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THE JAPANESE FIRM UNDER THE WARTIME PLANNED ECONOMY

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I. INTRODUCTION

The Second World War exerted a strong and persistent shock to the demand and supply sides of the Japanese economy. Such an impact was brought about by a number of factors. While the government consumed an enormous volume of military ammunitions, the supply capacity was handicapped by the sudden rise in international prices of raw materials, the blockade by the Allied Forces, and the mobilization of labor to the military. In order to carry out the war, the government had to change the resource allocation drasticaliy. To this end, the government chose to design a planned economy based on controlled means.[1] Since 1937-39 the economy was held under the rigid control of the government. This went on for a period of around 10 years, until such time economic control was relaxed through the implementation of the Dodge Plan.[2] What the economy experienced during that particular period of Japan's history can be viewed as one characterized by extensive planning running parallel to the structure of the Soviet economy prior to the birth of **perestroika**.[3]

From the eruption of the Sino-Japanese War in 1937, the Japanese government dealt with the task of planning the economy by successively maintaining mechanisms for the lay-out and implementation of the plan. The **Kikakuin** (Planning Board) that corresponded to the Soviet **Gosplan** was established, the government ministries were expan
ded, and **Toseikai** (Control Association) that bore a part of the burden in the planning and implementation of measures was created in each industry. These composed the upper and middle strata of the planned economy system, while the firm was given a status as a subordinate organization that assumed actual production within the planned economy system. The function and position of the firm within this context naturally did not conform to the existing capitalistic mode of its behavior. Thus, it became of vital importance for the government to introduce policies that would reform the nature of the firm. When the market mechanism around which the prewar Japanese economy revolved was transformed into a planning mechanism, the firm which was then the basic unit of the economic system was the most affected. The changes the firm underwent as the government attempted to transform the economic system is the focus of this paper. From this vantage, I would like to shed light on one side of the transformation process of the Japanese firm.[4]

There has been wide consensus of the opinion that the key to understanding the Japanese economy today lies within the structural and behavioral characteristics of the firm. As pioneers of current representative works on the Japanese firm, Ken'ichi Imai and Ryutaro Komiya have expressed that among the developed countries sepatation between ownership and management of the firm is probably the most advanced in Japan and that the Japanese manager possesses characteristics of a representative of a human organization. It has also been suggested that from the mere fact that the firm looks after the maximization of income of each regular employee, the Japanese firm can be likened in general to a labor-managed firm.[5]

However, scholars have not yet reached a consensus regarding the evolution of the present-day Japanese firm. While a large number of economists have laid importance on economic reforms carried on after World War II and the progress of such economic reforms,[6] many economic and business historians have maintained a view on the changes that occurred during the period in between the two World Wars and during World War II.[7] Of course, differences in opinion among scholars is due to the lack of sufficient substantial data to back up their researches. In order to decide on the event which marked the point of transition for the firm, there is a need to look into what characteristics the firm previously had, what occurred during its transition phase, and in effect, how it reacted to such changes. We will investigate these various issues by considering World War II as the transition point in question, and by taking into mind the previous researches that had been conducted on this topic.

It is a matter of course that at this juncture we will proceed with this study assuming a theoretical framework of the firm. Here we will adopt the orthodox position to regard the firm as an aggregate body of "production resources" beneath a management organization.[8] That is to say that managers, laborers, stockholders, and financial agencies are the supplier of "productive resources" or "management resources" that constitute the organization. How these agentts participate in the process of decision and sharing mold the being of the firm.

II. THE JAPANESE FIRM IN THE PREWAR PERIOD

In this section we will compare the prewar status of the firm and the factor markets with that of those postwar status. As discussed in Section I, our main task here is to examine how the basic management resources of funds, labor, and managerial ability were related to each other, and how they contributed to the making of the firm.

First of all, let us look into the macro-aspect of capital. Table 1 reveals that

Table 1

that surplus savings in the private sector was supplied to the firm like the postwar era. On the other hand, securities comprised a large proportion in prewar savings (Table 2).

Table 2

Even if we take into consideration the possession of securities by financial institutions, the role of direct finance in the financial market was by far more significant in the prewar than in postwar times.[9] This further suggests that the state of income distribution was the reason why private sector showied relative preference to the possession of securities as financial assets. Prewar income distribution was far from being flat compared to postwar times.[10] Viewed in terms of functional distribution, prewar income distribution was characterized by a low ratio of earned income and a high ratio of property income (Table 3).

So far, data giving a subjective composition of savings are not available yet, but what can be inferred from the data presented here is that there existed in prewar Japan an affluent class who acquired much property income, and that this class accummulated financial assets in the form of securities. This fact is reflected in the manner funds is supplied to the firm. Table 4 shows that in prewar times thirty to forty percent of the funds of the firm came from the capital market, compared to a mere ten percent of funds of the firm coming from the same source in postwar times. These figures indicate that the degree of dependence of the firm on financial institutions was quite low (Table 4). This point can also be verified from the stock data of large firms in Table 5. The capital market being referred to here however includes the internal markets comprising of subsidiaries (zaibatsus), as well as the external capital market.

At this point, it would be worthy to look more closely into the capital supply of zaibatsus (Mitsui, Mitsubishi and Sunitomo) and non-zaibatsus.

Table 3

Table 4

Table 5

Table 6

The list of firms in Table 6 shows that among the top thirty firms in the mining and manufacturing industries, four are zaibatsu-related; and if we expand the table to include the first sixty firms, only ten are zaibatsu-related. This fact leads to the conclusion that the zaibatsu-related firms did not account for a majority in the top class in the mining and manufacturing industries; and thus, it would be misleading to conclude that the class of large firms in the prewar period is represented by those which had relations with the zaibatsus. What can be said with a degree of certainty however is that during the prewar time, the non-zaibatsus exuded more importance than the zaibatsus in the mining and manufacturing industries. If we pick up from each group, i.e., zaibatsu and non-zaibatsu, the top ten firms, and examine the composition of their liabilities without singling out the internal capital market, we will find that they hardly differ in terms of the mode of funds raising, which was, above all, true to all large firms in all industries (Table 7). Though the the capital paid on stocks accounted for a heavy weight, there was a marked contrast in the composition of suppliers of capital in the zaibatsu and non-zaibatsu groups. In the case of the former, most often than not, the holdingcompanies of zaibatsus were overwhelmingly the large stockholders, and therefore concentration of the stock to the top stockholders class was very high (Table 8). In contrast, there did not exist in the non-zaibatsu firms preponderantly large stockholders who would correspond to stockholders of the zaibatsu firms.

Table 7

Table 8

Table 9

In short, the zaibatsu firms were highly dependent on funds supplied by internal capital markets, a channel controlled by the holding companies of zaibatsus. On the other hand, the middle- and small-scale capitalists supplied and funneled in capital into the non-zaibatsus through the use of external capital markets.

It was in this manner that the two groups differed in their mode of funds raising, and this divergence exerted an influence on the relationship between the "ownership and management" or corporate governance. Put in other words, there was a difference in the modes of management control between the internal and external capital markets. As is widely known, the zaibatsu firms made headway in the "separation of ownership and management" while the non-zaibatsus relatively lagged behind.[11] This point is apparently confirmed by the percentage of large stockholder-managers to the overall number of managers in the two types of firms (Table 9). In the zaibatsu firms, the zaibatsu families who were overwhelmingly large stockholders completely entrusted the management of firms to professional managers, while in the non-zaibatsu companies the large stockholders were in most cases concurrently managers of the companies. In the latter case, the stockholders did not only assume managerial posts, but it was through this or through other means that they exerted influence on management policies of the firms. The meddling of stockholders into firm affairs was not at all exceptional, and it was because of this practice that several social problems arose from 1910 to 1930.[12] Kamekichi Takahashi's Kabushiki Gaisha Bokokuron (The Stock Company: A Cause of National Decay), published in 1930 reveals the tenor of the argument in those days. According to Takahashi, the primary manifestations of "the degeneration of firm management" were the "on-the-spot attitude towards business management and the inability of management to aim at the so-called business prosperity for 100-years." Degeneration of company management was largely caused by the "high-handed and on-the-spot selfishness of large stockholders" and the corruption of the board of directors.[13]

The high-handedness of the large stockholders was manifested in their demand for high dividends and their neglect of long-term goals for the firm, such considerations as profit reserves, depreciation cost, research and development, and equipment investment.

The "corruption of the board of directors" referred to the breach of trust, their large bonuses, their manipulation of stock prices, and their lack of management ability. One last point stressed by Takahashi was that: "it is uncommon to find members of the board of directors who acquired their status and position by virtue of their management ability. A large number (of members of the board) of directors get the position of the board only because of being large stockholders of the firm or in maintaining special relations in government circles."[14] It is in this sense that Takahashi highly valued the other side of the criticism raised against the stock corporation, stressing that "the degree of corruption in firms directly under zaibatsu control was remarkedly milder, and therefore invited a higher degree of trust."[15] Aside from the corruption of the board of directors which Takahashi highlighted in his book, it is important to note that the criticism raised against the non-zaibatsu firms rather fits well to the sterotyped view of American firms in the present time.

