following orders given by the government. Section VII considers the effects of government intervention in the financial allocation mechanisms. In particular, the activities of the Bond Issue Arrangement Party, the Financial Institutions Fund Council, and the Industrial Finance Committee are examined, since these were the organizations established to exercise official control over the private financial institutions. The results of the consideration in this section cast serious doubts on the conventional view that Japanese policy makers were able to systematically control the financial institutions for the purpose of promoting economic growth. Finally, Section VIII is devoted to some concluding remarks.

## II. Preconditions for the Bank-led Financial System

It has been widely believed that the strong bank-led financing system was one of the most conspicuous features of the Japanese economy in the postwar period. Although this is not incorrect, we need to be careful not to exaggerate this perception. As Mayer(1990) shows, bank credit has been dominant in corporate financing in almost every industrialized country including Japan. Table 1, borrowed from Mayer(1990: 312), shows that the heavy reliance of the Japanese nonfinancial corporate sector on loans is remarkable when compared with Anglo-American counterparts, but not so conspicuous when compared with those of France and Italy.<sup>4)</sup> According to Mayer, it is a stylized fact that banks are the dominant source of external finance in all industrialized countries, and that securities markets do not play a leading role.

We should also note that fact that the features of a bank-led financing system were not observed until the early 1930s in Japan. For example, the securities markets played important roles for corporate financing during the 1920s and even during the 1930s. Table 2 shows the structure of financing of industrial sectors since the early 1930s until the mid-1980s. This table suggests that securities financing, particularly stocks and shares, was important for industrial financing during the 1930s, and that loans from private financial institutions became considerably important during the period of wartime controls. It was not until the 1940s that loans supplied by private financial institutions dominated industrial finance in Japan.<sup>5)</sup>

It has often been argued that the wartime financial controls laid the groundwork for a strong bank-led financial system, which worked efficiently during the high growth period from the early 1950s to the mid-1970s. It is true

that the Japanese banking sector was forced by the government to commit itself to wartime industrial financing. However, in my opinion, the commitment to wartime finance rather weakened than strengthened the banks' financial intermediation capabilities. The specific policies adopted by the government to help banks recover from the destructive aftermath of the wartime control were important in preparing the features of the financial system that worked in the postwar period. In this section, I will first explain various policy means adopted by the Japanese government with a view to controlling financial allocation during the period of warfare with China and the United States, and then discuss the policies implemented immediately after World War II to reconstruct a financial system seriously damaged the wartime controls.

## II.1 Restructuring the banking sector after 1927

Japanese policy-makers and financiers in the last part of the nineteenth century established a modern financial system by adopting and adapting Western models and institutions. Initially, entry was very easy, with low minimum capital requirements and virtually no prudential regulation or protection of deposits. The free-banking without prudential requirements made the Japanese banking system fragile, often leading to bank runs. In particular, the Japanese banking experienced financial panic three times during the 1920s; the relatively small disruptions turmoil in 1920 and 1923, and a serious bank run in 1927 (Hamada(1994), and Yabushita and Inoue(1993)). Responding to these bank panics, the Banking Law was promulgated in March 1927, and went into effect in January 1928. The major effect of the Banking Law was to force small-scale and inefficient banks to merge with each others or to exit with five



years of grace, thereby reducing the number of commercial banks and increasing their average size.

The Ministry of Finance's (MOF's) administration based on the new banking law was important, because the MOF intentionally utilize the law to reduce the number of banks and to increase the size of individual banks following the principle of "one bank in one prefecture (*ikken-ikko shugi*)," according to which regional banks were conferred a sort of monopolistic franchise in a limited business area. However, it is ambiguous whether the MOF adopted this principle with a clear view to utilize the banking-based financial system as an instrument to promote industrial development. I conjecture that the primary purpose of the MOF's administration at that time was to build up a stable banking system in Japan.

At the end of 1927, the number of commercial banks was 1,283, of which 617 banks were undercapitalized according to the required level determined by the new Banking Law (Goto(1977: 334)). The banks with insufficient capital bases were forced to merge with other banks to clear the minimum requirement for a prescribed time period if they did not want to go to forced resolution. Thus, the number of private banks decreased significantly during the 1930s and the first half of the 1940s. During the two decades from 1926 to 1945, the number of commercial banks decreased by 1,359 from 1,420 to 61(Chart 1). The process of bank mergers was partially supported by public funds (Goto(1977: 298-299)). This episode was an important precondition for wartime financial controls. The government could rely on much larger and in that sense more robust banks as a tool of financial control during the 1940s.

The MOF's principle of "one bank in one prefecture" was mitigated for a

short period immediately after World War II. From October 1950 to February 1954, twelve relatively small-scale banks were permitted to newly started their operations. The purpose of this temporary relaxation of the law was to deal with the strong demand for credit by small businesses located in rural areas during the early stages of economic recovery (BOJ(1967: 298-299)). However, in 1954, the MOF announced resumption of the principle of severely restraining de novo entry into banking.

## II.2 The financial control before 1941

The Temporary Law of Funds Adjustment (*Rinji Shikin Chosei Ho*) in 1937 has been regarded as the starting of the full-scale control of financial markets. According to this law, every corporation larger than a prescribed scale was prevented from establishing operations, increase its equity base, and merger with other firms without public authorities' permission. This law also controlled banks' supply of credit to firms' equipment investment. Specifically, the law categorized loans as "favored," "permitted," or "proscribed," and established criteria for defining each of these. The Bank of Japan (BOJ) was the agent in charge of implementing this law.<sup>6)</sup>

However, during the early stage of wartime control, i.e., specifically from 1937 to 1941, the Japanese banks were reportedly reluctant to follow the government control. In particular, managers of the major banks belonging to *zaibatsu* groups often expressed the opinion that they were not willing to concentrate their credit on munitions companies because of high risk associated with loans to the munitions companies. Managers of major banks, particularly those of traditional *zaibatsu* banks regarded the performance of munitions

companies as very fragile (Ito(1995: 54)). Thus, the government and other groups who believe in the necessity of full-scale financial control in the process of the warfare proposed various plans of introducing more stringent financial control into the Japanese economy.

For example, the Bank Funds Utilization Order (*Ginko-tou Shikin Unyo-rei*) of October 1940 was implemented to coerce the reluctant private banks, particularly the *zaibatsu* banks, into greater cooperation with military plans for a radical redistribution of funds toward war-industry firms (Calder(1993: 36). Even the Army Ministry made a plan to restructure the Japanese financial system in order to control financial allocation.<sup>7)</sup> The intensified pressure from the government gradually changed the basic feature of Japanese banking from traditional commercial banking, which specialized in short-term financing, to a more strategic type which actively committed itself to long-term finance for industrial development.

In March 1941, the Economic Planning Agency (*Kikaku-In*) proposed an idea of introducing central control of financial allocation and reorganizing the Bank of Japan as a pivotal controller in financial allocation. But the MOF and the BOJ strongly opposed the EPA's idea and requested making the EPA's plan milder. The EPA's moderated proposal was introduced into the Fundamental Policies for Fiscal and Monetary Control (*Zaisei-kinyu Kihon Housaku Yokou*) determined by Fumimaro Konoe's cabinet in July 1941. Following the Fundamental Policies, the Japan Financial Control Organization (*Kinyu Tosei Kai*) was established in May 1942. The Bank of Japan effectively intervened in various stage of the financial allocation process through this Organization (BOJ(1986: Vol.4, 476-477)). The role of the BOJ continued to be influential immediately after World War II.

### II.3 The Designated Financial Institutions System

Under the Munitions Companies Designated Financial Institutions System (January 1944), each munitions company was assigned a major bank to care for the firm's financial needs. The designated banks were to supply credit to designated munitions companies and monitor their managerial behavior. In many cases, a lending consortium was formed around the designated bank to serve the munitions company. However, some banks complained that the monitoring was not effective in controlling borrower firms' behavior. Sometimes, the managerial behavior of the munitions companies was too reckless from the view point of bankers.<sup>8)</sup>

Although it was abolished by the order of the General Headquarters of the Allied Occupation (GHQ) in April 1946, the Designated Financial Institutions System has been conventionally considered as the origin of the main bank relationships developed in the postwar period. Since most munitions companies belonging to the *zaibatsu* groups had established strong ties with the *zaibatsu* banks before introduction of this designation system, this system could not contribute to formation of the main bank relationships for *zaibatsu* companies. However, the system provided industrial firms outside the traditional *zaibatsu* groups with opportunities to start long-term relationship with the banks designated to them. Actually, according to Hoshi, Kashyap and Loveman (1994), who examined relationships of designated banks assigned to munitions companies in 1944 with their main banks in the postwar period, in many cases the relationship of munitions firms with the designated banks were inherited by the postwar main bank relationship. Therefore, we may conclude that the Designated Financial Institutions System contributed to forming the main bank

relationship outside the *zaibatsu* groups.

It is widely known that the essential mechanism of the main bank relationship in the postwar period was banks' monitoring (Horiuchi, Packer, and Fukuda(1988), and Aoki(1994)). However, the Designated Financial Institutions System in itself did not seem to enhance banks' monitoring abilities because, during the war, the government insured explicitly or implicitly bank credit to the munitions companies. The designated banks, therefore, did not need to worry about the credibility of their main borrowers. In other words, the banking system was deprived of monitoring ability under the system of designated financial institutions. Some bankers reported that the designated banks were prevented from being any more than an accounting section of the companies assigned to them (Mitsubishi Bank(1954: 353)). Thus, we cannot claim without reservation that the designation system did enhance the designated banks' monitoring ability, which was inherited by the postwar financial system.

9)

## II.4 Reconstruction of financial institutions

Immediately after World War II, many Japanese firms experienced large losses not only because of destruction caused by warfare, but also because of suspension of government compensation of wartime expenses in August 1946. The estimated amount of wartime compensation to be paid by the government was around ¥150 billion.<sup>10)</sup> Of this compensation, ¥81 billion was estimated to be cancelled. The estimated cancellation of wartime compensation was 17% of GNP in 1946. These losses threatened the viability of banks which had supplied large amounts of credit to recipient companies. The total amount of bank loans

supplied to the war-related firms and projects was estimated to be ¥83.5 billion, which was nearly 80% of total bank loans. The Japanese government tackled this problem by freezing the balance sheets of both banks and industrial firms in August 1946.

The government introduced the Emergency Law for Adjustment of Bank Accounting (*Kinyukikan Keiri Okyu Sochi-rei*) to make it possible for both nonfinancial firms and financial institutions to separate sound balance sheets (new accounts) from the deteriorated balance sheets (old accounts). The assets expected to be uncollectable because of the suspension of wartime compensation were assigned to the old accounts. The legacy of wartime assets and liabilities was transferred to the old account of deteriorated balance sheets. Banks and other financial institutions could resume their business based on the separated sound balance sheets, although the scale of their activities were limited because of the negative legacy from World War II.<sup>11)</sup> The two balance sheets were finally unified in March 1948. Before that time, the deteriorated balance sheets of financial institutions had to be efficiently dealt with. Both the Law of Firm Reconstruction (*Kigyo Saiken Seibi Ho*) and the Law of Financial Institutions Reconstruction (*Kinyu-kan Saiken Seibi Ho*) in October 1946 specified procedures of dealing with the negative legacy of the war transferred to the old accounts.

Financial institutions were forced to abandon most of their claims accumulated during the war. At the same time, they were allowed to discard some of their liabilities issued during the war. As Table 3 shows, the total amount of losses for the Japanese financial institutions was determined at ¥44.7 billion at March 1948. This amount was 18 percent of the total of both private

and public financial institutions' loans at the end of 1947 and 4.6 percent of the national income of 1947 (fiscal year). Some financial institutions recorded negative net wealth by this procedure so that the government gave financial support to them. The support amounted to ¥12.2 billion. However, commercial banks and the special banks represented by the IBJ could cope with the wartime negative legacy without government support. These institutions were able to deal with the losses mostly by discarding their liabilities and partly transferring the burden to shareholders.

After settling the nonperforming loans problem, most financial institutions started to increase their equity bases in 1948 in order to resume normal businesses. It is noteworthy that after reorganizing their balance sheets, banks were forced to strengthen their equity capital bases in order to make their businesses more sound. The GHQ was insistent that Japanese banks to increase their equity capital. In May 1948, the GHQ determined that banks' equity capital must not be less than 5% of the "risk assets" (defined as total assets minus government bonds and reserves). Banks actively issued stocks until March 1949 to attain the capital adequacy requirement.<sup>12)</sup>

Japanese banking was able to overcome the difficulties posed by the huge amount of nonperforming loans caused by suspension of wartime compensations by quickly restructuring their balance sheets and increasing equity capital in the period immediately after World War II. According to Table 2, the relative importance of private banks in loans supply to the industrial sector appears to have been rather high during the first decade (1946-1955) after World War II compared with that attained after the mid-1950s. Nevertheless, the banks' of financial mediation capacity degenerated because of enforced commitment to the

wartime economic system. Table 4 compares the amount of credit supplied to the Japanese banking sector with the amount of the BOJ bank notes in circulation during and immediately after World War II. The amount of the BOJ bank notes circulating in the economy is supposed to approximate the aggregate level of the nationwide economic activities. This table shows that the ratio of bank loans to bank notes decreased during and immediately after the war. The ratio did not recover to the average level of the prewar period even in 1955. As has already been explained, the Japanese financial system had been transformed to a bank-led one through wartime controls. Therefore, the degeneration of the banking observed immediately after World War II produced a serious vacuum in terms of Japan's financial mechanisms. The government financial institutions, particularly the Reconstruction Finance Bank and the Japan Development Bank, and the system of long-term credit banks were introduced into the financial system in order to fill this vacuum.

## II.5 Dissolution of *zaibatsu*

Immediately after World War II, the *zaibatsu* organizations were dissolved as demanded by GHQ. Until September 1947, 83 holding companies were designated as those to be dissolved by the Holding Company Liquidation Commission that was established in August 1947 to promote the dissolution of those *zaibatsu* which played an important role in the wartime economy. However, it is noteworthy that the Japanese banking system was exempted from the policy of *zaibatsu* dissolution. As many scholars have pointed out, this specific nature of *zaibatsu* dissolution changed the structure of corporate governance in Japan.

Dissolving large, monopolistic companies followed the dissolution of holding



companies related to ex *zaibatsu*. The Anti-Monopoly Law was introduced in April 1947 under pressure from the GHQ. The purpose of this law was mainly to prevent the emergence of monopolistic firms in the Japanese economy, but it was considered to be ineffective in preventing monopolistic behavior of those firms that had already established their monopolistic status, as was the case with the large companies belonging to *zaibatsu* groups. The GHQ required the Japanese government to introduce a new law which would be effective, as complement to the Anti-Monopolistic Law, in dissolving the organizations of *zaibatsu* and the monopolistic companies that had played important roles in the wartime economy. This was the Deconcentration Law (*Kado-Keizairyoku Shuchu Haijo Ho*) of December 1947.

When more than 300 nonfinancial companies were designated to be dissolved according to the Deconcentration Law in February 1948, there arose a rumor that the next target would be banks and financial institutions. While banks and financial institutions were also considered as the targets to which this law would be applied at the beginning of the dissolution process, in July 1948 the government decided, following recommendation by the GHQ, that the Deconcentration Law would not be applied to banks and financial institutions (BOJ(1967: 23-29)).<sup>13)</sup>

Since the *zaibatsu* held self-financing capabilities within its organization, the dissolution of *zaibatsu* broke down their traditional financing mechanism and greatly increased the importance of banks in terms of corporate governance. Specifically, those companies belonging to the *zaibatsu* groups more or less governed by the *zaibatsu* families were liberated from the influence of the families. Instead of the *zaibatsu* families, big banks exempted from

dissolution started to be dominant monitors in the framework of Japanese corporate governance. We may regard this as a precondition for the main bank relationship that prevailed during the period of high economic growth (BOJ(1967: 23-24), and Miyajima(1994)).<sup>14)</sup> The bank-firm nexus observed in the postwar period will be discussed in section IV of this paper.

### III. Incomplete Capital Markets Immediately after World War II

Immediately after World War II the Japanese government was confronted with the problem of how to reconstruct the economy and recover from the devastation of the war as quickly as possible. This was closely related with the problem of how to make the financial system more efficient. As the government strengthened financial control for the purpose of preparing for warfare, the banking sector became an important core of the financial system. However, while the private banks' commitment to wartime controls may have promoted the long-term relationships between banks and industrial firms outside the *zaibatsu* groups, it deprived them of autonomous power in the monitoring of borrower firms. Moreover, their equity capital degenerated because of the suspension of wartime compensation.

In particular, an efficient maturity transformation mechanism was badly required in Japan during this period. This is because industry and the public sectors needed long-term credit in order to build up basic capital and infrastructure crucial to rapid industrial development on one hand, and the household sector, which was the ultimate supplier of savings, desired safe and liquid stores of value on the other hand. In order to efficiently mobilize saving, the financial system had to supply short-term financial instruments typically represented by bank and postal deposits. But the financial system also had to respond to the demand of the industrial sectors for long-term credit. The Japanese financial system was required to efficiently mediate extensive transformation of maturity immediately after World War II. This section explains how the Japanese financial system dealt with this problem.

