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The Wartime Planned Economy and Private Sector

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Abstract

This paper first examines the process of the introduction and intensification of wartime economic controls and the response of the private sector, specifically taking up the case of the machine tool industry and a controversy concerning state control over electric power. Next, the concept of the "New Economic Order", which was expected to play a primary role in breaking through the impasse of the wartime economy, as well as the transformation process with respect to competition among private firms, are discussed. Lastly, the malfunctioning of the wartime planned economy is considered, along with the role of government in encouraging private firms to expand their production, focusing primarily on the Pacific War period.

Introduction

In comparing real personal consumption trends in Germany and Japan, the biggest losers of World War II, an impressive difference can be confirmed. In both countries, real personal consumption declined continuously following the outbreak of the war. In Nazi Germany, however, although the 1944 figure had fallen to a level that was 73 per cent of that in 1939, it was still at least 20 per cent greater than during the Great Depression. In contrast, real personal consumption in Japan in 1944 had declined to 61 per cent of the 1937 level, and it was below the level of the Great Depression as early as in 1940 (Yamazaki 1979, pp.52, 56) .

Regarding this situation, Takafusa Nakamura has suggested that, 'Japan could support a long war in spite of its poor national strength, because policies aimed at endless reductions in the living standards of the nation were executed by force, and virtually the entire nation silently endured this burden' (Nakamura 1977, p.157). Meanwhile, interpreting the same situation, Ryôichi Miwa says that, 'The social and political pressure which forced the nation to endure this burden might be called Japanese fascism. ... Japanese fascism functioned as a last resort for the unification of the nation's citizens at the limits of contemporary capitalism' (Miwa, R. 1993, p.149) .

State legitimacy in wartime Japan, which was based on the Emperor system, was not openly criticized or challenged[1], and the movement plotting the overthrow of the Hideki Tôjô Cabinet in 1944 was limited to the sphere of the political elite. Most ordinary people working in the private

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[1] In this sense Freda Utley, who presented a brilliant analysis on Japanese industrial structure and international trade in the 1930s, seems to make a decisive mistake in her political prospect. See Utley(1937).

sector, from managers and white collar professionals to engineers, laborers, and farmers, seem to have obediently followed the government initiatives.

Needless to say, however, it would have been impossible to execute the wartime planned economy without any regard at all for private sector trends, despite the lack of political presence. In this sense, even during the wartime period, 'Planning was partially carried out on the precondition of a capitalistic market economy, and was regulated by its constraints... [and] controls that disregarded the laws of the market were not effective. ... [E]ven in a distorted form the price mechanism still worked, and it was difficult to proceed with forcibly implemented controls that ignored it' (HARA 1995, pp.85-86).

This paper first examines the process of the introduction and intensification of wartime economic controls and the response of the private sector, specifically taking up the case of the machine tool industry and a controversy concerning state control over electric power. Next, the concept of the "New Economic Order", which was expected to play a primary role in breaking through the impasse of the wartime economy, as well as the transformation process with respect to competition among private firms, are discussed. Lastly, the malfunctioning of the wartime planned economy is considered, along with the role of government in encouraging private firms to expand their production, focusing primarily on the Pacific War period.

1. The Intensification of Wartime Economic Controls and the Response of the Private Sector

(1) The Intensification of Wartime Economic Controls

The rapid increase of imports caused by the expansion of military spending after the attempted *coupd'état* on 26 February 1936 accelerated the crisis of Japan's balance of payments, and inevitably caused the introduction of foreign exchange controls from January 1937. Economic controls became full-scale immediately following the outbreak of war in China (referred to hereafter as the Japan-China War) in July 1937.[2]

Initially, two important acts passed by the Diet in September 1937, the Temporary Measures on Imports and Exports Act and the Temporary Capital Adjustment Act, gave the government the right to exert direct control over international trade, all commodities, capital, and financing. At the same time the Diet allowed the government to apply the long-dormant 1918 Munitions Industry Mobilization Act to the Japan-China War. By means of a subsidiary ordinance for authority over factories and establishments, the Army and the Navy began direct control of private major munitions factories from January 1938. The number of factories controlled by the Army reached 359 (of which 202 were jointly controlled with the Navy) by July 1940, with the number controlled by the Navy reaching 309 (198 were jointly controlled with the Army) by May 1941(SHIMOTANI 1990, pp.26-27). At the inception of the system of factory control, private companies tended to be somewhat nervous about receiving the designation of "controlled factory", meaning that officers on active duty would be sent in as supervisors. From 1938, however, when a prolonged war began to appear inevitable, private

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[2] On the process of introduction and intensification of wartime economic controls, see SAWAI(1996a) and HARA(1998).

companies looking for military-orchestrated mediation and support for capital, materials, and labor began to distinctly prefer direct control (IDDA 1970, pp. 194-95).

The newly established Planning Board (Kikaku-In), created through the amalgamation of the Planning Office and Resources Bureau in October 1937, began working on a Materials Mobilization Plan which allocated strategic commodities (supplied from domestic production, existing inventory, and imports) to the Army, the Navy, and to private demand. The first of what was to be a series of Materials Mobilization Plans was set up in January 1938. The National General Mobilization Act, which gave the government the right to control almost all fields of economic activity, was passed by the Diet in March 1938. Furthermore, various acts for the promotion of increased production in strategic industries such as aircraft and machine tools were enacted during the same Diet session.

