

BIG CORPORATIONS AND BUSINESS GROUPS IN POSTWAR JAPAN

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THIS PAPER is in two parts, the first using statistics to measure economic strength of Japan's big corporations and business groups, then elucidating postwar development and making a comparison of present-day to prewar strength. The second attempts to delimit in statistical terms trends in gradually rising cash-flow ratio in these big corporations and business groups in the postwar era and to shed some light on their implications.

I. MEASUREMENT OF ECONOMIC STRENGTH

The zaibatsu (financial cliques) occupied a commanding position in the Japanese economy prior to World War II. At the end of the war, United States occupation policy demanded the "zaibatsu dissolution" in order to do away with their concentration of economic power. There were 257 mining and manufacturing firms and 68 commerce and service firms designated for dissolution. However, only 18 of them were actually dissolved. Banks in particular were left unaffected. The original intention of occupation policy was to get rid of monopolistic capital that had served as the motive power for imperialism and thus eradicating Japan's ability to wage war [3]. In actual practice, however, the measure was by no means thoroughgoing.

During the following three decades the Japanese economy went through its period of rapid growth. How have Japan's big businesses fared and how have groups of prewar zaibatsu corporations recovered, and indeed surpassed, their prewar strength?

Line (A) of Table I shows an eightfold increase in total national wealth from 20,077,900 million yen in 1955 to 160,544,600 million yen in 1970. Total national wealth is measured using the national wealth census carried out every five years by the government, and it refers to the total of reproducible tangible assets (the sum of tangible assets except land and inventories) at the end of the year.

Line (B) indicates total assets of all business units, or national wealth accruing to business as a whole, arrived at by subtracting both private household assets and government assets from total national wealth. The share of total assets of all business units in total national wealth (B/A) was barely more than 50 per cent in 1955 (or 50.3 per cent to be exact), rising during the period of rapid growth to 53.5 per cent by 1970, showing that during the fifteen-year period total national wealth increased 8 times while total assets of all business units increased

TABLE I
ECONOMIC STRENGTH OF BIG BUSINESS

	(100 million yen)		
	1955 (E)	1970 (F)	F/E (%)
Total national wealth (A)	200,779	1,605,446	799.6
Total assets of all business units (B)	100,949	858,366	850.3
Total assets of all corporation (C)	61,533	592,555	963.0
Assets of big corporation (D)	26,174	299,434	1,144.0
B/A (%)	50.3	53.5	—
C/B (%)	61.0	69.0	—
D/C (%)	42.5	50.5	—

Source: [8, p. 8].

8.5 times.

Line (C), total assets of all corporations, is the total assets of all business units minus assets of business units owned by one individual, or national wealth accruing to all corporations. Its share in total business assets (C/B) increased from 61.0 to 69.0 per cent in the same fifteen-year period, indicating that the rapid growth period was one of expansion for corporations. The 8.5-fold increase of the total business assets is contrasted with the 9.6-fold increase of the total corporate assets during this period.

Line (D) refers to the total wealth owned by big corporations with assets (tangible assets that are reproducible) greater than 5,000 million yen. The share in total assets of all corporations (D/C) rose from 42.5 per cent to 50.5 per cent during the same period. This is due to an 11.44-fold increase in total tangible assets of big corporations against a 9.63-fold increase for those of all corporations.

By 1955, there were 155 big corporations with wealth greater than 5,000 million yen, accounting for only 0.04 per cent of all corporations. In 1970, there was an increase in the number of big corporations, but companies in this category were low in percentage terms as a part of the total or 0.1 per cent. In other words, 0.1 per cent controlled 50.5 per cent of total corporate assets.

This is a clear indication of what the rapid growth period meant for. It was a period in which not only GNP grew rapidly but in which large assets were accumulated rapidly and concentrated in the big corporations.

Furthermore, business groups were far more active in this period. There are various business groups in the United States, such as the Morgan-First National group, the Rockefeller group, and the Kuhn-Loeb group, as described by Paul Sweezy in his *Present as History* [10]. Similar business groups existed in prewar Japan, the four largest zaibatsu, Mitsui, Mitsubishi, Sumitomo, and Yasuda as well as the bank-centered groups, Daiichi and Sanwa. Activities of these business groups have been quite lively in the postwar era. The report of the Antimonopoly Council (Dokusen-kinshi-konwa-kai), a consultative body of the Fair Trade Com-

mission of Japan, points out that "there have been frequent reports recently of corporations acquiring the equities of others. There is a marked trend for oligopolistic enterprises to form large-scale business groups through the means of mutual equity-holding and interlocking directorates thus further increasing their strength. A number of types of groups are observable, such as those who hold other's equities and belong to the same prewar zaibatsu, financial groups with powerful banks at the center, and the pyramid-shaped business groups with firms at the top that have oligopolistic positions in certain industries. Each group has its own degree of closeness and concentrated business power" [5, p. 33]. The report further points out that "these groups seem to consist of a good number of big corporations with powerful positions in their industries, intent on further concentrating group power over a variety of activities, and exerting great economic influence by close mutual ties in business dealings and mutually preferential treatment" [4, p. 228].

It thus is of great significance to measure the actual state of the concentrated business power of these groups, as well as that of big corporations described above. It is particularly important in order to take effective action for the further oligopolization of the economy and to properly implement antimonopoly policies.

The influential business groups are well known such as Mitsui, Mitsubishi, and Sumitomo of the former zaibatsu lines, and those formed around banks such as Fuji, Daiichi, and Sanwa. To determine the enterprises within the framework of these groups, objective criteria are rarely applied but rather they are classified in loose "common sense" terms. In this paper, however, no firm is taken for granted as belonging to a group but the degree of closeness in mutual relations is quantitatively measured by objective criteria to identify the member group.

In type of relations between firms, it is noted that there are financial relations, through such methods as mutual equity holding and interlocking directorate, daily business relations of materials sales and finished goods purchases, and technical ties. Publicly available materials on mutual relations among firms, however, are limited to the *Yūka shōken hōkoku-sho* [Report on negotiable securities] [12] and a few other reports, making it impossible to do anything but measure relations in mutual equity holding, interlocking directorate, and loan arrangements. These all pertain to the ruling-and-ruled relations through capital fund transfers. This paper thus deals with the mutual relations among firms only by quantifying their capital relations. For those big corporations not belonging to an upper group, which exist in adequate numbers, classification is made by methods of independence: financially independent type, equity concentration type, and equity diversification type. I am trying here to classify all the big corporations with reproducible tangible assets of over 5,000 million yen according to objective criteria and to measure the postwar economic strength of these business groups over time. Since all details of how the classification of big corporations is made cannot be given here, however, I would like the reader to refer to my *Sengo Nihon no kigyō shūdan* [Business groups in postwar Japan] [8]. Part of the results obtained there are presented in Tables II to V.