### III.1 The role of the RFB

First of all, the government directly engaged itself in allocating funds to industries through the Reconstruction Financing Bank (RFB), started in January 1947.<sup>15)</sup> The government adopted the so-called priority-production policy (*keisha seisan hosiki*) which concentrated on breaking industrial bottlenecks centering on coal by strategically focusing capital investment in the steel, coal, shipping, and fertilizer industries. This priority-production policy was financially complemented by the Ordinance of Financial Institutions' Fund Allocation that gave the order of priority for financial allocation.<sup>16)</sup> The RFB was an important instrument in the implementation of this priority-production policy. The RFB heavily concentrated credit in a few industries which the government regarded as crucial to Japan's postwar reconstruction.

The RFB raised funds by issuing long-term bonds and allocating funds mainly to the "key industries" such as coal mining, electric power, iron and steel, and marine shipping (Table 5). From the first quarter of 1947 to the first quarter of 1949 when the RFB ceased its operation, the cumulative amount of loans was ¥130 billion, which was 40 percent of the total amount of loans supplied by private banks during the same period (Table 6). The RFB was obviously influential in directing funds, particularly long-term funds to specific industrial sectors, and many observers argue that the activities of the RFB were useful in promoting Japan's industrial development immediately after World War II.

Most of the RFB's bonds were, however, bought by the Bank of Japan. According to the Bank of Japan(1986: 103), the RFB issued ¥109 billion of its bond during the two year period from January 1947 to March 1949. The Bank of

Japan directly underwrote 70 percent of the bonds, which translated into a 38 percent increase in bank notes during the same period. Thus, the activities of the RFB were supported by increases in money supply, putting inflationary pressure on the economy. From 1947 to 1952, the money supply expanded at approximately 50 percent annually. During the same period, annual average rate of increase in real GNP and the price level (consumers' price index) were 11.2 percent and 37.9 percent, respectively (Table 11). These figures indicate considerable economic growth was achieved in spite of the extremely easy money policy.<sup>17)</sup>

However, rapid inflation quite often disturbs interest rates, which indicate relative prices of present and future consumption, and hinders the efficiency of market mechanisms in many developing and transforming economies (McKinnon(1992: Chapter 2)). Thus, although allocation of funds through the RFB might have been useful for reconstructing Japanese industries, this inflation-prone characteristic would have had destructive side effects which offset its benefits if it had continued for a longer period of time. The Japanese government wisely decided to stop the RFB's loans in April 1949 and accepted the deflation plan proposed by Joseph Dodge, whom the U.S. government had sent to Japan as an economic adviser.

Following Dr. Dodge's advise, the Japanese government adopted an extremely tight fiscal policy (so-called "Dodge Line") to prevent overheating of the economy. However, it did not mean that the government totally abandoned the policy of intervening in funds allocation for the purpose of promoting industrial development. In particular, the Bank of Japan tried to fill the financial gap created by abolishing the RFB in 1949 through the Loan Mediation System

(*Nichigin Yushi Assen*).<sup>18)</sup> Under this system, the BOJ helped private banks to organize relatively large-scale syndicated loans to some "key industries," based on the order of priority determined by the Ordinance of Financial Institutions' Fund Allocation. The volume of loans mediated by the BOJ abruptly increased in 1949 when the Dodge Line was adopted.

This activity of the BOJ is noteworthy in the context of the main bank mechanisms in postwar Japan. It is a stylized fact regarding the main bank relationships that the main bank often organizes syndicated loans to specific borrower firms. Usually, a big company borrowed a large amount of funds not only from its main bank, but also from more than a dozen other banks. When the other banks supplied credit, they depended on the main bank's monitoring of the borrower firm. The main bank was regarded as being delegated the monitoring role by the other banks, and in return for this monitoring, the main bank was implicitly allowed to monopolize the borrower's current deposit account, foreign exchange business with the borrower, and other such business. As will be seen in section IV, there existed a sort of reciprocal delegation system among major banks. The mechanism of delegated monitoring was regarded as an important element of corporate finance in the postwar period (Sheard(1994)). Immediately after the war, when private banks were yet to recover from the wartime destruction, however, the BOJ played the role of organizer of syndicated loans in place of private major banks. As private banks regained their financial capacities, the BOJ's role in this respect became unimportant.

### III.2 The possibility of securities markets

In order to promote rapid industrial development, a sufficient amount of

long-term funds must be supplied to important industrial sectors. As Patrick(1994: 355) emphasizes, "whether first to create institutions and pursue policies favouring bank-loan finance or securities market finance is a key issue in designing financial systems." The Japanese government was confronted with this issue when it made a plan of rebuild Japan's economy in close consultation with the GHQ. In the earlier stages of the postwar recovery, the government was to some extent able to utilize the remaining capacities of the special banks (*Tokushu Ginkou*) such as the Industrial Bank of Japan. The special banks were quasi-public institutions, which were allowed to raise long-term funds by issuing bank debentures on one hand, and specialized in long-term credit allocation until the end of World War II.

The GHQ understandably disliked assigning important roles to such banks, for they had played too influential a role in the framework of wartime control implemented by the military government (JDB(1963: 13)). In consequence, the system of special banks was abolished in March 1950. However, we should note that in the same March 1950, the Japanese government introduced the Law Concerning Bond Issue by Banks and Other Financial Institutions in order to permit several banks to issue debentures. This Law was a forerunner for the full-scale system of division of labor between long-term credit banking and commercial banking established by the Long-Term Credit Banks Law of 1952.

Democratization of security markets: The *zaibatsu* dissolution forced *zaibatsu* holding companies, *zaibatsu* families, and the related companies to disposed of the large amount of stocks that they had held until the end of the war. The firms designated by the Deconcentration Law were also required to dispose of

the stocks they had held. Consequently, the amount of stocks held by individuals increased not only absolutely but also relatively. While the share of stocks held by individuals in total stocks rose from 51.9 percent in March 1946 to 68.4 percent in March 1950, that of stocks held by financial institutions and non-financial companies declined from 35.7 percent to 15.4 percent (BOJ(1967: 57-58)). The Japanese security markets seemed to be democratized in the sense that individuals could increase their presence in the stock market. This democratization was accompanied by introduction of the Securities and Exchange Law (*Shoken Torihiki Ho*) of 1947 and the total revision of this law in 1948.

The GHQ emphasized the necessity of developing Anglo-American style securities markets because it believed that securities markets should mediate long-term financing for industries, whereas commercial banks should concentrate their business on short-term financing following the traditional principle of "commercial banking." The attitude of the GHQ was reflected in Article 65 of the Securities and Exchange Law of 1948, which the GHQ imposed on the Japanese government. This article has been responsible for the separation of banking and securities business. Consequently, major banks were excluded from underwriting corporate securities. Ironically, this separation seemed to delay the development of securities markets in Japan, because the expertise regarding corporate finance had been disproportionately accumulated in the banking sector. The disposal of the large block of stocks held by zaibatsu related agents, who used to be stable shareholders, exerted a strong downward pressure on stock market prices. Thus, although Japan's stock exchanges restarted in May 1949, a semi-public organization had to be introduced, the



purpose of which was to control the amount of stock issues to stabilize the stock prices, in December 1949.

At any rate, immediately after the war it was practically impossible to quickly establish a full-scale mechanism of an Anglo-American style in the Japanese securities markets. This was mainly because, as has already been explained, the financial controls used during the war had built up a system of credit allocation centered on the banking sector.<sup>19)</sup> At the end of the war, the know-how and human resources which could be mobilized for efficient financial intermediation were heavily concentrated in the banking sector. Under such circumstances it would have been quite a time consuming process to transform this financial system into an Anglo-American one in which securities markets play dominant roles.

Regarding the comparative advantage of a banking-based system and a securities market-based system, some people go so far as to say that securities markets would be unable to be the dominant source of business external finance for the corporate sector. Economic theory argues that the open market mechanism is weak in dealing with information, because the information is, in itself, a "lemon" associated with asymmetric information and sometimes exhibits characteristics associated with "public good." Firms are reluctant to disclose relevant information related to their own business, even if they are subject to rules of disclosure. Thus, relatively speaking, a securities market-based system, which tends to confine the information transactions within a narrowly defined relationship between a lender and a borrower, is less efficient in processing information relevant to the early stage of industrial development.

### III.3 The limitation on the maturity transformation by banks

As has been explained, the banking sector was to play a pivotal role in promoting quick economic recovery immediately after World War II. However, the Japanese banking system was seriously limited in terms of its ability to provide financial mediation in those days. It had to cope with the huge amount of nonperforming loans caused by the suspension of wartime compensation. The deterioration of equity capital hindered private banks from engaging in full-scale financial intermediation.

The effectiveness of the long-term credit banks: In particular, we should note the problem of maturity transformation the Japanese financial system was confronted with. Private banks could to some extent engage in maturity transformation by directing some part of the funds raised by short-term bank deposits to long-term credit. Actually, they reportedly supplied de facto long-term credit by rolling short-term loans over. But the fact that most of their liabilities consisted of liquid short-term deposits limited the extent to which they were able to hold long-term debts issued by industries. As the Japanese economy regained vitality, the banks were confronted with rapid increases in the demand for credit, which threatened stability of banks' operations by forcing them to engage in extreme maturity transformation.

One solution to this difficulty of maturity transformation was the introduction of the long-term credit banks system in 1952, which established special banks that were allowed to issue bank debentures instead of deposits. During the 1950s and 1960s, the long-term credit bank system was a means to achieve a division of labor between short-term and long-term banking. A large

amount of bank debentures issued by long-term credit banks were purchased by commercial banks because individuals were not so eager to invest in financial instruments of long-term maturity in those days. Thus, we should regard the introduction of the long-term credit banks as effective not in mobilizing people's saving, but in rationalizing financial intermediation by allowing extreme maturity transformation with respect to bank credit.

Since bank debentures of five years maturity were much more liquid for commercial banks than long-term loans to industrial firms, they could mitigate the difficulty of extreme maturity transformation by purchasing these debentures instead of lending long-term credit to their clients. On the other hand, the long-term credit banks could specialize in supplying long-term credit because their liabilities had long-term maturity.<sup>20)</sup>

**Establishment of the JDB:** Although the long-term credit banking system was resumed in 1952 when the Law of Long-term Credit Banks was introduced, a vacuum existed since the Japanese financial system lacked an efficient mechanism promoting long-term finance. Therefore, the suspension of the RFB loans in the early 1949 raised among Japanese great concern over how to retain this mechanism so indispensable to economic recovery.

The Japan Development Bank (JDB) was started in 1951 with a view to filling this long-term credit vacuum in the Japanese financial system. It was quite natural for the JDB to take over the role of the RFB by concentrating on supplying long-term loans to "key industries", although the JDB was given greater political autonomy than the RFB.<sup>21)</sup> During its early stages, the JDB concentrated long-term credit to the very same "key industries", which

consisted of electric power, marine shipping, iron and steel and coal mining. During the period from 1951 to 1960, around 77 percent of all JDB loans was directed to these four industries.

Around 1949-1950, when the concerned parties were drawing the blueprint for what roles the JDB should play, the GHQ insisted on a refinancing scheme, under which the JDB's major roles would have been confined to more conservative areas of complementing private banks' long-term loans. Under this scheme, the JDB would have taken over the long-term loans originated by private banks, thereby mitigating the extent of maturity transformation by the private banks. The allocation patterns of long-term credit should have been directly determined by private banks with this scheme, and the government could control them indirectly at best by providing administrative guidance to the banks (JDB(1976: 34-38)).

The Japanese government rejected the GHQ's scheme and succeeded in giving the JDB more latitude with respect to credit policy. The government wanted to introduce an institution whose role would not be confined to complementing private banks' loan supply, but rather be extended to directing the distribution of long-term credit. After an initial period (1951-1960) of policy which resembled that of the RFB, the JDB gradually extended its activities, accompanying the start of so-called "industrial policy" in the late 1950s. This topic is discussed in Section VII of this paper.

#### IV Formation of the Bank-Firm Relationship in Postwar Japan

As has already been explained in the previous section, the banking sector was in a state of serious fragility immediately after World War II. Most banks suffered from the aftermath of their subjugation to the wartime economic controls. The suspension of government compensation for wartime expenses brought about a great amount of non-performing loans, causing under-capitalization in the banking sector. The government supplemented the fragile financial system by introducing the government financial institutions and the system of long-term credit banks, but was not enthusiastic about promoting development of securities markets at all. Well-developed securities markets require infrastructures to help stable trading of securities such as disclosure rules, regulations preventing insider trading, reliable rating agencies and so on. However, the government was not quick in building such supporting infrastructures (Aoki(1994: 136-137)). As will be seen below, the government kept the restrictions on corporate bond issues through the adjustment by the Bond Issue Arrangement Party.

In addition, the specific process of *zaibatsu* dissolution immediately after World War II changed the fundamental structure of corporate governance in Japan's big companies in the sense that banks exempted from the Deconcentration Law occupied the center of the corporate control mechanism in place of the *zaibatsu* holding companies (BOJ(1967: 23-29), Miyajima(1994)). Therefore, it is quite natural that bank credit dominated Japan's corporate finance in the postwar period. The aggregate statistics compiled in Table 1 show, however, that as the Japanese economy developed, bank credit quite gradually but steadily lost its dominance in industrial financing. Thus, the

bank-led financial system appeared to be an important promoter of rapid economic growth in the early stage of the postwar period.

Since the Japanese financial system was so overwhelmingly dominated by the banking sector, Japanese firms naturally borrowed a great amount of funds from banks. Given this situation, an intimate relationship with banks was very important for nonfinancial firms to achieve rapid development. Many scholars have obtained statistical evidence showing that the firms belonging to stable relationships with their main banks or with financial *keiretsu* enjoyed favorable conditions for increasing their investment expenditure (Hoshi, Kayshap and Scharfstein(1990, 1991), and Horiuchi and Okazaki(1994)). These are not surprising results at all. However, we should be careful in interpreting them. They do suggest that the intimate bank-firm relationship was essential under the specific regime of financial system observed in postwar Japan, but not that the bank-led financial system is by nature more efficient in industrial development than a system based on open market trading of securities.

However, many scholars have emphasized the importance of the nexus between banks and industrial firms formed in the postwar period. The nexus is conventionally called "the main bank relationship." In my understanding, a new paradigm is emerging concerning productive roles of the main bank relationship in the Japanese economy (Aoki, Partrick and Sheard(1994)). This new paradigm claims that the main bank relationship has been important as an effective system of corporate control in postwar Japan, and that government financial regulation definitely contributed to formation of the important mechanism known as the main bank relationship. In the remainder of this section, I briefly review the new paradigm of the main bank relationship in Japan.

#### IV.1 Stylized facts of the main bank relationship

The followings are conventionally recognized as the stylized facts concerning the Japanese main bank relationship:

- (1) The long-term relationship between banks and their clients firms.
- (2) The financial unification of debtholding and shareholding on the part of banks.
- (3) Banks' active intervention into the restructuring process of client firms in distress.
- (4) The main bank's role of monitoring as delegated by other debtholders.

These characteristics of the relationship between banks and firms were natural consequences of the overwhelming importance of bank credit in postwar Japan. Being deeply committed themselves to corporate finance, Japanese banks could not help monitoring borrower firms carefully in order to prevent problems of moral-hazard or adverse selection associated with asymmetric information between lenders and borrowers. Unlike U.S. banks, Japanese banks have been allowed to hold the shares of their client firms up to the maximum percentage prescribed by the Anti-Monopoly Law. Therefore, it was possible for the Japanese financial system to achieve financial unification through banks' holding both debts and shares of industrial firms. Theoretically, this financial unification is effective in reducing the agency costs of corporate finance by mitigating the conflict of interests between debtholders and shareholders (Stiglitz(1985)).

As Sheard(1992, 1994) describes in detail, Japanese banks tended to actively commit themselves to rescuing distressed borrowers. It is conventionally believed that such intervention by banks is effective in avoiding "undue"

liquidation of those firms that, although yet to achieve good performance, have the potential to grow up into good firms in the future. This seems to be partly because they had extremely big stakes in borrower firms both as a creditor and as a shareholder, and partly because their involvement in the process of reorganizing distressed firms does not necessarily lead to loss of their priority that U.S. banks would experience under the legal doctrine of equitable subordination (Prowse(1995: 8-16), and Ramseyer(1994: 249-251)). Therefore, the financial nexus called "the main bank relationship (or system)" seemed to be a product of both historical preconditions and the regulatory framework in postwar Japan.<sup>22)</sup>

Table 7 shows how important the main banks' loans are in the total borrowing of individual firms. According to this table, the relative share of the main banks was not extremely high for major Japanese firms. On average, major firms depend on main bank borrowings for around 30-40 percent of all borrowings from other banks and financial institutions. This sort of cooperative financing for major companies has something in common with the syndicated underwriting methods which we often see in international capital markets. This phenomenon may be interpreted as a means of both economizing information costs and sharing specific borrower firms' risk among major banks. Specifically, participating even just a small degree in the financing of firms which belong to another main bank allows non-main banks to economize on the expenses of monitoring, while at the same time it allows the main bank to steer clear of an excessive increase in its commitment to a specific borrower.



#### IV.2 To what extent were the regulations relevant?

We may say that any economic organizations is characterized by its legal and regulatory environment. The so-called main bank relationship in Japan is not exceptional. We can regard the financial nexus as determined by the legal and regulatory environments, as has already been suggested. But what about the competition-restricting regulations adopted by the Japanese government before World War II?