The Four-Year Plan for Expansion of Production Capacity, which aimed at increased domestic production in strategic industries (fifteen industries in particular, including steel, coal, aluminum, automobiles, and machine tools), was started in 1939, and year-by-year execution plans for production capacity expansion were drafted. In addition, through national general mobilization plans such as the mobilization and control plans for labor, transport, electricity, capital, and international trade, the government tried to artificially balance and adjust international payments and the markets for goods, capital, and labor (Okazaki 1994, pp.12-21).

The outbreak of World War II in September 1939, however, seriously impinged upon the management of the wartime planned economy that had been implemented thus far. Imports from belligerents became much more difficult, and the quantity of imports which could be purchased with the diminishing stock of foreign currency shrank substantially due to global price increases. The Materials Mobilization Plans had to be constantly revised under such conditions, and there was no choice but to cut down on allocation to the private sector in order to meet military demand as fully as possible. This resulted in the further strengthening of controls, which was accompanied by expanded black market dealings; an economic security police system to crack down on violations had been already established in 1938.

(2) The Response of Private Sector (a): The Case of Machine Tool Industry

Let us examine the response of the private sector to the introduction and intensification of economic controls during the war, taking the case of the machine tool industry.[3] Invoking the Machine Tool Manufacturing Industry Act of July 1938, the government designated 16 producers in February 1939 as licensed companies (equipped with 200 or more machine tools for manufacturing equipment, or 50 or more in the case of those producing special machine tools) that would play a leading role in boosting the production of machine tools. The licensed companies formed the Japan Association of Machine Tool Manufacturers, a national association of larger machine tool builders. Middle-ranking manufacturers who owned at least 20 machine tools located in the seven major machine tool manufacturing prefectures, meanwhile, were organized into the First Industrial Associations of

[3] For more on the details of the wartime machine tools industry and the economic controls pertaining to it, see Sawai(1984), Friedman(1988), Miwa, Y.(1998), and Sawai (2005).

Machine Tool Manufacturers in each prefecture, with each prefectural association given membership in the National Federation of Industrial Associations of Machine Tool Manufacturers, while the smallest manufacturers were required to join the Second Industrial Associations of Machine Tool Manufacturers established in every relevant prefecture.

The licensed companies enjoyed privileged status, being exempted from taxes on income and profits, local taxes, and from duties on imported machines. Increased production by licensed companies, however, was not realized to the extent that the government had expected. The ratio of the units of machine tools built by the Japan Association of Machine Tool Manufacturers and the National Federation of Industrial Associations of Machine Tool Manufacturers was 14-86 (27-73 in terms of value) in fiscal 1939, and 23-77 (41-59 in value) even in the fiscal 1941 (Sawai 1984, p.162).

The licensed companies who had experienced "feast or famine" several times in the past hesitated to proceed with large scale equipment investments in spite of strong requests from the government. In response to an inquiry from the Navy directed to the five major companies (Ikegai Tekkôjo, Karatsu Tekkôjo, Niigata Tekkôjo, Ôkuma Tekkôjo, and Tokyo Gasu Denki Kôgyô) just before an enactment of the Machine Tool Manufacturing Industry Act, Ôkuma Tekkôjo answered, 'We have already expanded our capacity as much as possible at present, and we cannot continue. The supportive legislation is not of particular benefit to our company.' Meanwhile Karatsu Tekkôjo stated, 'Large manufacturers, who have already carried out large-scale investments, cannot benefit from the Act.' Each major company expected the government to promise demand in the range of 35 to 50 per cent of their production capacity as collateral for equipment investments in the near future.[4]

According to the recollection of a staff member who worked at Tokyo Gasu Denki Kôgyô, although the competition for licensed company designation among the second-class manufacturers was severe, for the first-class manufacturers represented by the five major companies, the Machine Tool Manufacturing Industry Act was '... of no significance at all. Just reports to the government... We had to explain everything in detail to the officials dispatched from the Ministry of Commerce and Industry, and deliver the reports. In short, we just got busier with paperwork. The real situation was that we did not need such legislation.' Concerning the exemption of tax, the same source indicates that, 'It was too complicated and troublesome. Everyone said we didn't need such exemptions [in the first place] and preferred not to have them. Since the company was making money hand over fist, we thought that we ought to be paying more tax.'[5]

In order to allocate substantially more machine tools to munitions-related machine industries like armaments, the distribution of machine tools built by manufacturers organized in the Japan Association of Machine Tool Manufacturers and the National Federation of Industrial Associations of Machine Tool Manufacturers was brought under strict government control with the promulgation in July 1938 of the Regulation Concerning Restriction of Machine Tool Supply. It was not the armament industry, however, but the machine tool industry itself that installed the largest number of machine

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[4] The Fifth Director of Naval Vessels Headquarters, *Kôsakukikai Nôritsu Zôshin oyobi Kakujû Seisaku* (Promotion of the Efficiency of Machine Tools and a Policy for Expansion), 1939, the National Archives.

