

KOBE ECONOMIC & BUSINESS REVIEW

13th
ANNUAL REPORT



THE RESEARCH INSTITUTE FOR
ECONOMICS AND BUSINESS ADMINISTRATION
KOBE UNIVERSITY

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ANNUAL INCOME UNDER THE CORPORATION INCOME TAX LAW

Susumu WATANABE

I

Concerning the computation of “the amount of income of each business year” as the tax basis of corporation income tax, our revised corporation income tax law provides as follows: The amount of income of each business year of an inland corporation shall be the amount of revenues of the year less expenses and losses of the year. (§ 22-1)

In computing the income of each business year of an inland corporation, amounts to be included as revenues of the year shall be, unless otherwise provided by the law, the revenue of the year that comes from sales of assets, onerous or gratuitous offers of assets or services, gratuitous receipts of assets and other transactions with the exception of capital transactions. (§ 22-2)

In computing the income of each business year of an inland corporation, amounts to be included as expenses or losses of the year shall be as follows:

(1) cost of sales, cost of completed constructions and other similar costs, which are related to the revenues of the business year.

(2) besides those which are prescribed in the above (1), amounts of selling expenses, general administrative expenses and others excluding those expenses whose liabilities have not been established by the end of the business year excepting depreciation.

(3) losses of the business year due to transactions other than capital transactions. (§ 22-3)

Capital transactions prescribed in the above two paragraphs mean transactions to increase or decrease the capital of a corporation and to distribute the income or surplus of a corporation. (§ 22-4)

In short, the income of each business year is computed by deducting expenses and losses of the year from the amount of the revenues of the year. In this case, amounts to be treated as revenues of the year are, unless otherwise provided, the sum of revenues from sales, etc. (excluding those belonging to capital transactions), while amounts to be treated as expenses and losses are, unless otherwise prescribed, the sum of cost of sales, selling expenses, general administrative

expenses and other expenses and losses (except those belonging to capital transactions). And capital transactions mean such transactions as will cause an increase or decrease in capital or capital surplus, and the distribution of income or surplus by a corporation.

These provisions have tried to clarify the contents of revenues, expenses and losses, while the old provision (article 9) before revision only stated that the income of each business year of an inland corporation shall be the amount of revenues less expenses and losses of the year. And this amendment seems to contribute to the understanding of the system of income computation under our corporation income tax law.

But it does not mean a change in the concept of the income of a corporation. Rather, it should be so interpreted that the concept of the income of each business year as a tax basis, as well as a basic calculation method of the income remains the same as before, and that the above mentioned amendment is merely a codification of what was not expressed in words before.

This interpretation is supported in part by the following statement from "A Summary of the Revision of the Corporation Income Tax Law": concerning "Arrangements and Rationalizations of Corporation Income Tax System", it states, "While the present system should basically be maintained, following amendments should be made in order to bring about arrangements and rationalizations of the system" and "As far as the computation of the tax basis and the amount of tax are concerned, (a) in computing taxable income the principle should be made clear that revenues are increases in net assets (assets less liabilities) of a corporation (this idea remains unchanged as before) and expenses shall be calculated by matching them with revenues."

In this paper we will study some fundamental ideas relating to the measurement of annual income under the corporation income tax law, laying stress on the revised code. The first problem we shall consider is the computation method of annual income under the corporation income tax law.

When we distinguish (a) the method of calculating income by deducting the expenses and losses from the revenues of a business year (which shall be called the "profit and loss method" hereunder), from (b) the method of comparing the end-of-period net assets (the excess of total assets belonging to an enterprise over total liabilities) with the beginning-of-period net assets (which shall be called the "net assets method" hereunder), it is evident that our corporation income tax law has chosen the former method.

And yet there is a misunderstanding that our corporation income tax law relies on the "net assets method" in determining a corporation income. This misunderstanding has perhaps come from the use of the words "an increase or

decrease in net assets” in one part of Basic Notifications on the Treatment of Corporation Income Tax, as follows:

Revenues mean, unless otherwise prescribed by the law, all events which will lead to an increase in net assets except by capital transactions.” “Expenses and losses mean, unless otherwise prescribed by the law, all events which will lead to a decrease in net assets except by capital transactions.”

But these sentences do not imply that income is computed by measuring an increase or decrease in net assets. Rather the words “an increase or decrease in net assets” are no more than an explanation of the nature of the revenues or expenses and losses. Namely, they are only an expression of the fact that what will cause increases in net assets are revenues and those leading to decreases in net assets are expenses and losses. (If unsatisfied with these definitions of revenues and expenses and losses, one could define them otherwise from another viewpoint. But it is a problem of the formation of a concept and not of a calculation method of income).

In the corporation income tax law we find the words “inventory valuation,” which, however, do not mean the calculation of net assets at the end (or beginning) of a period using the amount determined by a valuation method of inventories. On the contrary, it is for the purpose of computing the cost of inventories to be deducted from revenues.

On this point, Article 29 of the revised corporation income tax law prescribes as follows: “When the amount to be included in expenses and losses are computed for the income determination of each business year, the value of inventories at the end of the year which shall be the basis of the computation shall be the amount measured by the inventory valuation method which the inland corporation has elected.” Further, Article 31 states, “As to depreciable assets of an inland corporation, the amount of depreciation to be included in the expenses and losses of each business year shall be that part of the depreciation charged by the corporation in a business year which does not exceed the amount calculated in accordance with the government ordinance using the depreciation method which the corporation has elected with respect to the asset.” The above-mentioned two articles will serve greatly to clarify the meanings of inventory valuation and depreciation, as they indicate that those procedures are used to determine income by the “profit and loss method.” (In the former law the purpose of inventory valuation had not been shown, but it was taken for granted that its purpose was for the measurement of costs of inventories to be included in expenses and losses).

It is possible to separate income according to its class or source and to impose no tax or slight tax on some kinds or sources of income. This is called taxation

based on the "source of income" concept. On the other hand, taxation of all classes and all sources of income without discrimination is called taxation based on the "increase of net worth" concept. From this viewpoint our corporation income tax law is based on the "increase of net worth" concept, because all sorts of corporation income are taxed indiscriminately. But it should be noted that it does not rely on the "increase of net worth" concept as a method of income computation.