The Competition-restricting regulations in Japan: In the postwar period, the interest rates on bank deposits were fixed at a level lower than the free market would have attained, although there were some minor exceptions of *tokuri* that will be explained in the next section. Interest rate regulation based on the Temporary Law of Interest Rates Adjustment was obviously beneficial to private banks. Table 8 presents the average levels of various interest rates since the 1920s. Controlling the deposit rates at a low level brought forth wide margins between loan interest rates and deposit rates, conferring rents on private banks. These margins were widest immediately after World War II, i.e., during the decade from 1946 to 1955. In contrast, during the period of wartime control the margins were at their narrowest.

It should be noted that, as will be seen in the next section, the control of interest rates was likely to induce non-price and informal competition in financial markets. The relationships between nominal interest rates and the interest rate margins in nominal terms may not show the correct picture regarding banks' profitability. However, there is some evidence that effective interest rates on bank loans were rather flexibly adjusted making the effective

rates a little higher than the nominal levels. On the other hand, the non-price or informal competition among banks for deposits seemed to be insignificant during the high growth period. Therefore, it may be safe to conclude that the control of interest rates was beneficial to private banks in the postwar period.

We should also pay sufficient attention to the fact that the MOF's administrative guidance based on the Banking Law of 1927 enhanced the profitability of banking by preventing full-blown competition in the financial system. We have already mentioned the branch office administration conducted by the MOF, which controlled competition among banks seeking deposits. It has also been pointed out that the Banking Law resulted in greater government regulation, higher minimum capital requirements, consolidation, and increasing size and market share of a few large banks (Patrick(1994: 356). Thus, the banking regulations including that of interest rates, were competition-restricting by nature, enhancing the profitability of Japanese banks.

A new paradigm on financial regulation: The new paradigm regarding the bank-firm relationship provides somewhat complicated discussions about to what extent the regulatory environment was relevant to formation of the main bank relationship. On the one hand, many scholars argue that the main bank relationship is a more efficient instrument of monitoring corporate management than the means of corporate control exercised through securities markets. On the other hand, it has also been argued that this efficient mechanism could only be attained by the regulations of suppressing competition in the banking industry (Aoki(1994, Prowse(1995), and Hellmann, Murdock and Stiglitz(1994)).

According to them, this efficient nexus cannot be spontaneously formed in a laissez-faire financial market. This seems to be a new paradigm relating financial regulation to economic development.

In the system of corporate control based on main bank monitoring, a bank should play important but very complicated roles, including that of intervening in the restructuring process of borrower firms in distress. It is difficult for outsiders to discern how efficiently the bank is playing these roles. Thus, one of the most important issues in this control framework is how to motivate the bank to accomplish these roles efficiently. To resolve this issue, the government could give incumbent banks rents by introducing competition-restricting regulations such as the control of deposit interest rates, the restriction of new entry into the banking industry, and the suppression of full-scale development of securities markets which could have been an alternative to bank credit for borrower firms. The rents accruing to private banks may be an effective substitute for the government's rigorous monitoring as a means of disciplining private banks. In this regard, it is interesting that the average margin between loans and deposits interest rates was narrower during the period of wartime control, when the government's monitoring of banking became very strict relative to immediately after World War II (Table 8).

Mayer(1988) points out the existence of time-inconsistency problems in a financial system with well-developed securities markets. According to his argument, well-developed securities markets would hinder banks from making a commitment to monitoring and rescuing borrowers, particularly in their infancy, because the firms, after growing up, could evade paying compensation to their main banks by severing their ties with the banks and seeking external funds in

securities markets.

#### IV.3 Counterarguments on the new paradigm

In sum, the new paradigm emphasized that an efficient corporate control mechanism based on an intimate relationship between banks and firms could not be attained in a laissez-faire financial system. The comprehensive regulations adopted by the Japanese government to suppress full-scale competition in the financial system and to give preferential treatment to existing banks was appreciated by the new paradigm as productive in enhancing the efficiency of corporate governance.

Against this new paradigm, however, we present the following reservations. First, the MOF adopted regulations preventing full-blown competition in banking and other financial markets entirely to stabilize the Japanese financial system, and not to promote industrial development. For example, the MOF utilized the bank branch administration to protect small-scale banks and financial institutions such as cooperative credit banks, which were regarded as the weakest constituent of the Japanese financial system, from reckless competition. Obviously, the MOF's major concern was to ensure financial stability in postwar Japan (MOF(1991: 76-105)).<sup>23)</sup> Thus, it would be an exaggeration to say that the MOF adopted financial regulation of a competition-restrictive nature to financially promote industrial development. There is no evidence to show that the MOF wholeheartedly devoted the financial system to stimulating industrial development.

Secondly, there is some doubt as to whether the competition restricting regulations are really indispensable for giving banks incentives to behave

prudently. Theoretically, this problem reduces to how to motivate producers to supply good quality commodities under asymmetric information between the producers and buyers. Klein and Leffler(1981) show that the laissez-faire market mechanism will be able to provide producers with enough incentives to produce commodities of good quality. According to their analysis, a producer of good quality is given rents to be utilized in signalling high quality of products, thereby differentiating himself from those producers of bad quality. This argument seems to be applicable to the case of the incentive mechanism in the main bank relationship. Therefore, at least theoretically we could have chosen between the public regulation and the laissez-faire market mechanism in order to ensure prudence in the banking sector.

The new paradigm of the financial regulation predicts that in spite of its efficiency as an instrument of corporate control, the main bank mechanism will degenerate as competition restricting regulations are abolished. Therefore, "it is somewhat ironic that the legal and regulatory framework in Japan that arguably supports a lower cost mechanism of corporate control than in the Anglo-Saxon countries has been perceived in a wider context to impose greater costs, and therefore to have required substantial reform" (Prowse(1995: 53)). Those authors supporting the new paradigm consider the recent turmoil in the Japanese financial system showed the degeneration of efficient corporate control based on the main bank relationship (Aoki(1994: 135-137)).

An alternative explanation: However, we can propose an alternative explanation for the recent evolution of the Japanese financial system. This explanation assumes that the main bank relationship was not so effective in

disciplining incumbent managers of borrower firms. Rather, the relationship was an instrument often utilized by corporate management to ward off disciplinary pressures from the capital markets, most typically threat of hostile takeovers. Although many authors have argued that the monitoring mechanism provided by the main bank relationship makes hostile takeovers needless in the Japanese economy in terms of achieving efficient corporate control, they do not seem totally convincing. The major firms belonging to the main bank relationship have often strengthened mutual shareholding with their main banks and other corporations for the explicit purpose of preventing hostile takeovers *ex ante*. There have been some cases where Japanese firms have asked their main banks to increase their presence with respect to shareholding in order to defend the incumbent managers from hostile takeovers *ex post*.<sup>24)</sup>

If the main bank relationship is so effective in achieving good management, why do the firms seriously worry about hostile takeovers by outsiders? In my understanding, the fact that hostile takeovers have rarely been successful does not imply that corporate control based on the main bank relationship effectively makes the specific and rather brutal means of corporate control provided by capital markets needless. Rather, the fact implies that the main bank relationship effectively mitigated the pressure on incumbent managers from the capital market.

Horiuchi and Shin(1994) provide a hypothesis that the recent liberalization and globalization of Japanese financial markets increased the latitude for incumbent managers of Japanese firms to pursue their own objectives other than maximizing shareholders' benefits. For example, since the early 1980s, the domestic market for convertible bonds has been gradually but steadily

liberalized, partly because of a rapid increase in the amount of convertible bonds issued by Japanese firms in foreign markets, and especially in the Eurobond market.

From the viewpoint of shareholders, there is no reason why the firms, particularly big, well known firms, should be so aggressive in issuing convertibles as we observed during the late 1980s. As Brealey and Myers(1991: 547-549) argue, there is a positive reason for small-scale and speculative firms to issue convertible bonds. The convertible bond is one of the effective instruments to mitigate the agency costs associated with asymmetric information between managers or shareholders and outside debtholders.<sup>25)</sup> In case of Japan, however, small-scale firms have not yet been permitted to issue convertibles in the domestic market. We may interpret the fact that Japanese major firms were so active in issuing convertibles as being because incumbent managers could increase the scope for their perquisite expenditure such as financial investment into risky stocks and real estate (called "*zai-tech*") and diversification of their business at the expense of current shareholders. In reality, there is statistical evidence to show that those firms that actively issued convertibles in the late 1980s experienced more rapid decline in profits at the end of the 1980s and beginning of the 1990s. If main banks had controlled borrower firms' management from the viewpoint of shareholders, they could have forced the incumbent managers to abandon convertibles issues or prevent the issues of convertibles from leading to bad performance. However, Horiuchi and Shin(1994) cannot find any evidence supporting the hypothesis that the main bank relationship were effective in preventing incumbent managers' abuse of liberalized opportunity of exploiting shareholders.

A summary: The economic theory of information suggests that the financial system of intermediated credit through banks will more efficiently cope with the imperfect information associated with corporate finance than that carried out by securities markets.<sup>26)</sup> Therefore, the government's postwar policy of giving priority to constructing a stable banking sector seemed to be reasonable and helpful for Japan's industrial development. This policy strengthened the influence of the banking sector in corporate finance. The bank-firm nexus called the main bank relationship quite naturally dominated the landscape of corporate finance in postwar Japan until the 1980s. It was undeniably important for a firm to keep a continuous and intimate relationship with a specific bank under such circumstances. Without such a relationship with a bank, it is difficult, if not impossible, for a firm to achieve rapid growth.

Then, has the main bank relationship been an efficient means of corporate control as claimed by the new paradigm led by Professor Aoki? It is a complicated question. Obviously, the main bank relationship built up a *modus operandi* totally different from that of Anglo-American corporate governance. The main bank relationship was usually utilized by incumbent managers, through cross shareholding, to defend themselves from capital market pressures. It might be productive in that incumbent managers are able to contribute their specific human capital to their firms without worrying about the danger of hostile takeovers, thereby increasing the productivity of their firms. However, on the other hand, the elimination of capital market pressures might give some scope for perquisite expenditure by incumbent managers. The new paradigm of the main bank relationship explains that the main bank behaved prudently to prevent managers' perquisite expenditure through monitoring in



the high growth period. However, it remains to be tested whether this explanation is true or not.

The new paradigm also emphasizes that the main bank relationship cannot be spontaneously constructed in a laissez-faire financial system despite its superiority in mitigating agency problems in corporate finance. Theoretically, this argument cannot be flatly denied. However, in my understanding, the examination of corporate control processes in the postwar period has not yet provide us any with deterministic evidence supporting it.

## V Interest Rates in the Era of Rapid Economic Growth

Although there was no legislation explicitly controlling interest rates enacted before 1945, the BOJ controlled the structure of interest rates, which used to be set through an implicit cartel within private banks. The Temporary Law of Interest Rates Adjustment (*Rinji Kinri Chosei Ho*) of 1947 provided the basis for the postwar interest rates control. Moreover, the MOF administration prevented new entry into banking, thereby suppressing full-scale competition in the banking sector. Thus, the Japanese banking system seemed to be financially repressed in the sense of Shaw and McKinnon at the beginning of postwar economic growth.<sup>27)</sup> Did Japan achieve rapid economic growth in spite of financial repression? This section discusses this issue.

This section explains that Japan's interest rates were relatively high compared to those observed during the post high growth period, despite interest rates control. Moreover, even if interest rates had been fixed at low levels, this would not implied suggested an overall low interest rate policy in the sense that every ultimate borrower could acquire necessary funds at low cost in the financial markets. In order to attain overall low interest rates, the Bank of Japan would have had to pursue an easy money policy by accommodating the strong demand for funds associated with rapid economic growth. However, as will be seen in the next section, the Japanese monetary authorities did not or, more accurately, could not adopt an easy money policy during the high growth decades because of "the trade balance ceiling." We shall review the movement of some important interest rates in detail to make these points clear.

### V.1 Official discount rate, deposit rates, and money market rates

It has sometimes been argued that the Japanese government adopted a "low interest rate policy" of setting interest rates at low levels. However, this argument is misleading. In reality, Japanese interest rates such as the BOJ's discount rate, the deposit rates and money market rates were higher than those in the most advanced countries, such as the United States, the United Kingdom, and Germany not only in nominal terms but also in real terms during the 1950s and 1960s (Horiuchi(1984)). Furthermore, the Japanese interest rates were not necessarily lower in the era of rapid economic growth than they have been since the early 1970s. Since nominal interest rates are in general apt to be adjusted only partially for inflation (Summers(1983: 201-241)), it was to be expected that in the period of the early 1970s, during which the Japanese economy suffered from galloping inflation, real interest rates would have declined to substantially lower levels than in the earlier period. However, even the nominal interest rate levels appear to have been rather higher in the era of rapid economic growth than they have been since.

Of these interest rates, the call money rates can be regarded as having been freely determined in the interbank money market. Although the monetary authorities at times tried to use administrative guidance to control them, demand and supply relations in the call money market essentially set the level of call money interest rates. Therefore, the movement in the call rate could be regarded as reflecting overall demand-supply relations in the Japanese financial markets. The call money rate can be regarded as the marginal opportunity cost for banks' lending.

Table 8 shows that the average call money rate was slightly higher than

deposit interest rates and bank loan rates before the end of World War II. However, since 1946, the call money rate was on the average substantially higher than deposit and loan rates which were under rigid control based on the Temporary Law of Interest Rates Adjustment. This fact suggests that both deposit and loan rates were determined at lower levels than those which would have been observed if those interest rates had been freely determined in financial markets. Thus, it may be said that the Japanese government adopted a low interest rate policy regarding nominal interest rates on deposits and bank loans in the postwar period.

## V.2 Informal Competition for Bank Deposits

The regulation of deposit rates based on the Temporary Law of Interest Rates Adjustment was in reality not completely effective. Many banks secretly offered specially high rates on large deposits. The extra interest rates were called "special interest rates (*toku-ri*).\" According to the the MOF's unpublished data, banks mainly made use of the special interest rates for interbank money market transactions. In particular, city banks actively borrowed short-term funds through interbank deposits supplied by financial institutions and institutional investors by paying the special interest rates. However, the MOF data show that the special interest rates were rarely utilized for general consumers' deposits,<sup>29)</sup> though there was some room for competition in terms of non-price services. In reality, the MOF has been a strict regulator of non-price competition. For example, it has not allowed banks to make up for low interest rates on deposits by offering gifts to depositors.<sup>29)</sup>

During the era of rapid economic growth, the most effective means of

engaging in non-price competition was non-pecuniary services provided through a bank's branch network. Banks could increase their ability to attract new deposits by building branch offices in business districts. Because of the MOF's branch office administration (*Tempo-Gyosei*), however, they were neither free to expand nor to rearrange their branch networks.

Since branch offices were quite essential to banking at that time, branch office administration was one of the most powerful regulatory weapons available to the MOF. It is noteworthy, however, that this weapon was not used for the purpose of stimulating economic growth. In actual administration, the MOF gave preferential treatment to small-scale financial institutions specializing in businesses related to medium and smaller businesses. Owing to this preferential treatment, the small-scale financial institutions were able to expand their branch office networks faster than the city banks could. Table 9 shows this clearly. This was one of the reasons why the small-scale financial institutions could continue to maintain a stable share of the financial markets in postwar Japan.

The "convoy administration": In this way, branch office administration and control seemed to be used to directly support the small-scale financial institutions and indirectly to support their customers, i.e., medium and smaller businesses. This suggests that it is an exaggeration to say that Japanese financial policy tended to favor both big banks and big businesses to the end of promoting economic growth (Goldsmith(1983: 166-168) and Horiuchi(1981: 29-60)). For political reasons, policy makers had to pay a great deal of attention to the economic and financial environment in which medium and smaller businesses

operated. The MOF's policies on branch banking reflected this reality. This policy stance has been called the "convoy administration" in the sense that the administrative policy was constructed by the MOF so as to make it possible for the most weak financial institutions, i.e. small-scale financial institutions, to survive.

Shinkin banks and credit cooperatives (*shinyo kumiai*), neither of which are incorporated, have been the most important target of the "convoy administration." They have also been given preferential treatment with regard to taxation. Their management governance structure is substantially different from that of incorporated banks. For example, more than half of the directors are part-timers. The authorities' monitoring of them does not seem effective. Therefore, there has been concern over their excessive risk-taking or inefficient management. In reality, as they were allowed to expand their business beyond traditional cooperative finance in the process of financial liberalization, this concern has been revealed as realistic, because a number of credit cooperatives are suffering from difficulties after the "bubble" burst at the beginning of the 1990s (Horiuchi(1995)).

It is noteworthy that the "convoy administration" of conferring normal profits on small-scale less efficient financial institutions led to the rents for large-scale banks like the city banks. The MOF sometimes utilize the existence of the rents to implement the safety net. Specifically, it could depend on the accumulated rents in big banks to bail out distressed financial institutions (Horiuchi(1995)). Obviously, the purpose of the MOF's "convoy administration" was not to promote industrial development but to stabilize the financial system.

### V.3 Interest rates on bank loans and compensating balances

Table 8 shows that nominal interest rates on bank loans were not particularly low during the 1950s and 1960s. We can suppose that real interest rates on bank loans were relatively low too during these periods, because the rate of increase in the wholesale price index was kept at very low levels. However, the data in Table 8 presents only nominal interest rates, which, generally speaking, are less important than the effective interest rates. In order to assess the effective interest rates for ultimate borrowers, we must take compensating balances (*kosoku yokin*) into account.