[5] Author's interview with Mr. Shôkichi Miyazaki, 10 November 1992.

tools during the years from 1937 to 1939.

Although the Materials Mobilization Plans had consistently given priority to military arsenals and munitions-related machine industries such as armaments and aircraft in the allocation of machine tools on a value basis, vast numbers of machine tools had been delivered to the machine tool industry itself out of step with the Materials Mobilization Plan. Compared with Germany or the US, this situation reflected the relative backwardness in the production capacity of the Japanese machine tool industry, which could not merely change its customers on the basis of previous production levels but had to firmly establish and enlarge itself to meet requests from the military, which eagerly hoped for intensive and rapid equipment investments in the munitions-related machine industries to cover accelerated wartime replacement needs. It was the large volume of cheap machine tools built by the smallest manufacturers organized into the Second Industrial Associations of Machine Tool Manufacturers (which were not targeted by the Regulation Concerning Restriction of Machine Tool Supply) that covered for the overall backwardness of the machine tool industry.

The technological level of products manufactured by increased numbers of small and very small manufacturers, however, could not meet the requirements for upgrading presented by wartime demand, giving rise to the situation where their products were severely criticized as wasting valuable materials in the face of increased shortages of resources. The Regulation Concerning Restriction of Machinery and Equipment promulgated in September 1939 therefore not only prohibited new entrants into the machine tool industry, but also applied strict government controls to the distribution of the products of the smallest manufacturers who were exempted from the provisions of the Regulation Concerning Restriction of Machine Tool Supply (Sawai 1984, pp.165-67).

Paralleled with above-mentioned control policies on increased production and distribution, the Rules Concerning Subsidies for Trial Manufacture of Machine Tools promulgated in August 1938 should be noted as a technological policy for the machine tool industry. During the fiscal years from 1938 to 1941, 50 trial projects conducted by 40 companies to pursue substitute manufacture of high quality imported machine tools were provided with subsidies. Trial manufacturing meant the time-consuming copying of imported machines based on reverse engineering, and only 18 of the 50 projects were completed by the end of May 1942 (Kawasaki 1943, p.169). The paucity of the results of the subsidy system for trial manufacturing, which was based on voluntary application by the manufacturers themselves, inspired severe criticism. ‘Manufacturers prefer the production of machines that make large profits, as prices are about ten thousand yen while production costs are only one or two thousand yen, to the difficult trial manufacture that requires much valuable labor. The subsidy policy is showing hardly any effects at all’ (Planning Board 1941, p.12).

In order to upgrade machine tool quality, the government strongly encouraged private manufacturers to change their production systems from small-batch production of a wide variety of items to mass production of only a few types of items. This policy was also ineffective, as shown by Niigata Tekkôjo’s reply to the previous inquiry from the Navy: ‘We suppose that rushed orders at this busy time would naturally help manufacturers concentrate on their favorite fields of production, but if recession [later] attacks the industry, the fields of production by company would become disordered.’

An important factor in the delayed reductions in the types of machines manufactured was the failure of coordination of orders within the government, in particular between the Army and the Navy. Karatsu Tekkôjo, for example, which had already manufactured or executed trial manufacture of 88 types of machine tools by July 1942, applied to the Precision Machinery Control Association (established in January 1942 through the amalgamation of associations such as the Japan Association of Machine Tool Manufacturers and the National Federation of Industrial Associations of Machine Tool Manufacturers) for permission to produce 16 additional types in May 1943. The reason given was that, 'Manufacture of the additional types has mostly been demanded by the military and by private companies equipping themselves with machine tools through military mediation.'[6]

(3) The Response of the Private Sector (b): State Control of Electric Power

A fierce controversy between bureaucrats and the private sector arose concerning state control of electric power during the Japan-China War. The inception of the problem was the emergence of a plan drawn up by the Investigative Bureau of the Cabinet aiming at state control of electric power in March 1936.[7] A controversy had been continued mainly between bureaucrats of the Ministry of Communications and the private electric power companies. Backing the Ministry of Communications, the Army insisted that, 'State control is indispensable from the viewpoint of national defense' (Asahi 1938, p.398), while economic organizations such as local chambers of commerce, the Japan Economic League, and the National Federation of Industrial Organizations made up a counterforce.

Although the bills authorizing state control of electric power, which represented the realization of a draft by Minister of Communications Keikichi Tanomogi (whose plan was modeled after the plan of the Investigative Bureau of the Cabinet), were introduced in the 70th Diet in January 1937, they did not pass the Diet due to political change. Again in November of the same year a temporary committee on electric power organized under newly appointed Minister of Communications Ryûtarô Nagai submitted a report, which followed the content of Tanomogi's plan, and the bills based on this report (the Nagai plan) were introduced in the 73rd Diet in January 1938. This issue was hotly debated in the Diet, but legislation for the state control of electric power was at last passed in March. Nihon Hassôden (i.e., electric generation and transmission) Company, or the national policy company, was then established in April 1939, taking over equipment for thermal power generation, main transmission, and transformation from existing private electric power companies.