The following process was made in compiling Table II that gives degree of

TABLE II
DEGREE OF CONCENTRATION OF TANGIBLE ASSETS IN PRINCIPAL BUSINESS
GROUP CATEGORIES

	State Capital	Long-term Credit Bank	Private Financial Institutions	Big Industrial Capital	Foreign Capital	Independent	Total
1955	62.2	2.1	23.3	5.6	1.0	5.8	100
1960	44.4	4.8	22.0	8.6	1.2	19.0	100
1965	37.7	4.8	29.5	8.3	1.4	18.3	100
1970	34.5	3.3	31.2	9.6	1.8	19.6	100

Source: [8, pp. 72, 240].

concentration of tangible assets in principal business group categories. First total assets of all the big businesses with reproducible tangible assets over 5,000 million yen in their book values was ascertained. The shares of firms belonging to any business group in the total (the degree of concentration of tangible assets) were calculated at four points in time, 1955, 1960, 1965, and 1970. These business groups were further classified into principal categories for Table II. The principal categories of business groups are:

(1) State Capital Category

Included in this category are (i) national public corporations (Japan National Railways, Japan Monopoly Corporation, etc.), (ii) special corporations (Bank of Japan, Japan Airlines, Japan Broadcasting Corporation, Japan Housing Corporation, etc.), and (iii) those corporations under the Japan Development Bank.

(2) Long-term Credit Bank Category

Included in this category are (i) firms in the Industrial Bank of Japan group, and (ii) those in the Central Bank of Agriculture and Forestry group.

(3) Private Financial Institutions Category

Included in this category are (i) those in Mitsui group, (ii) Mitsubishi group, (iii) Sumitomo group, (iv) Fuji-Yasuda group, (v) Daiichi Bank group, (vi) Sanwa Bank group, (vii) Daiwa Bank group, (viii) Nippon Kangyo Bank group, and (ix) Tokai Bank group.

(4) Big Industrial Capital Category

Included in this category are (i) Nippon Steel group, (ii) Kobe Steel group, (iii) Toyota group, (iv) Hitachi group, (v) Toshiba group, and (vi) Matsushita group.

(5) Foreign Capital Category

(6) Independent

Included in this last category are (i) equity concentration type firms, (ii) self-financing type, and (iii) equity diversification type.

An examination of the third category, corporations belonging to private financial institutions, is made by using Table III in terms of changes in the degree of asset concentration (excepting Daiwa Bank, Nippon Kangyo Bank, and Tokai Bank groups).

Degree of concentration of tangible assets of private business groups other

TABLE III
CHANGES IN DEGREE OF CONCENTRATION OF TANGIBLE ASSETS OF BUSINESS
GROUPS CENTERED ON PRINCIPAL FINANCIAL INSTITUTIONS

	Mitsui	Mitsubishi	Sumitomo	Fuji-Yasuda	Daiichi Bank	Sanwa Bank	Total (%)
1955	6.1	5.0	3.2	2.9	3.1	1.4	21.7
1960	4.1	5.1	4.3	3.1	2.5	1.5	20.6
1965	5.5	6.8	5.2	3.7	3.2	2.7	27.1
1970	4.5	7.9	6.0	4.2	3.7	2.2	28.5

Source: [8, pp. 72, 240].

TABLE IV
CHANGES IN THE DEGREE OF CONCENTRATION OF TANGIBLE ASSETS OF *BUSINESS GROUPS*
(%)

	Economic Strength of <i>Business Group</i>		Economic Strength of the Four Largest Business Groups of Zaibatsu Descent	
	All Industries	Heavy-chemical Industries	All Industries	Heavy-chemical Industries
1960	35.5	83.6	16.6	35.0
1965	42.6	88.8	21.2	37.3
1970	44.1	87.7	22.6	36.9

Source: [8, pp. 72, 240].

than those belonging to categories of (1) state capital, (5) foreign capital, and (6) independent, i.e., private corporations belonging to categories of (2) long-term credit bank, (3) private financial institutions, and (4) big industrial capital (these groups will be specified as *business groups* to denote their special character of acting collectively), are shown in Table IV along with changes in the degree of concentration of tangible assets of the four largest business groups of zaibatsu descent. The heavy and chemical industries sector of these groups is cited for its strong positions in this table.

From these tables the following characteristics emerge concerning the postwar capital structure.

(1) Although the proportion of state capital has been gradually declining over the years (62.2 per cent in 1955, 44.4 per cent in 1960, 37.7 per cent in 1965, and 34.5 per cent in 1970, as shown in Table II), it remains one of the highest of the major industrialized countries.

(2) Table IV shows that the economic power of private *business groups* was lower than state capital in 1960 (35.5 per cent to 44.4 per cent) but became greater in 1970 (44.1 per cent to 34.5 per cent). In particular, the heavy and chemical industries sector of the *business groups* consistently have a share close to 90 per cent, definitely an overwhelming portion. Japan's heavy and chemical industrialization was carried out not by state capital but by the private *business groups*.

(3) The columns on the right in Table IV show that together the four largest business groups of zaibatsu descent increased their power from 16.6 per cent in 1960 to 22.6 per cent in 1970.

Table III indicates a change in the order of strength of these former zaibatsu groups, for in 1955 Mitsui had 6.1 per cent, Mitsubishi 5.0 per cent, Sumitomo 3.2 per cent, and Fuji-Yasuda 2.9 per cent; a new order in 1970 of Mitsubishi 7.9 per cent, Sumitomo 6.0 per cent, Mitsui 4.5 per cent, and Fuji-Yasuda 4.2 per cent. Mitsui fell behind the Mitsubishi and Sumitomo groups.

(4) Lastly, a comparison needs to be made of the economic power of the four prewar zaibatsu with that of their postwar descendants.

TABLE V
DEGREE OF CONCENTRATION IN PAID-UP CAPITAL OF THE FOUR LARGEST BUSINESS
GROUPS OF ZAIBATSU-LINE IN THE PREWAR AND POSTWAR PERIODS

Year	Mitsui	Mitsubishi	Sumitomo	Fuji-Yasuda	Total of the Four (%)
1937	3.5	3.3	2.2	1.4	10.4 (158 firms)
1941	4.4	4.3	2.1	1.3	12.1 (211 firms)
1946	9.5	8.3	5.1	1.6	24.5 (544 firms)
1955	3.1	4.1	2.7	1.6	11.5 (62 firms)
1960	2.9	4.5	3.6	2.6	13.6 (110 firms)
1965	4.0	6.0	4.6	3.1	17.6 (171 firms)
1970	3.3	6.6	4.5	3.3	17.7 (258 firms)

Source: [8, pp. 260-61].