It is well known that Japanese banks required their borrowers to hold substantial amounts of compensating balances. Partly because of regulation of bank loan rates, the banks sought to adjust effective loan rates by changing the ratio of compensating balances.<sup>30)</sup> In effect, this was a substitute for higher interest rates as a means of allocating the supply of loan funds. Borrowers, especially medium and smaller businesses, complained about compensating balances imposed upon them by banks. Their complaints often became an object of serious public concern because these sectors possessed a great deal of political power.

Collection of data on compensating balances was begun in 1964 by both the MOF and the Fair Trade Commission (FTC). The results are summarized in Table 9. It is difficult to obtain reliable data concerning compensating balances prior to this date.<sup>31)</sup> However, it seems quite probable that the average level of the balances was higher in the 1950s and early 1960s than in the period after 1964. Although there are some differences between investigations by the MOF and the FTC, whichever investigation we use, the ratio of compensating balances banks

and financial institutions demanded was obviously higher in the 1960s than it has been since 1970. Thus, Table 8 understates the effective costs of bank credit for ultimate borrowers during the era of rapid economic growth.<sup>32)</sup>

Income transfer from banks to industrial firms: There are some studies on the effect of deposit rate ceilings on the profitability of both banks and industrial borrowers. Most of them confirm that the interest rate ceilings transferred income from depositors to banks. Part of the transferred income was handed to borrower firms through lower effective lending rates. However, the banks retained a significant part of the transferred income. According to Tsutui et al(1995), commercial banks obtained extra benefits amounting to around 130 percent and 100 percent of the current profits during the periods 1961 to 1965 and 1966 to 1970 respectively due to the interest rates ceiling. Thus, the banking regulations may have benefited the private banks rather than the customers for their loans.

In Table 11, profit rates in banking are presented along with those of major firms belonging to nonfinancial industries.<sup>33)</sup> In general, an accounting profit does not exactly correspond to the theoretical concept. In particular, numerous special measures of taxation gave rise to some disguised profits in almost every industry.<sup>34)</sup> Therefore, we should refrain from drawing definite conclusions from this table. It is, however, permissible to offer the following remarks. During the rapid economic growth era, after-tax profit rates tended to be higher in banking than in nonfinancial industries. While profit rates in banking have declined abruptly since the mid-1970s, nonfinancial corporations have not experienced similar sharp declines in profit rates. On average, nonfinancial



corporations seem to have obtained slightly higher profits in the period after the early 1970s than in the first half of rapid growth era. These results lend support to the conjecture that the relatively low levels of both deposit rates and the official discount rate may have, combined with counter-competitive bank regulations, provided economic rents to the private banks during the rapid growth era.

However, it may be an irrelevant issue whether the control of deposit rates transferred income from depositors to borrower firms. If the transfer of income to industrial sectors in itself is important to economic development, a more direct and surer method, i.e., direct subsidies from the government budget, is available. Therefore, this issue cannot explain why we should discuss the effectiveness of interest rates control in industrial development. In order to understand the role of financial system in this context, we need to focus our discussion on the efficiency of banks' mediating activities. In particular, it is noteworthy that the interest rates controls and the other competition-restricting regulations have something to do with the policy issue of how to give private banks incentives for honest monitoring of borrower firms. This issue is what we discussed in the previous section.

## VI The BOJ's Monetary Policy in the Postwar Period

There is a division of labor with respect to the responsibility of Japanese monetary authorities for controlling funds allocation and that for controlling macroeconomic monetary conditions. As has already been explained, the Bank of Japan was involved in the former immediately after World War II mainly through loan mediation (*Yushi-Assen*) activities. However, the BOJ began to refrain from directly intervening in the process of funds allocation at an early stage of the high growth period. The main responsibility for the BOJ in the postwar period was to implement monetary policy with a view to pursuing both full-employment and price stability under the regime of fixed exchange rates. The BOJ showed good performance in suppressing inflation during the high growth period which lasted until the early 1970s. In order to promote efficient market mechanisms, developing and transforming economies need to prevent rapid increases in price levels. Therefore, it is relevant for them to examine how the BOJ was able to achieve good performance in monetary control in the process of rapid industrial growth.

### VI.1 Disciplinary effect of the balance of payments constraint

The Bank of Japan's monetary control performance in the postwar period until the early 1970s was excellent except for the period immediately after the war. From 1953 to 1971, the annual average rate of increase in the WPI and CPI were only 0.7 percent and 4.2 percent respectively. This was a remarkable achievement in view of the high rate of economic growth (Table 12). This excellent monetary control performance indicates that the BOJ did not adopt an overall easy money policy, or did not "passively" accommodate increases in the

demand for money. This was in sharp contrast to the period immediately after World War II, when the government adopted a true easy money policy. As has already been explained, the RFB symbolized this policy. It was, however, an exception lasting only for a short period.

We can judge the BOJ's policy stance by observing movements in the call money rate. The call money rate fluctuated freely, reflecting changes in demand and supply relations in the financial markets. Therefore, if the BOJ had passively accommodated increases in the aggregate demand for money, the call money rate would have stayed at a low level. In reality, however, the call money rate fluctuated quite widely. In particular, during the period of tight money policy, it rose very sharply.<sup>35)</sup> Thus, the wide fluctuations in the call money rate in the postwar period gives evidence of the BOJ's rigid monetary control during the high growth period.

In my understanding, the balance of payments constraint under the regime of fixed exchange rates forced upon the BOJ discipline in terms of monetary control. Japanese policy makers were chronically worried about the balance of payments in the era of rapid economic growth, especially before the mid-1960s. Even mild overheating of the domestic economy led to deficits in the balance of payments, decreasing the scarce resource of foreign exchange reserves. Under the fixed exchange rate regime of the time, they had to take care that scarce foreign exchange reserves were not exhausted by excessively rapid economic expansion. A devaluation of the Japanese yen would have been another policy to amend the imbalance between domestic and external economy, but it was politically impossible for the government to adopt devaluation, because it was regarded an obvious indication of the government's failure in management of

macroeconomy. The concern with balance of payments equilibrium was a critical brake on an easy money policy. The braking effect seems to have been of benefit to the Japanese economy, because it contributed to stabilizing domestic price levels.

## VI.2 The BOJ loans and "easy money policy"

During the rapid economic growth era of 1953-72, Bank of Japan loans to private banks accounted for approximately 40 percent of the Bank of Japan's total assets, 45 percent of the monetary base, and 7 percent of the total liabilities of the city banks, which were the primary borrowers from the Bank of Japan. In this connection, the Federal Reserve Loans to US domestic banks were only 0.3 percent of the U.S. monetary base, and 0.06 percent of US commercial banks' total liabilities in the same period. These figures indicate the overwhelming importance of the Bank of Japan's loans to private banks during this period. The BOJ provided for stable growth of the money supply primarily by lending to the city banks. The BOJ loans and discounts were at interest rates lower than the comparable money market rates, and hence very profitable for borrowing banks.

This situation, i.e., the situation in which private banks actively increased their loans to nonfinancial borrowers by heavily relying on borrowings from the Bank of Japan, used to be called "overloan." Some have argued that the Japanese policy makers utilized "overloan" quite skillfully as a lever to intervene in financial allocation, and some have argued that "overloan" represented the Bank of Japan's "passive" stance or its easy money policy in the high growth era (Teranishi(1982: 108) and Goldsmith(1983: 138-141)). We

have already presented evidence against any argument that turns on a passive money stance on behalf of the BOJ. So, in the following, we shall investigate the relationship between the "overloan" phenomenon and the BOJ's intervention in funds allocation.

Zysman(1983) claims that the monetary authorities could effectively influence private banks' lending by using "overloan" as a lever, consequently achieving financial allocation suitable for rapid economic growth. He cites the following comments given by the U.S. Government Accounting Office:

In a decision taken in the early postwar years, the Japanese government, as a stimulant to the economy, has chosen to keep interest rate below what for most of the period constituted market-clearing levels. This has meant that in most years more funds have been sought than are available to loan. Accordingly, capital investment funds have had in effect to be allocated with priority given to firms in "key" industries.

How has the Japanese government been able to direct lending practices of private banks? It has been able to do so quite easily because during most of the period of high growth, there were such pressures on the commercial banks for funds that they loaned in excess of their stridulated ratio and had to borrow from the Bank of Japan to cover commitments. Japan's central bank is not an independent central bank, but one which follows Ministry of Finance policy. Therefore, the condition imposed for provision of the extra funds which the commercial banks were frequently seeking, was that the loan policy of the commercial banks be in accordance with government priorities (Zysman(1983: 247-250)).

We cannot deny the possibility that "overloan" made the Bank of Japan more influential in the money markets than it would have been in the absence of "overloan." However, it is doubtful whether the BOJ actually utilized "overloan" with the intention of promoting economic growth, because the BOJ introduced a measure to extinguish "overloan" at the beginning of the 1960s, just at the time when Japan was in the process of the National Income Doubling Plan.

The measure was called the "new system of monetary control (*shin-kinyu*

*chosetsu hosiki*)" of 1962. Under the "new system," the BOJ was to purchase and sell public bonds more frequently than before in order to reduce the importance of the BOJ's loans to private banks as a way of supplying base money to the market. In other words, the "new system" required the BOJ to change the major route through which base money was supplied from the BOJ's loans to open market operations just like those implemented by the Federal Reserve Bank in the United States. The introduction of this new system suggested that the BOJ regarded the "overloan" phenomenon as seriously hindering the development of efficient financial markets (BOJ(1986: 78-106)). If the BOJ had effectively utilized the "overloan" phenomenon as a lever to control private banks' lending behavior, why did they try to eliminate such an useful tool at this critical time?

The Japanese policy makers, above all the Bank of Japan, did not regard "overloan" as favorable to them. They thought that this phenomenon made the Japanese financial markets unstable and hindered efficient management of monetary control. In reality, until the latter half of the 1960s, the "overloan" system had been almost inevitable because no means of flexibly adjusting supply of the monetary base other than the BOJ's loans to private banks were available for the Bank of Japan, mainly because open money markets such as the treasury bill market in the United States did not exist at all. The BOJ had to increase the supply of monetary base in line with rapid growth in real economic activities. However, there were no measures other than lending to private banks available to the BOJ to increase monetary base. It is quite natural, therefore, as the Japanese economy rapidly grew, that the importance of the BOJ's lending became more and more important.<sup>(36)</sup>

The statistical evidence provided by the BOJ shows that the new system of monetary control did not succeed in reducing the extent to which private banks relied on borrowing from the BOJ (MOF(1991: 201-214)). At any rate, the introduction of this new system can be seen as counterevidence against the argument that the Japanese policy makers intentionally utilized "overloan" as a lever to promote industrial development.

## VII Public Control of Fund Allocation

The previous section argued that, despite official regulation of some important interest rates, the Bank of Japan did not pursue an overall low interest rate (easy money) policy during the 1950s and 1960s. That being the case, it was inevitable that the strong demand for credit in a period of rapid economic growth tended to raise the call rate and other market-determined interest rates to substantially high levels. Thus, large margins were sometimes observed between the regulated interest rates and freely determined market interest rates such as call money rates during the postwar period. As has been discussed, the regulated interest rates produced a handsome amount of rents to private banks. At the same time, the system of regulated interest rates gave banks opportunities to ration credit to borrower firms.

Moreover, it has often been supposed that policy makers controlled the rationing of credit under regulated interest rates. Some go so far as to assert that the public authorities systematically intervened in the process of credit rationing for the purpose of promoting economic growth, and that they were, by and large, successful in choosing the sectors and firms to be favored with preferentially low interest costs. Differentiating this from the overall low interest rate policy, they label such intervention "the artificial low interest rate policy (*jin-i-teki teikinri seisaku*)."

That policy is said to have been one of the growth stimulating policies pursued by officials in the high growth years (Teranishi(1982: 451-506)). In this section, we examine the relevancy of arguments regarding the so-called artificially low interest rate policy. The following discussion throws doubt on the conventional view that a systematic artificial low interest policy could have been a significant factor in Japan's



rapid economic growth.

First of all, let us survey the sources of industrial funds, that is, funds supplied to industrial firms through the financial markets. Table 1 presents shares of these external sources of industrial funds from the early 1930s until the mid-1980s. This table clearly shows that the loans supplied by private financial institutions were predominant as a source of external funds for nonfinancial companies. Since the private financial institutions also bought substantial amounts of stocks and bonds issued by nonfinancial companies, they were in reality more important fund suppliers than the table indicates. As will be explained in the following, a few major banks committed themselves to coordinating corporate bond issues. They had a voice in what firms should issue bonds, in what amounts and under what conditions.

Therefore, if the artificial low interest rate policy had really existed, it would have amounted to public control over the detailed behavior of these financial institutions. Did or could the government effectively determine the allocation process conducted by private lending institutions? And were the controls consistent with the objective of promoting economic growth? Before proceeding to these questions, however, we need to consider the pattern of allocation of government funds, which were supplied to industrial sectors through government financial institutions and the special account for public investment and loans.

## VI.1 Allocation of government funds

Funds supplied to nonfinancial firms by the government consist of those supplied by government financial institutions such as the Japan Development

Bank and those supplied through the Special Accounts for Financial Purposes such as the Trust Funds Bureau. The funds supplied by these institutions and the special accounts were mainly based on the postal saving deposits. The government and its financial institutions borrowed from abroad and served as a conduit for substantial World Bank loans for specific projects in the late 1950s and early 1960s, but in aggregate the amounts were relatively low compared to total business fixed investment.

Although complicated coordination among political interest groups is always necessary, policy makers basically can determine the allocation of government funds. However, as Table 1 shows, the share of government funds in the total amount supplied to industrial borrowers was on the average approximately 4 percent in the period from 1946 through 1975. It seems an exaggeration to attribute to these loans fundamental influence on the growth pattern of the economy during the era of rapid economic growth. Nevertheless, it is true to say that government lending was indeed of material consequence immediately after World War II. And after the mid-1970s it provided a larger share of lending to nonfinancial firms than during the 1950s and 1960s.<sup>37)</sup>

**Sectoral distribution of government funds:** In addition, attention should be paid to the specifics of government lending. Did the government financial institutions concentrate their lending on the high growth sectors? Data published by the BOJ gives us the proportions of government funds in the total of externally provided industrial equipment funds (*setsubi-shikin*) for nine principal industry groups during the period 1954-1967.<sup>38)</sup> The estimates are summarized in Table 13.

As Table 13 shows, government funds were extremely important in such industries as coal mining, agriculture, forestry and fisheries, and marine transportation. These were hardly the leading industries during the postwar period of economic growth. Most were declining or stagnant. Public funds, in short, were not mainly addressed to the task of promoting economic growth, and none could be said to have used Japanese resources to best advantage. More often, they represented a policy instrument through which the government supported or performed mercy killings on stagnating industries.<sup>39)</sup> It may not be an exaggeration to say that the Japanese government sustained sectors of the past long after the strategic utility of such policies had disappeared, as in the Japan Development Bank's solid support for the shipping industry throughout the last thirty years, despite the declining economic significance of that sector.

Government financial institutions as information producers: It is an interesting hypothesis that although the amounts of government funds were not large, they were quite effective in inducing private financial institutions to supply loans, because loans from a government lender were generally thought to carry an implicit governmental guarantee (Sakakibara, Feldman and Harada(1982: 21), Ueno(1975: 33-38)). For example, Sato(1990: 637) claimed "if the Japan Development Bank decides to make a loan to an industry, private banks interpret it as an indication that the government considers that industry as a growth industry worthy of being financed by public funds, and is willing to back up the industry if it falls into financial difficulties."

Some scholars also claim that the government financial institutions, in

particular the Japan Development Bank (JDB), produce the relevant information on borrowing firms, and thereby reducing the "agency cost" due to the asymmetric information between lenders and borrowers. Horiuchi and Sui(1993) empirically investigated the validity of those hypotheses that emphasize the "information effect" of the JDB's credit. According to their investigation based on data of medium-size firms in nonfinancial industries, the JDB's loans positively influenced investment expenditure by industrial firms that were able to borrow from the JDB.<sup>40)</sup> The JDB's credit appears to have been important for industrial development not because it was accompanied with subsidies in the form of lower interest rates than market rates, but because the JDB could reduce the cost of information in the process of financial intermediation.

Horiuchi and Sui(1993), however, found that this role of the JDB was substitutable for the role played by private banks through long-term relationships with their client firms. Specifically, the JDB's credit to the firms that have kept stable long-term relationships with private banks is not significant in promoting investment on their part. This result suggests that the development of the private banking sector has reduced the importance of the JDB's activities as a credit supplier.

Moreover, the result obtained by Horiuchi and Sui(1993) does not necessarily mean that the government was actually able to promote industrial development in postwar Japan. In practice, it was a very complex issue for the government to foster infant industries. It is fair to say that the record of the Japanese government in bringing up the infants is mixed. For example, the MITI appears to have seen the potential of machine tools early, and was important in creating the hybrid numerical-control machinery sector, linking machine tools and

electronics. But it was slow to grasp the importance of computers. The MITI likewise short-sightedly rejected financial requests from autos (Toyota) and consumer electronics (SONY) at crucial early stages of their development. Even in steel, a self-declared priority sector for the MITI, industrial-credit policy was remarkably rigid and hesitant in dealing with creative overtures from dynamic new firms (Calder(1993: 120)).