State control of electric power was thus established despite severe opposition from business circles insisting that, 'This legislation is supported by the new ideology of bureaucrats who want to proceed with controls for the sake of controls, and is aimed at state socialism' (Asahi 1938, p.397). Regarding the situation when the bills were passed, a contemporary researcher for a life insurance company

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6 Notice from the Precision Machinery Control Association to Karatsu Ironworks, *Kôsakukikai Seisan Bunya no Kakutei ni Kansuru Siji no Ken* (On the Instruction Concerning the Determination of the Types of Production of Machine Tools), 29 July 1942, and an Application from Karatsu Ironworks to the Precision Machinery Control Association, S*eisan Bunya Kakutei Kishugai Tuika Shônin Shinseisho* (An Application for Additional Production Except Determined Types of Production), 8 May 1943.

7 On the details of the controversy on state control of electric power, see Nakase(1994) and Kikkawa(1995, pp. 203-05.).

suggested in his report that, 'Not only the electric power companies who have been totally against the state control of the electrical power, approving of the working of self-governing controls, but also [more general] resistance led by business circles, securities corporations, and industrial organizations protesting on the grounds that it would undermine policies for production capacity expansion, have at last been defeated. ... It is as yet unclear whether such obligatory investment will be generalized over every industry, and the package of private ownership and state control utilized as a general method of economic control in the future' (Yamanaka 1990 pp.16-17).

From the beginning, however, the state control of the electric power, advocating an 'plentiful supply of cheap electric power,' failed to effectively deal with the severe shortage of electric power caused by the continued drought and shortage of coal from the second half of 1939 to the first half of 1940. On the reasons for the shortage of electric power, harsh words were exchanged between bureaucrats of the Ministry of Communications and the private electric power companies, and the former again won a victory. By April 1942 hydroelectric power stations owned by the private companies were required to be turned over to the Nihon Hassôden Company. State control was thereby completed, with all equipment for electric power under the control of the company, and with nine power supply companies being organized by region.

2. The New Economic Order and the Transformation of Competition

(1) The Controversy Over Article 11 of the National General Mobilization Act

Paralleled with the contention over the state control of electric power, antagonism between business circles and the government (i.e., the military in particular) emerged when the issue of the application of Article 11 of the National General Mobilization Act came to a head in November 1938. The beginning of this antagonism occurred when Home Affairs Minister Nobumasa Suetsugu and the Health and Welfare Minister Kôichi Kido strongly insisted in a discussion concerning the National General Mobilization Act at a cabinet meeting on November 4 that it was irrational not to impose Article 11, concerning limitations on dividends and orders for forced loans and forced public bond purchases by financial institutions, if direct control of labor was to be executed by means of Article 6 (*Osaka Asahi*, 8 November 1938). At the cabinet meeting on November 8, Shigeaki Ikeda,[8] who held the portfolios of Finance and Commerce and Industry and served as a proponent of business interests (but who had been absent from the meeting four days earlier), wrangled with Suetsugu on this topic. Ikeda announced that night that, 'The business world would atrophy if limitations on dividends were introduced, largely impeding the accomplishment of the important goal of production capacity expansion. ... Orders to financial institutions to execute forced loans, even when backed by government guarantees, would cause much unrest and anxiety among third parties, undermining trust, which is the very foundation of financial institutions' (*Osaka Asahi*, 9 November 1938).

These comments sparked immediate opposition from the Army, with the director of the Information Bureau of the Army, Kenryô Satô, stating that, 'It is not appropriate to think on the basis of profit-

[8] Ikeda was a leader of the business world, who had held such posts as general manager of the holding company of the Mitsui zaibatsu, and president of the Bank of Japan, etc.

making. Guidance and control of enterprise and finance should be conducted on the basis of the State and its policies; of course, pursuit of profit should not be prohibited, and excessive and unnecessary intervention should be avoided. In particular, however, we oppose high rates of dividends in prosperous industries, out of consideration for the situation of depressed industries and the families of war dead' (*Osaka Asahi*, 10 November 1938). The aforementioned life insurance company researcher was shocked at this statement and wrote, 'If it [implementation of Article 11] were taken to the extreme, the risk would arise of a package of private ownership and state control of financial institutions' (Yamanaka 1990,p.29). Meanwhile, stock prices plunged.

Prior to his appointment as director of the Information Bureau, Kenryô Satô had been involved with the mobilization of industries in his position in the Purchasing Bureau of the Ministry of the Army, and had experienced reluctance by managers of private companies to invest in and expand their facilities in order to increase weapons production after the outbreak of the Japan-China War. They typically refused, despite his eager requests. Their reason was that, 'Bankruptcy will be unavoidable when the war comes to an end and orders from the military are abruptly halted, after vast amounts of money have been invested in expansion of equipment at the behest of guidance from the military' (Tokyo 12th Channel 1969, p.214). For Satô, who was dissatisfied with the attitude of the private companies to the total war, there was the stark recognition that there was little prospect of the war ending in the near future, and even in the postwar years an expansion in armaments for future war with Russia would be needed. This knowledge fueled his strong intentions to force the private sector to make the requisite investments in equipment in order to respond to the situation at hand (Matsuura 1995, p.215).