Next, let us look into the other aspects of management policy other than capital supply in simple quantitative terms. The data in Table 10 tell us that among the large firms, profit disposal took form in the high propensity

Table 10

to dividends and the large volume of managers' bonuses. While the propensity to dividends during the postwar period, excluding the period from 1961-65, was forty to fifty percent, during the prewar period, it was two-thirds of the profit, and managers' bonuses accounted for six percent of the profit. Furthermore, the dividends were not only huge, but they were accomodated with respect to profits. Table 11 shows the sensitivity of dividend rate to the change in profit rate. The prewar and postwar figures of this value differed remarkably in large firms. This was because, whereas during the postwar period a thorough dividend rate stabilization policy was in place, during the prewar period, the dividend rate elastically behaved according to the profit rate.

Takahashi pointed out earlier that this phenomenon was more conspicuous in the non-zaibatsu firms. The average data taken on the first ten firms of each group (zaibatsu and non-zaibatsu) show that the propensity to dividends of non-zaibatsu firms was 73 percent, with reaction rate of 77 percent, which is more than that of zaibatsu firms. Perhaps, from here, we can draw the conclusion that the prewar non-zaibatsu firms spent a considerable portion of their profits to allocate dividends to their stockholders, which, from the viewpoint of profit disposal reflects a rather classical feature of the firm, and which is more or less a stereotype of the American firm today.

Table 11

The classical features of the non-zaibatsu firms can also be observed in how they treat the other suppliers of basic management resources. Postwar Japanese industrial relations has commonly been characterized by life-time employment, a seniority-based wage system, and a company union. The pivot around which the industrial relations system revolved was the life-time employment system. Importance should be given to the fact that during the prewar period there were relative differences in the way industrial relations focused on the life-time employment system was carried out. If we check the coefficient of employment adjustment (annual data, man-base) or all manufacturing industries in the prewar (1921-1935) and the postwar (1956-60) periods, we will find that they are 0.98 and 0.38, respectively.[16] These figures imply that after the war, while a period of five years was needed to adjust employment up to ninety percent, before the war, it took only one year to virtually attain the same degree of employment adjustment.

At this point, it is noteworthy to compare the modes of employment adjustment between the zaibatsu- and the non-zaibatsu firms. For simplification purposes, let us focus on the coal industry. From 1929-31, the employment elasticity (monthly data, man-base) in zaibatsu firms was 0.069, and in non-zaibatsu companies, 0.054 (Table 12). If taken on a monthly basis and in terms of production, these figures suggest that in times of depression,

Table 12

the zaibatsu firms did not adjust on the number of workers, while the non-zaibatsu firms regulated the number of workers at a rate of around half of the percentage of production change. Thus we can say that in terms of profit disposal, the zaibatsu-related firms resembled Japanese firms in the postwar era, while the non-zaibatsus exuded a classical image of the capitalistic firm. Similarly, if we are to examine the employment elasticity during the first few years of World War I, we will find that the zaibatsu firms also regulated employment in a relatively elastic manner. Between the two world wars, the zaibatsu firms adopted a mode of employment adjustment that resembled that of the postwar era.[17]

The facts that we have just uncovered regarding the employment adjustment practices of the two groups of firms conform to the preceding research made on industrial relations. It is a well-known fact that from towards the end of World War I a Factory Committee was created in the heavy industries to tackle labor disputes and other matters which workers found relevant in their work, such as welfare facilities and their working conditions. The formation of this Committee institutionally granted the opportunity and the right for workers to voice out their opinions on issues that concerned them.[18]

In this respect, the establishment of the Factory Committee was the primary consideration for the zaibatsu firms. Their long-term employment policies were not only progressive, but that it was against this backdrop that they molded and provided participatory mechanisms for their workers. Contrary to this, the non-zaibatsu firms lagged down behind in evolving workers' participation. It should be noted that while the development of participatory mechanisms served as a turning point in industrial relations in the zaibatsu firms, the personnel staffs played an important role in the process.[19] It points to us the close relationship between the separation of ownership and management and its advanced labor policy. In short, because in zaibatsu firms, the zaibatsu families and the holding companies, through the internal cacpital market, took a long-term vision in exhibiting control over the firm, the professional managers of subsidiaries could otherwise introduce management policies that were akin, in terms of profit disposal and personnel policy, to policies adopted by Japanese firms in the postwar period. However, as was stressed earlier, the zaibatsu firms comprised only a minority group in the class of large firms in the mining and manufacturing industries, and the non-zaibatsu firms, based on their behavioral characteristics, exuded a rather classical image of the firm. This was how the Japanese firms behaved at the time when the government set out to restructure the economy after the breakout of the Sino-Japanese War.

III. THE PLANNED ECONOMY DURING WORLD WAR II

Before going any further, let us verify the degree and extent of economic changes during the war by analysing some data from a macro-viewpoint. In Table 13 we observe that in 1944 the composition of private consumption in the nominal GNE decreased to less than sixty percent of prewar (1936) figures, and that the ratios of government operating expenditures centered on the cost of ammunitions and on capital formation increased by 2.5 and 1.4 times, respectively. In other words, the wartime economy of Japan was simply structured by squeezing consumption too far, and utilizing that part for war supplies and capital formation. Viewed from a different angle, the composition of expenditures includes

Table 13

the changes in the composition of production. These changes were accompanied by a substantial import substitution. Whereas in prewar times the import propensity attained an average of twenty percent, in 1944, it went down to less than six percent. At this point of time the wartime Japanese economy can be said to have switched to a markedly self-supporting entity. Such massive and drastic structural changes in the economy characterized the mechanism of the planned economy during the war.

The decision taken by the government in the latter part of 1936 to expand its budget marked the start of the planned economy. The consequence of this budget expansion showed that the expansion of both the military expenditure and production capacity as demanded by the military under the existing market economy was no easy task. At a time when inflation was fast accelerating, the decision to expand the budget generated both real and speculative demands. In 1937 wholesale prices rose to twenty-five percent, and the balance deficit was 2.5% of the GNP (Table 13).[20] It was against this background that in the early part of 1937, the government launched an actual trade and price regulation system. In July of the same year, the

Three Guiding Principles on Finance and Economics (**Zaisei Keizai San Gensoku**) were declared. This set of guidelines formulated the basic measures on how to operate the economy, that is, maximizing production capacity as the objective variable, subject to the conditions of the conformity of balance of international payments and the adjustment on the demand and supply of each goods.[21] This system was founded on the premise of increasing military expenditure, and with the understanding that the term "adjustment" also implied "control".[22]

To be sure, even under the given purpose of simultaneous military and pruduction capacity expansion, it was possible, in abstract terms, to resort to markert-oriented solution such as not to interfere in the decline of the exchange rate and the rise of prices, and in the imposition of an inflation tax to people. However, under the circumstances these choices were not at all feasible for two reasons. The first reason is, as what recent studies highlight, the government and the military came to be influenced by ideology of planning.[23] For example, it is widely known that behind the government's plan to expand production capacity was the the Five Year Plan of the Japan-Manchuria Finance and Economics Research Group (**Nichi-Man Zaisei Keizai Kenkyukai**) in August 1936. On top of that, this plan was conceived to implement control over finance, labor and trade so as to concentrate resources for the expansion of the war industries and the production of basic materials.[24]

It is noteworty that Masatoshi Miyazaki who presided the Japan-Manchuria Finance and Economics Research Group had left to study in Russia undergoing the socialist revolution. After his studies in Russia, Miyazaki pursued researches on Soviet affairs at the South Manchuria Railways, later on becoming himself a Soviet specialist.[25] If we bear in mind the rapid expansion of war industries and the production of basic materials as sketched in the Soviet Five Year Plan, we can say that it was but natural for the Japanese government and military to regard the Soviet as a model to learn. In 1938 one of the staffs of the **Kikakuin** wrote an article in the Kikaku, the publication of the Planning Agency:

> "The fact that after the revolution, in a matter of twenty years, the Soviet Union, which was still fresh from a gloomy Tzarist past, rose and made a bold leap to become the leader in manufacturing industries in Europe and second to America in the world is something to marvel about."[26]

The truth is that the **Kikakuin** utilized the Soviet model to drive the economy and looked up to it as its official subject of investigation. This point was particularly made apparent in the Explanatory Statement on the Organization of the **Kikakuin** (1940) which goes,

> "The various policies which have been enforced under the guidance of the **Kikakuin** appraise the valuability of experiences the Soviet Union has undergone in the implementation of its planned economy in the last ten years. Care must be taken in the implementation of the planned economy so as not to repeat the mistakes made by the Soviet Union. In this regard, it should be clear that

results of surveys done on the Soviet Union are closely related to the activities of the **Kikakuin**."

The gist of the above statement leads us to understand that the **Kikakuin** was commissioned to undertake investigation on the Soviet Union.[27] Thus, the journal Kikaku contains a large volume of articles dealing with Soviet-related matters, materials which imply that the **Kikakuin** had acquired precise knowledge on the Soviet planned economy system. By way of example, the concept of iteration in the Soviet Materials Balance Method was well-understood. In here, it was conceptualized that the **Gosplan**, which was positioned at the apex of the entire multi-tiered organization, and the plant, which was at the lower end, would be involved in a two-way informational interaction in the formation of the plan.[28]

The second reason behind the decision of the government to turn to a planned economy was related to the problem of income distribution. It is a matter of course that inflation brings forth various relative price changes, which brings enormous effects on income distribution. In 1937 the decline in real wages by five percent caused the jump up of number of workers who participated in the labor strife.[29] This convinced the government of the enormous social instability that inflation could create. On top of that, this event marked the point which the wartime economy had to embark from. Structural changes in the economy involving expenditures and production which we have considered earlier were inevitably followed by structural changes in the distribution side. If overall real consumption would fall nearly to sixty percent of prewar figures and income distribution were entrusted to the workings of the market mechanism, the social effects were bound to be serious. Thus, from the period 1937-39, the government undertook successive measures to prepare the system and organization of the planned economy program. The next section will discuss the firm as the object of reforms carried out by the government as part of its move towards economic planning.