Since no accurate census of national wealth were made before the war, an estimate of the prewar and postwar economic power of these four groups can be made by using figures for their share of paid-up capital in the total for the country (degree of concentration of paid-up capital). This is shown in Table V. Figures for 1937, 1941, and 1946 have been obtained from the *Nihon no zaibatsu to sono kaitai* [Japanese zaibatsu and their resolution] [9], published at the time zaibatsu dissolution was under way. The figures come from thorough surveys on zaibatsu-related corporations. Figures for 1955, 1960, 1965, and 1970 are only for those big corporations with reproducible tangible assets of over 5,000 million yen, as calculated in *Sengo Nihon no kigyō shūdan* [8]. Figures in parentheses are the number of firms belonging to four largest zaibatsu groups, naturally showing a sharp drop from 1955 onwards.

This table shows that zaibatsu dissolution by occupation authority was a heavy blow in 1946 but that the groups gradually recovered their strength by 1970 with their total strength rising up to 17.7 per cent (258 firms) of all corporations. This was above the prewar (1941) level and close to what had been reached by 1946.

True, the figures for 1946 (zaibatsu dissolution) cannot be taken literally because at least 544 firms were classified as zaibatsu members, the yardstick being loosely applied to list the greatest possible number of firms as for dissolution. Correspondingly high figures for paid-up capital were given, at a time that national total of all paid-up capital was probably at bottom in the stagnant economic situation at war's end. Thus, we may safely assume that the 24.5 per cent figure of 1946 is slightly inflated compared with that of normal times. If so, by

1970 the strength of the four groups already matched their highest prewar level.

In terms of paid-up capital share, the prewar ranks of Mitsui, Mitsubishi, Sumitomo, and Yasuda changed greatly after dissolution. By 1955 Mitsubishi surpassed Mitsui, and by 1960 Sumitomo surpassed Mitsui, and by 1970 Fuji-Yasuda had closed ranks with Mitsui. In 1970, they were ranked as Mitsubishi, Sumitomo, Mitsui, and Fuji-Yasuda. Such a change in order of strength is a product of cutthroat competition for larger plant and equipment investment in the rapid growth period.

II. RISING NET CORPORATE SURPLUS

There is no need to remind readers of the point Paul Sweezy made in his analysis of the American big corporation, in that increasing cash-flow in these corporations lessened the importance of outside financing from institutions such as banks in procuring funds.

For instance, in *The Present as History* Sweezy discusses public hearings sponsored by the Joint Committee on Economics and says that most corporate requirements for expansion funds are obtained from internal reserves, and this trend will probably continue for some time to come. Also in Baran and Sweezy's *Monopoly Capital*, the authors say that

the power of the investment banker was based on the urgent need of the early corporate giants, at the time of foundation and in the first stages of growth, for outside financing. Later this need declined in importance or disappeared altogether as the giants, reaping a rich harvest of monopoly profits, found themselves increasingly able to take care of their financial needs from internally generated funds. [2, pp. 17-18]

Sweezy shows that internal funds, i.e., the sum of internal reserves and accumulated depreciation allowances, had grown sufficiently to fulfill the need for new plant and equipment investment. Generally speaking, the American big corporations were free of their dependence on external fund before World War II.

Combining these views with the "managerial revolution" hypothesis expounded by Berle and Means, we can conclude that the American big corporations have not only completely separated ownership and management through managerial revolution but have also secured total freedom from external funds and therefore from control by external financial institutions. Such a state of affairs is a more complete managerial revolution form. The dominance of these corporations in manufacturing would image the ideal type corporation, completely devoted to production with no dependence, whatsoever, on external factors in financing.

However, no corporation stands still for capitalism at a stand still is a contradiction in terms. The corporations of the ideal type has to change and develop year by year. How have the image of the ideal type corporations changed in the thirty years since World War II? Let us examine, the methods given by Sweezy, the movement of internal reserves in the American corporation. Table VI is based on just such an examination.

The table is based on materials published by the U.S. Federal Trade Com-

TABLE
NET CORPORATE SURPLUS IN MANUFACTURING

	1947	'48	'49	'50	'51	'52	'53	'54	'55
After-tax profit	10.1	11.5	9.0	12.9	11.9	10.7	11.3	11.2	15.1
(-) Dividend payment	3.7	4.3	4.5	5.7	5.5	5.5	5.6	5.9	6.8
Internal reserves	6.4	7.2	4.5	7.2	6.4	5.2	5.4	5.3	8.3
(+) Depreciation	2.4	2.8	3.2	3.4	4.0	4.7	5.6	6.3	7.1
Cash flow	8.8	10.0	7.7	10.6	10.4	9.9	11.0	11.6	15.4
(-) New gross investment in plant and equipment	8.7	9.1	7.2	7.5	10.9	11.6	11.9	11.0	11.4
Net corporate surplus	0.1	0.9	0.5	3.1	-0.5	-1.7	-0.9	0.6	4.0
Five-year groupings	37.1 (1.14)				58.7 (1.03)				
(Cash flow (rate of internal fund))			4.6				1.5		
(Net corporate surplus)									0.8
Direct investment overseas									0.8
Acquisition through merger	0.1		0.1	0.2	0.2	0.3	0.7	1.5	2.1

Sources: [11]. Figures for direct investment overseas are based on U.S. Department of Commerce, *Current Trend in Merger Activities* (1970).

Note: Quarterly statistics are converted into yearly figures above. The new investment in plant and equipment section (depreciation not subtracted) of FTC materials.

mission but ones which include only manufacturing. Figures for net corporate surplus are obtained by subtracting dividend payment from after-tax profits, adding depreciation allowance to arrive at cash flow, then subtracting new (gross) investment in plant and equipment.

Let f stand for cash flow, f_1 for the funds for new investment in plant and equipment along corporate business lines, and f_2 for the fund for other purposes (net corporate surplus). Then,

$$f = f_1 + f_2.$$

Table VI shows most of all that there is a rising trend in cash flow f . There was an appreciable rise approximately every five years from \$37,100 million in 1947-50, to \$58,700 million in 1951-55, \$86,200 million in 1956-60, \$120,700 million in 1961-65, \$193,100 million in 1966-70, and \$155,400 million in 1971-73. This is the phenomenon of rising cash flow f trend.

C. Levinson in *Capital, Inflation and the Multinationals* says that

cash flow therefore gives an exact measure of the self-financing capacity of a company. According to this system, even dividends paid out to so-called owners are a cost and a drain on the company's "profitability," i.e., the ratio of retained net profits plus depreciation to income. Thus, cash flow is the essential factor in assessing the state of the company and the success of managerial policy. [7, p. 203]

The ultimate objective of corporations after separation of ownership and management is not maximization of net profit but maximization of cash flow, because, according to Levinson, net profit is the index for stock holders while cash flow is the aim of managers.

VI
CORPORATIONS IN THE U.S.A.