Ikeda, who was thoroughly against the moves being pursued by the Army, dispatched Hisatsune Sakomizu, a section chief in the Ministry of Finance, to negotiate. In the end a compromise was set up, partly through the support of Kazuo Aoki, deputy chief of the Planning Board, who was able to refute Hideki Tôjô, then deputy minister of the Army, saying, 'We cannot win over industry if the military is going to take this kind of stance' (MOF 1978, pp.459-61). A statement from the Ministry of Finance was announced to the effect that it was not desirable for companies paying a dividend of ten per cent or more to raise it, and that the issue of loans was under discussion.

(2) The New Economic Order

The controversy over Article 11 was, however, just a preliminary skirmish between business circles and the government. As previously noted, the outbreak of World War II in September 1939 seriously interfered with the management of the wartime planned economy, even as the strategic situation on the continent got bogged down from that same year. In spite of the continuous intensification of economic controls, the Japanese economy was facing a dead end.

It was Nihon *Keizai no Saihensei* (Reorganization of the Japanese Economy, first published in December 1939)[9] by Shintarô Ryû that attracted public attention as a prescription for the deadlocked Japanese economy. Ryû, whose conclusion was in a sense very simple and clear, argued that,

[9] Ryû(1939), this book went through 44 printings by October 1940.

'Establishment of a new economic order requires the business world to retake the initiative. The economy should be driven not by controls but by the autonomous actions of the business world. ... In order to escape from the contradiction of two forces, the profit motive and the power of controls, that are inconsistently driving the economy, the shape of one dimension should be established, and the schizophrenic discord of efforts to control and efforts to resist control should be merged into a new economic order' (Ryû 1939, p.3).

Plans subsequently emerged for this kind of new economic order, essentially the realization of Ryu's ideas, drafted by the Planning Board under the second Konoe Cabinet established in June 1940.[10] Various proposals were drawn up from July, mainly by reformist 'new bureaucrats' such as Planning Board members Yôji Minobe, Hisatsune Sakomizu, and Hideoto Môri, with the focus of their ideas being 'separation of ownership and management' in private firms and a shift of the purpose of enterprises 'from a profit orientation to a production orientation.' In other words, their plans were aimed at freeing managers from the intervention of shareholders and encouraging consciousness of the public goals for private firms so as to push forward with increased production.

The business world began to energetically resist to these ideas from September when plans for 'separation of ownership and management' were announced in the press. The 'business offensive' continued through December, giving rise to heated controversy between the government and the private sector. Minister of Commerce and Industry Ichizô Kobayashi opposed the idea of 'separation of ownership and management,' going so far as to call for the resignation of Vice-Minister of Commerce and Industry Nobusuke Kishi, who was known as a leader of the new bureaucrats. 'The outline for the establishment of a new economic order' was decided at the cabinet meeting of December 7, but it was a product of compromise between business interests and the new bureaucrats. The content was substantially watered down from the initial Planning Board proposals, as illustrated by the expression 'enterprises, which are organic entities of capital, management, and labor.'[11]

The decision at the cabinet meeting, however, became the basis of an Edict Concerning Major Industrial Organizations in August 1941. The Iron and Steel Control Association was established by this edict in November 1941, followed by the setting up of various kinds of control associations thereafter, eventually numbering 33 in 23 industries (11 control associations having been established in the finance industry) by the beginning of 1943 (Control Association 1943). The presidents of the control associations, which organized almost all large and medium-sized companies in each industry, were supposed to be given a wide range authority to control member companies on the basis of 'principles of leadership', modeled on Nazi Germany. The government aimed at smoother management of the wartime economy, using control associations as government-industry intermediates which were better informed of the actual situations in the private sector than the bureaucrats. The main tasks of control associations were to allocate production along with labor and material resources to the member companies in accordance with the national general mobilization plans, and to monitor

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[10] For details on the controversy concerning the new economic order, see Nakamura and Hara (1972, pp. 88-106).

[11] In his recollection just after the end of the Pacific War, Yôji Minobe stated that 'The larger part of the targets for the establishment of the new economic order was lost' by the decision at the cabinet meeting (Minobe n. d. a, p. 17.).

production performance. Bureaucrats from the Planning Board had begun discussions with the Army and the Navy to organize factories under the direct control of the military into control associations just after the cabinet meeting of December 1940, but this version of their plans was not brought to fruition (Minobe n. d. b, pp.5-6). The activities of the control associations as a whole became less and less significant as the Pacific War continued, while the Iron and Steel Control Association functioned relatively well due to the small number of member companies and the position of giant Nippon Steel Company at the core of the industry.

(3) The Transformation of Competition: From Price Competition to Competition for Designation and Rating

Through the process of the intensification of wartime economic controls and the attempt at reorganization of the wartime planned economy, competition among private companies was largely transformed. Price controls introduced just after the outbreak of the Japan-China War were extended to the establishment of Price Committees (both central and local) in April 1938 by the Ministry of Commerce and Industry, and to the start of an official price system based on the Regulation Concerning Sales Prices of Commodities in July 1938.[12] World War II broke out just after the August announcement of the implementation of the content of the ‘Outline of Price Controls,’ a report of the Central Price Committee which aimed at the introduction of a wider official price system with the target of the reduction of domestic prices to the level of international prices. In the response to this new situation, the government fixed prices in general and pegged wages, salaries, and rents for land and accommodation to the level of September 18 by means of the Price Control Act enforced in October 1939. A pooling system for prices was also introduced, which was intended to promote increased production at private firms by offering subsidies to strategic industries such as coal and steel.