IV. THE FIRM UNDER THE NEW ECONOMIC SYSTEM

Early Stages of Economic Control

Before World War II broke out, the Japanese firm already experienced in two occasions difficulties in relation to the government's effort of preparing it for the wartime economic system. These problems which involved structural or behavioral aspects of the firm were argued in the establishment of the **Sangyo Hokoku Kai** (Industrial Patriotic Society), and the implementation of Article 11 of the National Mobilization Act (**Kokka Sodoin Ho**). **Sangyo Hokoku Kai** was based on the "Industrial Relations Adjustment Measure(**Roshi Kankei Chosei Hosaku**)" drafted in March 1938, by **Kyochokai**. This document manifested a new doctrine on the firm which diverged from what firm largely had held onto in prewar times.

To wit, it prescribed the industry as "an organic organization whereby employers and employees are bound together in their respective functions."[30] An important point to note here is that it recognized employees as members of the firm as well as employers. It was to this idea of referring only to employers and employees that capitalists and management groups strongly opposed the "Industrial Relations Adjustment Measure". A well-known case is the "Critique on the Industrial Relations Adjustment Measure of the **Kyochokai**", which the Federation of Industrial Bodies of the Chubu Region raised in June 1938.[31] In this critique, the Federation pointed out that while the Measure promoted the interests of employers and employees, it ignored the existence and role of stockholders. Moreover, the Measure was considered an extremely unscientific idea, if compared to the ideology of British Whittley Committee which distinguished (a) capital, (b) ability (managerial and technical knowledge and experience), and (c) labor, based on their functions as constituents of a business organization. Thus, the Federation stressed that in this particular aspect the **Kyochokai** was by far more socialist-oriented than the Nazist systems of Germany and Britain. If we call to mind how matters stood in the firm during the prewar period, it was natural that the Measure was thought to be socialist-oriented and dangerous because it disregarded the existence of stockholders and their roles in the firm.

Meanwhile, the Ministry of Welfare which looked over the labor problem upheld a doctrine which deviated from what was held by the Federation of Industrial Bodies of Chubu Region. One of the staffs of the Ministry of Welfare claimed in an article which came out in April 1938, that "stockholders sell out and make money when stock prices have risen; sell out and flee when stock prices are falling. Solely seeking out to earn large dividends while neglecting personal labor is the common idea shared by a large number of stockholders." The article pointed out that "if stockholders decide on managerial board and management policies and they drags the profits of the firm, then there is no doubt that the stock corporation system has a flagrant default." In addition, the article argued that "what determines the performance of the firm are (low or high) price and (good or bad) quality of products," and that "in order to achieve this end, staffs and workers have to contribute in almost all cases a considerable amount of effort to improve the quality of products and to save on production cost." Therefore in this light, "the staffs and workers carry by far more profound interests and a wider range of responsibilities than stockholders who do not even call on or show their faces to the firm." Along the same line of thought, it was recognized that the staffs and workers impart more commitment to the firm than stockholders do.[32] To sum up, this article advocated the need to institutionalize a system of profit-sharing in favor of staffs and workers.

The debate that centered around the **Sangyo Hokoku Kai** settled when the vice-ministers of Public Welfare and Domestic Affairs passed the "Circular Concerning the Implementation of the Industrial Relations Adjustment Policy" in August 1938.[33] What is most essential is the fact that the Circular formally acknowledged the class of staffs and workers as a component of the firm. This system was embodied in the establishment of the **Sangyo Hokoku Kai** at the firm-level, that is, in the creation of unit patriotic societies in all business establishments. The **Sangyo Hokoku Kai** held meetings participated by both management and labor. Through these meetings, the Society was able to work on problems involving the enhancement of efficiency, treatment, welfare facilities and the like. Through this effort, the right to a voice of workers, which in prewar times was enjoyed by limited part of workers including those of zaibatsu firms, was now systematically diffused to cover workers of almost all firms.[34]

When Article 11 of the National Mobilization Act which dealt with such matters as dividend limits and loan orders was about to be invoked, it likewise underwent through the same problematic course.[35] During the Cabinet Meeting in November 1938, both the Ministers of Public Welfare and Domestic Affairs expressed the opinion that in order to put Article 6 of the National Mobilization Act (which exerted control over labor) into action, it was necessary to invoke simultaneously Article 11. But the Minister of Finance raised an objection on the comment brought up by the two ministers, marking the genesis of another debate. Later, the Chief of the Information Division of the Ministry of Army joined in the debate, and contended that "it is necessary for flourishing industries that have been giving out highly-rated dividends to take serious account of the industries caught in a slump, and the bereaved families of the war dead." Moreover, he stressed that "from here onwards more effort must be exerted to expand production, and that it was never appropriate to pursue this task solely for the purpose of profit-making.[36] To invoke Article 11 of the National Mobilization Act, it was not sufficient to consider income distribution alone. It also entailed recognition of the ideological critique which held that profits be made the objective of every economic activity.[37]

In the end, Article 11 of the National Mobilization Act was invoked effective April 1939 to regulate dividends and loan. Consecuently, the invocation of this article called on the firms for the issuance of a permit by the Minister of Finance at the incidence of the dividend rate increasing more than ten percent, and similarly if firms that have already registered a dividend rate of six percent, show a further increase of more than two percent.[38] In the latter half of 1938 about two thirds of the manufacturing firms showed dividend rates over ten percent. Because of this, a relatively efficacious dividend control was undertaken by firms in the manufacturing sector. Thus, through the collective efforts of the **Sangyo**

Hokoku Kai, wartime economic control in its early stages brought about enormous changes to the positions in the firm held by both the employees stockholder in prewar times.

Furthermore, the implementation of the dividend control program indirectly mellowed down the role of the stockholders. Because of the Sino-Japanese War and forecasts made over prolonged economic controls in this regard, from the beginning of 1938, the stock prices declined. In November of the same year, at the time when a heated debate was going on regarding the invocation of Article 11 of the National Mobilization Act, stock prices centering around high-rate dividend stocks sharply fell down.[39] When the dividend control system was implemented in 1939, the ever-rising paid-in stocks finally fell, and in a single swoop the overall supply of industrial capital tumbled from thirty-five to twenty-five percent. One primary factor given for the drop in industrial capital was the instability of stock prices.[40]

The reason behind the decline of paid-in stocks did not only lie in the dividend control system. There were other macro-events that ushered the sluggish performance of the stock market. It should be recalled that during the war, the rate of private savings in Japan was tremendously high (Tables 1 and 2). This, the government realized from the very beginning was necessary to attain simultaneously an increase in capital formation and military expenditures under the condition of a balance of international payments. During the Cabinet Meeting in April 1938 the government officially decided to implement the National Savings Promotion Campaign, and set a total of ¥ 8 billion, which was thirty percent of the GNP, as the savings target for the year 1938. Of the ¥ 8 billion, ¥ 5 billion was the amount of capital required for the issuance of national bonds, and ¥ 3 billion, for the expansion of production capacity.[41] It was a plan which, under government guidance, the surplus in the private sector would be made to cover up the expected deficit of the government and business sectors. This plan was overtaken by the Financial Control Plan(**Shikin Tosei Keikaku**) which the government seriously undertook from 1939.

As stated in the preceding paragraph, in order to implement the savings plan, the government created the National Savings Promotion Commitee. In July 1938 the Committee reported that the mass of people were expected to participate in the movement for more savings.[42] In line with this effort savings cooperatives sprouted in the government and public offices, in business establishments, in all types of organizations and in all regions. In the government and public offices, a standard savings rate corresponding to the income level in terms of salary and bonuses was determined.[43] The government realized that to promptly raise the private savings rate, it had to expand the base of savers, which should include ordinary staffs and workers of firms.

In a report drafted by the Savings Promotion Committee the following year (1939), it was pointed out that there was "a need to completely strengthen the movement to reform the civilian lives of workers, by relying on the voluntary cooperation of workers and staffs in the flourishing industries."[44] In short, it meant that workers and staffs in the war industries who were enjoying an increase in income were the primary targets of the savings promotion plan. However, the government realized that in asking the mass of people to save in this manner, it was difficult to expect them to directly purchase securities. If we compare the savings target in 1939 laid down in the Financial Control Plan with that of 1937 figures, we will find that the purchase of securities by non-financial sectors was in fact very low (Table 14). Thus while the government's move to expand savings consequently gave rise to the private savings rate, it forcefully lowered down direct finance, and inevitably lowered down the position of stockholders as suppliers of funds. This then did not only improve the status of the workers in the factory but also enhanced his role as a potential supplier of funds in the macro-level.