II

As explained above, annual income under the corporation income tax law is calculated by the "profit and loss" method. Then, what is the relation between tax accounting and business accounting (based on corporate accounting principles) where income is determined by the same "profit and loss" method? In other words, is "taxable income" determined by tax accounting equal to "business income" determined by business accounting? We must investigate these differences from various sides.

First, the correct determination of a "periodic income" requires the exclusion of prepaid expenses and deferred revenues from current income computation. Under the corporation income tax law, the income of the current business year is computed by deducting expenses and losses from revenues, both relating to the period. And revenues and expenses and losses are recognized as causes of an increase or decrease in net assets. When we assume that income is only determined as an increase or decrease in net assets, revenue expenditures already made are treated as expenses and revenue receipts already accepted belong to revenues. Here we find no reason to exclude prepaid expenses and deferred revenues in the current income determination. Although they are clearly revenues or expenses of the current period from the viewpoint of an increase or decrease in net assets, prepaid expenses and deferred revenues are excluded in the determination of the current year income because revenues and deductions participating in the income computation of each business year must be those "of the current year." The revised corporation income tax law has made this point clear, saying, "the amount of income of each business year of an inland corporation shall be the amount of revenues of the year less expenses and losses of the year." Prepaid expenses and deferred revenues have also been excluded in the past in the determination of the current year income, and this revised law was not the first. It can be said, however, that this treatment has been clarified in words for the first time. The above cited phrase "of the year" is interpreted as "belonging to the current year."

Besides the exclusion of prepaid expenses and deferred revenues in the determination of the current year income, accrued revenues and accrued expenses must be included in order to obtain a correct periodical income. Under our corporation income tax law accrued revenues are, as a rule, recognized in the computation of a periodic income except in an exceptional case where there is a provision that the recognition of accrued revenues is not required. Accrued revenues mean interests receivable, rents receivable, etc., and "they are those revenues considered to have accrued with the lapse of time up to the end of the period by the continuous offer of services by contract, so that they are different from the accounts receivable due to sales of merchandise or products, or from receivables resulting from sales of securities, land, buildings, etc." Our corporate accounting principles assume a conservative attitude regarding accrued revenues stating as follows: "As accrued revenues are thus related to services not completely rendered by the end of the period, the corporate accounting principles have adopted a sound convention of favoring cautious procedures as to the treatment of accrued revenues, and have recognized their exclusion in the determination of the current year income." "So long as they are certain to be collected, however, they shall be listed on the asset side of the balance sheet and shall be included in the income statement as accrued revenues."

The corporation income tax law requires the recognition of all sorts of accrued revenues in principle, while the corporate accounting principles demand only the recognition of those which are sure to be collected. Therefore, there is room for difference on this point between both accountings.

As to accrued expenses, the corporate accounting principles require them to be included in the current income computation, which is a matter of course for the purpose of obtaining the correct income of a period.

"Payables mean that part of debts fixed by specific contract, etc., which have not been paid. Accrued expenses are distinguished from payables in that the former is related to services already received but not yet paid where services are rendered continuously by a specific contract. Accordingly, their amount of consideration has already accrued as an expense of a period with the lapse of time or the receipt of services, so it must be considered in the determination of the current year income, and should be listed as a current liability on the liability side of the balance sheet."

Is it permitted to recognize accrued expenses under the corporation income tax law? This problem must be solved by judging whether such expenses fall in the category of expenses prescribed in Item 2 of Para. 3 of Art. 22 of the revised corporation income tax law, which states, "besides those which are prescribed in the above (1), amounts of selling expenses, general administra-

tive expenses and others excluding those expenses whose liabilities have not been established by the end of the business year excepting depreciation.”

In this context an established liability is clearly that in a legal sense. The basis of an established liability relating to the recognition of expenses means that, on the one hand, expenses are recognized on the basis of the establishment of a liability even when a payment of cash has not been made and that, on the other hand, expenses which have not become established as a liability by the end of the period are excluded in the computation of the periodical income. This basis constitutes a part of “Kenri Kakutei-Shugi” in a broader sense which seems to be the ground for our corporation income tax law. Namely, the establishment of a claim to cash receipts as well as the establishment of an obligation to pay cash in a legal sense are properly adopted as the basis of recognition of revenues and expenses under the corporation income tax law. (All claims to cash receipts and all obligations to pay cash do not always concern revenues and expenses. Of course there are receipts and payments which do not become revenues and expenses.)

In some cases, it is not clear when the liability is established. We understand, however, that it is not the same as the day when a debt becomes due. The recognition of accrued expenses, we think, is justified as an established liability.

III

Now, what is the relationship between the amount to be included in expenses and losses according to the corporation income tax law and the principle of matching cost with revenue?

It is evident that cost of sales, cost of completed constructions and other similar costs are directly related to sales revenue of the current year. The relation of selling expenses, general administrative expenses and other expenses with revenues are not so direct as that between sales revenue and cost of sales, etc., but those expenses are charged to revenue, treating them for convenience as expired to produce the revenue of the period in which those expenses occurred. This relationship is sometimes called a periodic matching. Next, losses are distinguished from expenses in that they are expired costs which have not contributed to the production of revenue. Therefore though they have no relation with revenue, losses are charged to the period in which they have been recognized, considering them as cost not useful in the future.

Incidentally, it should be noted that expenses and losses stated in Para. 3 of Art. 22 of the revised corporation income tax law do not include all expenses and losses that are to be charged to a current period for the determination of

periodic income. Namely, the corporation income tax law disapproves the recognition of those expenses whose liabilities have not been established by the end of the business year excepting depreciation. But from the viewpoint of matching cost with revenue there are some items whose liabilities have not been established but, nevertheless, should be recognized as expenses of a fixed period.

For example, when sales are made under a guaranty agreement, expenses necessary for replacement or repair in some future time (the obligation to replace or repair has not been established by the end of the year) should be charged to the revenue from sales of the current period from the viewpoint of matching revenue and cost. Further, when sales are made with lottery tickets and the lottery takes place in a future period when premiums will be given, the cost of the premiums should be charged to revenue from sales of the current period. The obligation to give premiums is not established or fixed by the end of the business year in this case, either. Many similar cases can be cited.