The scope of price controls continued to expand thereafter, and by the spring of 1941 the number of official prices reached 47,607 items at the central level and 429,822 items at the local level (Asahi 1941, p. 135). In parallel with the intensification of price controls, there was also a rapid increase in the number of economic crimes, i.e., violations. As a result of a crackdown by the economic security police, some 2,250,572 persons were accused of economic crimes from July 1938 to October 1939. Of these, some 2,004,443 were let off with a ‘caution,’ 218,987 given an ‘admonition,’ 1,174 presented with a ‘reprimand,’ and 25,968 ‘sent to prosecution’ (Nishida 1994, pp.375-76).

The extent of the arena in which price competition could be undertaken was therefore subject to steadily curtailment, and competition among private firms became the focused instead upon the acquisition of status for designation as being the target of policies making priority allocations of valuable resources to the private sector. The above-noted competition for designation as militarily-controlled factories, or for designation as licensed companies among the lower-tier manufacturers in the machine tool industry, foreshadowed the transformation of competition during the war.

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[12] On the details of price control policies during the Japan-China War, see MITI (1964, pp. 282-306, 331-54).

During the Pacific War, competition for acquiring designation was accelerated throughout every quarter of the Japanese economy. November 1943 saw the establishment of the Ministry of Munitions through the amalgamation of the Ministry of Commerce and Industry and the Planning Board in an effort to set up a system for increased aircraft production, while the Munitions Companies Act, under which all major munitions-related companies were to be totally controlled by the government, was enacted at the same time. The number of munitions companies eventually reached a total of 721 companies, starting with an initial designation of 150 companies in January 1944, and continuing with a subsequent designation of 424 companies in April 1944 and an additional 147 companies from June 1944 to May 1945 (IBJ 1957, p.555). Here as well, since designated munitions companies could expect preferential allotment of resources, competition for acquiring designation was accelerated as indicated by the contemporary comment that, 'Designation as a munitions company is considered to be a privilege and has become a matter of petition to the government' (Takamiya 1944, pp.10-11).

The same situation could be confirmed within financial organizations. Plans originally mapped out by the Planning Board for a financial system in line with the new economic order called for preferential allotment of funds to strategic industries at high risk, even at the cost of undermining principles of sound banking. However, resistance by the Bank of Japan and the private banks resulted in the conversion of these plans to an enlargement of a joint loan system, which thereafter formed the mainstream of the wartime indirect finance system (Yamazaki, S. 1991b, pp.454-61 and Okazaki 1994, pp.26-27).

While trying to maintain and reinforce their positions as 'main banks' to zaibatsu subsidiaries by raising their ratios of loans to same-zaibatsu firms on one hand, 'Participation in joint loans became an important business strategy for the city banks in order to maintain and acquire customers' (BOJ 1984, p.301). Such participation was also desirable in terms of dispersing the risks of munitions-related financing. Competition for share of loans shifted towards competition for participation in joint loans, and designation-centered competition got going in earnest at the January 1944 inception of a system of designated financial institutions to meet the funding needs of munitions companies (Miyazaki and Itô 1989, p.202).

Once prices were fixed at the official levels, price competition sometimes transformed into competition for upgrading of rating from a certain price status to a higher level. Price controls for machine tools started with lathes in January 1940, for example, and there were price differentials of one or two thousand yen among the three rated classes of knee-type milling machines of the same size (JMTBA 1962, pp.213-15). This induced a rush of applications from concerned companies to the Precision Machinery Control Association for upgraded ratings.[13]

3. Disorder in the Wartime Planned Economy and the Reintroduction of Economic Incentives

(1) The Road Back to Economic Incentives

As shown above, the industrial mobilization system based on control associations started shortly after

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[13] As an example, see Yoneda Tekkôjo, *Kakuage Shinseisho* (An Application of Upgrading of Rating), Osaka: 1942.

the beginning of the Pacific War, a product of compromise to settle the controversy over the new economic order. The activities of these control associations were, however, gradually undermined by the expansion of the industrial associations organized by the military itself.

At the request of the Army Weaponry Headquarters, the Weapons Industry Association, which organized at its core the major munitions-related companies (including Army-controlled factories), was established in May 1940.[14] The association was composed of sections for guns, shells, tanks, steel, chemicals, etc., with the number of sections being constantly increased. Cooperative associations were set up in turn under each section, made up of medium-sized and small factories. The Army established the Aircraft Industry Association under the direct control of the Aircraft Headquarters in November 1942, and this had five internal sub-associations. Meanwhile, starting with the establishment of the Machine Tool Industry Association in September 1941, the Navy also set up some 30 varieties of industry-specific associations, including the area of aircraft.