																	(\$1,000 million)
'56	'57	'58	'59	'60	'61	'62	'63	'64	'65	'66	'67	'68	'69	'70	'71	'72	'73
16.2	15.4	12.7	16.3	15.2	15.3	17.7	19.5	23.2	27.5	30.9	28.9	32.0	33.2	28.6	31.0	36.5	48.1
7.4	7.6	7.4	7.9	8.3	8.6	9.3	9.9	10.8	12.0	12.9	13.3	14.1	15.1	15.1	15.3	16.1	17.8
8.8	7.8	5.3	8.4	6.9	6.7	8.4	9.6	12.4	15.5	18.0	15.7	17.9	18.1	13.5	15.7	20.4	30.3
8.6	9.4	9.8	10.3	10.9	11.6	12.8	13.5	14.5	15.7	17.6	19.5	21.3	22.8	28.7	26.5	29.6	32.9
17.4	17.2	15.1	18.7	17.8	18.3	21.2	23.1	26.9	31.2	35.6	35.2	39.2	40.9	42.2	42.2	50.0	63.2
15.0	16.0	11.4	12.1	14.5	13.7	14.7	15.7	18.6	22.5	27.0	29.7	29.3	38.9	31.1	25.5	29.2	38.8
2.4	1.2	3.7	6.6	3.3	4.6	6.5	7.4	8.3	8.7	8.6	5.5	9.9	2.0	11.1	16.7	20.8	24.4
86.2 (1.25)				120.7 (1.42)				193.1 (1.24)				155.4 (1.66)					
17.2				35.5				37.1				61.9					
2.9	3.1	2.0	2.5	2.1	2.8	2.5	3.5	3.7	5.1	5.2	4.8	5.5	6.0	7.2	8.0	8.1	12.
2.0	1.4	1.1	2.0	1.7	2.3	2.3	3.0	2.7	3.8	4.2	9.1	13.3	11.3	6.3	2.5		

Commerce, *Survey of Current Business*. Figures on acquisition through merger are obtained plant and equipment is taken from the rate of increase over previous year in property, plant,

Looking at Table VI once again, we see rapid increases not only in cash flow f but also in net corporate surplus f_2 . The latter was \$4,600 million in 1947-50, \$1,500 million in 1951-55, but rose to \$17,200 million in 1956-60, \$35,500 million in 1961-65, \$37,100 million in 1966-70, and \$61,900 million in 1971-73. This is the trend of rising net corporate surplus. Net corporate surplus first became positive in the postwar years, particularly after 1955.

This trend of rising net corporate surplus is not the same as the Baran-Sweezy hypothesis of "the tendency of surplus to rise." Baran and Sweezy in *Monopoly Capital* dealt with the aggregate U.S. economy in macro terms, thus making "economic surplus" refer to the entire nation, while here we are dealing only with the net surplus of individual corporations. Baran and Sweezy speak of surplus as the amount of reproducible product and not net surplus of cash flow within corporations over and above new investment in plant and equipment.

Paul Sweezy in *The Present as History* asserts that the contemporary big corporation in the United States attained financial independence from banks by having cash flow, and had come under complete control of internal management within, thus providing managerial rule. However, as Table VI shows, the U.S. corporation of today has moved one step farther than the stage described by Sweezy. Accumulation of cash flow in U.S. corporations has not only freed them from dependency on outside funds but is also rising in excess of the need for funds for new plant and equipment investment.

The U.S. manufacturing corporation now has an additional image as a manager of its accrued surplus superimposed on the previous image of single-mindedly pursuer of production that is independent of external finances. On one hand,

today's corporation has a rising net corporate surplus and is emerging as a producer who will increase the amount of economic flow and, on the other hand, is an assets preserver intent on maintaining and increasing the value of funds or stock (as opposed to flow) under its control. The corporation thus influences both flow and stock. This conception of the corporation was inconceivable in prewar days.

Keynes in the *General Theory* [6] said there are two categories of money demand: money demand M_1 with transactions- and precautionary-motives and money demand M_2 with a speculative-motive. Keynes reasoned that as individuals become more affluent and retain more money for speculative purposes, aggregate employment and production in the society goes down, giving rise to unemployment, thus providing an explanation for "poverty amidst affluence."

The two categories described above as f_1 and f_2 (funds for new investment in plant and equipment for business and funds managed for other purposes) are different from Keynes's concepts in that here the demand is for fund of *firms* within a certain *period* of time while Keynes dealt with money demand for *individuals* at a certain *point* in time. However, they are constructed on the same line of thinking in that the demand for funds is classified into f_1 leading to a greater production or larger flow and f_2 leading to value maintenance and value creation of the fund stock.

What then are the uses of f , or the cash flow, derived by adding f_1 and f_2 together? There are four broad categories of use.

(1) Funds for new plant and equipment investment and for research and development. Expenditures in this category are for the corporation's internal development and correspond to f_1 .

Next we would naturally think of funds for direct investment. Direct investment here refers to investment in stock purchases, the objective being to place other companies under direct control. Direct investment can be made either at home or abroad. We thus obtain the following three categories.

(2) Fund for acquiring companies in order to expand outwardly through merger (fund for domestic direct investment).

(3) Fund for direct investment abroad.

(4) Short-term funds mainly for speculative purposes to hold negotiable securities, foreign currencies, etc. on a short-term basis (the difference between short-term assets and short-term debts).

Categories (2) through (4) are paid out of f_2 , net corporate surplus.

The order of the four categories is not necessarily according to importance. What is viewed as most advantageous for the firm will receive priority. The rising trend of net corporate surplus describes the process in which cash flow f grows and exceeds the financial need for corporate internal development f_1 . It also means, however, that more advantageous uses of accumulated funds are made through new plant and equipment investment and research and development. This can be seen again in Table VI. It follows that even if cash flow shows no increase, there may be net corporate surplus. In the United States during the

late 1950s, net corporate surplus was direct overseas investment in the form of multinational corporations. Subsequently it appeared as acquisition of other corporations, resulting in conglomerates. It further assumed the form of short-term fund (Eurodollars), being transferred to gains in exchange or gains from differences in interest rates.

Table VI also shows that U.S. direct overseas investment started to rise sharply in step with the rise in net corporate surplus around 1956. During the sixteen-year period from 1931 to 1946, U.S. direct overseas investment registered a negative \$800 million (not shown in the table), and from 1947 through 1955 it was only \$12,100 million, about \$1,300 million annually. Rapid increases started for the first time in 1956, closely corresponding to a similar rise in net corporate surplus.

Going one step further in our analysis, we see that conglomerate type mergers increased by leaps and bounds while direct overseas investment stagnated from around 1967 to 1969. This pattern of development had a lot to do with the dollar defense measures adopted by the Johnson administration, particularly the policy of curbing direct overseas investment inaugurated at the beginning of 1968. On the other hand, the decline in mergers and the sharp rise in direct overseas investment from 1970 on is greatly related to the Nixon administration policy of discouraging conglomerate type mergers and encouraging direct overseas investment. Net corporate surplus is thus sensitively choosing the most advantageous place for investment under the prevailing institutional setting.