Among these expenses, those which, the corporation income tax law considers proper to be included in the expenses of a period, will be found to match the revenue by providing special regulations concerning the setting-up of required allowances. (Under our corporation income tax law even those allowances which are proper from the viewpoint of matching cost with revenue cannot be included in expenses unless specifically recognized by the law). But there are many kinds of allowances which are proper from the business accounting viewpoint and yet are unapproved by the corporation income tax law.

“The Report on the Arrangement of Personal Income Tax Law and Corporation Income Tax Law” prepared by the Committee on Investigation of Tax Systems (a consultative committee of the Prime Minister) states as follows: “There is an opinion that asserts the recognition of the following new allowances, (1) an allowance to provide for charges after the recognition of revenue from sales, as in the case of sales under a guaranty agreement, (2) an allowance to provide for expenses of premiums in the case of sales with lottery tickets, and (3) an allowance for expenses of restoring a leased real estate property to its original state.

It seems that these allowances should be provided from the strict standpoint of matching cost with revenue. Accordingly an investigation should be made in the direction of introducing these allowances into the corporation income tax law if the distinction between these allowances and similar reserves can be drawn and the amount of allowances to be recognized can be properly ascertained.”

The allowances now recognized by the revised corporation income tax

law are allowances of bad debts, allowances for sales returns, allowances for employee bonuses, retirement allowances and allowances for special repairs, and the above-mentioned allowances for sales under a guaranty agreement, etc. has not yet been approved. Perhaps the distinction between these allowances and similar reserves could not be drawn and the method of ascertaining the proper amount of the allowances could not be found. At any rate, such being the case, the statement of "A Summary of the Revision of the Corporation Income Tax Law" that "the principle should be made clear that ... expenses shall be calculated by matching them with revenues" has been only partially realized, and the system of income determination under the corporation income tax law can hardly be said to be constructed on the basis of matching cost with revenue.

Accordingly, this factor also gives rise to differences between "business income" and "taxable income."

TRADE CONTROLS IN OCCUPIED JAPAN (1945–1949)

Fukuo KAWATA

Introduction

The Second World War was brought to an end by Japan's surrender with her acceptance of the Potsdam Declaration on August 15, 1945. The basic attitude of the Allied Powers toward the international trade of Japan was expressed in the eleventh item of the Declaration. The item reads as follows:

“Japan shall be permitted to maintain such industries as will sustain her economy and permit the exaction of just reparations in kind, but not those which would enable her to re-arm for the war. To this end, access to, as distinguished from control of, raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.”

Although it was made clear that eventually Japan would be permitted to participate in world trade, the traditional economic and legal system of Japan had to be completely changed under the occupation. The aim of this article is to deal chronologically with principal measures taken by the occupation authorities to control and reorganize the foreign trade of Japan.

Section 1. Disorganizaion of the Existing Trading System of Japan

Immediately after the end of the war, the occupation authorities launched their policy of disorganizing the existing trading institutions of Japan, starting with the dissolution of the Japan Trading Corporation (Nippon Koeki Eidan) and other main organizations relating to foreign trade directly or indirectly. This was effected as one of the measures for the demilitarization of Japan.

The directives and memoranda issued by General Headquarters of the Supreme Commander for Allied Powers (SCAP) for this purpose were as follows:

(1) Directive No. 3 (September 22, 1945)

In item (7), it is provided that “no imports to, or exports from, Japan of any goods, wares or merchandise will be permitted, except with the prior approval of this Headquarters.”

(2) United States Initial Post-surrender Policy for Japan (September 22, 1945)

In Part IV, Section 6, it is stated as follows: "Japan shall be permitted eventually to resume normal trade relations with the rest of the world. During occupation and under suitable controls, Japan will be permitted to purchase from foreign countries raw materials and other goods that it may need for peaceful purposes, and to export goods to pay for approved imports. Control is to be maintained over all imports and exports of goods and foreign exchange and financial transactions. Both the policies followed in the exercise of these controls and their actual administration shall be subject to the approval and supervision of the Supreme Commander in order to make sure that they are not contrary to the policies of the occupying authorities, and in particular, that all foreign purchasing power that Japan may acquire is utilized only for essential needs."

These above documents meant that international transactions of occupied Japan were placed completely and directly under the control of SCAP. From that time onward, the international trade of Japan was carried on under the strict control of G H Q until August 1947, when a limited private trade was re-opened.

(3) Memorandum for the Import of Essential Commodities (October 9, 1945)

This memorandum laid down the conditions of requests to be submitted to Headquarters on import commodities, and specified the measures to be taken by the Japanese Government.

It stated, "requests to import will not be submitted to this headquarters, unless: (a) such imports are vital to the maintenance of a minimum standard of living for the civil population; and (b) credits have been established for payments of imports desired by means of exports, approved by this headquarters for this purpose." The Japanese Government was requested promptly (a) to "submit its plans for payment for approved essential imports including schedules of resources presently available to it for payment of imports and a forecast of such resources as will become available for this purpose by December 31, 1946;" (b) to "submit a plan whereby resources may be made available to provide necessary foreign exchange and to present to the headquarters for approval its plan to conserve or prevent the use of resources in Japan, that are not essential to the maintenance of a minimum standard of living and which are suitable for export;" (c) to "insure that all practicable measures are taken to achieve the maximum utilization of essential resources so that imports into Japan are limited to absolute minimum essentials"; and (d) "to create an agency to be responsible

for receiving and for the distribution of, imports so as to insure equitable distribution at a cost consistent with current wages to the public."

(4) Memorandum for the Reports relative to import commodities (October 10, 1945)

In this memorandum, it was made incumbent for the Japanese Government to furnish the following information for each commodity when a request to import commodities was filed:

1.
 - a. Quantity consumed each year in the previous 10 years.
 - b. Quantity imported each year in the previous 10 years.
 - c. Countries from which it was imported.
 - d. Quantity on hand.
 - e. Quantity estimated to be required in the next 12 months.
 - f. Quantity estimated to be produced locally in the next 12 months.
2. The country of origin from which it is recommended the requested import be secured and the reason therefor.
3.
 - a. The estimated value in the country supplying the import.
 - b. The proposed selling price in Japan.
 - c. The proposed method of distribution.
 - d. Proposed names of the distributors.
4.
 - a. Major uses to which the commodity will be put.
 - b. If its end use requires other imports, state what such imports are and the quantity of such supplies currently available.
5.
 - a. The estimated weight of the shipment in metric tons.
 - b. The estimated measurement of the shipment in measurement tons of 40 cubic feet each.
6. The relative urgency of the import.