Table 14

The New Economic System

World War II brought about a strong impact to the planned economy which was yet in its early operational stage. Due to the sudden rise in international prices of raw materials and the decision of the government to freeze the prices of all domestic goods, the relative price system underwent through substantial changes. To be more specific, the profit rate of manufacturing firms and the production plan performance rate showed ominous signs of decline.[45] Confronted by these conditions, the government decided to veer towards a new economic system. On September 13, 1940, the **Kikakuin** laid out a three-tiered model of economic system composed of the government, the sectoral organization and the firm in the original draft of "Gist for the Establishment of the New Economic System.(**Keizai Shintaisei Kakuritu Yoko**)" In this rigid instructional planned model of the new economic system, the basis of operation did not lie on the price mechanism but rather on the flow of quantitative order from the upper to lower tier.[46] The sectoral organization which constituted the middle layer of the model carried out the role of (1) taking part in the formation of the plan, and (2) carrying out the plans decided by the government by allocating it to the firms involved. As an embodiment of such organization, **Toseikai**(Control Association) was established in each industry and it participated in the iteration process to make plans. In addition to this, in the theory of the new economic system the reforms that took place within the firm which occupied the lowest tier in the economic system were the essential points.

The original draft of the "Gist for the Establishment of New Economic System" records that, "as a measure to reform the firm," it should be "set free from control of stockholders persuiting profit-making. The firm in its reorganized form would have to uphold the national purpose in a management style based on individual creativity, ability, and responsibility, centering on the securing quality and quantity of production." It was expected that the operation of the planned economy would be harmonious if the government could successfully institute a system in which the firm's goal was not making profits but the execution of the apportioned pruduction plan. An important feature of this policy is its attempt to switch the firm's goal exclusing stockholders' control.

The concrete essential points indicated in the draft were: to introduce reforms in the Commercial Law, the separation of ownership and management in the firm, the establishment of a public character of the firm and of manager's status. The **Kikakuin** thought that since the pursuit of profits was premised on the role and authority of the stockholder, it could eliminate the pursuit of profit as the firm's objective by isolating the influence of stockholders on management.

The separation between ownership and management met wide opposition from business circles, but the debate finally came to a standstill when the Cabinet passed on December 7, 1940 the "Gist for the Establishment of the New Economic System," which provided that "the firm is an organic body composed of capital, management and labor."[47] This firm doctrine of looking at the stockholders, managers, employees as all drawn up in a line, came as a major change for the firm. Although the move to reform the Commercial Law was not realized, the stockholders fell back from firm management board during the war. Statistics reveal that in the non-zaibatsu firms, the ratio of top ten stockholders who were simultaneously managers to the total number of managers decreased from the prewar ratio of twenty-one percent (21%) to thirteen percent (13%) by the end of 1942 (Table 9).

The move to free firm management from the influence of stockholders as provided for in the original draft of the Outline for the Establishment of the New Economic System was not only a legal step, but rather a more indirect countermeasure. One official document in those days regarded the following points as the reasons of firm's persuit for profits:[48] (1) the need to absorb capital; (2) the need to generate income for the managers of the firm; and (3) the need to set up a criterion for judging firm performance. It was stressed that setting aside (1), it would be possible to remove the pursuit of profits as an element of firm management by setting up an appropriate standard for determining a compensation scheme for managers. On the other hand, in the case of (1) the establishment of the New Financial System(Kin'yu Shin Taisei) was intended to be the solution. For under the New Financial Sysytem, the criteria of loan was supposed not to be certainty of recovery but contribution of the project to national purpose. Thus it was conceived that by strengthening the financial regulation, the stockholders who had exerted influence on firm management through the financial market in the past finally break away control from firm management. In this score the New Economic System was intimately related with the New Financial System.

At about the same time the Cabinet was preparing the "Gist for the Establishment of the New Economic System", it likewise drew up the oroginal draft of the "Gist of the New Fiscal Policy (**Zaisei Kin'yu Kihon Hosaku Yoko**) decided upon at the Cabinet Meeting in July 1941.[49] The government intended planning of funds allocation by taking into consideration both macro-variables(private consumption, taxes, and savings) and micro-variables(funds assinment to individual investment projects). According to the draft, the funds would "be distributed to each firm on a preferential basis, and the firm will have to make the most of such funds to exhibit maximum efficiency in order to attain sufficiency in production." For that purpose it was necessary to switch from the existing financial doctrine based on trust centered on the certainty of attaining recovery to one that would aim at securing the quality and quantity of goods necessary for the state. Concrete examples of measures instituted by the government to that end were the imposition of control over financial institutions (mergers, the designation of financial institutions that would take charge of each industry, and the "the march towards a private-owned and state-managed financial system").

The realization of the New Financial System was to some degree delayed, but in May 1942, **Zenkoku Kin'yu Tosei Kai** (the National Financial Control Association) was formed, with the Bank of Japan acting as the hub of financial activity and taking full control over the funds raising and funds application of financial institutions.[50] Since 1942 the ratio of loan by financial institutions to total funds supply recovered, and the position of financial institutions in terms of stock possession considerably rose (Table 8). Thus, in general, while the role of indirect finance became larger, the government enhanced its ability to control the corporate finance by means of the regulation of financial institutions through the **Zenkoku Kin'yu Toseikai,** and the position of stockholders who have all the while exerted control over the firm through financial markets was weakened.

On the other hand the new system laid emphasis on the improvement of the workers' status as what the firm doctrine drawn in the draft of the "Gist for the Establishment of a New Economic System" indicated. This tenet was fully developed in the original draft of the "Gist for the Establishment of a New Labor System (**Kinro Shintaisei Kakuritsu Yoko**)" which was passed by the Third Division of the **Kikakuin** on October 5, 1940.[51] One of salient features of this document was its call for "the establishment of workers' status." This document prescribed that the firm should not be the stockholders' belongings but the communal organization composed of managers, engeneers, office clerks and workers--everybody who worked for the firm. According to this document, what should take over the prominent place of stockholders should be the actual management body consisting of employees. It was then through the passage of the outline of this draft that the **Kikakuin** finally instituted in explicit terms the firm doctrine which was criticized in 1938 by the Chubu Federation of Industrial Bodies as "socialist-oriented."

According to the draft, employees' organization should be set up hierarchically with the managers of each firm acting as top leaders. The lowest level of the organization should encompass all the employees. The adoption of this strategem was definetely in line with the reorganization of the **Sangyo Hokoku Kai** in August 1941.[52]

Thus the new economic, financial, and labor systems conceived in the autumn of 1940 can be identified to possess a coherent logic. While eliminating the influence of stockholders in the legal system and financial market, the nature of the firm switched to an organizational body of managers, staffs and workers, by providing a system of workers' participation at the shop-level. Through these changes the firm was thought to drift away from its zealous pursuit of reaping profits. On this assumption, a planned economy based on quantitative order was effected by the government-control system.

What evolved from 1941 were the separation of ownership and management, the emergence of the use of indirect finance, the imposition of government control on the financial system, and the penetration of the **Sangyo**

Hokoku Kai to the shop-level. Put in other words, the relationship between suppliers of "management resources" substantially changed, the decline of stockholders' status on the one hand and the rise of the workers' status on the other. However, whether this phenomena indeed coincided with the expectations of the **Kikakuin** which sought to eliminate profits as the primary objective of firm management is a different question. The next section will show that the **Kikakuin** was not very successful in this regard.

V. THE FIRM UNDER THE REFORMS ON THE WARTIME PLANNED ECONOMY

As early as 1942 the wartime planned economy was already held captive of an uncertain dangerous future. This was because, while in 1941 the main industries enjoyed full-blast production and attained a high distribution performance, it suffered a large decrease a year after.[53] The government was then pressed to reflect on the root cause of this crisis by looking into the behavior of firms. Incidentally the debate over the price control system provided the government the chance to look once again into this urgent matter.[54]

The debate over the price control system actually started with the passage of the "New Policy on Price Control" by the **Kikakuin** in July 1942.[55] This policy called for "making producers bear sacrifices to cover the rise in production costs," which assumed the same behavioral mode of firm as doctorine of new economic system. This plan however was severely criticized by the Ministry of Commerce and Industry who expressed that **Kikakuin**'s policy was based on wrong perception of the rearity of Japanese wartime economy."[56] Notwithstanding the fact that stockholders' influence over firm management was indeed falling back, the **Kikakuin** itself recognized that in reality, "there were no changes in the conventionalities and fundamental principles that guided the firm in its direct pursuit of profits, that the firm still saw in the increase of production as the primary means to earn profits, and it was far beyond considering the rise in production as its primary objective."[57] Thus the new system failed to eliminate the pursuit of profits as the primary goal of the firm.

The government was compelled to follow the reality. In February 1943 the government formulated the "Gist of Emergent Measures Price Control(**Kinkyu Bukka Taisaku Yoko**)"[58], which sought to raise producers' prices through subsidized expenditures. From September of the same year, in response to the demand for more aircrafts for the war, the government looked again more closely into all aspects of firm policies. This move taken by the government was expressed in the "Measures for Strengthening the Polotical and Economic System(**Kokunai Taisei Kyoka Hosaku**)" concluded by the Cabinet on September 22, 1943 [59].