## VII.2 Control of private financial institutions immediately after the war

Now, let us turn to the allocation of private funds; i.e., those supplied by the various private financial institutions to the nonfinancial industries. The most important suppliers of funds at all times have been the private financial institutions, primarily the commercial banks. During the first few years after World War II, these institutions were under the strict control of the government for obvious reasons. As has been explained in the previous sections, most of the controls in force then were a continuation of those imposed either during the 1930s or during the war. For example, the private financial institutions were obliged to supply loans to those industries which policy makers designated as essential.

As has been explained in section III, the designation was given in the form of order of priority contained in the Ordinance of Financial Institutions' Fund Allocation, legally based on the Emergency Ordinance of Financial Measures (*Kinyu Kinkyu Sochi Rei*) of 1946. This designation not only represented the financial aspect of the priority production policy, but also controlled the pattern of private financial institutions' credit supply. The private financial institutions could make loans to industries designated as "not important" or

"not urgent" only when the MOF permitted them to do so.<sup>41)</sup>

The BOJ's Loan Mediation System, which was operated from 1948 to 1954, is also noteworthy as an instrument of public control of private financial institutions' fund allocation. The objective of the system was to attain a financial allocation favorable to "important industries" by making use of cooperative financing arranged by the BOJ's Loan Mediation Bureau. Under this system, the BOJ helped private banks to organize relatively large-scale syndicated loans to some "key industries" designated by the order of priority. In particular, immediately after abolishment of the RFB in 1949, the volume of loans mediated by the BOJ increased abruptly.<sup>42)</sup>

The Temporary Law of Fund Adjustment of 1937, which provided for legal control over bond financing, was abolished in 1948. However, bond financing continued to be elaborately guided by the public authorities in the Japanese capital markets. The BOJ's System of Investigation of Corporate Bonds Eligibility (*Nichigin Tekikaku-tampo Shasai Jizenshinsa Seido*), effective from 1949 to 1955, was a rather powerful means of financial allocation through the bond markets. The BOJ lent on the basis of the security of those corporate bonds and debentures that had been approved as eligible by the Investigation System. This meant a discriminatory promotion of the selected corporate bonds and bank debentures.

Thus, the private financial institutions were heavily controlled by the government immediately after World War II. However, most of the direct controls over them disappeared as early as the first half of the 1950s. The BOJ's Investigation System of Corporate Bonds Eligibility was abolished at the end of 1955. The order of priority given by the Ordinance of Financial Institutions'

Fund Allocation had already become ineffective in the early 1950s after several alterations, though it formally continued until 1963 (FBAJ(1965: 329)). The BOJ gradually withdrew from loan mediation in and around 1950, and then stopped completely in February 1954 (FBAJ(1965: 330)). Generally speaking, as private banks recovered their capacities of financial mediation during the first half of the 1950s, either the government abolished direct controls on fund allocation or the measures of direct control became ineffective although they were not formally abolished.

As the above examples show, the BOJ was deeply involved in the public control of financial allocation during the several years following World War II. This involvement seems to have not only increased the effectiveness of public control, but also made the BOJ itself politically powerful, as was reflected in the fact that Naoto Ichimada, the Governor of the BOJ from 1946 to 1954, was often called the "pope." However, when Eikichi Araki became Governor, succeeding Ichimada in late 1954, the BOJ retreated from its commitment to direct public control. Thereafter, the BOJ played only a minor role in efforts to control the allocation mechanisms of the financial markets.

### **VI.3 Public control of private financial institutions after the mid-1950s**

As is shown in Table 2, private financial institutions were overwhelmingly important as fund suppliers during the era of rapid economic growth. In the following, we shall examine whether there was any systematic policy framework used by the government to control the specific lending decisions of these institutions. It is clear that there was no single, comprehensive system of policies to control the day-to-day behavior of private financial institutions.

However, there were organizations which appear at first glance to have had effective powers of controlling decision-making by private financial institutions. Of these, the most important were the Bond Issue Arrangement Party (*Kisai Kai*), the Financial Institutions Fund Council (*Kinyu-Kikan shikin Shingikai*), and the Industrial Finance Committee (*Sangyo shikin Bukai*). In the following, the functions of these organization will be examined in turn.

Bond Issue Arrangement Committee: Rather strict public control of corporate bond financing was continued even after the mid-1950s. Except for a few brief periods of easy money policy, interest rates, in the various bond issue markets were always lower than not only the call rate but also comparable long-term interest rates freely determined in the secondary markets.<sup>43)</sup> This was the consequence of adjustments made by the Bond Issue Arrangement Committee. The Committee adjusted corporate bond financing at rigidly set low interest rates for newly issued bonds. Although it was made up of representatives from the big banks and the major securities companies, the Party's "autonomous" adjustment was substantially influenced by the government's policy makers. Among other things, public bonds such as government guaranteed bonds and local government bonds were given preferential treatment in the adjustment (Shimura(1978: 111-116), Committee on the Working of Bond and Stock Markets(1978: 72-73)).

Moreover, the Bond Issue Arrangement Party seems to have allocated long-term funds in a manner favorable to the key industries. Table 14 presents the relative importance of bond financing to the total amount of equipment funds externally acquired by the respective industries. Bond financing was relatively



important in the iron and steel, land transportation, electric power generation, and machinery industries. This pattern of fund allocation is in marked contrast to that of government funds, which were concentrated on stagnant or declining industries as shown in Table 12. Corporate bonds, however, played a marginal role in the supply of funds to industries during the era of rapid economic growth. Bond financing accounted for an average of only 2.3 percent of the total funds obtained by nonfinancial firms in the period 1946-1975 (Table 2).

We may ask, nevertheless, whether the pattern of allocation of corporate bonds was seriously at odds with the interests of the private financial institution, which were the predominant suppliers in the bond issue markets. Did it mean that the government could force them to purchase bonds issued by the "key industries," thereby achieving a pattern of financial allocation substantially different from what would have been attained in the absence of the Bond Issue Arrangement Committee? The existence of the Bond Issue Arrangement Committee in itself does not afford definite answers to these questions. In order to answer them, we shall have to examine whether there were any formal or informal mechanisms through which the government could intervene to control private financial institutions' behavior. In this respect, both the Financial Institutions Fund Council and the Industrial Finance Committee are noteworthy, because it was made a rule that the Bond Issue Arrangement Committee obey the fund allocation plans determined by these organizations.

We should mention an important side effect of the Bond Issue Committee. The Committee continued to arrange corporate bond issues until the first half of the 1980s. Through the arrangement, a few major banks exerted strong influence on

mechanisms of the corporate bond markets. Legally, banks were able to influence the process of bond issue arrangement as a trustee whose role should have been to monitor issuing firms in the interest of bond holding investors. However, they could intervene in firms' decision-making through the long-term relationships with the firms and succeeded in imposing rather stringent eligibility requirements for bond issues. Thus, the costs for issuing firms were kept at relatively higher level in the domestic corporate bond market compared with international standards. Therefore, it may safely be said that the Bond Issue Arrangement Committee hindered development of the domestic corporate bond market. Those firms who wished to be free from the influence of bank credit started to actively issue bonds in the Eurobond market in the 1980s (Horiuchi(1994)). As has been discussed in section IV, it has not yet been resolved whether the Bond Issue Arrangement Party contributed to strengthening Japan's corporate control mechanism by hindering development of full-scale securities markets.

**Financial Institutions Fund Council:** Although most of the direct controls on private financial institutions were abolished in the first half of the 1950s, this does not mean that policy makers did not try to introduce legal measures to directly regulate lending decisions. For example, as early as 1955, a bill to control the behavior of financial institutions was submitted to the Diet. This was the Draft Law of Temporary Measures for Adjusting Financial Institutions' Fund Supply (*Kinyu-kan Shikin-unyo no chosei no Rinjisochi ni kansuru Horitsu-an*). This law would have authorized the MOF to order private financial institutions to invest a prescribed proportion of their deposit increment in

designated bonds such as public bonds and bank debentures.<sup>44)</sup> Those who promoted the law felt that the investment in long-term bonds that the law was expected to ensure would make it easier for key industries to finance their equipment investments. However, it did not see the light of day, as was the case with the Special Measures Law for the Promotion of Designated Industries an extensive explanation of which is given by Johnson(1982) and Calder(1993). Because private businesses, especially private banks, were strongly opposed, the policy makers turned to indirect measures which did not have the force of law.

In 1956, the Financial Institutions Fund Council, the MOF's advisory organization made up of bankers, industrialists, and bureaucrats, was instituted and given the task of promoting "public-private cooperation" in the financial allocation mechanisms. It had two major roles. The first was to communicate to the private institutions the government's annual Fiscal Investment and Loan Program (*Zaisei Toyushi Keikaku*) and to request them to supply a part of the funds necessary to carry out the program.<sup>45)</sup> The second was to convey to the private banks both the investment plans and the associated financing plans of the major industries as approved by the Industrial Finance Committee. The activities of this Committee will be explained in the following section.

Legally, the government had no way to force private financial institutions to carry out the wishes of the Council. Therefore, it is difficult to determine to what extent it influenced private bank lending behavior. At times the Council certainly discussed ways to allocate a sufficient amount of funds to designated industries. For instance, in the period of 1957-1958, the Council intensively discussed the problem of fund shortages in the electric power, iron and steel,

and marine shipping industries. In 1962, the main subject for discussion in the Council was how to increase the supply of funds to the electric power industry. However, the minutes of the Council hardly bear out the belief that the policy makers systematically determined private bank lending to those industries. Rather, the private banks would inform the government at the Council meetings the amounts they would be willing to supply to these industries. This information helped the government to determine the amounts of supplementary government funds that would have to be provided if funding goals were to be met. For example, in March 1962, the Council announced that it was of the following opinion:

Despite endeavors made by both financial institution and industrial firms, key industries and, in particular the electric power industry, are expected to suffer from a shortage of funds which will amount to some ¥13 billion by the end of this fiscal year. We are afraid that the shortage will seriously hamper the supply of electric power in Japan. Thus, we think it necessary to deal with this by means of government funds (MOF(1962: 59)).

In its opinion announced in October of the same year, the Council recommended that government funds totalling ¥5 billion should be supplied to the electric power industry (MOF(1965: 54)).

Although it may have been helpful for the public authorities to advise the banks about their ideas concerning the financing needs of important industries, the Council did not make comprehensive plans governing lending by the private financial institutions. Moreover, recommendations from the Council did not in fact run counter to the interests of the private banks. On the part of the private banks, the Investment and Finance Committee (*Toyushi Iinkai*), which was established by the Federation of Bankers Associations of Japan in 1955, was charged with responding to the Council's wishes. This committee declared that

it would follow the Council's recommendations as faithfully as possible. At the same time, the Committee made it a rule to cooperate with the public authorities on condition that the banks would not be adversely affected thereby. For example, taking over from the Japan Development Bank, the private banks sometimes made loans to specific industrial sectors. The Investment Finance Committee demanded that the conditions for these loans should correspond to those prevailing in the financial markets, and that the banks should be free to choose among would-be borrowers in the selected sectors (FBAJ(1965: 336-337)).

The minutes of the Financial Institutions Fund Council show that the Council gradually changed from an organization whose stated purpose was to act as a financial allocation mechanism to a largely ceremonial group in which the government communicated to the private bankers their estimates about economic prospects for Japan and its policy decisions based thereon. It was abolished in 1968.

**Industrial Finance Committee:** The Industrial Finance Committee was a subdivision of the Industrial Rationalization Council (*Sangyo Gorika Shingikai*), an important advisory committee of the Ministry of International Trade and Industry (MITI). The principal industries under the jurisdiction of the MITI were obliged to submit to this Committee their annual plans for equipment investment and the associated financing plans. The role of the Industrial Finance Committee was to advise revisions if any, and approve those investment plans. Its objective was to make investment plans consistent with financing possibilities so that they could proceed as smoothly as possible.

Representatives from the private banks were always present at the

Committee's meetings. They were expected to cooperate with the Committee, though we have not been able to find any specific requirements placed on the private financial institutions in the documents published by the Committee. Industries such as iron and steel, machinery, automobiles, electric power generation, and electronics come under MITI's jurisdiction, and total investment expenditures approved by the Committee amounted to two-fifths of total equipment investment by the private sector during the era of rapid economic growth. If the subjection of investment plans to the Committee's approval had really been effective, therefore, the Committee might have been an influential force for economic growth during that period.

The Industrial Finance Committee continued its official work into the 1970s. In this latter period the documents approved by the Committee were far from what is called a plan. They were, in fact, no more than annual forecasts about investment in some parts of the private sector. In this respect, they were little different from the routine forecasts made by the Economic Planning Agency, the Japan Development Bank, and others. But what about the investment plans developed in the era of rapid economic growth? Were they effective in determining the allocation of funds by private financial institutions? It is difficult to give a definitive answer to this question. However, such evidence as is available provides grounds for serious doubt about the Committee's influence on events.

The Committee has not published data which can be used directly to compare all of its approved investment plans with actual investment in the industries under MITI's jurisdiction. This fact in itself suggests that the Committee's recommendations were not thought of as economic plans. Nonetheless, for three

years, FY 1961 through FY 1963, we have Committee figures which allow a comparison of the approved plans with realized investment levels. The data are summarized in Table 15, which presents deviations of the actual investment of each principal industry sector from the plan approved by the Committee. In the period of 1961-1963, the Bank of Japan adopted a rather strict tight money policy. Perhaps because of this tight money policy, the actual investment of each industry tended to be less than the approved level. As Table 15 shows, the actual investment of individual industries differed rather widely from their planned levels. These differences were great enough to raise doubts concerning the effectiveness of the Industrial Finance Committee's planning.

Neither the Committee nor the MITI, however, were bothered by these divergences. Every year, the MITI inspected the actual process of investment in the industries under its jurisdiction. When the inspection indicated that the investment of some industries would deviate far from the planned levels, the plans were amended by the Committee. That is, the plans were not as important as the actual level of investment. Thus, the investment plans and the associated finance plans approved by the Industrial Finance Committee seem to have been mere forecasts rather than economic plans to be systematically attained.

**A summary:** The three organizations we have investigated so far were not as effective as they might appear in controlling the fund allocation realized by private financial institutions. At least, we have no solid evidence to indicate that they achieved outcomes in terms of financial allocation through private financial institutions which were significantly different from what would have been attained without their efforts. In the few cases, such as in ship-building

and coal mining financing, where policy seems to have been able to influence private banks' decision making, the government had to resort to rather conventional means of persuasion. In the case of shipbuilding financing, the lackluster merchant shipping industry could borrow from the private banks only with interest rate subsidies provided by the government(FBAJ(1965: 347-362)). Similarly, the private banks at times yielded to political pressures to help salvage the distressed coal mining industry. Their loans were conditioned, however, on a promise that 80 percent would be insured by the government's Coal Mining Rationalization Corporation (*Sekitan-kogyo Gorika Jigyodan*) (FBAJ(1962: 69-70)).

#### VI.4 Standing Rule for Bank Finance

During the first half of the 1960s, the Japanese government discerned a serious policy problem. To join the Organization for Economic Cooperation and Development and to receive International Monetary Fund Article 8 status were the most important political targets for the Japanese government in the early 1960s, because they were seen as a symbol of the success of the economic policies the government had implemented in the postwar period. The government achieved both of these targets in 1964. However, being conferred with this status forced the government to liberalize international trade and international capital movements. The Japanese economy was expected to expose itself to harsh international competition not only in the trade of goods, but also in that of financial aspects.

The government was concerned with the problem of how the international competitive ability of the primary industries could be improved so as to cope



with the movement toward liberalization of international trade and capital flows. The economic overheating which followed the rapid economic expansion in the early 1960s appeared to make the problem even more complex. One of their responses to this challenge was to try to strengthen their control over private banks' behavior. The most conspicuous example of such responses was the MITI's unsuccessful attempt to expand its area of control through establishing the Special Measure Law for the Promotion of Designated Industries.<sup>46)</sup>

The MOF took a different attitude toward control over private bank lending. Its proposal was to set up official rules for bank lending, but in contrast to MITI, the MOF's aim was to stabilize rather than to stimulate further Japanese economic growth (MOF(1964: 48-67)). It presented to the bankers an idea for a standard rule for credit supply which followed the rule that had been adopted by the World Bank. This rule was prudential approach which emphasized that the banks should thereafter pay primary attention to the soundness of a would-be borrower's financial situation.<sup>47)</sup> In the end, however, the MOF yielded to the private bankers' claim that they should make financing rules based on their own judgement. In consequence, the Federation of Bankers Association drew up the "Standing Rule for Bank Finance" (*Ginko-yushi-ni Kansuru Kyodo Junsoku*) in July 1965. As its preface frankly acknowledged, the rule contained only abstract clauses. It was too ambiguous to be effective in controlling the banks' lending behavior. Even at the time of publication, its effectiveness was widely doubted.<sup>48)</sup>

A summary: As the cases of the Special Measures Law and the MOF's Rule for Bank Finance exemplify, the government's attempts to directly control private

financial institutions' behavior raised complicated conflicts between the government and private business (especially the city banks), and between various governmental ministries. Needless to say, the government is not a monolithic organization, but rather a complicated one encompassing various conflicting interests. Therefore, it is not so strange that the Japanese government could not implement their scheme to directly control funds allocation without some conflicts both within the government and between the public and private sectors.