(5) Memorandum for Export Procedure (March 14, 1946)

Before the issue of this memorandum no fundamental principle or procedure had been laid down on exports, although many directives were issued on imports. Commodities had been exported before that date by the order of SCAP, as occasion arose. The export order of SCAP was issued for such commodities as were demanded by the Allied Powers, regardless of the needs in Japan. With the gradual recovery of export industries of Japan, it became necessary to establish a general principle on her export trade. This memorandum referred to the attitude of G H Q, the responsibility of the Japanese Government, the delivery of shipment, samples of proposed exports and so on, when applications for export were submitted.

Section 2. Building up of New Trading Organizations under the Occupation

This period ranges from April 1946 to December 1947, during which the old trading system was disorganized, and a new system built up, starting with the designation of the Boeki Cho (the Board of Trade), as the sole trading organization of Japan on April 3, 1946.

Almost all important directives for carrying out foreign trade under the direct control of the occupation authorities were issued during this period.

Main memoranda were as follows:

(1) Memorandum for the Establishment of Boeki-cho (the Board of Trade) (April 3, 1946)

The memorandum for the import of essential commodities (issued on October 9, 1945), as was stated above, gave instructions to "create an agency to be responsible for receiving and for the distribution of imports so as to insure equitable distribution."

In accordance with this memorandum, the Boeki Cho was created on December 13, 1945 as an extra-ministerial bureau of the Ministry of Commerce and Industry. On December 18, 1945, Boeki Cho submitted to GHQ an application to be recognized as the exclusive agency of the Japanese Government to handle all Japanese foreign trade transactions.

Boeki Cho was officially recognized by the memorandum of April 3, 1946, in which it was stated that "all foreign trade will be handled by Boeki Cho on behalf of the Imperial Japanese Government, except as may be specifically authorized to the contrary by the Supreme Commander for the Allied Powers."

It was further provided that "no other agency of the Imperial Japanese Government, no quasi-governmental or other organization or association, and no natural or legal person under the jurisdiction of the Imperial Japanese Government will perform any foreign trade functions except through Boeki Cho or as specifically authorized by the Supreme Commander for the Allied Powers."

It also stipulated that "all commercial burdens, risks, claims and other responsibilities and liabilities as to foreign trade will be assumed by Boeki Cho.

(2) Memorandum for Freezing Material for Export (April 25, 1946)

It was already directed in the memorandum for export procedure issued on March 14, 1946, that the Japanese Government would be responsible for safeguarding any existing stocks of materials described as available for export, and

preventing any disposal until and unless General Headquarters, Supreme Commander for the Allied Powers, determined that the material should not be exported.

To supplement the above-mentioned memorandum, it was further stated in the memorandum of April 25, 1946 that whenever the Imperial Japanese Government gave written notice of any type to SCAP that a certain quantity of a particular material or product was on hand and could be exported, the quantity of that material or product would be frozen and no release would be permitted for any purpose until SCAP had indicated whether or not it was required for export.

(3) Memorandum for Reports relative to Import and Export Commodities (May 10, 1946)

The Japanese Government was directed by this memorandum to submit its requests for imports and exports for the calendar year 1947 by July 1, 1946. The memorandum dated October 10, 1945 was rescinded by this memorandum, and all commodities for the proposed import and export schedule had to be submitted on forms described in this memorandum.

(4) Memorandum for Illegal Import and Export Trade (June 4, 1946)

As was provided in Directive No. 3, item 7 (issued on September 22, 1945), no imports to, or exports from, Japan of any goods, wares or merchandise would be permitted, except with the prior approval of Headquarters. The Japanese Government, however, failed to enforce a strict control on rice imported from Korea, as it was dubious whether the directive was applicable to import and export trade with Korea or Formosa. Seeing this, the Headquarters directed the Japanese Government to take necessary steps to stop this illicit import and export trade, including the import of foodstuffs from Korea.

(5) Memorandum for Export Procedure (July 16, 1946)

In this memorandum, the export procedure originally outlined in Attachment 1 of the memorandum of March 14, 1946, was revised and substantive changes were made in case of shipment to countries other than the United States.

(6) Memorandum for Export Procedure (August 26, 1946)

In this memorandum, it was directed that all price quotations should be made in terms of "FOB Japan ports" instead of FAS.

This change was made retroactive to March 1, 1946.

(7) Memorandum for Freezing Material for Export (August 30, 1946)

In the memorandum of May 10, 1946, freezing was applied only to finished or semi-finished goods, but in this memorandum it was directed that raw materials also should be frozen until instructions were received from SCAP.

(8) Memorandum for Import-Export Accounting Control for Japan (November 19, 1946)

This memorandum chiefly concerned accounting control procedures for Japanese imports. The accounting control procedures for Japanese export had already been shown in the memorandum of March 14, 1946, and in this memorandum only practical points were stated.

Section 3. Preparation for Participation in World Trade

In 1947, occupation authorities relaxed, to some extent, their strict control of trade and began to take necessary measures for Japan to participate in world trade. This change was brought about partly through the intensification of the cold war, and partly through their realization that the economic independence of Japan was most important for the attainment of the objectives of the occupation. Trade and financial arrangements were concluded with several foreign countries, and the range of barter trade was enlarged. With the limited re-opening of private trade, procedures of trade were revised, branches of foreign banks in Japan were re-opened, and foreign buyers were permitted to come into Japan.

Thus, preparation for participation in world trade made gradual progress. Chief memoranda during this period were as follows:

(1) Memorandum for Resumption of International Postal Service between Japan and all other countries (January 2, 1947)

By this memorandum, international postal service between Japan and all other countries was authorized effective January 2, 1947, and paragraph 1 of the memorandum dated September 5, 1946, concerning the Resumption of International Postal Service between Japan and all other Countries except Germany was rescinded.