The concrete measures were embodied in the enactment of the Munitions Corporation Law in October 1943. According to the Ministry of Munitions, the essence of this law could be summarized into the following:

(1) to enhance firm spirit and make clear the nature of firm as public organization;

(2) to establish a system of taking responsibility over production; and

(3) to carry out reforms in the administrative treatment to munitions corporations.[60]

In order to create a system called for in (2), the government proposed that a person responsible for the production of each firm (**Seisan Sekininsha**) had to be selected. While the government reserved the right to approve and recall the responsible person, in usual the responsible person was to be selected among the existing managers if possible, was to be in the person of the general manager.[61] The responsible person possessed exclusive representative rights, and was accorded exceptional treatment to the Commercial Law. In other words, by dint of the Munitions Corporation Law, (a) special resolution matter of the general meeting of stockholders in the Commercial Law became ordinary resolutions matter, and (b) the responsible person was able to implement the original draft plan without the approval of general meeting of stockholders.[62] This was reflected the government's policy to "disengage the responsible person from the cumbersome intervention by the general meeting of stockholders.[63] The legal restriction of the rights of the stockholders, a step which was then not yet realized in 1940-41, was finally enforced by this law.

The elimination of influence and rights of stockholders was further reinforced by Designation System of Financial Institution for Munitions Corporations (**Gunju-gaisha Shitei Kin'yukikan Seido**). Under this system, the Ministry of Finance designated one or two financial institutions for every Munitions Corporation, and designated financial institutions supplied the Munitions Corporations with the needed funds at the opportune time, simply, promptly and adequately."[64] Similarly, the designated financial institution acted in accordance to the orders of the Munitions Corporations.[65] In fact, in 1944 the lending rate of financial institutions which otherwise reflected their funds supply to industries increased tremendously (Table 4). The Munitions Corporations finally freed themselves from the control not only of capital markets but also that of financial institutions.

While the item (2) meant the liberation of the responsible person or the managers from the restrictions set by the rights of stockholders, the reforms instituted in the management of Munitions Corporations called for in (3) marked an easing of government control over the manager and the firm. To wit, the Munitions Corporation Law stipulated that "all types of control that inhibit the creation of a vivid production activity in Munitions Corporations should be removed or special exemption must be provided."[66] In short, the purpose behind the execution of the Munitions Corporation Law was in giving managers the free hand to exercise full control over the firm. The

Minister of State Affairs and Vice-Minister of Commerce and Industry made clear that "the cardinal principle behind the (Munitions Corporation) Law was to entrust upon the responsible person full authority and free ability so that in so doing he can serve the nation, and use broad-mindedly all the experience, knowledge and skills he has gained in the years."[67]

It is important to note here that managers who had acquired free hand management over firms tolerated in practice the pursuit for profits as a corporate objective. This fact can be verified from the measures imposed on the price control system. In the Diet the Minister of State Affairs and Vice-Minister of Commerce and Industry put forward the opinion that "the price control should by no means interfere with production; instead, it should be practiced so as to improve efficiency and encourage people to increase production."[68] In a commentary in the Munitions Corporation Law, an staff of Ministry of Ammunitions also expressed that "in order to emancipate the firm from unstable financial conditions that are consequent upon the execution of the task of taking responsibility over production, and to make the responsible person devote himself wholeheartedly to the task of production, it is necessary to set the proper speed for operation of a workable price control."[69] Through the experiment of the new system, the government had learned that eliminating stockholders' influence did not bring forth the relinquishment of the pursuit of profits as a corporate objective.

Meanwhile, since all workers of Munitions Corporations were all drafted men, they were strictly obligated to follow the orders of the responsible person. In this sense, the sphere of activity of the **Sangyo Hokoku Kai** was reduced and the participation of workers in the management process of the firm rather retrogressed [70]. The free-hand control over the firm exercised by managers was guaranteed not only in their relationships with the government, financial institutions, or with stockholders, but also in their relationships with workers. However if viewed in terms of distribution, this considerably improved the position of workers in the firm. A Cabinet Resolution (Gist on the Wage Policy) passed in March 1943 reveals that the wage control system should be operated elastically, and that when the firm was rewarded for efficiency improvement, it should pay special bonus to the workers.[71] This scheme was applicable to all Munitions Corporations. At this point, the profit-sharing system with workers was finally implemented.

In sum, Munitions Corporations Law introduced the corporate system as follows: the managers who were guaranteed a free-hand management control in all its dealings with the government, financial institutions, stockholders and workers, carried out a management style which aimed at the pursuit of profits, and the profits were shared by workers. The features of this corporate system became more clearly towards the end of the war. In March 1944 the Ministry of Munitions conceived of a plan to define clearly the characteristics of the firm ("No. 1 of the Tentative Draft").[72] According to this draft, while the government assured the stockholders of a reasonable annual dividend share of around five percent, such stockholders' rights as the disposal of profits, the enlistment of bonds and the appointment of managers were suspended. And the surplus profits of reasonable dividend shares were distributed under fixed government rules and regulations to firm managers, staffs, and workers as compensation for contributions made in the advancement of technology and improvement in production. After spending on the establishment of a welfare scheme for managers, employees, and workers, the rest was to be placed in the government. In this plan the stock was substantially changed its quality to fixed interest bearing security[73] In effect, the feature of the firm was similar to that of an labour-managed firm.[74] This idea did not remain a mere tentative plan. In 1945 a resolution entitled "On the Establishment of a Decisive Operation System for War Industries" which contained almost the same items, was passed by the Cabinet Meeting.[75]

VI. CONCLUSION

The majority of Japanese firms in prewar times were largely classical in orientation. This was especially true to a large number of non-zaibatsu firms where the large stockholders not only played an important role in the supply of capital, but assumed executive posts in the firms as well. As a reflection of this set-up, the dividend propensity to dividends was high, and the dividend rate was elastically adjusted to respond to the profit rate. In terms of industrial relations, speed of employment adjustment was high and the system was far from being that of life-time employment. For the firm, the worker was perceived not more than a mere supplier of outside labor. Whatever profits were gained from the utilization of that labor were largely shared among the stockholders.

The structural and behavioral features of the Japanese firm in prewar times produced friction with the operation of the wartime economy rather quite early, and thus the firm needed to be reformed drastically. To stabilize industrial relations, the **Sangyo Hokoku Kai** was established; and to fend off distortions in income distribution brought about by prewar dividend policies, Article 11 of the National Mobilization Act was enforced. The government did not only directly intervene with management of the firm but also mobilized mass savings to raise the savings rate, in effect, weakening the role stockholders played in the flow of funds to the firm.

The idea of introducing reforms to the firm was consistent with the new economic, financial, and labor systems, developed by the government immediately after the breakout of the World War II. These reforms restricted the rights and authority of stockholders, and improved the status of managers, staffs, and workers. Through these efforts the government was able to wipe away the prewar structure of authority and power over the firm. The government intended that thorough these changes the pursuit for profits ceased to be the main goal of the firm and the firm occupied the base of the well behaved planned economy system. In fact, from 1941 reforms on the rights to the firm were carried out. However these reforms did not come in line with the government's plan of removing the pursuit of profits from among the goals of firms.

Based on these realities the government sought again to correct fundamental aspects of its policies towards firms by the end of the war. The passage of the Munitions Corporation Law drew a clearer definition of the corporate system, whereby a free-hand management by the managers was fully endorsed. In this corporate system, the firm was also given the freedom to take cognizance on the pursuit of profits and to apportion the profits, except for the fixed dividend percentages which went to stockholders, to all its constituents including workers. In other words, the Japanese firm became closely similar to the labour managed firm.

Needless to say then, this corporate system was maintained by wartime laws and government control. It would rather be quite misleading to directly relate the firm during this particular period in Japan's history to its postwar counterpart. When WW II ended however, the system and market environment underwent a complete metamorphosis, and the firm faced extreme uncertainty. At that time the experience which the economic constituents have acquired up to this point in Japan's history must have proven to be very important. This is an essential point to consider in attempting to understand the Japanese firm in the postwar recovery period.

NOTES

[1] Okazaki(1988); Okazaki(1987).

[2] For details on wartime economic controls and the Dodge Line, refer to Yoshikawa and Okazaki(forthcoming).

[3] A study focusing on the socialist features of the Wartime Japanese Economy is Hagiwara(1983).

[4] Many parts of the today's Japanese economic system have origin in the wartime ecomony. On this topic, see Okazaki (1992).

[5] Imai and Komiya(1989), p. 4. Similar views are expressed by Iwai(1988); Nakatani(1987).

[6] Imai and Komiya(1989), p. 8.

[7] Nakamura ed.(1989), p. 37; Morikawa(1981).

[8] Aoki and Itami(1985), pp. 1-11.

[9] Teranishi(1982), pp. 26-29.

[10] Mizuguchi(1986); Minami and Ono(1987).

[11] Morikawa(1981), pp. 155-156.

[12] Ibid.

[13] Takahashi(1930), pp. 4-5.

[14] Ibid., p. 233.

[15] Ibid., p. 5.

[16] On the emoloyment adjustment function, see Kurosaka(1988), pp. 130-132. The data sources are as follows.
1 employment: Umemura et al.(1988); Ministry of Labour, Maitsuki Kinro Tokei Chosa.
2 production: Shinohara(1972); Toyo Keizai Shinpo Sha(1991).
3 wages: Ohkawa et al.(1967); Ministry of Labour, Maitsuki Kinro Tokei Chosa.
4 prices: Toyo Keizai Shinpo Sha(1991).

[17] A declone of employment adjustment speed between the two World Wars was also observed in the cotton-spinning industry. Details on this can be found in Okazaki(1990).

[18] Nishinarita(1988), pp. 200-214.