Applying the same formula,

Cash flow f = fund for new plant and equipment investment in corporate business line f_1 + net corporate surplus f_2 ,

to the corporations in postwar Japan gives the basic data of Table VII, based on *Shuyō kigyō keiei bunseki* [Analysis of management in major corporations] [1]. All figures are average for half of each fiscal year.

TABLE VII
RATIO OF CASH FLOW TO EQUIPMENT FUNDS IN CORPORATIONS (ALL INDUSTRIES)

		(¥100 million)									
		1956-60	1960	1965	1968	1969	1970	1971	1972	1972	
		Average	Average	Average	Average	Average	Average	Average	First	Second	
									Half	Half	
f_1	Plant and equipment investment	4,195	6,092	7,730	14,718	17,890	20,881	21,150	18,472	21,012	
	Internal reserves	453	779	401	3,505	5,336	5,661	4,523	5,558	9,736	
f	Depreciation	1,559	2,155	4,876	6,682	7,800	9,010	10,074	10,709	11,005	
	Cash flow	2,012	2,934	5,277	10,187	13,136	14,671	14,597	16,267	20,741	
f/f_1	Cash flow ratio (%)	47.9	48.2	68.2	69.2	73.4	70.2	69.0	88.1	98.7	

Source: [1].

The following methods were used to arrive at the figures in this table. For 1956-60 and 1965 the following formulae were used based on figures in the table of fund usage and sources in *Shuyō kigyō keiei bunseki*.

Gross plant and equipment investment f_1 = figures in tangible fixed assets column.

Cash flow f = figures in internal reserves column + figures in depreciation column.

For the years 1968 and after the calculations were made based on figures in the table of fund demand in *Shuyō kigyō keiei bunseki*. (The only point on which the above differs is that allowance is *not* included in internal reserves.)

Gross plant and equipment investment f_1 = figures in tangible fixed assets column.

Cash flow f = internal reserves + allowance + depreciation
= equity capital - capital increase.

Cash flow ratio = cash flow f / gross plant and equipment investment f_1 .

As the table indicates, in Japanese corporations, funds for investment in new plant and equipment f_1 alone was greater than cash flow f , calling for inevitable dependency on capital increases or loans. Here only one general trend is emphasized, i.e., the ratio of cash flow f into funds for investment in new plant and equipment f_1 (the cash flow ratio) was gradually rising. During the rapid growth period of the economy from 1956 to 1960, the cash flow ratio averaged 47.9 per cent, and kept rising until the second half of 1972 when it reached 98.7 per cent. If the rising trend of cash flow continues, the ratio will be greater than 100 per cent in the near future, arriving at stage corresponding to that of the American corporations immediately after the end of World War II or during the late 1950s.

Japanese corporations approximately have a trend of rising cash flow ratio but, on the average, do not yet have the latent trend of rising net corporate surplus.

Despite the low *average* cash flow ratio, however, there are a certain number of industries in which this ratio is far higher than the average and is even greater than 1. Changes in the cash flow ratio according to type of industry are shown in Table VIII.

By fiscal 1960 there was only one industry with a higher cash flow ratio than 1, the department stores, and the next highest was cotton spinning at 0.93. In fiscal 1965, however, a cash flow ratio over 1 occurred in *glass & ceramics* (2.12), *synthetic fiber* (1.97), *construction* (1.96), *metal products* (1.84), *textiles* (1.52), *precision equipment* (1.39), *electrical equipment* (1.37), *rubber* (1.30), *automobiles* (1.17), *machinery* (1.07), and *transportation equipment* (1.07). *Oil refining* was 0.99 (italics are broad categories).

In fiscal 1970, however, the cash flow ratio declined slightly (see Table VII), with only the following industries above the unitary level: *precision equipment* (1.54), *construction* (1.46), *wholesale* (1.15), *wholesale and retail* (1.11), *electrical equipment* (1.09), *cement* (1.07), *foodstuffs* (1.03), and *department stores* (1.02).

TABLE VIII
CHANGES IN CASH FLOW RATIO BY INDUSTRY

(%)

	1960 (Fiscal)	1965 (Fiscal)	1970 (Fiscal)		1972 (Fiscal)
			Japan	U.S.A.	
All industries	0.46	0.74	0.63		0.99
Manufacturing	0.50	0.91	0.65	1.29	1.19
Food	0.50	0.89	1.03	2.16	0.79
Textile	0.74	1.52	0.69	1.65	1.86
Cotton spinning	0.93	0.87	0.73	—	1.85
Synthetic fiber	0.68	1.97	0.65	—	1.83
Pulp, paper & paper products	0.32	0.66	0.54	0.94	1.06
Printing	0.48	0.96	0.64	2.25	1.11
Chemical	0.46	0.90	0.67	1.13	1.58
Chemical fertilizer	0.39	0.31	0.90	—	—
Oil refining	0.54	0.99	0.62	1.29	0.69
Rubber	0.40	1.30	0.87	1.43	1.43
Glass & ceramic	0.59	2.12	0.85	1.86	0.85
Cement	0.47	—	1.07	—	0.49
Steel	0.37	0.49	0.37	0.91	0.82
Nonferrous metals	0.39	0.83	0.39	0.78	1.02
Metal products	0.49	1.84	0.67	1.08	0.63
Machinery	0.75	1.07	0.95	1.54	1.59
Electrical equipment	0.29	1.37	1.09	1.32	2.17
Transportation equipment	0.32	1.07	0.78	1.29	1.17
Shipbuilding & repair	0.24	0.86	0.84	—	0.52
Automobile	0.41	1.17	0.74	1.07	1.54
Precision equipment	0.34	1.39	1.54	—	1.75
Mining	0.03	0.74	0.74	—	2.02
Construction	0.58	1.96	1.46	—	2.32
Wholesale & retail	0.78	0.61	1.11	—	2.93
Wholesale	0.64	0.50	1.15	—	3.32
Department store	1.01	0.79	1.02	—	1.86
Real estate	0.29	0.25	0.54	—	2.19
Transportation	0.52	0.48	0.69	—	0.74
Marine transportation	0.58	0.48	0.99	—	0.93
Electric power & gas	0.27	0.52	0.44	—	0.40
Service	0.74	Δ0.09	0.61	—	0.53

Sources: [1] [11].

Note: Figures for Japan are for the second half of the year, while those for the United States are for the entire year.

Marine transport was 0.99. U.S. figures for fiscal 1970 listed for reference are higher than Japanese figures for every industry.