The service, however, was restricted to postal cards (including reply cards) and letters to and from Japan; one way gift parcel post to Japan, and mailing from Japan of such scientific and professional publications as might be approved by the Supreme Commander for Allied Powers.

Communications on postal cards and in letters were limited to personal and family messages and to business, financial and commercial correspondence, only for the ascertainment of facts and exchange of information. But the following letters were prohibited:

1. Letters authorizing the effecting of specific financial and commercial transactions;
2. Letters containing instructions or authorizations effecting property and financial transactions;
3. Letters containing currency, securities, checks, drafts, payment orders or other financial matters.

(2) Memorandum for the Procedure of Export of Samples (February 8, 1947)

This memorandum laid down general procedures for the export of samples.

(3) Memorandum for Marking Export Articles (February 20, 1947)

By this memorandum, the Japanese Government was directed to take immediate steps to insure that for every article prepared for export after 15 days of the receipt of this directive, the immediate container thereof and the outside package should be marked, stamped, branded or labeled in legible English with the words "Made in Occupied Japan."

(4) Memorandum for Export Procedure (May 3, 1947)

By this memorandum, the export procedure which had been provided for in the memorandum dated March 14, 1946, was simplified.

(5) Memorandum for Export Trade (August 9, 1947)

In this memorandum, several memoranda previously issued on export trade were rescinded or amended, and the Japanese Government was directed to take necessary action to establish procedures under which direct sales of approved items for export might be made by exporters in Japan to foreign buyers after approval of the contract, and validation of the export license by the Japanese Government and the Supreme Commander for the Allied Powers, and in such quantities only as were allocated by the Japanese Government and by the Supreme Commander. In this memorandum, the concrete method of trading after the limited reopening of private trade on August 15, 1947, was stated.

(6) Interim Import-Export Policies for Japan by the Far Eastern Commission published on August 11, 1947. (FEC Policy Decision, July 24, 1947)

The Far Eastern Commission decided, on July 24, 1947, "Interim Import-Export Policies for Japan", which were recommended to the Supreme Commander for the Allied Powers to be put into practice, and were made public on August 11, 1947.

These policies included 16 items, dealing with (I) long-range policy objectives, (II) interim controls, (III) development of an import-export program, (IV) imports, and (V) exports.

According to the explanation by the United States Government Authorities, this decision endorsed the policies already carried out in Japan by the United States, with the exception of item 16, which was newly added concerning exports of gold, silver and other precious metals.

In item 16, it was provided that stocks of gold, silver, cultural objects and other precious metals, precious stones and jewels should be disposed of as follows:

- a. Cultural objects, produced prior to September 1, 1945 should not be exported.
- b. Stocks of gold, silver, precious metals looted from occupied areas should be treated in accordance with the Far Eastern Commission policy and pending establishment of a new restitution policy, items known to have been looted or probably looted, should not be exported from Japan.
- c. Stocks of gold, silver, other precious metals, precious stones and jewels of clearly established Japanese ownership ultimately should be disposed of as reparations.

In the meantime, values of such Japanese assets should be preserved, but such assets themselves could be used as a means of acquiring foreign exchange to aid in financing production programs designed to contribute to the revival of productivity in a Japanese peace economy. In the case of exports of the above-mentioned assets equal opportunity to acquire these assets in return for acceptable currency should be granted to all member countries of the Far Eastern Commission. In accordance with the decision of the Far Eastern Commission, General MacArthur announced on August 14, 1947, a plan to use approximately \$137,000,000 worth of Japanese-owned gold and silver made available by the Far Eastern Commission as a base for acquiring foreign exchange to aid in reviving a peaceful Japanese economy.

The \$137,000,000 would be used to form the Occupied Japan Export-Import Revolving Fund to be utilized as a credit base against which private or governmental financing institutions of allied or neutral countries would be asked to advance funds or commodities to activate their foreign trade with Japan.

A spokesman for the Economic and Scientific Section of GHQ stated that

the formation of this Fund represented an important step toward the re-creation of Japan as a selfsupporting trading country. In order to export, Japan had to import raw cotton, wool, iron, salt, petroleum products, wood pulp, hemp, metals, rubber, and a number of other commodities. Only by export could Japan secure the means to feed all her people, and other nations needed those exports.

The use of this new credit base would permit Japan to reactivate her export industry so that when the Peace Treaty would be signed, her international credit standing would be satisfactory. Japan's efforts towards reconstruction would enhance her standing among the commercial countries of the world. In view of this and the urgent need for Japan's products it is anticipated that international credits based on the Funds would be offered in large volume.

Section 4. Further Relaxation of Trade Control

World economy in the late forties was facing a dollar shortage, which prevented the normal development of international trade. Occupied Japan belonged to the dollar area and trade with Japan was made in terms of dollars. This is one of the factors which impeded the growth of Japan's trade with non-dollar countries, as they were short of dollars. It was, therefore, decided in June 1948 to conclude bilateral trade agreements with sterling countries in order to promote Japan's trade with them.

During 1948, the number of countries concluding trade arrangements with Japan increased. With the expansion of trade volume and the diversification of traded commodities, the pound sterling, beside the U.S. dollar, came to be used as the acceptable currency for the settlement of international accounts.

The trading system under the direct control of SCAP had gradually been changed, but it was after the "Johnston Report" (which was published on April 26, 1948) that the principle of aid to Japan made a remarkable change. The categories of commodities imported into Japan, which had been limited to those goods vital to the maintenance of a minimum standard of living for Japanese people, were extended to include those materials necessary for economic rehabilitation.

According to the "Johnston Report", the United States decided to start from the fiscal year 1949 (that is, beginning in July 1948) the EROA (Economic Rehabilitation in Occupied Area) aid beside the existing GARIOA (Government Appropriation for the Relief in Occupied Area) aid. This measure proved very effective for the later rehabilitation of Japan's economy.

On August 15, 1948, Boeki Cho announced a drastic revision of the pro-

cedure for private export. Through this revision, export contracts with foreign buyers could be concluded directly by Japanese private exporters, instead of through Boeki Cho.

Although the contracts were subject to the approval of SCAP, it was quite significant that private Japanese exporters were allowed to negotiate with foreign buyers directly. Letters of credit of buyers which had been opened to Boeki Cho, came to be opened to private exporters. Sellers, not Boeki Cho, could negotiate directly with buyers for the settlement of claims arising from contracts, provided, however, that all settlements were subject to approval by the Japanese Government and the Supreme Commander for the Allied Powers.