[19] Saguchi(1983), p. 50.

[20] For further details, see Okazaki(1987a), pp. 34-40.

[21] Okazaki(1987b), p. 77.

[22] Hara(1977), p. 225.

[24] Ito(1989); Nakamura(1989), pp. 9-10.

[25] Hara(1971),pp. 52-56.

[26] Takahashi(1938).

[27] Kikakuin Sosai Kanbo Bunshoka(Archives Section of Kikakuin), "Kikakuin Kiko Enkaku Kiroku(The History of the Planning Board) in Ishikawa(1975), p. 51.

[28] Kato(1938). On the Materials Balance Method, refer to Aoki(1971), pp. 51-62.

[29] Toyo Keizai Shinposha(1991), vol.3, p. 99.

[30] Kanda(1981), pp. 7-15.

[31] Ibid., pp. 22-25.

[32] Suzuki(1938).

[33] Kanda(1981).

[34] Hagiwara(1983).

[35] Nakamura and Hara(1972), p. 80.

[36] Bank of Japan(1973), pp.218-219.

[37] Nakamura and Hara(1972), p. 80.

[38] Bank of Japan(1970), pp. 221-222.

[39] Asahi Shinbun Sha, Asahi Keizai Nenshi, 1939 edition, pp. 338-339.

[40] Bank of Japan(1970), pp.149-150.

[41] Ministry of Finance(1957), pp.173-174.

[42] Bank of Japan(1973), pp. 256-257.

43 Ministry of Finance(1957), pp. 175-178.

44 Ibid., p. 183.

45 Okazaki(1987b), pp.186-187.

46 Minobe Papers (Collections of the Tokyo University Library) G-4-6. Refer also to Okazaki(1988), pp. 27-28.

47 Nakamura and Hara(1972), pp. 96-105.

48 Minobe Papers, G-4-20.

49 Ibid., G-17-1.

50 Bank of Japan(1970), pp. 214-221.

51 Minobe Papers, G-32-1.

52 Kanda(1981), pp. 211-212.

53 Okazaki(1988), pp.99-101.

54 For the following, you can check Okazaki(1987b), pp.190-193.

55 Minobe Papers Ca-18-17.

56 "Shinbukka Seisaku no Kakuritsi ni Kansuru Ken (Kikakuin An Shu Seibun) ni taisuru Iken (Comments on the Kikakuin's New Price Policy)," Ibid., Ca-18-18.

57 "Sogo Senryoku Zokyo Kinkyu Taisaku Yoko(Gist of the Emergent Measures for Strengthening War Potential)," Ibid., Ca-18-8.

58 Okazaki(1987b), pp. 191-192.

59 Asahi Shinbun Sha, Asahi Keizai Nenshi, 1944 edition, pp. 16-17.

60 Kitano(1944), pp. 43-44.

61 Ibid., p. 64.

62 Ibid., pp. 87-94.

63 Ibid., p. 49.

64 The Chief of Bank and Insurance Bureau and the Chief of Bureau, "Gunju Gaisha ni Taisuru Shikin Yuzu ni Kansuru

Ken (Circuration on the Capital Accommodation for Munitions Corporations)," in Bank of Japan(1973), pp.149-150.

[65] Bank of Japan(1970), pp. 244.

[66] Kitano(1944), p. 94.

[67] Kizokuin, "Gunju Gaisha Hoan Tokubetsu Iinkai Giji Sokkiroku (Records on the Minutes of Meetings of the Special Committee on the Munitions Corporation Law), No.1. Thus, there appears to be some problem in the views taken by Nakamura(1989) and Hara(1989) respectively, on the restrictions of firm autonomy as defined in the Munitions Corporation Code.

[68] Shugiin, "Gunju Gaisha Hoan Iinkai Gijiroku (Records of Meetings by the Committee on the Munitions Corporation Law) No. 2.

[69] Kitano(1944), p. 51.

[70] Saguchi(1986), p. 48.

[71] Ministry of Labour(1961), pp.1075-1076.

[72] Minobe Papers, Aa-41-38.

[73] "Kigyo Kessen Taisaku (Measures on the Firm)", drafted on March 20, 1944 by the Ministry of Army stated more explicitly:

> "It is necessary to transform stocks to interest-bearing securities, and the character of stockholders as recipients of such interest. The profits made by the firm should be distributed appropriately to all staffs and workers, to everybody who have generated such profits. In management, it is essential to consider first and foremost the people who work for the firm. In one way or another, management, technology, and labor depends on the overall manipulation of people. This aspect of management is invariably more important than capital itself."

See Minobe Papers, Aa-41-40.

[74] Imai and Komiya(1989), pp. 12-13.

[75] Minobe Papers, Ab-8 and Asahi Shinbun, February 12, 1945.

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Table 1 I-S Balance Classified According to Sectors (Percentage of GNP)

(Unit: %)

	Government	Enter-prises	House-holds	Overseas
1931 - 35	-5.2	-1.9	8.7	-0.0
1936 - 40	-10.8	-10.9	15.0	0.4
1941 - 44	-22.0	-10.3	22.3	-1.4
1946 - 50	3.6	-9.9	1.3	-1.6
1951 - 55	-1.6	-4.5	5.7	0.7
1956 - 60	-1.2	-5.7	7.7	0.2
1961 - 65	-1.8	-6.8	7.1	-0.3
1966 - 70	-2.2	-3.3	6.4	1.0

Source: Mamagement and Coordination Agency(1987).

Table 2 The Composition of Private Savings

(Unit: %)

	Cash	Deposits	Insurance	Securities	Total	Private Savings Ratio to GNP
1901-05	4.0	17.7	0.6	77.6	100.0	14.7
1906-10	7.5	36.2	1.7	54.6	100.0	10.3
1911-15	0.5	46.7	2.9	49.9	100.0	6.9
1916-20	8.9	53.0	1.7	36.4	100.0	19.8
1921-25	1.6	35.5	5.5	57.4	100.0	9.9
1926-30	-7.2	54.7	12.3	40.2	100.0	8.3
1931-35	7.7	48.1	17.9	26.4	100.0	8.7
1936-40	6.0	64.0	7.4	22.6	100.0	31.0
1941-44	12.7	72.6	7.4	7.3	100.0	54.8
1946-50	18.6	49.5	2.8	29.1	100.0	15.4
1951-55	3.8	68.0	5.6	22.6	100.0	16.5
1956-60	3.9	70.5	7.9	17.7	100.0	18.3
1961-65	3.2	74.1	6.0	16.8	100.0	22.4
1966-70	4.6	72.9	7.6	14.9	100.0	21.1

Note: The denominator of the savings percentage is the nominal GNP (Figures from 1901 to 1940 are Okawa's estimates; those from 1940 onwards are derived from the SNA.).

Sources: Ohkawa et al.(1974); Emi et al.(1988); Management and Coordination Agency(1987).

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Table 3 The Distribution of GNP

(Unit: %)

	Compensation of Employees	Incomes of owners of unincorporated enterprises(Agriculture, Forestry, and Fishery)	The same as the left collumn(the other industries)	Rent	Interest	Dividend	Corporate Income
1931-35	39.6	13.3	19.2	9.5	9.3	3.5	3.0
1936-40	37.8	16.3	15.8	7.5	8.7	4.1	7.0
1941-44	42.9	13.8	13.9	4.9	10.4	2.8	11.3
1946-50	40.5	25.5	26.0	0.9	1.1	0.6	5.6
1951-55	48.2	20.2	18.0	2.1	2.1	1.1	8.1
1956-60	51.1	14.9	14.6	3.5	3.8	1.5	9.9
1961-65	53.7	10.1	14.2	4.2	4.9	1.9	10.2
1966-70	54.1	7.9	13.9	4.6	4.6	1.4	12.4

1 Source: Management and Coordination Agency(1987).

Table 4 The Supply Funds to Industries

(Unit: %)

	Retained Earnings and Depreciation	Stocks	Bonds	Loans	Others
1931-35	66.5	39.9	1.0	-8.7	1.3
1936-40	31.4	29.5	4.6	34.1	0.4
1941-45	28.8	19.5	8.6	41.8	1.2
1946-50	28.6	9.3	2.5	51.7	7.9
1951-55	43.0	8.0	2.1	41.0	5.8
1956-60	42.7	8.1	2.7	41.8	4.6
1961-65	41.0	8.2	2.6	44.1	4.1
1966-70	49.2	3.4	1.6	41.3	4.6
1936	47.4	33.5	-2.3	18.3	3.1
1937	33.3	35.5	-0.1	31.9	-0.5
1938	30.5	34.6	-5.4	29.9	-0.3
1939	27.1	24.5	7.9	38.4	2.1
1940	30.4	26.7	5.5	38.3	-1.0
1941	33.6	29.1	10.1	28.1	-0.9
1942	31.2	25.7	8.9	32.8	1.4
1943	30.3	22.6	7.8	35.8	3.4
1944	24.2	9.1	8.3	57.8	0.7

Source: Ministry of Finance(1978).