We can derive the following points from our observation of these conflicts. First, Japanese policy makers, above all those in the MITI, obviously did not think that the public control over financial institutions was satisfactory in the era of rapid economic growth, for they thought it necessary to have legal authority to force private banks to cooperate as a matter of national priority. Secondly, despite their endeavors, the contemplated public-private cooperative system proved to be beyond attainment, primarily because the banks opposed it.

We should note that self-coordination among the private banks was a feature of the rapid growth era. Organizations such as the Industrial Finance Committee seem to have been useful for this self-coordination, because the private banks were able to obtain information concerning not only financing demand in the economy, but also their fellow bankers' lending plans. It may have been possible, therefore, for policy makers to have some indirect control over the allocation of bank loans by working upon the self-coordination of the banks. If so, however, it was because the procedure and the results conformed to the perceived interests of the banks themselves, not because the official establishment willed it.

## VII. Concluding Remarks

The investigations in this paper suggest that although the government intervened quite intensively in the financial mechanisms in postwar Japan, the system of financial control was far from being deliberately constructed by the government as a part of a comprehensive "industrial policy," and that its effectiveness in stimulating economic growth was rather ambiguous, particularly after the mid-1950s, when the financial system based on the private banking sector had been reconstructed. Obviously, the rapid economic growth since the mid-1950s was achieved based on promotive financial intermediation by private banks.

From the viewpoint of developing countries, the Japanese government's control immediately after World War II is rather informative. First, the government gave priority to reconstructing the banking system, which was seriously damaged by the aftermath of the wartime controls. Private banks were allowed to separate nonperforming loans caused by the suspension of wartime compensations and to cancel some deposit liabilities. The policy of reconstructing equity capital provided banks with a starting point for efficient financial intermediation.

Second, the government control was devoted to supplementing functions of incomplete capital markets at that time. In particular, the government promoted the maturity transformation via the financial system by instituting the system of long-term credit banking and the government financial institutions (e.g., the Japan Development Bank) specializing in long-term credit to the industrial sector. After the reconstruction of private financial intermediaries, however, the essential role of the government was at most to help coordination among

private agents in the framework of financial intermediation mainly by private banks.

As of the early 1950s, the Japanese banking sector had already accumulated abundant human resources and the know-how required for delicate financial intermediation. It was not so complicated a task for the government to supplement the financial market mechanisms with some intervention in order to achieve efficient financial intermediation suited to promoting rapid industrial development. For those developing economies where financial institutions are suffering from a shortage of human resources and technological knowledge, it would be much harder to construct a full-scale financial system based on a private banking sector, and intensive control by government of financial mechanisms would have to be continued much longer than was the case in Japan.

In the process of Japanese high economic growth, private banks played an essential role through their client relationships with nonfinancial companies, particularly big companies. Many scholars have started to analyse how industrial development in Japan was promoted by the long-term relationships between banks and borrowing companies. But we have not yet obtained any clear-cut answers to the question of whether the government financial control had something to do with the development those long-term relationships in the private sectors, although the Japanese banks have been legally given much wider latitude than their counterparts in the United States with regard to industrial financing.<sup>49)</sup> This issue still remains to be investigated, both theoretically and empirically.

Finally, a few words about the government financial control since the late 1970s, when the Japanese economy entered a new stage of slow growth. The

focus of the government financial controls have gradually shifted from the objective of promoting industrial development to that of constructing a stable and more consumer-oriented financial system. But the shift has been quite sluggish because the vested interests of present financial institutions fostered under the government control of the high growth era, particularly the so-called "convoy administration," have strongly resisted full-scale restructuring of the Japanese financial system. We are presented with a lesson that any systems working efficiently under specific circumstances may be very difficult to restructure, even if those circumstances have gone away.

## Footnotes

\* This is a revised version of the paper presented at the European Bank for Reconstruction and Development Workshop on Policy Studies to Promote Private Sector Development held in London during 23 - 24, May 1995.

1) The role of the so-called main bank system is positively evaluated in a voluminous book edited by Aoki and Patrick(1994), from which we can get information about literature concerning relationships between Japan's economic growth and financial sector in the postwar period.

2) For example, a slightly exaggerated image of state-led strategic capitalism is proposed by Johnson(1982) and Zysman(1983). On the other hand, Calder(1993) criticizes their hypothesis by emphasizing the important role of private banks' autonomous fund allocation in postwar Japan.

3) Before proceeding with our investigation, we may define "the era of rapid economic growth" as the two decades 1953-1972. The period before the early 1950s can be regarded as a time of rather unstable reconstruction. By 1953 the main indicators of economic health, particularly gross national product, had slightly exceeded the prewar level. See Goldsmith(1983: 146) and Table 12 in the present paper. 1972, the year just before the oil crisis, may be considered the close of the rapid growth era.

4) In terms of net accumulation of equivalent financial assets, the relative importance of loans in industrial financing stands out much more vividly in Japan relative to other industrialized countries than in terms of the gross

figures presented in Table 1. See Mayer(1990: 310).

5) "In contrast to the post-World War II years, Japanese corporations in the 1920s and 1930s had relied heavily on bond finance. Even in 1931 bonds provided 29.9 percent of external corporate funding and bank loans only 13.6 percent." (Calder(1993: 29)).

6) See the Bank of Japan (1986: vol.4, 296), and Calder(1993: 35). The Temporary Law of Fund Adjustment was abolished in April 1948. However, the essence of categorizing bank credit following the order of priority given by the government was succeeded by the Ordinance of Financial Institutions' Fund Allocation (*Kinyu-kan Shikin Yuzu Junsoku*) introduced in March 1947. Thus, most of the categories established by the Temporary Law of Fund Adjustment remained in place until the Ordinance was formally abolished in 1963, although they appear to have become ineffective during the 1950s.

7) A report entitled "The policy of improving the financial system" completed by the Ministry of Army in October 1940 proposed the system of controlling funds allocation just like the GOSS Plan system implemented in Soviet Russia during those days. See Ito(1995: 58).

8) Mitsubishi Bank(1954: 353) claims, "there scarcely existed the opportunities for private banks to autonomously determine credit supply to munitions companies. The Ministry of Finance strongly ordered private banks not to delay financing the companies by carefully examining borrowers' projects." The MOF tried to authorized the designated banks to audit munitions companies' accounts, but failed to do so because of strong opposition from the military. See Ito(1995: 65).

9) According to Miyajima(1992: 229-230), many major banks engaged in

restructuring industrial firms immediately after the war. They accumulated relevant information regarding industrial firms in the process of the postwar restructuring. This process strengthened the monitoring ability of those banks. See also Hoshi, Kashyap and Loveman(1994: 605-607).

10) The wartime compensation consisted of (1) compensation to the insurance companies that paid out to those companies that had suffered from war damage, (2) compensation to those who experienced losses due to suspension of wartime contracts with the Army, the Navy and the Ministry of Munitions, and (3) compensation to those who experienced losses due to various orders given by the government based on the Law of National Mobilization (*Kokka Sodojin Ho*). See the BOJ(1967: 13).

11) As will be explained in Section III, the Reconstruction Finance Bank and the Bank of Japan played an important role in supplementing private banks during this immediate postwar period.

12) In 1954, the MOF introduced capital adequacy regulation by notifying banks to raise the broadly defined capital ratio to higher than 10 percent of total deposits. However, this capital adequacy regulation was ineffective not only during the high growth period, but also during the post-high growth period which lasted until the mid-1980s. The average of the broadly defined capital/deposit ratio of the banking sector remained almost constantly at six percent from the early 1950s to the mid-1970s.

13) In February 1948, Teikoku Bank, the largest city bank at that time, announced that it would be divided into two banks, Mitsui and Dai-ichi. The division was carried out in October 1948. This might be regarded as a response of the large banks to the introduction of the Deconcentration



Law. In reality, Teikoku Bank had suffered from inefficiency due to a rather artificial merger between Mitsui and Dai-ichi which created Teikoku Bank in March 1943. Therefore, Teikoku Bank seemed to take advantage of the Deconcentration Law to unwind its business organization through the dissolution (BOJ(1967: 30-31)).

14) Although banks and financial institutions were exempted from the Deconcentration Law, the Anti-Monopoly Law was applied to their cartel of determining interest rates on deposits and loans, thereby forcing banks to abandon the tradition of cartel agreement regarding interest rates in October 1947. However, the government decided to keep the cartel like system of determining interest rates by introducing the Temporary Law of Interest Rates Adjustment (*Rinji Kinri Chosei Ho*) in December 1947.

15) In March 1942, the Wartime Finance Corporation (*Senji Kinyu Kinko*) was established. The main purpose of this corporation was, in collaboration with two special banks, the Industrial Bank of Japan and Kangyo Ginko, to supply loans to the industrial sectors which were regarded as important for carrying out national policy. The Reconstruction Finance Bank succeeded this role of the Wartime Finance Corporation.

16) The order of priority for financial allocation was given as follows:

(a) First priority: coal and lignite mining, iron and steel manufacturing, and fertilizer manufacturing.

(b) Second priority: metal mining, oil production, asbestos mining, cotton textile manufacturing.

(c) Medium priority: industries except for those belonging to (a), (b), and (d).

(d) Lowest priority (desirable to be suppressed): silk textile

manufacturing, metal furniture manufacturing, cosmetic manufacturing.

17) With the end of war rapid inflation immediately broke out because people wanted to liquidate a huge amount of bank and postal deposits that they were forced to hold during the war, and because the wartime devastation reduced the productive capacity of Japan's industries. To deal with this situation, the Japanese government adopted a rather drastic policy of freezing people's bank deposits in February 1946. Specifically, people were not permitted to withdraw their deposits beyond the narrowly prescribed extent. The government also withdrew the validity of old bank notes except for those deposited into banks after March 1946, forcing people to change old bank notes into new ones up to the maximum of ¥100 per capita. These policies were temporarily effective in reducing the amount of bank notes circulating by three fourths from ¥61.4 billion to ¥15.2 billion during the one month period from February to March 1946. However, the effectiveness of those emergency measures did not last for long, because the BOJ accommodated the increasing demand for credit in the industrial sectors as the case of the FRB suggested.

18) The Loan Mediation System was formally abolished in 1954. There is some scepticism about the systematic effect of this system on industrial development. See Calder(1994: 85-87).

19) See the previous section of this paper. Teranishi(1993) also describes the details of wartime financial control by the Japanese government.

20) During the 1950s and 1960s, the long-term credit banks system was a means to achieve a division of labor between short-term and long-term banking. A large amount of bank debentures issued by long-term credit banks were purchased by commercial banks because individual investors

in those days were not eager to invest in financial instruments of long-term maturity. Since for commercial banks, bank debentures of five year maturity issued by long-term credit banks were much more liquid than long-term loans to industrial firms, they could mitigate extreme maturity transformation by buying those debentures instead of lending long-term credit to their clients. On the other hand, the long-term credit banks could specialize in long-term credit because their liabilities had long-term maturity. The Fiscal Investment and Loan Program(FILP) also supported the system of the long-term credit banks by buying a large amount of banks debentures in the earlier stage of its development. For example, the FILP held ¥135 billion in bank debentures, which was 47 percent of the total amount of debentures issued by the long-term credit banks.

21) The JDB was given discretion of credit allocation to specific investment projects, usually in the form of syndicated loans with private banks, although it was required to obey the general agenda of government economic policy. Some ministries such as the Headquarters of Economic Stability and the MITI wanted much stronger control by the government on the JDB's credit allocation. But their desire was thwarted by the MOF. See the Japan Development Bank(1963: 36-38).

22) As Ramseyer(1994, 251) points out, "the question ... is whether the absence of an equitable subordination doctrine in Japan increases the incidence of firm rescues. To answer it, we need several pieces of evidence we do not yet have." Actually, there is some evidence showing that U.S. banks assume an important monitoring role in the restructured firms when they file for bankruptcy or restructure their debt privately. According to

Prowse(1995: 41), "U.S. firms that undergo financial distress thus appear to take on some of the characteristics that the typical Japanese and German firms exhibit — notably, high ownership concentration, large equity and debt stakes held by banks and other financial institutions and bank representation on the board of directors. Some of these characteristics are also shared by another set of U.S. firms — those that have undergone a leveraged buyout."

23) Calder(1994: 72-102) explains how often the MOF intervened in the financial sides of industrial policy planned by the MITI, depriving the MITI's policy of effectiveness.

24) Viner(1987: 69-71) describes Japanese managers' endeavor to defend themselves from hostile takeovers (particularly from foreigners) by expanding mutual shareholdings.

25) As Brealey and Myers(1991: 547-549) argue, there is positive reason for small-scale and speculative firms to issue convertible bonds. The convertible is an effective instrument of reducing the agency costs associated external financing under asymmetric information between managers or shareholders and outside investors. In the case of Japan, however, small-scale firms have not been permitted to issue convertibles in the domestic market. See also Stein(1992), who argues that less than blue-chip firms have incentives to issue convertible bonds in order to differentiate themselves from poor performing peers in capital markets.

26) However, we should not neglect the merits of a capital market-based financial system. For example, Franks and Mayer(1992) argue that the Anglo-American system is better suited to firms involved in corporate activities heavily dependent on the assessments of future prospects of

different investment strategies. Allen(1993) emphasizes the stock market functions of gathering relevant information widely distributed among market participants.

27) Regarding financial repression, see Shaw(1973: 80-112), who defines it "the principle ... to establish unattractive yields on domestic financial assets and so to repel demand."

28) It is reported that the interbank deposits between banks and financial institutions, such as the national federations of cooperative banks and agricultural cooperatives, were often associated with specially high interest rates which violated the Temporary Law of Interest Rates Adjustment of 1947. The Ministry of Finance tried to prevent the illegal interest rates on deposits(*tokuri*). However, as of July 1962, when the MOF investigated the illegal deposit rates, twelve city banks offered in total ¥172 billion of deposit with *tokuri*, which constituted 3 percent of their total deposits. See MOF(1991: 65-68).

29) See the administrative notification issued by the MOF to private banks on May 12, 1965. The notification is compiled in the Committee for Editing the Annual Report of the Banking Bureau(1980: 76-77).

30) In the United States, where there is no regulation of loan rates, banks usually demand from their borrowers some amount of compensating balance. There are economic reasons why compensating balances exist even in an economy which does not attempt to regulate loan rates. See Rhojama(1982: 66-71).

31) The Medium and Smaller Enterprises Agency gathered some data on compensating balances in the 1950s. Unfortunately, these were not suitable for use in this paper because the sample size was very small, and

because they presented only rough distributions of the number of borrowers according to the compensating balance ratio imposed by lenders.

32) Wakita(1983) estimates the effective Japanese loan rates during the period of 1962-1981 by making use of the data on compensating balances. See also Tsutsui(1985).

33) The profit rate is defined by the current net earnings-capital account ratio. The capital account includes not only equity capital but also surplus, reserves for contingencies, and other capital reserves.

34) We should mention the possibility that the accounting profits of the banks were understated because of taxation of provision for nonperforming loans and reserves. In the rapid economic growth era, especially in the first half, there were many administrative guidances to stimulate the banks' accumulation of reserves. For example, banks were forced to make provision of the maximum amount permitted by the tax system. Since the accumulation was regarded as a current expense, the more provision the banks made the lower net earnings became. In the 1960s, owing to the administrative guidance, the annual amount of the provision is estimated to have been, on the average, slightly greater than current net earnings. The amount has dropped to one-tenth of current net earnings since the mid-1970s. For an inter-industry comparison, see Komiya(1966) and Ikemoto, Tajika and Yui(1984).

35) Steep increases in the call money rate frequently became one of the nagging concerns for policy makers in the MOF and MITI. These ministries often called on private banks to make coordinated efforts to pull the call rate down. Many economists also regarded the call rate as "abnormally high," and claimed that it resulted from distortions in Japanese financial

markets. Since the high level of the call money rate was a phenomenon having its origin in the strong demand for funds, this judgement was obviously misdirected. In any event, it seems evident that the MOF did not consider the monetary policy at that time to be either "passive" or one of easy money.

36) We may mention a factor that hindered full-scale development of the Japanese money market. The MOF has at times issued a substantial amount of treasury notes with short-term maturity mainly to fill the gap between tax revenues and public expenditures over one fiscal year. The treasury notes would have been an instrument suitable for wide trading in the money market because they were both safe and homogeneous from the investors' viewpoint. However, the MOF has consistently stuck to issuing those notes at rates substantially lower than the comparable money market rates. Therefore, for the market investors, they were devoid of attractiveness and, despite public offering, almost all of them were absorbed by the BOJ. If the MOF had issued the treasury notes at interest rates comparable to the interbank money market rates, they would have been a core of the Japanese money market upon which the BOJ would have been able to implement so-called open market operations.

37) It is somewhat ironical to observe the relative increase in importance of the government funds in the process of financial liberalization since the mid-1970s. This may be a symptom of bureaucratic expansionism.

38) Ueno(1975: 21-22) gives a breakdown of the allocation by industry of the funds supplied by the government financial institutions. Relying on these estimates, he concludes that these institutions supplied vast amounts of funds to such strategic industries as primary metals, machinery,

transportation, and to tertiary industries. But of course it is not the absolute amounts of government funds, but their proportions in the totals that are relevant to an evaluation of their contribution to an industry's growth.