Before this revision export prices had been fixed by SCAP in terms of dollars, but thereafter Boeki Cho decided the minimum dollar price ("floor price") of export goods after approval by SCAP. As this floor price was the minimum price for each commodity, the exporters were not allowed to sell at prices below that level, but they could sell goods at any price higher than the "floor price." Hence, the higher the dollar price contracted, the higher the yen price received. This served as an incentive to export trade promotion.

In spite of these measures, Japan's exports in the first half of 1948 were lower than in the same period of the preceding year. This was partly due to the import restrictions of foreign countries and partly due to inflation in Japan.

This declining export was quite contrary to the expectations of the United States that Japan's economy should become self-supporting. The United States Government, therefore, issued an interim directive to GHQ, on December 17, 1948, to make the Japanese Government enforce the nine-point stabilization plan, laying emphasis on the prompt achievement of economic self-sufficiency.

The objectives set forth in the interim directive of the United States are:

1. To achieve a true balance in the consolidated budget at the earliest possible date by stringent curtailing of expenditures and maximum expansion in total government revenues, including such new revenues as may be necessary and appropriate.
2. To accelerate and strengthen the program of tax collection and insure prompt, widespread and vigorous criminal prosecution of tax evaders.
3. To assure that credit extension is vigorously limited to those projects contributing to the economic recovery of Japan.
4. To establish an effective program to achieve wage stability.
5. To strengthen and, if necessary, expand the coverage of existing price control programs.
6. To improve the operation of foreign trade controls and tighten existing foreign exchange controls, to the extent that such measures can appropriately

be delegated to Japanese agencies.

7. To improve the effectiveness of the present allocation and rationing system, particularly to the end of expanding exports.

8. To increase production of all essential indigenous raw material and manufactured products.

9. To improve efficiency of the food collection program.

10. To develop the above plans to pave the way for the early establishment of a single general exchange rate.

The directive proceeded from the premise that "the prompt economic stabilization of Japan is a primary objective common both to the Allied Powers and the Japanese people". "The fundamental objective of this action — is the prompt achievement of that degree of economic self-sufficiency which alone can justify and insure political freedom".

As far as trade was concerned, the directive referred (in item 6) to the improvement of the operation of foreign trade controls and to the tightening of existing foreign exchange controls. It is significant that the directive (in item 10) suggested the early establishment of a single general exchange rate.

Before the issue of the directive concerning the nine-point stabilization plan, the Far Eastern Commission decided, on November 18, 1948, the policy to encourage an increase in Japanese exports for the re-establishment of a self-sustaining economy. It is noteworthy that the establishment of a single exchange rate for the yen was recommended in item 9 in this policy decision. In those days, multiple exchange rates or different price ratios had been applied according to the category of commodities, the ratios ranging from 150 yen to 600 yen per U.S. dollar.

Section 5. Toward the Normalization of Trade Mechanism

In 1949, the tendency toward the relaxation of trade control became apparent.

This was due to the change in the minds of occupation authorities. They realized that a self-sustaining economy of Japan could not be accomplished by such strict measures controlling her international trade as had been carried on in the past.

Among the important measures taken in 1949, were the establishment of a single official exchange rate for the yen at 360 yen per one dollar, permission for the purchase of foreign exchange credits for the purpose of stimulating exports, permission for the establishment of overseas agents of Japanese trading firms, abolition of the "floor price" system, and permission for private imports.

It was significantly pointed out by Mr. Joseph M. Dodge, Finance Adviser to General MacArthur concerning the Japanese Economic Stabilization, in his statement on March 7, 1949 that "while it is not too difficult a matter to compute a rate based on present circumstances, that is not all there is to the problem ...; it is one thing to establish a single official rate and another to defend it after it has been established." To maintain a single exchange rate, inflation had to be stopped. A series of drastic anti-inflationary measures had to be put into practice according to his advice to stabilize Japan's economy.

It was on April 23, 1949 that a memorandum for the establishment of an official exchange rate for the yen was issued at last.

(1) Memorandum for the Establishment of an Official Exchange Rate for the Japanese Yen (April 23, 1949)

The Japanese Government was directed to take steps necessary to put into effect at 0001 hours, April 25 1949, an official foreign exchange rate of 360 Japanese yen to one U.S. dollar. Rates for other currencies were to be based on this rate translated into U.S. dollar values of such currencies as were registered with the International Monetary Fund. This rate was to be basic for all permitted foreign trade and exchange transactions, including transactions for which the military conversion rate was then applicable, as well as deposits to the United States Aid Counterpart Fund for Japanese Stabilization.

(2) Memorandum for Purchase of Foreign Exchange Credits for the Purpose of Stimulating Exports (June 24, 1949)

By this memorandum, Japanese exporters were allowed to obtain a certain amount of foreign exchange. This foreign exchange could be used for paying expenses of travelling and staying abroad, of establishing branches in foreign countries, of obtaining necessary materials for credit transactions, and of purchasing foreign patents and know-how.

(3) Memorandum for the Plan to safeguard Exports against probable dangers arising from the abolition of the floor price system (October 22, 1949)

When this measure was taken, there was a rumor that Japan's exports would decline to one-third of the planned figure by the effect of the devaluation of the pound sterling (on September 18, 1949), and the yen would also be devaluated sooner or later.

On October 15, 1949, General MacArthur issued a statement denying the devaluation of the yen. This statement was endorsed by the abolition of the floor price system. The direct object of this step was to make export prices

flexible in order to promote Japan's exports without devaluing her currency.

(4) Memorandum for a License for Free Exports (October 20, 1949)

Although private export trade with some restrictions, had already been permitted on August 15, 1947, and a drastic change in the procedure of private export trade had also been effected on August 15, 1948, there still remained the approval of Boeki Cho and the validation of General Headquarters as barriers to freer private exports. These barriers were largely reduced by this memorandum. By this measure, about 85% of total exports were exempted from the approval or validation of the above organizations.