Table 5 The Liability Composition of Leading Firms

(Unit: %)

	A Retained Earnings	B Paid-in Capital	C Bonds	D (B + C)	E Others
1930	11.6	44.7	19.8	64.5	24.0
1935	14.8	46.5	16.1	62.6	22.6
1940	15.9	37.1	10.6	47.7	36.5
1943	14.4	30.4	8.6	39.0	46.6
1950	22.2	8.5	4.1	12.6	65.2
1955	27.0	11.1	3.8	14.9	58.1
1960	13.9	14.3	6.8	21.1	65.0
1965	8.8	14.6	5.6	20.2	71.0
1970	8.5	9.5	5.1	14.6	76.8

Source: Toyo Keizai Shinpo Sha(1991).

Table 6 The Ranking of Private Companies in the Mining and Manufacturing Industries Based on Total Assets (1935)

(Unit: ¥1,000)

Rank	Company	Total Assets	Affiliations
1	Oji Paper Co., Ltd.	347,976	
2	Nippon Mining Co., Ltd.	226,078	
3	Kanegafuchi Spinning Co., Ltd.	212,636	
4	Mitsui Mining Co., Ltd.	179,389	Mitsui
5	Toyo Spinning Co., Ltd.	176,402	
6	Mitsubishi Heavy Industries Co., Ltd.	166,775	Mitsubishi
7	Mitsubishi Mining Co., Ltd.	160,803	Mitsubishi
8	Kawasaki Shipbuilding Co., Ltd.	152,762	
9	Nihon Oil Co., Ltd.	141,614	
10	Asano Cement Co., Ltd.	137,371	
11	Dainippon Beer Co, Ltd.	136,677	
12	Dainippon Spinning Co., Ltd.	129,916	
13	Nippon Wool Textile Co., Ltd.	115,289	
14	Dainippon Sugar Manufacturing Co., Ltd.	115,149	
15	Hokkaido Colliery and Steamship Co., Ltd.	102,954	
16	Meiji Sugar Manufacturing Co., Ltd.	99,662	
17	Nippon Kokan Kabushiki Gaisha	97,416	
18	Hitachi Co., Ltd.	96,803	
19	Asahi Benberg Spinning Co., Ltd.	92,867	
20	Katakura Spinning Co., Ltd.	83,686	
21	Fuji Gas Spinning Co., Ltd.	82,579	
22	Dainippon Synthetic Fertilizer Co., Ltd.	78,240	
23	Sumitomo Metal Industries Co., Ltd.	75,737	Sumitomo
24	Naigai Cotton Co., Ltd.	65,615	
25	Tokyo Electric Co., Ltd.	59,165	
26	Teikoku Synthetic Silk Co., Ltd.	57,972	
27	Nippon Electric Industries Co., Ltd.	57,397	
28	Koga Electric Industries Co., Ltd.	54,516	
29	Nisshin Flour Milling Co., Ltd.	50,632	
30	Onoda Cement Co., Ltd.	48,700	
38	Toyo Rayon Co. Ltd.	41,316	Sumitomo
39	Nippon Flour Mills Co., Ltd.	40,811	Sumitomo
51	Mitsubishi Electric Co., Ltd.	32,088	Mitsubishi
52	Sumitomo Chemicals Co., Ltd.	31,586	Sumitomo
59	Sumitomo Electric Wire Mftg. Co., Ltd.	26,492	Sumitomo
60	Toyo Koatsu Industries Co., Ltd.	26,375	Mitsui

Source: Toyo Keizai Shinposha, Kabushiki Gaisha Nenkan, 1936.
Ministry of Finince(1982).

Table 7 The Changes in the Composition of Liabilities of Leading Mining and Manufacturing Companies

(Unit: %)

Company	A Retained Earnings	B Capital	C Bonds	D B + C	E Others
Zaibatsu					
1935	19.3	43.9	0.6	44.5	36.2
1943	14.1	24.7	6.4	31.1	54.8
1950	18.0	8.6	4.7	13.3	68.7
Non-zaibatsu					
1935	22.2	37.2	6.8	43.9	33.9
1943	25.3	30.4	7.3	37.7	37.0
1950	32.0	8.7	3.6	12.3	55.7

Note: These figures represent those of the first ten zaibatsu and non-zaibatsu firms in Table 6.
Source: Ministry of Finance(1978).

Table 8 The Structure of Stock Ownership of Leading Mining and Manufacturing Companies

(Unit: %)

	% of Stocks Owned by the Number 1 Stockholder			% of Stocks Owned by the Top Ten Stockholders			%ofStocks Owned by Financial Institutions		
	1935	1942	1960	1935	1942	1960	1935	1942	1960
Total	26.8	20.6	6.5	41.2	37.8	25.1	12.4	23.7	83.6
Zaibatsu	47.7	34.6	7.0	62.9	54.1	27.0	10.3	23.9	81.9
Mitsui Mining Co., Ltd.	....	....	4.5	....	....	24.0	....	....	22.2
Mitsubishi Heavy Industries Co., Ltd.	51.4	43.0	8.9	69.7	64.6	32.6	16.0	22.5	90.2
Mitsubishi Mining Co., Ltd.	56.8	42.8	4.8	63.5	59.7	27.5	4.9	22.5	56.4
Sumitomo Metal Industries Co., Ltd.	63.8	25.5	5.8	81.0	45.8	25.4	14.0	30.6	85.0
Toyo Rayon Co., Ltd.	45.3	35.6	6.9	56.2	59.0	24.9	15.7	11.4	100.0
Nippon Flour Mills, Co., Ltd.	49.6	49.6	7.4	57.7	60.3	41.8	0.0	8.3	100.0
Mitsubishi Electric Co., Ltd.	43.3	43.8	4.0	51.5	55.1	16.6	2.4	5.4	67.2
Sumitomo Chemical Co., Ltd.	23.4	22.8	8.3	39.5	41.8	19.1	13.2	19.0	88.4
Sumitomo Electric Wire Mftg. Co., Ltd.	20.0	....	12.9	64.5	....	44.3	13.6	....	53.1
Toyo Koatsu Industries Co., Ltd.	50.0	34.6	11.0	68.0	58.8	32.5	6.9	34.3	94.0
Non-zaibatsu	18.2	11.2	5.5	32.3	26.9	21.7	14.3	23.4	87.9
Oji Paper Co., Ltd.	5.2	3.6	4.7	23.6	21.9	24.6	15.8	49.8	94.2
Nippon Mining Co., Ltd.	56.3	30.5	3.8	72.9	44.5	24.5	5.8	13.8	92.8
Kanebo Spinning Co., Ltd.	5.6	6.3	5.0	26.4	20.2	22.7	45.6	35.9	42.8
Toyo Spinning Co., Ltd.	1.6	1.6	5.5	10.1	10.6	21.2	36.9	10.3	87.0
Kawasaki Shipbuilding Co., Ltd.	27.3	10.0	5.4	36.9	31.6	16.7	81.7	12.8	82.8
Nippon Oil Co., Ltd.	5.4	3.8	6.2	16.3	19.7	18.3	0.0	5.7	95.0
Asano Cement Co., Ltd.	28.0	15.6	7.3	43.8	39.2	21.2	16.2	15.2	91.6
Dainippon Beer Co., Ltd.	2.3	2.8	11.6	10.4	13.6	34.3	26.0	76.5	100.0
Dainippon Spinning Co., Ltd.	2.9	3.1	4.8	14.6	12.3	23.3	14.6	16.8	84.0
Nippon Wool Textile Co., Ltd.	5.3	3.7	3.6	20.8	18.9	15.7	5.5	17.7	91.8

Note: The figures reflected in the overall total (for zaibatsu and non-zaibatsu) and total for non-zaibatsus do not include that of Kawasaki Shipbuilding Co., Ltd.

Source: Toyo Keizai Shinbunsha, Kabushiki Gaisha Nenkan, 1936 and 1937 editions; Yamaichi Shoken, Kabushiki Gaisha Nenkan, 1962 edition.

Table 9 The Ownership and Management of Leading Mining and Manufacturing Companies

	Number of Stockholders-Managers			Percentage of Total Number of Managers		
	1935	1942	1960	1935	1942	1960
Total	25	22	1	14.5	10.6	0.3
Zaibatsu	4	7	0	5.4	7.7	0.0
Mitsui Mining Co., Ltd.	..	..	0	...	...	0.0
Mitsubishi Heavy Industries Co., Ltd.	1	2	0	7.1	12.5	0.0
Mitsubishi Mining Co., Ltd.	1	2	0	10.0	13.3	0.0
Sumitomo Metal Industries	0	0	0	0.0	0.0	0.0
Toyo Rayon Co., Ltd.	0	0	0	0.0	0.0	0.0
Nippon Flour Mills Co., Ltd.	2	1	0	28.6	9.1	0.0
Mitsubishi Electric Co., Ltd.	0	2	0	0.0	20.0	0.0
Sumitomo Chemicals Co., Ltd.	0	0	0	0.0	0.0	0.0
Sumitomo Electric Wire Mftg. Co., Ltd.	0	..	0	0.0	...	0.0
Toyo Koatsu Industries, Ltd.	0	0	0	0.0	0.0	0.0
Non-zaibatsu	21	15	1	21.2	12.9	0.8
Oji Paper Co., Ltd.	2	1	0	15.4	6.3	0.0
Nippon Mining Co., Ltd.	1	0	0	10.0	0.0	0.0
Kanebo Spinning Co., Ltd.	0	0	0	0.0	0.0	0.0
Toyo Spinning Co., Ltd.	2	1	0	18.2	14.3	0.0
Kawasaki Shipbuilding Co., Ltd.	1	1	0	11.1	11.1	0.0
Nippon Oil Co., Ltd.	4	3	0	44.4	23.1	0.0
Asano Cement Co., Ltd.	5	2	0	50.0	20.0	0.0
Dainippon Beer Co., Ltd.	1	0	0	11.1	0.0	0.0
Dainippon Spinning Co., Ltd.	2	4	0	20.0	30.8	0.0
Nippon Wool Textile Co., Ltd.	3	3	1	33.3	33.3	0.0

Source: Toyo Keizai Shinposha, Kabushiki Gaisha Nenkan, 1936 edition and Kigyo Tokei Soran, 1943 edition; business reports of each company.