Going slightly beyond the scope of this paper, the same ratio is listed for all industries for fiscal 1972, i.e., after the so-called Nixon Shock. The average for all manufacturing had already crossed the unitary line (at 1.19), and the following individual industries were above 1 in cash flow ratio: wholesale (3.32),

wholesale and retail (2.93), *construction* (2.32), *real estate* (2.19), *electrical equipment* (2.17), *mining* (2.02), *textiles* (1.86), department stores (1.86), cotton spinning (1.85), synthetic fiber (1.83), *precision equipment* (1.75), *machinery* (1.59), *chemicals* (1.58), automobiles (1.54), *rubber* (1.43), *transportation equipment* (1.17), *printing* (1.11), *pulp, paper, and paper products* (1.06), and *nonferrous metal* (1.02). Marine transport was 0.93.

The cash flow ratio in the following industries in fiscal 1972 surpassed U.S. counterparts for fiscal 1970: *textile, pulp, paper, and paper products, chemical, nonferrous metal, machinery, electrical equipment, automobile, and rubber*. Japanese big corporations rapidly increased their cash flow ratios during the high growth rate period.

Table IX gives the names of those big corporations whose cash flow ratio is greater than 1.

TABLE IX
CORPORATIONS WITH CASH FLOW RATIO GREATER THAN 1

	1960	1965	1970	1972
Tokyo Gas Co., Ltd.	1.39			
Osaka Gas Co., Ltd.	1.47			
Japan Mail Steamship Co., Ltd.	1.14			
Kanebo, Ltd.	1.69	1.71		1.16 Unitika Ltd. 2.87
Dainihon Spinning Co., Ltd.	1.31			
Mitsui Mining Co., Ltd.	1.04		1.03	
Tokyo Electric Express Railway, Ltd.	1.90			
Bridgestone Tire Co., Ltd.	1.14	2.15	1.01	1.12
Sumitomo (Iwaki) Cement Co., Ltd.	1.01		1.45	
Toho Rayon Co., Ltd.	1.41			
Fuji Spinning Co., Ltd.	1.59			1.32
Nisshin Spinning Co., Ltd.	1.39			1.06
Toho Gas Co., Ltd.	1.16	1.26		
Shikishima Spinning Co., Ltd.	1.61	1.21		
Nissan Steam Ship Co., Ltd.	3.85			
Kanzaki Paper Manufacturing Co., Ltd.	19.50	1.55		1.89
Japan Gas-Chemical Co., Inc.	1.59			
Uraga Dock Co., Ltd.	2.10			
Kojin Co.	9.50			
Sumitomo Heavy Industries, Ltd.	1.10	1.21		
Nippon Carbide Industries Co., Ltd.	1.02			
Teikoku Sen-i Co., Ltd.	1.37			
Noda Shoyu Co., Ltd.	1.12			
Hayakawa Electric Industries	1.18		Sharp Corp. 1.15	
Yasukawa Electric Industries	1.06			1.14 Gunze, Ltd. 1.35
Gunze, Ltd.	1.42	1.03		
Toho Co., Ltd.	2.03			
Mitsubishi Cement Co., Ltd.	1.75		1.10	
Taiō Paper Mfg. Co., Ltd.	1.05		2.55	5.23
Befu Chemical Co., Ltd.	4.29			

TABLE IX (Continued)

	1960	1965	1970	1972
Mitsui Shipbuilding & Engineering Co., Ltd.	1.24			
	Total			
	<u>31 corporations</u>			
Yawata Iron & Steel Co., Ltd.		1.27		
Fuji Iron & Steel Co., Ltd.		1.04		
Mitsubishi Heavy Industries, Ltd.		1.12		
Hitachi, Ltd.		1.61		1.28
Tokyo Shibaura Electric Co., Ltd.		1.53		1.26
Kobe Steel, Ltd.		1.36		
				Toray
Toyo Rayon Co., Ltd.		6.74		1.74
Mitsubishi Electric Corporation		1.13		1.01
Nissan Motor Co., Ltd.		2.29		1.06
Teijin, Ltd.		1.14		4.70
Idemitsu Kosan Co., Ltd.		1.78		
Kirin Brewery Co., Ltd.		1.33	1.10	
Toyota Motor Co., Ltd.		1.04	1.11	1.84
Nippon Electric Co., Ltd.		1.56		1.28
Arabian Oil Co., Ltd.		1.58		1.28
Asahi Chemical Industry Co., Ltd.		1.17		1.54
Nippon Mining Co., Ltd.		1.06		
Toyobo Co., Ltd.		1.14		
Maruzen Oil Co., Ltd.		1.45		
Nippon Express Co., Ltd.		1.24		
Matsushita Electric Industrial Co., Ltd.		3.62	1.96	2.07
Kurashiki Rayon Co., Ltd.		3.60		
Taiyo Fishery Co., Ltd.		3.89		
Nippon Rayon Co., Ltd.		3.13		
Oji Paper Co., Ltd.		1.10		
Isuzu Motors, Ltd.		1.49		1.01
Mitsui Petrochemical Industries, Ltd.		1.41	1.13	1.32
Honda Motor Co., Ltd.		1.34		2.01
Nippon Suisan Kaisha, Ltd.		1.58		1.60
Fuji Electric Co., Ltd.		4.07		
Daishowa Paper Mfg. Co., Ltd.		1.08	2.57	1.22
Mitsubishi Rayon Co., Ltd.		1.18		1.44
Toa Nenryo Kogyo K.K.		2.03		
Hitachi Shipbuilding & Engineering Co., Ltd.		1.67		
Takeda Chemical Industries, Ltd.		1.52		1.65
Nihon Cement Co., Ltd.		3.20		
Kurabo Industries, Ltd.		2.76		1.73
Kubota, Ltd.		2.06	1.18	1.17
Electro Chemical Industrial Co., Ltd.		4.05		
Komatsu, Ltd.		1.64		1.49
Fuji Photo Film Co., Ltd.		1.65		1.45
Ok Electric Industry Co., Ltd.		1.20		1.25
Nihon Petrochemical Co., Ltd.		2.14		
Japan Wool Textile Co., Ltd.		4.32		
Daicel, Ltd.		1.45	2.58	1.40
Yokohama Rubber Co., Ltd.		1.54	1.24	

TABLE IX (Continued)