In response to the attempt at unification of policies on aircraft between the Army and the Navy that stemmed from the establishment of the Ministry of Munitions, the respective bodies were merged into a single industrial association for aircraft in January 1944. At the beginning, this association was composed of 14 sub-industrial associations such as those for fuselages and engines, with sub-industrial associations having 76 subordinate sections. The number of member companies in the new Aircraft Industry Association rapidly increased from about 800 at inception to some 2,500 by July 1944, and was eventually intended to reach 10,000 in the end. As the two branches of the military moved to capture the major munitions-related companies (which were also the core of control associations) with advance payments and the preferential supply of raw materials, the effectiveness of the corresponding civilian-managed control associations were substantially hollowed out.

Through the activities of the industrial associations and the designations awarded to companies producing war materiel, the individual relationships between private companies and the military became much more direct and intimate. Co-opting munitions and other strategic companies with huge amounts of orders,[15] advance payments, and raw materials, the military urged the private companies to promote increased production. In turn, the major companies attempted, with a portion of these resources, to secure exclusive access to suppliers and labor to meet their production commitments. This attempt at what might be called carrot-based hegemony by the military over large private companies and by the large companies over smaller ones prevailed throughout the Japanese economy in the last stage of the war, giving rise to the coexistence of 'scarcity' and 'surplus' of resources and as a result of disorder in the wartime 'planned' economy.

The disorder of the wartime planned economy also showed up in price policies. The government had already attempted to increase production by introducing a pooling system for prices based on subsidies for strategic materials such as coal and steel, and the 'Outline of Emergency Measures on

[14] The following description of industrial associations of the military is based on Sawai(1992, pp. 169-170). On the details of transformation of the mobilization system of industries from control associations to the industrial associations by the military, see Yamazaki, S.(1991a).

[15] The backlog of orders at 63 'important' factories in the machine tool industry at the end of March 1943 had reached 9.9 times of production capacity estimated for fiscal 1943 (Sawai, 1996b, p. 3.).

Prices' decided at a cabinet meeting in February 1943, which introduced large increases in the prices of strategic goods, a dual price system based on price-control subsidies, and an incentive system for increased production, was a watershed in terms of deviation from the previous low-price policies (Hara 1994, p.96).

The change in price policies emerged not only in production prices but in wages. The content of wage controls had been complicated after the proclamation of the Wage Control Act in March 1939, but during the Pacific War a crucial change in wage controls was executed in order to promote the mobilization of labor to strategic industries. The Labor Control Act Concerning Important Factories enacted in February 1942 not only excluded the designated important factories from application of the Wage Control Act but also requested managers of those factories to raise salaries and wages of all employees without exception once a year, showing the amount of pay raise beforehand. Furthermore, through revision of the Wage Control Act in July 1943, the Five Major Industries (steel, coal, light metals, shipbuilding, and aircraft), together with related factories and mines were also enabled to freely decide their own wages subject to approval under the rules for wages and pay raises (Asahi 1944, p.99 and Sumiya 1967, pp. 265, 269). The revision of the Wage Control Act was a part of transition to new price policies which induced the reintroduction of economic incentives.

However, as long as the shortage of vessels continued (that is, the decline of shipping capacity, which was the biggest constraint on the performance of the Japanese economy), even the introduction and enlargement of such economic incentives could not possibly recover the drop in wartime production. The shortage of commodities in the latter half of the Pacific War was compounded by the grabbing of resources by the military and the munitions companies located at the core of the wartime 'planned' economy, and these attempts at hoarding extended not only to munitions-related supplies but to the necessities of daily life as well. The price of consumer goods soared as a result of purchase at the source by the military and the munitions companies, which had abundant funds and transportation capacity, giving rise to expansionary black market dealings (Nishida 1994, pp.387-94). Even in transactions of intermediate and capital goods between firms, official prices were often neglected (goods were bartered in some cases) and, in order to procure equipment and machinery, prospective users often had no other choice but to go to the military for help, hoping for effective mediation. During the final stage of the Pacific War, then, 'Black market dealings had already ceased to be black market dealings. ... The criminal had already ceased to be a criminal' (Kiyosawa 1980, p.311).

(2) The Role of Government in Equipment Investment by Munitions-Related Companies

During the Pacific War, of course, equipment investment in major private companies in strategic industries continued. These companies, however, did not necessarily raise all the necessary funds themselves. Although it was impossible for the managers of private companies to discuss the 'postwar' situation in public, they had to consider it in the context of decision-making regarding huge investments in plant and equipment. Accordingly, continued expansion of production capacity could not be realized unless the government acted to reduce private sector anxiety over the future.

Of the various governmental means of alleviating such worries, the most significant lay in the activities of the Industrial Equipment Corporation (established in December 1941) and in special support to the munitions companies originating in the Special Aid Act for Munitions Business (enacted in February 1942).

The main tasks of the Industrial Equipment Corporation were, (1) construction and leasing to private companies of emergency industrial plants and shipyards which were difficult for the companies themselves to construct and maintain, and (2) purchase, reserve, conversion and application, and mediation of idle plant and equipment. The idea was to go ahead with a large amount of plant and equipment investment concerning which the private sector alone could only hesitate, and to promote the mobilization of idle resources emerging from the curtailment of civilian industries into use by strategic industries. The value of emergency industrial plant and equipment and shipyards constructed during the Pacific War reached about 1.6 billion yen and 614 million yen respectively (both in terms of value of payment), led by that for the chemical industry (509 million yen), the fuel industry (447 million yen), and the aircraft industry (265 million yen)(MOF 1962, pp.769-75).