Table 10 The Disposal of Profit among the Leading Companies

(Unit: %)

	Dividend	Managers' Bonus	Reserves
1931 - 35	68.7	5.9	25.4
1933 - 35	64.0	6.2	29.9
1936 - 40	61.3	5.1	33.6
1941 - 43	60.1	4.9	35.1
1951 - 55	47.1	4.8	48.1
1956 - 60	52.7	3.2	44.1
1961 - 65	65.4	1.9	32.6
1966 - 70	43.2	2.1	54.7

Source: Mitsubishi Keizai Kenkyujo, Honpo Jigyo Seiseki Bunseki and Kigyo Keiei no Bunseki.

Table 11 The Dividend Policy of Leading Mining and Manufacturing Companies

	Company	Dividend Propensity 1921-1936	Dividend Propensity 1937-1943	Dividend Propensity 1961-1970	Degree of Response to Profit Rate 1921 - 1936		Degree of Response to Profit Rate 1937 - 1943		Degree of Response to Profit Rate 1961 - 70	
Total		0.70	0.55	0.65	0.71	(20.11)	-0.34	(-2.79)	0.17	(7.55)
Zaibatsu	Total	0.61	0.49	0.67	0.43	(12.61)	-0.08	(-1.26)	0.17	(6.59)
	Mitsui Mining Co., Ltd.	0.66	0.66	0.00	0.52	(15.31)	0.08	(1.21)	....	(....)
	Mitsubishi Heavy Industries, Co. Ltd.	0.55	0.27	0.66	0.43	(9.68)	0.00	(0.00)	0.33	(5.27)
	Mitsubishi Mining Co., Ltd.	0.65	0.65	....	0.48	(14.73)	0.27	(5.70)	0.05	(1.25)
	Sumitomo Metal Industries Co., Ltd.	0.61	0.42	0.81	0.34	(7.86)	0.06	(0.63)	0.24	(31.06)
	Toyo Rayon Co., Ltd.	0.55	0.75	0.46	0.52	(7.37)	0.65	(9.10)	0.12	(6.50)
	Nippon Flour Mills, Co. Ltd.	0.64	0.55	0.64	0.27	(5.72)	0.08	(1.62)	0.12	(5.39)
	Mitsubishi Electric Co., Ltd.	0.51	0.48	0.70	0.33	(6.97)	0.11	(2.53)	0.41	(5.57)
	Sumitomo Chemical Co., Ltd.	0.49	0.72	0.76	0.37	(7.96)	0.31	(3.13)	0.20	(2.64)
	Sumitomo Electriic Wire Mftg. Co., Ltd.	0.50	0.54	0.60	0.23	(10.22)	-0.01	(-0.13)	0.02	(1.63)
	Toyo Koatsu Co., Ltd.	0.82	0.75	0.90	....	.....	0.77	(5.61)	0.82	(7.55)
Non-zaibatsu	Total	0.73	0.60	0.60	0.77	(29.37)	-0.19	(-1.56)	0.15	(5.15)
	Oji Paper Co., Ltd.	0.68	0.65	0.56	0.66	(8.15)	0.22	(2.49)	0.13	(3.16)
	Nippon Mining, Co. Ltd.	0.74	0.82	0.57	0.64	(8.06)	1.00	(9.20)	0.31	(3.58)
	Kanebo Spinning Co., Ltd.	0.66	0.53	0.59	0.68	(8.37)	-0.13	(-1.31)	0.05	(2.00)
	Toyo Spinning Co., Ltd.	0.75	0.73	0.80	0.63	(14.05)	0.02	(0.33)	0.47	(5.07)
	Kawasaki Shipbuilding Co., Ltd.	0.95	0.76	0.60	0.96	(44.81)	-0.58	(-4.64)	0.02	(0.62)
	Nippon Oil Co., Ltd.	0.87	0.35	0.49	1.02	(20.65)	0.00	(0.16)	0.03	(1.01)
	Asano Cement Co., Ltd.	0.85	0.69	0.54	0.76	(22.83)	0.42	(9.60)	0.18	(4.95)
	Dainippon Beer Co., Ltd.	0.64	0.59	0.57	0.38	(10.66)	-0.04	(-1.47)	0.13	(6.66)
	Dainippon Spinning Co., Ltd.	0.75	0.42	0.97	0.75	(27.85)	-0.04	(-1.05)	0.21	(4.54)
	Nippon Wool Textile Co., Ltd.	0.70	0.45	0.49	0.74	(14.37)	0.01	(0.24)	0.08	(1.60)
(For all industries)		0.77	0.63	0.52	0.35	(4.91)	0.44	(4.96)	0.08	(2.73)

Note: (1) The degree of response is the parameter "a" in the equation:
dividend propensity = a(profit ratio) + b.
The figures enclosed in parenthesis in the second column indicate the t-values.
(2) The figures reflected in the first and fourth columns of the row "for all industries are values of 1928-36

Table 12 The Elasticity of Employment to Production in the Coal Minin Industries

	1913-15	1929-31
Total	0.281 (3.33)	0.384 (2.20)
Zaibatsu	0.235 (2.61)	0.069 (0.41)
Non-zaibatsu	0.298 (3.61)	0.539 (3.47)

Note: (1) Figures for zaibatsu represent the total of Yamano, Hojo, and Tadakuma Mines; those for non-zaibatsus represent the total of Otsuji, Onoura and Toyokuni Mines.
(2) Computed disregarding time trend. Figures enclosed in parentheses are t-values.

Source: Chikuho Sekitan Kogyo Kumiai Geppo.

Table 13 Gross National Expenditures (GNE)

(Unit: ¥ 1 million, %)

		Total	Private Consumption	Government Consumption	Gross Domestic Capital Formation	Surplus of Nation on Currnt Account	Other Exports	Other Imports
Real	1936	17,157	11,003	2,618	3,045	272	4,568	4,296
	1937	21,220	11,540	4,247	4,572	259	4,777	4,518
	1938	21,935	11,382	5,491	4,745	-98	4,560	4,658
	1939	22,117	10,839	4,688	6,007	198	4,949	4,752
	1940	20,796	9,723	7,896	5,967	62	5,342	5,280
	1941	21,130	9,410	6,134	6,145	-668	4,317	4,985
	1942	21,405	8,956	6,460	6,557	-640	6,182	3,823
	1943	21,351	8,469	7,445	5,857	-552	2,827	3,380
	1944	20,634	7,006	7,301	.....	-271	2,198	2,470
Percentage of Composition	1936	100.0	63.8	15.2	20.0	1.0	25.5	24.4
	1937	100.0	56.3	20.7	25.5	-2.5	23.7	26.2
	1938	100.0	52.8	25.5	24.1	-2.4	20.1	22.5
	1939	100.0	50.5	21.9	27.4	0.2	19.1	19.0
	1940	100.0	48.8	24.6	26.9	-0.3	17.4	17.8
	1941	100.0	46.3	30.2	26.2	-2.6	13.8	15.9
	1942	100.0	43.8	31.6	26.9	-2.2	9.1	11.3
	1943	100.0	40.9	35.9	25.0	-1.8	7.5	9.2
	1944	100.0	35.8	37.3	27.8	-0.8	5.1	5.9

Note: (1) The real figures refer to real GNE, the percentage of composition, to nominal GNE.
(2) The overseas accounts were taken from Yamazawa and Yamamoto(1979).
Source: Management and Coordination Agency(1987); Yamazawa and Yamamoto(1979).

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Table 14 The Financial Control Plan

(Unit: ¥ 1,000, %)

	Raw Data				Percentage of Composition			
	1939	1940	1941	1937 Actual Result	1939	1940	1941	1937 Actual Results
Total Demand	10,525	12,413	16,598	.....	100.0	100.0	100.0	....
National Bonds	6,025	5,660	8,750	.....	57.2	45.6	52.7	....
Industry	3,600	5,403	5,364	.....	34.2	43.5	32.3	....
Overseas Investment	900	1,350	1,560	.....	8.6	10.9	9.4	....
Total Supply	10,000	12,413	16,598	5,057	100.0	100.0	100.0	100.0
Financial Institutions	7,215	10,245	13,688	3,060	72.2	82.5	82.5	60.5
Bank Deposits	4,350	5,900	7,284	1,769	43.5	47.5	43.9	35.0
Trust Cash Fund	250	325	400	24	2.5	2.6	2.4	0.5
Insurance	500	650	1,200	414	5.0	5.2	7.2	8.2
Postal Savings	1,000	1,705	2,010	409	10.0	13.7	12.1	8.1
Association Savings	500	800	1,500	222	5.0	6.4	9.0	4.4
Securities	2,785	1,776	2,360	1,997	27.9	14.3	14.2	39.5

Source: Ishikawa(1975); Ministry of Finance(1978).

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