	1960	1965	1970	1972
Aichi Steel Works, Ltd.		1.36		2.32
Nippon Pulp Industry Co., Ltd.		1.21		
Hino Motors, Ltd.		1.38		1.44
Toa Gosei Chemical Industry Co., Ltd.		2.82		
Daihatsu Kogyo Co., Ltd.		3.69		
Taisei Corporation		1.68		1.03
Matsuzakaya Co., Ltd.		2.29	1.08	1.18
Matsushita Electric Works, Ltd.		1.75	1.62	1.17
Esso Standard Co., Ltd.		1.04		
Dai Nippon Printing Co., Ltd.		1.07	1.20	
Hitachi Metals, Ltd.		1.03	1.25	
Morinaga Confectionary Co., Ltd.		1.64		1.59
Tanabe Seiyaku Co., Ltd.		1.02		
Toyo Kohan Co., Ltd.		3.77		
Fuji Sash Industries, Ltd.		8.54		
Takara Shuzo Co., Ltd.		6.57		
Toyota Motor Sales Co., Ltd.		1.17		5.46
Ohbayashi-Gumi, Ltd.		2.89	1.77	4.86
Sankyo Co., Ltd.		1.24	1.17	2.99
Nippon Gakki Co., Ltd.		2.26	1.81	
Tokuyama Soda Co., Ltd.		2.04		1.41
Furukawa Mining Co., Ltd.		1.13		1.26
Daimaru, Inc.		1.41		2.23
Toyo Seikan Kaisha, Ltd.		1.80		
Nippon Dream Kanko K.K.		3.20		
Shionogi & Co., Ltd.		2.44		2.49
Osaka Cement Co., Ltd.		3.91		
Toppan Printing Co., Ltd.		1.30		
Shimazu Seisakusho, Ltd.		1.21		1.45
Kyowa Hakko Kogyo Co., Ltd.		2.02		
Kure Shipbuilding & Engineering Co., Ltd.		1.03		
Nissho Co., Ltd.		1.12		
Daikin Kogyo Co., Ltd.		1.50	1.82	
Shin-etsu Chemical Industry Co., Ltd.		1.06		3.12
Meiji Seika Kaisha, Ltd.		4.06		1.57
Hokuetsu Paper Mills, Ltd.		2.03		
Taisyo Pharmaceutical Co., Ltd.		1.01		
Chichibu Cement Co., Ltd.		6.20		
Nippon Denso Co., Ltd.		1.93		
Nippon Sharyo Seizo Kaisha, Ltd.		1.82		
		Total		
		93 corporations		
Mitsui & Co., Ltd.			1.41	1.60
Toyo Kogyo Co., Ltd.			1.99	
Mitsubishi Petrochemical Co., Ltd.			1.10	1.29
Asahi Glass Co., Ltd.			1.21	1.07
Tokyu Real Estate Co., Ltd.			2.17	
Sumitomo Shoji Kaisha, Ltd.			1.31	
Sanyo Electric Co., Ltd.			1.04	1.01
Kajima Corporation			1.56	2.20

TABLE IX (Continued)

	1960	1965	1970	1972
Sony Corporation			2.46	2.52
Onoda Cement Co., Ltd.			1.25	
Fuji Heavy Industries, Ltd.			1.04	
Hitachi Cable, Ltd.			1.00	
Nippon Seiko K.K.			1.19	1.17
Sumitomo Light Metal Industries, Ltd.			1.10	1.26
Nichimen Co., Ltd.			1.44	
Nisshin Spinning Co., Ltd.			1.30	
Toyoda Automatic Loom Works, Ltd.			1.61	
Takashimaya Co., Ltd.			1.31	
Tokyo Sanyo Electric Co., Ltd.			1.47	
General Sekiyu K.K.			1.34	
Imperial Hotel, Ltd.			1.14	7.83
Morinaga Milk Industry Co., Ltd.			1.04	
Nitto Chemical Industry Co., Ltd.			11.44	
Chiyoda Chemical Engineering & Construction Co., Ltd.			2.10	1.33
Ebara Manufacturing Co., Ltd.			1.08	2.05
Toyo Bearing Mfg. Co., Ltd.			1.38	
Tokyu Construction Co., Ltd.			1.56	
Taiheiyo Kaiun Co., Ltd.			1.75	
			Total	
			<u>50 corporations</u>	
Nisshin Steel Co., Ltd.				2.78
Sumitomo Chemical Co., Ltd.				1.21
Showa Denko K.K.				1.93
Mitsui Toatsu Chemicals, Inc.				1.09
Nippon Light Metal Co., Ltd.				1.46
C. Itoh & Co., Ltd.				1.03
Sumitomo Electric Industries, Ltd.				1.20
Daido Steel Co., Ltd.				1.60
Marubeni Corporation				1.19
Seibu Railway Co., Ltd.				27.56
Japan Steel Works, Ltd.				1.27
Furukawa Electric Co., Ltd.				1.48
Nippon Oil Co., Ltd.				1.15
Ajinomoto Co., Inc.				1.42
Daikyo Oil Co., Ltd.				1.19
Japan Synthetic Rubber Co., Ltd.				2.36
Koa Oil Co., Ltd.				1.54
Nagoya Railroad Co., Ltd.				1.71
Kanegafuchi Chemical Industry Co., Ltd.				2.44
Toho Zinc Co., Ltd.				7.40
Nippon Zeon Co., Ltd.				2.93
Kanematsu-Gosho, Ltd.				1.09
Dowa Mining Co., Ltd.				2.08
Nippon Sanso K.K.				1.43
Koyo Seiko Co., Ltd.				1.20
Ataka & Co., Ltd.				1.29
Nissan Diesel Motor Co., Ltd.				1.51
Kureha Chemical Industry Co., Ltd.				1.87

TABLE IX (Continued)

	1960	1965	1970	1972
Hitachi Sales Corporation Co., Ltd.				31.01
Nitto Boseki Co., Ltd.				1.23
Meiji Milk Products Co., Ltd.				1.55
Nakayama Steel Works, Ltd.				1.11
Dainichi-Nippon Cables, Ltd.				1.10
Tokai Pulp Co., Ltd.				1.18
Kumagai Gumi Co., Ltd.				1.85
Victor Company of Japan, Ltd.				2.17
Shinko Electric Co., Ltd.				1.83
Ricoh Co., Ltd.				1.14
Toyo Pulp Co., Ltd.				3.58
Toa Gosei Chemical Industry Co., Ltd.				1.05
Japan Wool Textile Co., Ltd.				1.27
Toshin Steel Co., Ltd.				2.77
				Total
				102 corporations

Source: [8, pp. 340-41].

Among the 300 biggest corporations in Japan, 31 had cash flow ratios above one in fiscal 1960, 93 in 1965, 50 in 1970, and 102 in 1972. There is a clear trend of rising cash flow ratios.

Firms in Table IX are classified by corporate group in Table X. In fiscal 1960, there were no corporate groups with cash flow ratios greater than 1. In fiscal 1965, ten groups crossed the line: Matsushita (2.85), Nippon Kangyo Bank (1.45), Toshiba (1.37), Kobe Steel (1.36), self-financing type (1.20), Daiwa Bank (1.16), Toyota (1.10), Fuji Steel (1.04), Sanwa Bank (1.01), and equity concentration type (1.01). In fiscal 1970, performance deteriorated, leaving only Matsushita and Toyota in this category. This was due only to the fact that the recession brought down aggregate investment in plant and equipment to relatively low levels in 1965 (see Table VII). In 1965, a 1.8-fold increase in cash flow over 1960 took place while aggregate plant and equipment investment rose only 1.27 times. By 1970, in comparison, cash flow had increased 2.8 times during the preceding five years, and aggregate plant and equipment investment increased 2.7 times. Fiscal 1972 was not recessionary, but many corporations raised their cash flow ratios, particularly the big industrial capital groups such as Matsushita (1.80), Toyota (1.59), Nippon Steel (1.40), Toshiba (1.26), and the equity concentration type (1.06). Corporate groups centered on financial institutions (including former zaibatsu groups) tend to have lower cash flow ratios due to the strong support received from their financial institutions. Among the former zaibatsu groups Sumitomo is most conspicuous in this regard.