39) This point is underscored by the observation that the Coal Mining Council (*Sekitan-Kogyo Shingi Kai*) and the Maritime Transportation Shipbuilding Rationalization Council (*Kaiun Zosen Gorika Shingikai*) were influential in decisions about the allocation of government funds. These councils were also effective to some extent in persuading banks to supply loans to the industries under their jurisdiction.

40) Calomiris and Himmelberg(1994) obtained fundamentally similar results from their comprehensive statistical analysis.

41) See footnote 15 of this paper and Shimura(1978: 33-34).

42) Calder(1983), however, casts doubt on whether financial allocation through the Loan Mediation Bureau was really systematic from the viewpoint of promoting industrial growth.

43) The Interest-Bearing Telegraph and Telephone Bond had an exceptionally liquid secondary market, even in the high growth era. We may use the secondary market interest rates on this bond as a proxy of the long-term interest rate in those days.

44) The ardent promoters of this bill were Diet members who belonged either to the Japan Democratic Party or the Liberal Party. On the other hand, the bureaucrats, particularly those belonging to the MOF, did not seem to be enthusiastic. The latter probably considered that public control exercised at the expense of the private financial institutions would raise problems for both the bureaucracy and the banks.



45) The substance of this mechanism of the Council has been inherited by the underwriting syndicate for government bonds, which started in the mid-1960s.

46) The Special Measure Law for the Promotion of Designated Industries was designed by the MITI to directly order private banks with respect to their lending behavior. However, private banks and the MOF strongly opposed this Special Measure Law. So, the Special Measure Law died in the Diet.

47) In the mid-1960s, policy makers came to view direct control of private bank behavior as an urgent issue. As Johnson(1982: 250-252) points out, this was due to the somewhat exaggerated crisis atmosphere brought about by the "Plan for the Liberalization of Trade and Exchange" adopted in 1960. Other than the MITI and MOF proposals discussed in the text, there are other examples of this tendency. Thus, in January 1965, the MITI and the BOJ agreed to strengthen the system of "selective finance," under which the BOJ was to steer private banks' credit supply towards important exporting industries. See *Nihon Keizai Shimbun*, January 23, 1965. At the same time, Kakuei Tanaka, the then Minister of Finance, made another proposal concerning selective finance. See *Nihon Keizai Shimbun*, January 6, 1965.

48) As to the Standing Rule of Bank Finance, see the Federation of Bankers Associations of Japan(1965: 38-39), and the MOF, the Banking Bureau(1966: 59-66).

49) For example, Japanese banks are allowed by the Anti-trust Law to hold shares issued by individual corporations up to a maximum of 5 percent. See Prowse(1995).

## References

- Allen, Franklin. 1993. Stock markets and resource allocation. In Mayer, Colin and Xavier Vives (eds.), Financial Intermediation in the Construction of Europe, Cambridge University Press. 81-113.
- Aoki, Masahiko. 1994. Monitoring characteristics of the main bank system: An analytical and developmental view. In Aoki and Patrick (1994: 109-141).
- Aoki, Masahiko, Hugh Patrick, and Paul Sheard. 1994. The Japanese main bank system: An introductory overview. In Aoki and Patrick (1994: 3-50).
- Aoki, Masahiko and Hugh Patrick. 1994. The Japanese Main Bank System: Its Relevancy for Developing and Transforming Economies, Oxford University Press, 3-50.
- Bank of Japan, Research Bureau. 1967. Reorganization of Financial System in Postwar Japan, August 1945 - 1952.
- Bank of Japan. 1966. The Flow of Funds Accounts in Japan: 1954-1964.
- Bank of Japan, Research Bureau. 1967. Reorganization of Financial System in Postwar Japan: August 1945 - 1952, July.
- Bank of Japan. 1972. The Flow of Funds Accounts in Japan: 1964-1971.
- Bank of Japan. 1986. Centennial History of the Bank of Japan (Nihon Ginko Hyakunen-shi) Vol.4 and Vol.6.
- Brealey, Richard A. and Stewart C. Myers. 1991. Principles of Corporate Finance, Fourth Edition, McGraw-Hill.
- Calder, Kent E. 1983. Central banking and credit allocation in postwar Japan. Unpublished manuscript.
- Calder, Kent. 1993. Strategic Capitalism: Private Business and Public Purpose in Japanese Industrial Finance, Princeton University Press.
- Calomiris, Charles W., and Charles P. Himmelberg. 1994. Government credit policy and industrial performance: Japanese machine tool producers, 1963-1991. Financial Sector Development Department, The World Bank.
- Federation of Bankers Associations of Japan. 1962. Kinyu, No.186, Sept.
- Federation of Bankers Associations of Japan. 1963. Kinyu, No.199, Oct.
- Federation of Bankers Associations of Japan. 1963. Twenty Years History of Bankers Associations (Ginkogyokai Niju-nen Shi).

- Federation of Bankers Associations of Japan. 1964. Kinyu, No.202, Jan.
- Federation of Bankers Associations of Japan. 1965. Kinyu, No.221. Aug.
- Franks, J. and Colin Mayer, Corporate control: A synthesis of the international evidence. Unpublished working paper, London Business School.
- Goldsmith, Raymond W. 1983. The Financial Development of Japan, 1868-1977. Yale University Press.
- Goto, Shin-ichi. 1977. Idea and Reality of Commercial Banks in Japan (Futsu-Ginko no Rinen to Genjitu). Toyo-keizai Shimpō-sha.
- Hadley, Eleanor M. 1970. Antitrust in Japan. Princeton University Press.
- Hadley, Eleanor M. 1982. Industrial policy for competitiveness. Journal of Japanese Trade and Industry, Sept.
- Hamada, Koichi. 1994. Bubbles, burst, and bail-outs: A comparison of three episodes of financial crises in Japan. In Okabe, Mitsuaki (ed.), The Structure of the Japanese Economy: Changes on the Domestic and International Fronts, Macmillan Press Ltd, 263-286.
- Hellmann, Thomas, Kevin Murdock and Joseph E. Stiglitz. 1994. Financial restraint: Towards a new paradigm. A paper prepared for the World Bank EDI Workshop on the Roles of Government in Economic Development: Analysis of East Asian Experiences.
- Horiuchi, Akiyoshi. 1981. The long-run structural changes in Japanese banking (*Wagakuni Ginkogyo no Chokiteki Kozohenka*). In Keimei Kaizuka, et al., eds. Kinyu-Shoken Koza. Vol. V, Toyo-keizai Shimpō-sha, 29-60.
- Horiuchi, Akiyoshi. 1984. "Economic growth and financial allocation in postwar Japan." Brookings Discussion Papers in International Economics 18.
- Horiuchi, Akiyoshi, Frank Packer, and Shin'ichi Fukuda. 1988. What role has the "main bank" played in Japan? Journal of the Japanese and International Economies 2, 159-80.
- Horiuchi, Akiyoshi and Qing-yuan Sui. 1993. Influence of the Japan Development Bank loans on corporate investment behavior. Journal of the Japanese and International Economies 7, 441-465.
- Horiuchi, Akiyoshi and Ryoko Okazaki. 1994. Capital markets and the banking sector: The efficiency of Japanese banks in reducing agency costs. In Sato, Ryo, Richard M. Levich, and Rama V. Ramachandran, eds. Japan, Europe, and International Financial Markets: Analytical and Empirical Perspectives. Cambridge University Press, 197-219.
- Horiuchi, Akiyoshi. 1994. An evaluation of Japanese financial liberalization: A

case study of corporate bond markets, in Takatoshi Ito and Anne O. Krueger (eds.). Financial Deregulation and Integration in East Asia. The University of Chicago Press. 167-191 (forthcoming).

Horiuchi, Akiyoshi. 1995. Liberalization and stability in the Japanese Financial System: An Overview. University of Tokyo Working Paper.

Hoshi, Takeo, Anil Kashyap, and David Scharfstein. 1990. Bank monitoring and investment: Evidence from the changing structure of Japanese corporate banking relationships, in R. Glenn Hubbard (ed.), Asymmetric Information, Corporate Finance and Investment. University of Chicago Press.

Hoshi, Takeo, Anil Kashyap, and David Scharfstein. 1991. Corporate structure, liquidity, and investment: Evidence from Japanese industrial groups, Quarterly Journal of Economics 106, 33-60.

Hoshi, Takeo, Anil Kashyap, and Gary Loveman. 1994. Financial system reform in Poland: Lessons from Japan's main bank system. In Aoki and Patrick (1994: 592-633).

Ikemoto, Yukio, Eiji Tajika and Yuji Yui. 1984. On the fiscal incentives to investment: The case of postwar Japan. A paper to be presented at the Workshop Conference, Monetary and Fiscal Aspects of Economic Development.

Ito, Osamu. 1995. A Historical Analysis of the Japanese Financial System. Unpublished manuscript.

Iwata, Kazumasa and Koichi Hamada. 1980. Monetary Policy and Banks' Behavior (Kinyu-seisaku to Ginko-kodo), Toyo-keizai Shimpō-sha.

Japan Development Bank. 1963. A Ten Year History of the Japan Development Bank (Nihon Kaihatsu Ginko Jyu-nen-shi).

Japan Development Bank. 1976. A Twenty-Five Year History of the Japan Development Bank (Nihon Kaihatsu Ginko Nijyu-go-nen-shi).

Johnson, Chalmers. 1982. MITI and the Japanese Miracle. Stanford University Press.

Klein, Benjamin and Keith Leffler. 1981. The role of market forces in assuring contractual performance. Journal of Political Economy 89, 615-641.

Komiya, Ryutaro. 1966. Tax system and capital accumulation in postwar Japan (*Sengo Nihon no Zeisei to Shihon-Chikuseki*). Keizaigaku Ronshu, Vol.32, No.2.

Kosai, Yutaka, et al. 1964. Investigation of the Mechanisms of Fund Allocation (Shikin-Haibun Mekanizumu no Kento). Keizai Geppo.

Mayer, Colin. 1988. New issues in corporate finance. European Economic Review 32, 1167-1189.

Mayer, Colin. 1990. Financial systems, corporate finance, and economic development. In R. Glenn Hubbard, ed., Asymmetric Information, corporate Finance, and Investment, University of Chicago Press.

McKinnon, Ronald I. 1973. Money and Capital in Economic Development. Brookings Institution.

McKinnon, Ronald I. 1992. The Order of Economic liberalization: Financial Control in the Transition to a Market Economy. Oxford University Press.

Ministry of Finance. 1991. Financial History of Showa: 1952-1973 (Showa Zaisei-shi, 1952-1973 nendo). Vol.10.

Ministry of Finance, Banking Bureau of the Ministry of Finance. 1962. The Annual Report.

Ministry of Finance, Banking Bureau. 1963. The Annual Report.

Ministry of Finance, Banking Bureau. 1964. The Annual Report.

Ministry of Finance, Banking Bureau. 1966. The Annual Report.

Ministry of Finance, Committee for Editing Annual Reports of the Banking Bureau. 1980. The Collection of the Banking Bureau's Administrative Notifications (Ginkokyoku Genko Tsutatsu Shu). Kinyu-Zaisei Jijyo Kenkyukai.

Miyajima, Hideaki. 1992. Zaibatsu dissolution (*Zaibatsu Kaitai*). In Juro Teranishi and Haruto Takeda (eds.), The Development of Japanese Economy and Industrial Groups (Nihon Keizai no Hatten to Kigyo Shudan), University of Tokyo Press, .

Miyajima, Hideaki, The privatization of ex-zaibatsu holding stocks and the emergence of bank-centered corporate groups in Japan, EDI Working Papers No.94-52.

Patrick, Hugh. 1994. The relevance of Japanese finance and its main bank system. In Aoki and Patrick(1994: 353-408).

Petersen, Mitchell, A., and Rajan, Raghuram G. 1994. The benefits of lending relationships: Evidence from small business data. Journal of Finance 49, No.1, 3-37.

Prowse, Stephen. 1995. Corporate governance in an international perspective: A survey of corporate control mechanisms among large firms in the U.S., U.K., Japan and Germany, Financial Markets, Institutions and Instruments 4(1), 1-63.

Ramseyer, J. Mark. 1994. Explicit reasons for implicit contracts: The legal logic to the Japanese main bank system. In Aoki and Patrick(1994: 231-257).

Rhoyama, Shoichi. 1982. Financial System in Japan (Nihon no Kinyu Shisutemu).

Toyo-keizai Shimpō-sha.

Sakakibara, Eisuke, Robert Feldman and Yozo Harada. 1982. The Japanese Financial System in Comparative Perspective. A Study prepared for the use of the Joint Economic Committee, Congress of the United States, March.

Sato, Kazuo. 1990. Indicative planning in Japan. Journal of Comparative Economics 14. 625-647.

Sheard, Paul. 1992. The role of the Japanese main bank when borrowing firms are in financial distress. CEPR Publication Center 330. Center for Economic Policy Research, Stanford University.

Sheard, Paul. 1994. Main banks and the governance of financial distress. In Aoki and Patrick (1994: 188-230).

Shimura, Kaichi. 1978. An Essay on the Japanese Bond Markets (Gendai Nihon Koshasai Ron). The University of Tokyo Press.

Stein, Jeremy C. 1992. Convertible bonds as backdoor equity financing. Journal of Financial Economics 32, 3-21.

Stiglitz, Joseph E. 1985. Credit markets and the control of capital. Journal of Money, Credit and Banking 17(2), 133-152.

Summers, Lawrence H. 1983. The nonadjustment of nominal interest rates: A study of the Fisher effect. In James Tobin, ed. Macroeconomics, Prices, and Quantities. Brookings Institution, 201-246.

Teranishi, Juro. 1982. How did the artificial low interest rate policy contribute to economic growth (Jin-iteki Teikinriseisaku wa Keizaiseicho ni dou Kiyoshitaka). Toyo-keizai, No.4352.

Teranishi, Juro. 1982. Economic Development and Finance in Japan (Nihon no Keizaihaten to Kinyu). Iwanami Shoten.

Teranishi, Juro. 1994. Emergence of loan syndication in wartime Japan: An investigation into the historical origin of the main bank system. In Aoki and Patrick (1994: 51-88).

Tsutsui, Yoshiro. 1985. Re-estimation of effective interest rates on new loans (Sinki-kasidasi Kinri: Sai-keisoku), Oikonomika 21.

Ueno, Hiroya. 1975. Ideas of the Japanese industrial policy and their evaluation (Wagakuni Sangyo-seisaku no Hasso to Hyoka). Kikan Gendai Keizai. No.20.

Viner, Aron. 1987. Inside Japan's Financial Markets. The Economist Publication Ltd.

Wakita, Yasuhiro. 1983. The loan markets and contract in Japan (Wagakuni no Kashidashi-shijo to Keiyaku Torihiki). Kinyu Kenkyu. Vol.2, No.1.

Weisbrod, Steven R., Howard Less, and Lilian Rojas-Squirez. 1992. Bank risk and the declining franchise value of the banking systems in the United States and Japan. IMF Working Paper 92-45.

Yabushita, Shiro and Atsushi Inoue. 1993. The stability of the Japanese banking system: A historical perspectives. Journal of the Japanese and International Economies 7, 387-407.

Zysman, John. 1983. Government, Markets, and Growth: Financial Systems and the Politics of Industrial Change. Cornell University Press.