(5) Memorandum for Private Imports (October 21, 1949)

Private trade had so far been prohibited, but it was directed by this memorandum that from January 1 1950 onwards, private imports would be permitted, and details of commodities to be imported and of import procedures would later be published by the Japanese Government.

Thus, in 1949 the relaxation of trade control was remarkable. In view of this situation, General MacArthur issued the "Statement concerning Return of Private Import to Normal" on December 27, 1949.

In the statement, it was announced that "the Supreme Commander had authorized the transfer of control of the equivalent of \$67,000,000 in pounds sterling and U.S. dollars to the Japanese Government. The Bank of Japan, acting as agent for the Foreign Exchange Control Board, will take control of these funds for the account of the Supreme Commander with full authority to delegate and re-integrate its powers of operation to the Foreign Exchange Bank in order to facilitate the implementation of private imports in accordance with the Foreign Exchange Control Law and under SCAP surveillance."

The statement referred to the introduction of the import license system and foreign exchange budget system. Under the import license system, appropriate government agencies had to publish lists of goods and payments for which import licenses would be considered. Importers were to apply directly to designated foreign exchange banks for licenses with which to effect private procurements in accordance with such lists.

"Licenses would be considered by banks in accordance with fund availabilities as determined by the Bank of Japan as agent for the Foreign Exchange Control Board, and in general be issued on a first-come-first-served basis. The license would assure the importer that he could purchase with yen the foreign exchange needed to consummate his approved import." Under the foreign exchange budget system, goods and payments to be authorized were programmed

in a quarterly foreign exchange budget which was carefully prepared by the Japanese government and reviewed by General MacArthur's Headquarters.

The budget was to itemize expected proceeds from Japanese visible and invisible exports and to program imports and payments in accordance with the foreign exchange or trade agreement credit determined to be available.

A new task was imposed on the Bank of Japan as agent for the Foreign Exchange Control Board. The Bank of Japan was to take title to the transferred funds on behalf of the Japanese government and to be responsible for maintaining central records and determining funds and credit availabilities upon which banks could issue import licenses. This action, as SCAP officials indicated, "reflected the final major steps in returning Japan's trade to normal channels."

In the meantime, the draft of Foreign Exchange and Foreign Trade Control Act was submitted to the Diet on November 21, 1949. This Act was drawn up as a fundamental law for Japan to prepare herself for future participation in the International Monetary Fund after signing the Peace Treaty. The practise of c.i.f. pricing for exports and f.o.b. pricing for imports, which had been sent for approval to GHQ by the Foreign Exchange Control Board, was approved on December 17, 1949.

Moreover, it was announced on January 10, 1950, by the British Government that Japan should be exempted from the application of the "Trade with Enemy Act." Through this measure, Japan's trade with the sterling areas was normalized. With the outbreak of the Korean War on June 25, 1950, the so-called "Korean Boom" took place, and Japanese trade made remarkable progress by this impact. We may well say that Japan had virtually returned to the world market by the latter half of 1950, although the Peace Treaty was not signed until September 8, 1951, being put into force on April 28, 1952.

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PATTERNS OF DOMESTIC SHIPPING SERVICES

— Characteristics of Japanese Coastwise Shipping —

Seiji SASAKI

As a rule, there are two or three kinds of shipping services in every country, at least, in the great Powers of the world. One is home service, in which ships transport domestic cargoes from one native port to another. The other is the so-called foreign service and is often subdivided into the following two: First, transportation service between one's own country and foreign countries in which ships carry trade-goods, either exports or imports: Second, cross trade service from one foreign country to another, in which ships navigate quite outside their own territory.

It is, of course, true that the development of the navigation area from a coastwise route to an ocean route, as well as from the river to the sea, was itself very clear and most important in the growing process of our modern shipping industry, and that the overseas advancement of shipping activities, especially, ocean carriers, ocean routes, ocean navigation or ocean shipping should be in fact the main object for our study on the shipping of today. Nevertheless home transportation service which is composed of not only sea-borne or coastwise service but that on rivers, canals and lakes, is actually carried on in almost all countries. It is often connected inevitably with the national economy and national life. In this meaning, it is also very important for us to study the domestic shipping service, although the majority of academic persons and business experts are in general apt to pass over it lightly.

In this article we wish first to show some patterns of such domestic shipping services in the world, even though our main aim is, of course, to grasp the special conditions of our own Japanese domestic service as compared with foreign similar services. Each country has its own characteristic domestic shipping that has many specialities with some similarities. The Japanese domestic shipping has among others its own special pattern. Only with this clear recognition we shall be able to reach a true understanding of Japanese actual domestic shipping conditions. On the other hand, this recognition makes a real speciality of our present Japanese shipping industry, composed of internal and external services, clear with their difficult circumstances and future expansion power.

I Relation Between the Three Principal Types of Shipping Economy and Japan's Domestic Shipping Service

Professor S. Sawa has described completely and clearly the historical process and practical situation of world shipping economy in his famous book, *Kaiun-Riron-Taikei*, — theoretical system of shipping —, 1949. His explanation on the following three principal types (patterns) of maritime transportation as a part of the national economy is very much to the purpose:

- i. Transportation inside each national economy (shipping service on a coastwise route).
- ii. Transportation between one's own national economy and other national economies (shipping service on foreign (external) routes).
- iii. Transportation between other national economies (shipping service from one foreign country to another foreign country, that is, a cross-trade service).

He also puts them into a table adding each main function as follows:

type	main route	main function
No, 1 type	coastwise route	help domestic commerce
No, 2 type	coastwise route	help domestic commerce
	foreign route	help foreign commerce
No, 3 type	coastwise route	help domestic commerce
	foreign route	help foreign commerce
	from foreign to foreign route	receipt of international freight

Based on Professor Sawa's classification, we can begin to grasp the actual situation of domestic shipping services, especially of the Japanese.

The Japanese domestic shipping is apparently very simple and pure, because of the physical shape of the land and of the real service-form. It may easily correspond to the first type. In our country all ships which are engaged in domestic transportation service are nothing but coastwise vessels fixed for the sea entirely, and their service is a great help to domestic commerce.