Let us examine the case of Furukawa Electric Co. Ltd., as an example of plant and equipment investment based on the method of the Industrial Equipment Corporation.[16] In addition to the total of 101 million yen in expenditure for new plant and equipment leading up through the seventh phase of expansion during the Pacific War, Furukawa planned to proceed with the eighth phase construction of the Hiratsuka and Oyama plants, the last project during the war years based on the methods of the Industrial Equipment Corporation. According to the contract between Furukawa and the Corporation at the end of 1943 for the construction of the Oyama plant, the company was to undertake construction on behalf of the Corporation, and to receive construction payments of 222 million yen following completion by the end of March 1945. During the five years after completion the company would lease the facility from the Corporation, paying a fee for use, although the company was to provide the plant sites free of charge to the Corporation. In reality the company received 55 million yen in construction payments by April 1945.

Similarly, Furukawa contracted with the Corporation at the end of January 1945 for the construction of the Hiratsuka plant, with planned construction payments of 216 million yen, although only 23 million yen was actually received. Furukawa president Suekichi Nakagawa clearly distinguished the seventh phase, executed on his own risk, from the eighth phase, which the military strongly urged. As the latter was a national project, beyond the scope of the company, it is assumed that he intended to avoid the risk engendered by excessive expansion of assets.

Special support to munitions manufacturers (those making weapons, naval vessels, parts, etc.) based on the Special Aid Act for Munitions Business consisted of (1) construction of plant and equipment by the government, assignment to private companies, and management by the latter (state ownership and private control) and (2) government orders to private companies for expanded plant and equipment, with the assurance of subsequent government purchase of the expanded portion (MOF 1957, p.318). As examples of this kind of aid, paid through a special temporary military account affiliated with the

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[16] The following description is based on IJBH (1991, pp. 348-49).

Army, it was planned for the Kumamoto plant of Mitsubishi Heavy Industries, Ltd. to receive 130 million yen in fiscal 1943 for production of 80 large airframes per month, and for the company's Shizuoka plant to receive 38 million yen in fiscal 1943/44 for monthly production of 270 large aircraft engines (MOF 1955, pp.255-56). Support from the Industrial Equipment Corporation to Mitsubishi Heavy Industries, which was a symbol of industrial capability in wartime Japan, paralleled with other companies like Sumitomo Metal Industries, Ltd., was enormous. The Corporation provided MHI alone with the some 700 million yen in funding for construction of 18 machine manufacturing plants and shipyards (Shiba 1987, p.54).[17]

The Munitions Companies Act conferred the status of government officials on the presidents of designated munitions companies, while all employees were ordered to follow the directives of presidents. In this sense government controls reached into the management of private companies. At the same time, however, the munitions companies were promised not only preferential allotment of materials, funds, and labor, but also subsidies, compensation for losses, and guaranteed profits (Asahi 1944, pp.19-22), thereby accelerating competition over designation of munitions company status. During the final stage of the Pacific War, private companies eagerly sought this designation in order to continue their business first of all, and next to the minimize the unmentionable difficulties that were sure to arise later.

Conclusion

Until the halt of economic relationships with the Allied Powers in 1941, Japan, long since fighting with China, needed to maintain normal international trade in order to carry on with total war. In this sense, the wartime planned economy was firmly supported by the peacetime economy, and this was the reason for the curious coexistence of 'self-governing controls' by the private sector and 'bureaucratic controls' by the government. When this style of management of the national economy came to an impasse, a plan for a 'new economic order' emerged, aiming at the 'reorganization of the Japanese economy' by means of 'truly autonomous controls as a new system having evolved beyond self-governing controls and bureaucratic controls' (Yamanaka 1990, p.154).

As soon as the Japanese economy shifted to a closed economy as a result of the outbreak of the Pacific War, the domains regulated by 'self-governing controls' were quickly narrowed. Resources transported from the 'Co-prosperity Sphere of Greater East Asia' to Japan proper, and available shipping capacity to ferry them came to be the dominant factor influencing the performance of the Japanese economy. Although industrial mobilization based on control associations led by 'principles of leadership' was looked to as the key to resolving the overall economic dead end, such activity was gradually undermined by the hoarding of shrinking resources by the military, as well as by the expanded industrial associations directly affiliated with the military itself. As a result, the co-existence of 'scarcity' and 'surplus' of resources became palpable throughout the Japanese economy, disordering the wartime 'planned' economy from the inside.

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[17] The figure of 700 million yen represents contracted value, and not actual payments.

The reintroduction of economic incentives was then attempted so as to more effectively mobilize the private sector. Under these conditions private companies hotly competed with each other for the acquisition of designation and the upgrade of rating in order to maintain their business, while also seeking to avoid the risk involved in the over-expansion of plant and equipment. Even during the last stage of the Pacific War, economic principles dominated the behavior of the private companies, albeit in a somewhat concealed fashion.

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