Chart 1: The number of commercial banks  
1926-1945

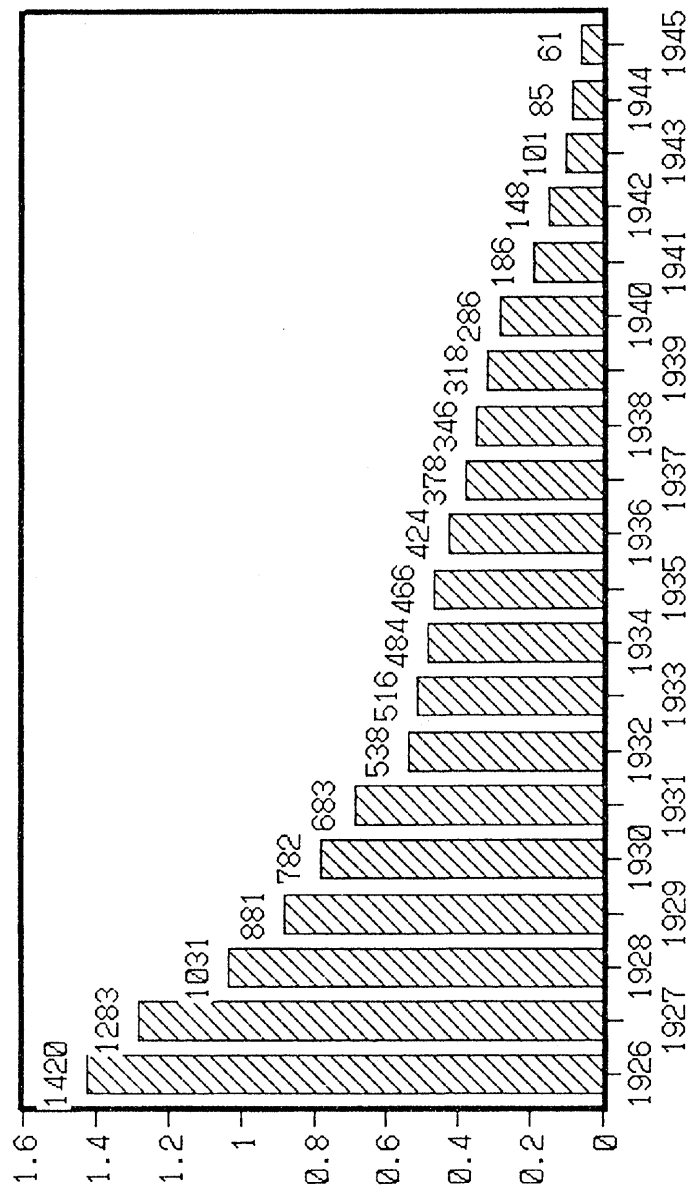




Table 1: International comparison of unweighted average gross financing  
of nonfinancial enterprises (percent, 1970-1985)

	Japan	France	Germany	Italy	United Kingdom	United States
Retentions	33.7	44.1	55.2	38.5	72.0	66.9
Short-term securities	N.A.	0.0	0.0	0.1	2.3	1.4
Loans	40.7	41.5	21.1	38.6	21.4	23.1
Trade credit	18.3	4.7	2.2	0.0	2.8	8.4
Bonds	3.1	2.3	0.7	2.4	0.8	9.7
Shares	3.5	10.6	2.1	10.8	4.9	0.8
Others	0.7	-3.3	18.6	9.6	-4.3	-10.2
Total	100.0	99.9	99.9	99.9	99.9	100.0

Source: Mayer(1990: 312)

Table 2: Composition of financing of Japanese nonfinancial firms  
(Average for periods: percent)

	1931-40	1941-44	1946-55	1956-65	1966-75	1976-85
Retention	37.0	28.8	37.0	41.1	43.8	58.8
Loans from private financial inst.	27.3	41.8	45.4	43.7	45.8	32.4
(Loans from banks)	(21.1)	(45.8)	(31.7)	(26.1)	(23.9)	(20.3)
Loans from govrnt. financial insti.	0.0	0.0	4.2	3.4	4.3	3.3
Special account for public invest. & loans	-0.9	1.2	2.6	0.9	0.6	1.1
Bonds	4.3	8.6	2.3	2.6	2.0	1.4
Shares	31.0	19.5	8.7	8.3	3.4	3.1
Others	1.3	0.1	-0.2	0.0	0.1	-0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: The figures in "retention" are derived from the National Income Statistics, which is based on data sources prepared by the Economic Planning Agency. The retention is thus different from the other figures estimated by the Bank of Japan. Thus, we should treat these figures carefully. This is also true of Mayer's statistics presented in Table 1.

Source: The BOJ, Economic Statistics Annual, various issues.

Table 3: Dealing with the losses from the wartime legacy  
In ¥ millions, March 1948

	Total losses	Liabilities discarded	Burden on shareholders	Support from government
Banks	27,490	17,997	2,889	367
Special banks	7,687	6,669	515	0
Commercial banks	15,441	9,339	2,278	1
Saving banks	1,747	1,079	87	241
Trust companies	1,253	858	189	124
Others	17,169	2,876	991	11,825
Total	44,659	20,873	3,880	12,607

Source: Osamu Ito(1995: 87-88).

Table 4: Relative importance of the banking sector  
before and after World War II compared with currency in circulation  
(¥100 million)

Year	Bank of Japan Notes Average issued (A)	All banks Loans and discounts (B)	(B/A)
1931	11	101	9.12
1932	10	96	9.60
1933	10	92	9.20
1934	11	88	8.00
1935	12	90	7.50
1936	13	95	7.31
1940	33	185	5.73
1945	301	976	3.24
1950	3,218	9,947	3.09
1955	5,245	31,958	6.09
1960	8,592	81,826	9.52
1962	12,285	114,946	9.36
1963	14,404	145,626	10.11
1964	16,653	168,297	10.11
1965	18,728	192,179	10.26

Source: The Bank of Japan, Economic Statistics Annual, 1982.

Table 5: Sectoral distribution of private financial institutions' and the FRB's credit  
(¥1.0 billion)

Industries	Total(A)	Private Financial institutions	RFB(B)	(B/A: %)
Coal mining	6,725	1,973	4,752	70.7
Iron & steel	2,193	1,841	353	16.1
Fertilizer	1,614	1,002	612	37.9
Electric power	2,542	302	2,240	88.1
Marine shipping	2,058	713	1,345	65.5
Textile	6,987	6,487	500	7.1
Others	34,493	31,097	3,396	9.8
Total	56,612	43,415	13,197	23.3

Source: The Japan Development Bank, Ten Years of the JDB, p.468.

Table 6: Loans supplied by the RFB and private banks  
(¥100 million)

Year/Quarter	RFB(A)	Private banks(B)	(A)/(B) %
1947/ I	3,562	14,044	25.4
II	7,528	11,592	64.9
III	15,331	13,773	111.3
IV	15,365	34,073	45.1
1948/ I	15,253	28,166	54.2
II	16,625	30,367	54.7
III	15,863	78,526	20.2
IV	19,208	90,159	21.3
1949/ I	20,806	26,898	77.4

Source: The Japan Development Bank, Ten Years of the JDB, p.471.

Table 7: The importance of borrowing from main banks

Name of the main bank	1962	1967	1972	1977	1983
Dai-ichi Kangyou	36.5	44.7	29.9	27.1	26.1
Mitsui	28.4	25.6	24.2	21.9	19.7
Mitsubishi	41.4	32.0	31.0	29.4	28.0
Sanwa	40.0	31.7	32.0	31.9	28.1
Sumitomo	40.8	35.1	30.3	28.3	26.5
Fuji	36.8	34.8	32.9	27.4	24.5
Industrial Bank of Japan	39.7	42.9	38.2	40.3	37.5
Tokai	41.5	40.7	37.4	40.5	31.8
Daiwa	55.5	56.9	40.4	40.2	34.4
Kyowa	39.4	55.7	62.3	49.6	33.6
Hokkaido-Takushoku	47.4	53.7	40.2	18.3	22.6

Note: The figures refer to the borrowings of all companies listed in the first-section of Tokyo Stock Exchange belonging to the main bank relationships. They denote the percentage of their borrowings from the main banks in total borrowings.

Table 8: Average levels of interest rates, percent 1921-1980

Period	Commercial banks' discount rate (A)	Interest rate of loans on deeds (B)	Time deposit interest rate (C)	Call money interest rate	Margins between loan and deposit interest rates (A)-(C)    (B)-(C)	
1921-35	7.69	8.60	5.30	5.19	2.39	3.30
1936-45	4.66	5.58	3.37	2.83	1.29	2.21
1946-55	8.90	8.81	4.48	6.44	4.42	4.33
1956-65	8.13	8.07	5.20	9.20	2.93	2.87
1966-80	7.25	7.68	5.33	7.58	1.92	2.35

Notes: Time deposits are 6 month time deposits. The call money is the unconditional call money.

Source: The Bank of Japan, Hundred Years of the BOJ, Materials and Statistics, pp.426-431.



Table 9: Changes in the number of branch offices, deposits, and loans.

(Annual average; percent)

	City banks			Local banks			Thriffs <sup>(a)</sup>		
	Branch	Deposits	Loans	Branch	Deposits	Loans	Branch	Deposit	Loans
1951-55	<sup>(b)</sup> -0.1	<sup>(c)</sup> 18.8	<sup>(c)</sup> 6.2	4.4	<sup>(c)</sup> 14.5	<sup>(c)</sup> 11.7	<sup>(c)</sup> 8.4	<sup>(c)</sup> 19.4	<sup>(c)</sup> 16.6
56-60	-0.4	18.5	20.5	-0.1	20.0	20.0	4.0	24.3	24.5
61-65	3.1	17.7	18.3	1.9	19.5	19.3	5.6	26.2	24.9
66-70	<sup>(d)</sup> 1.1	14.3	14.9	<sup>(d)</sup> 1.2	15.4	16.4	<sup>(d)</sup> 3.1	17.8	19.1
71-75	0.9	17.2	17.2	2.7	18.3	18.0	3.3	20.3	18.9
76-80	1.2	10.4	8.4	2.6	12.1	10.4	3.3	11.8	11.2

Notes: (a) The thrifts comprise the mutual loan and savings banks, the credit associations, and the credit cooperatives.

(b) In 1955, Nihon Kangyo and Hokkaido Takushoku were reclassified as city banks. This increased the number of city banks' branch offices abruptly by 230. The effect of this reclassification is adjusted for in the table.

(c) 1954-55

(d) In 1968, Nihon-sogo, the largest of the mutual loan and savings banks at that time, was converted to a city bank. Saitama was converted from a local to a city bank in 1969. The effect of these conversions are adjusted for in the table.

Sources: The Bank of Japan, *Economic Statistics of Japan*, and *Economic Statistics Annual*.

Table 10: Compensating Balance-Loan Ratio (Annual average; percent)  
(1)Investigation by the MOF: Based upon reports by private banks

Year	City banks	Local banks	Mutual loan & savings banks	Credit associations
1964	11.1	21.6	40.6	41.9
65	8.9	16.4	34.4	37.5
66	8.2	13.6	25.5	30.5
67	6.5	9.9	20.9	27.1
68	5.8	9.0	19.6	25.3
69	5.1	8.4	19.0	25.2
70	4.1	7.5	16.5	23.4
71	3.5	6.4	13.0	21.9
72	3.1	5.4	8.1	17.7
73	2.4	4.5	6.3	14.1
74	2.0	3.9	5.6	12.9
75	1.8	3.1	4.8	11.0
76	1.5	2.7	4.2	9.9
77	1.8	2.8	4.6	10.9
78	1.8	2.6	4.4	10.4
79	1.5	2.2	3.6	9.6
80	1.5	1.9	3.0	8.9

(2)Investigation by the Fair Trade Commission:

Year	City banks	Local banks	Mutual loan & savings banks	Credit associations	Credit cooperatives
1964	29.9(n.a.)	25.4(n.a.)	34.8(n.a.)	35.6(n.a.)	35.0(n.a.)
65	20.0(33.4)	21.3(32.8)	26.1(37.3)	28.9(39.0)	27.0(34.8)
66	12.4(22.7)	12.0(21.1)	19.4(29.0)	20.2(29.2)	19.0(26.7)
67	10.4(22.9)	9.2(19.1)	13.0(25.0)	15.4(25.7)	11.0(21.5)
68	10.2(25.6)	8.0(19.1)	12.8(25.0)	17.4(28.9)	16.6(24.4)
69	9.4(23.3)	7.4(18.7)	13.5(26.8)	16.0(25.6)	19.4(25.2)
70	8.2(22.2)	7.8(20.2)	14.6(26.2)	14.0(24.9)	20.7(30.5)
71	7.1(22.1)	6.9(19.5)	12.8(25.1)	13.9(25.9)	14.2(21.6)
72	6.7(21.4)	4.8(18.2)	9.5(23.7)	11.9(24.3)	15.9(25.3)
73	4.1(19.1)	5.2(18.2)	5.0(21.3)	11.1(24.0)	15.6(22.7)
74	3.4(18.5)	2.6(14.6)	4.1(19.8)	7.3(21.4)	13.0(26.6)
75	3.3(19.8)	2.3(13.3)	3.4(19.7)	6.9(22.3)	10.4(24.9)
76	2.5(18.1)	2.1(13.5)	2.6(17.9)	6.5(23.8)	11.2(22.7)
77	2.1(14.6)	1.6(10.6)	1.7(13.3)	5.6(17.3)	12.6(22.7)
78	2.1(14.2)	1.4( 9.3)	1.2(10.9)	5.3(17.1)	14.9(25.5)
79	1.6(12.8)	1.1( 9.1)	1.2(12.0)	5.3(17.4)	12.9(22.1)
80	1.7(11.8)	1.3( 9.0)	1.3(12.1)	4.2(14.7)	6.3(15.9)

Note: Figures in parentheses represent a compensating balance-loan ratio in a broad sense, including the deposits a borrower cannot draw at will.

Table 11: Profit Rates in Banking and Main Nonfinancial Corporations<sup>(a)</sup>

(Annual average; percent)

Fiscal year	All banks (b)	City banks (b)	All industries (c)	Manufacturing (d)
1953-57	13.6	12.0	7.6	
58-62	12.4	10.5	9.1	10.9
63-67	14.5	12.8	10.7	9.9
68-72	15.8	15.8	13.8	10.7
73-77	10.6	10.0	9.5	8.8
78-82	8.1	8.4	9.8	9.8

Notes: (a) Profit rates are after tax current profits as a ratio of the capital account.

(b) Federation of Bankers Associations of Japan, *Analysis of Financial Statements of All Banks*.

(c) The Bank of Japan, *Financial Statements of Main Industrial Corporations*. Excludes financial and insurance firms.

(d) The Japan Development Bank, *Handbook of Financial Data of Industries*.

Table 12: Average Rates of Increase in Money Supply, Real GNP,  
and Price Levels  
(Annual average rate; percent)

	Money Supply		Real GNP	WPI	CPI
	M1	M2			
1947-52	46.9 <sup>(a)</sup>	50.2 <sup>(a)</sup>	11.2	80.6	37.9
53-57	10.0	17.3	7.4	1.1	3.1
58-62	18.3	20.1	10.1	-1.0	3.6
63-67	17.1	17.8	10.2	1.4	5.4
68-72	21.0	19.8	9.7	1.3	5.8
73-80	9.3	12.1	4.2	10.0	10.1

Note: (a) Estimates by the Bank of Japan cited in R.W. Goldsmith,  
*The Financial Development of Japan, 1869-1977*, Yale University  
Press 1983, p.136.

Sources: The Bank of Japan, *Economic Statistics of Japan*, and *Economic  
Statistics Annual*. The Economic Planning Agency, *Annual Report  
on National Income Statistics*, and *Annual Report of National  
Accounts*.

Table 13: Shares of the Various External Sources of Industrial Funds.

(Annual average; percent)

	Stocks & shares	Corporate bonds	Private financial institutions' loans	Government <sup>(a)</sup> funds	Foreign <sup>(b)</sup> loans
1947-52	11.5	3.2	71.7	13.6	n.a.
53-57	16.3	3.6	70.9	9.3	n.a.
58-62	16.6	5.6	70.1	7.8	1.9
63-67	8.4	3.6	79.8	8.1	0.8
68-72	6.5	2.7	82.8	8.0	1.2
73-77	5.9	4.3	78.5	11.2	n.a.
78-81	8.3	4.6	73.0	14.2	n.a.

Notes: (a) Sum of the amount supplied by governmental financial institutions and the Special Accounts for Financial Purposes.

(b) The proportion of foreign loans based on the Law concerning Foreign Investment in the total of industrial funds raised in the domestic markets and through foreign loans.

Sources: The Bank of Japan, *Economic Statistics of Japan*, and *Economic Statistics Annual*.

Table 14: Proportions of Government Funds to Total Supply of Industrial  
Equipment Funds (1954-67 average; percent)

Coal mining	49.8 ( 0.2) <sup>(c)</sup>
Iron & steel	4.1 ( 7.0)
Machinery	10.4 ( 4.7)
Chemicals	7.4 ( 6.4)
Textiles	14.8 ( 1.2)
Agriculture, forestry & fishery	50.0 ( 0.5)
Water transportation <sup>(a)</sup>	41.8 ( 5.1)
Land transportation <sup>(a) (b)</sup>	15.5 ( 1.7)
Electric Power	26.8 ( 4.4)
Total including other industries	18.8 ( 3.1)

Notes: (a) Since the amount of funds acquired by issuing stocks and shares in 1964 is not available for water and land transportation, estimates for these industries exclude the year 1964.

(b) 1965-1967.

(c) Figures in parentheses are the proportion represented by foreign loans, based on the Law concerning Foreign Investment, in the sum of the industrial equipment funds each industry acquired in domestic markets and through foreign loans. 1957-1967.

Sources: The Bank of Japan, *Economic Statistics of Japan*, and *Economic Statistics Annual*

Table 15: Proportions of Bond Financing to Total Equipment Funds.

(Average percent)

	1954-60	1961-67
Coal mining	1.2	1.0
Iron & steel	4.3	11.0
Machiner	4.4	9.6
Chemicals	2.6	4.9
Textiles	3.5	7.8
Agriculture, forestry & fishery	0.4	0.8
Water transportation	0.1	0.0
Land transportation	8.9	10.0
Electric Power	4.3	21.6
Total including other industries	3.0	5.8

Notes and Sources: See Table 9.

Table 16: Comparison of the Investment Plans Approved by the Industrial Finance Committee and the Results<sup>(a)</sup> (percent)

	1961F.Y.	1962F.Y.	1963F.Y.
Electric power	-3.9	-8.5	-6.6
Coal mining	-13.5	-7.2	-15.3
Iron & steel	-7.3	-5.8	-0.4
Petroleum refinery	-9.5	-16.5	-6.4
Petrochemicals	-10.1	-14.9	-16.8
Ammonium sulfate	-5.4	-13.4	-4.3
Synthetic textiles	-1.5	3.3	11.7
Automobiles	-3.9	-4.4	-0.1
Electric machines	5.7	7.9	-18.0
Electronics	-9.8	-12.9	-2.5
Paper & pulp	-21.1	-14.1	-8.3
Cement	-11.9	-11.9	5.7
Other industries	-3.0	17.1	-7.1
Total	-5.7	-1.1	-5.6

Notes: (a) (Actual Investment - Planned Investment)/Planned Investment.  
The industries covered by this table are those under the jurisdiction of the Ministry of International Trade and Industry.

Sources: Data presented by the Ministry of International Trade and Industry to the Industrial Finance Committee.