The comparative examination above shows a rising trend of cash flow ratios in Japanese corporations, only to a lesser extent than their U.S. counterparts.

This phenomenon does not necessarily conflict with the low net worth to total liability ratio derived from balance sheets. Tangible fixed assets found in the balance sheet are an accumulation of past investment in plant and equipment

TABLE X
CHANGES IN CASH FLOW RATIOS BY BUSINESS GROUP

	Fiscal Year			
	1960	1965	1970	1972
I State capital:				
Special corporations	0.24	0.51	0.30	0.73
Development Bank	0.43	0.74	0.73	0.64
II Long-term Credit Bank:				
Industrial Bank	0.36	0.99	0.62	0.90
Norinchukin Bank, etc.	0.62	0.68	0.73	0.69
III Big industrial capital:				
Nippon Steel	0.38	0.59	0.40	1.40
Fuji Steel	0.26	1.04		
Kobe Steel	0.22	1.36	0.39	0.25
Toyota Group	0.48	1.10	1.00	1.59
Hitachi Group	0.42	0.57	0.84	0.91
Toshiba Group	0.42	1.37	0.77	1.26
Matsushita Group	0.61	2.85	1.58	1.80
IV Mitsubishi Group	0.56	0.71	0.54	0.75
V Sumitomo Group	0.43	0.73	0.45	0.55
VI Mitsui Group	0.47	0.89	0.42	0.68
VII Daiichi Bank Group:				Daiichi Kangin
Daiichi Bank line	0.46	0.97	0.89	0.85
Furukawa line	0.32	0.77	0.67	0.89
Kawasaki line	0.32	0.50	0.32	0.57
VIII Fuji-Yasuda Group	0.60	0.57	0.43	0.65
IX Sanwa Bank Group	0.49	1.01	0.75	0.87
X Daiwa Bank Group	0.31	1.16	0.46	0.39
XI Nippon Kangyo Bank Group	0.46	1.45	0.58	—
XII Tokai Bank Group	—	0.55	0.55	0.76
XIII Other groups	0.18	22.06	0.97	0.57
XIV Foreign capitals	0.45	0.73	0.38	0.80
XV {				
Equity concentration type	0.62	1.01	0.63	1.06
Self-financing type	0.57	1.20	0.65	0.83
Equity diversification type	0.23	0.48	0.45	0.38
Total	0.42	0.75	0.55	0.69

Source: [8, p. 342].

going back to the longevity of the equipment, depending more upon the relatively lower cash flow ratios of the past. However, as long as rising cash flow ratios can be observed as analyzed in this paper, new additions to accumulated plant and equipment now and in the coming years will be financed by higher cash flow ratio funds. As plant and equipment is renewed, higher cash flow ratios will gradually make themselves felt on make-up of assets corresponding to tangible fixed assets (as a stock) on the balance sheet, until a higher net worth ratio of Japanese corporations is attained.

Such a rising trend of cash flow ratios (particularly over 1—or a rising trend of net corporate surplus) is bound to create the two following theoretical prob-

lems. One is a greater prevalence of control of one corporation by another. Net corporate surplus accumulated internally within corporations is, as mentioned, ideally suited for direct investment.

The theoretical problem arising there is that the separation of three powers, often mentioned as a philosophy of corporate management, contends that the auditing system, the board of directors, and the general meeting of shareholders correspond respectively to the judicial, administrative, and legislative branches of government, and that they should be independent acting to check and balance each other. However, as gradually rising cash flow ratio and increasing net corporate surplus produce corporations that are shareholders of other corporations, the shareholders' meeting loses its intended meaning. The ten largest shareholders in Japan are by and large corporations. This inevitably leads to a situation where leading shareholders send their directors to be board directors of companies that they own stock in. Such corporate shareholders will see no need for shareholders' meetings (the legislature), for they can then represent themselves directly on the board. Shareholders' meetings will be devoid of meaning something that has already occurred in many Japanese corporations. The minute the president of a company, acting as chairman of the shareholders' meeting, proposes discussion of the statement of accounts, a *sōkaiya* stands up and asks for the report of the auditors immediately without going through the recitation of figures. *Sōkaiya* are people owing shares in a corporation solely to benefit from either through threat to cause trouble at shareholders' meetings or by assisting management to conduct meetings without obstruction. Other *sōkaiya* then shout, "Motion seconded!" "No objection!" and "Proceed!" All items on the agenda are dealt with in ten minutes in similar fashion. This is deliberately planned to allow no expression of dissent from general shareholders and to adjourn the meeting in the shortest possible time, the sole concern of the chief of general affairs in charge of the shareholders' meeting. The *sōkaiya* are fully used by corporations. This is a clear manifestation of the shareholders' meeting completely devoid of meaning.

The reality negate the ideal of separation of powers. No element of independence or check and balance can be seen between administration and legislature. What exists is a despotic system of private corporations. Rising cash flow ratios along with increasing net corporate surpluses makes control of corporations by corporations prevalent in the economy, bringing on the danger of despotic rule by private corporations. This is an important theoretical problem.

The other theoretical issue created by the new situation is related to balance of savings and investment. Under the assumption of business democracy, largely valid and specifically assumed in Keynes's *General Theory*, savings are made only by households. It is assumed that household savings are then changed into securities or bank deposits, and any person with ample entrepreneurial ability can easily procure investment funds at a certain interest rate at any time. It is also assumed that household savings equal investment by enterprise. However, postwar corporate development has not only produced sufficient cash flow to

finance plant and equipment investment but also generated net surplus over and above this.

Even if the sum of net corporate surplus and household savings are stored as securities, there is no need for corporations to borrow money from this source and it will not become net investment (=net savings) in the aggregate society. Yet households will try to save more as incomes rise while corporations attempt to maximize net corporate surplus. Herein lies the paradox. Professor N. Kaldor thinks that these household savings and net corporate surpluses will flow into the stock market and induce higher stock prices, resulting in capital gains. Such relations between savings and investment have no place at least in Keynes's *General Theory*. This then is a new problem. These two problems have to be dealt with in another paper. Let us only point out that this empirical analysis shows that there are grave and inescapable problems as reality threatens theory.

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