This fact is clearly a speciality of our Japanese domestic shipping on the one hand. But Japanese shipping, as a whole, corresponds to the second type in the above table. With this fact in mind we have to be careful to grasp what our real and essential domestic shipping service means. Moreover using such a method as to grasp the domestic shipping service from the point of view of relating its main route with its main function has another problem, that is, wheth-

er it is also suitable to all shipping countries in the world.

First, Japanese domestic shipping is entirely coastwise. It excludes almost completely routes on rivers, canals or lakes. This comes of course from the natural condition of the country that makes it easy to separate internal transportation services from external transportation services. There are also a few other European countries, an island empire or a peninsular kingdom, in which their domestic shipping services are at the first glance grasped in the viewpoints of coastwise route and of helping function for their domestic commerce. However, there are so many continental countries either in the connection with other countries or independently. Moreover almost all of these continental shipping countries, as well as some of European island empires or peninsular kingdoms, have often their own or common rivers, canals and lakes, in where even many foreign ships are able to engage in the water-borne transportation services actively.

In the United States of America the route from Atlantic ports to Pacific ports via the Panama Canal is surely coastwise and domestic according to their law. The same kind of domestic sea-borne transportation service is also carried on between the Mediterranean and the Atlantic in France and Spain. These domestic routes include the coasts of other countries in their concept of "coastwise route" or "coasting route", The United States of America even declares that the route between the mainland and Hawaii is domestic, though their ships have to navigate on the ocean for several days.

While the term (concept) "coastwise route" or "coasting route" is most widely opposed to the term (concept) "ocean route", the former is used in the meaning of a domestic route inside each own country including not only the coast but rivers, canals and lakes. The Japanese domestic route is wholly coastwise within their territory, but in some of the other countries they are often various and beyond the limits of their own coast. From this standpoint, Japanese coastwise and domestic shipping serves their domestic commerce completely; for the ships transport their own domestic cargoes only inside their own coasts. In this sense Japanese coastwise service has the only function of aiding their own domestic commerce. In many foreign countries the domestic route does not correspond to only a coastwise route and has not always a single function of helping their own domestic commerce. From the above-mentioned general attitude let us investigate further particulars of foreign domestic shipping services and show their patterns.

II External Characteristics of American and European Domestic Shipping Services in Comparison with Pure Japanese Coastwise Service

A) Domestic services of the U.S.A. shipping

As aforesaid, there are two very long domestic shipping services in the United States of America; one is the intercoastal route carried on between their Atlantic ports and Pacific ports,⁽¹⁾ and the other is the so-called Hawaiian route connecting the Hawaii Islands with the Pacific coast of the mainland. Both are fairly important to the U.S.A. national economy, while they are very special in comparison with ordinary domestic shipping services in the world, especially with that of Japan.

The former intercoastal route connects the East and the West by the longest distance along the coasts of North and Central America via the Panama Canal. The coast belongs not only to the U.S.A. but to many other countries like Mexico, Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, Panama and British Honduras. Sometimes, ships may call at Cuba and at other West Indian countries. At this point the U.S.A. intercoastal service covers far more than their own coast (territory).

The Hawaiian route is rather close to an ocean route; for it stands at a different level from general isolated island routes in other countries, besides ships must navigate for several days on the Pacific Ocean.

The intercoastal navigation to connect their own coasts which are separated by the territory of other countries is not always an American specialty. Both France and Spain have similar domestic shipping service as will be stated later on. Even Mexico, Guatemala and Honduras in Central America, Pakistan and Saudi-Arabia in Asia may have the same sea-borne transportation problem either in theory or in the future. Japan and many of the other European shipping countries, however, do not have such an isolated shipping service. It is also questionable whether the French and Spanish intercoastal services between the Atlantic and the Mediterranean are as important to their national economies as the U.S.A. intercoastal service. In this meaning, both above-mentioned American domestic shipping services are very characteristic as compared that of other countries.

In comparison with the Japanese domestic coastwise shipping service the

(1) The domestic route between Alaska and the mainland (Pacific coast) is not taken up in our discussion because it is not so important.

busy water transportation carried on in rivers, canals and lakes is very special, because few so-called modern steamers (motor ships), especially cargo-steamers, navigates on Japanese rivers or lakes. There are only very small wooden vessels and so-called barges on all Japanese rivers and small canals. The sightseeing passenger-boats, motor-boats and yachts are the only modern ships to be found on Japanese lakes, while small boats of farmers and fishermen are the main cargo-vessels on a few of the larger lakes. So the American water carriage on the Mississippi River and the Great Lakes stand on quite a different level from that of Japan.

As stated in another paragraph, river transportation service is also carried on actively in European countries. Even many large countries in Africa, Asia, Australia and South America have also busy water transportation on their own rivers. Moreover the British river transportation service is very important in connection with their national economy, in spite of their being a small island empire. So the U.S.A. water carriage on their own rivers and canals may not be uniquely American, although it is evidently quite different from Japanese domestic coastwise shipping. However, the U.S.A. river transportation, especially on the Mississippi, has a fairly distinct characteristic on the points of its long distance, of its being their own river, and of their home goods, etc., in comparison with European river services.

The domestic water carriage on the Great Lakes is also quite specially American at any rate, even if Canada has some part in the transportation. Few Asiatic or European countries have such great lakes, in which many modern ships can engage in their own domestic water carriage, or foreign trade. Incidentally, the Great Lakes have the largest connection with so-called ocean shipping not only of the U.S.A. and Canada, but of other main shipping countries. It is especially important as one of the largest stages in our own Japanese overseas shipping activity.

Compared with Japan, the American river carriage represented by the Mississippi is also a very special domestic water transportation, which has large economical importance. But the majority of main shipping countries have a similar, if less long and less complicated in content, river water carriage.

B) Domestic Services of European Shipping

The domestic water carriage of European shipping countries is rather more related to Japanese domestic coastwise service in comparison with that of the U.S.A.. There are some parallel points in the domestic shipping services of a few European countries and Japan not only apparently but functionally. However, many of the European shipping countries, even including

the few similar shipping countries, have their own active river and canal services inside the concept "domestic water carriage," as well as the U.S.A.. Such an European domestic water carriage is indeed different from the simple Japanese coastwise service. European river and canal transportation services are noteworthy in connection with the economical activity of their own country and of Europe as a whole. It sometimes also has connection with world shipping business and economy. Moreover, it composes in fact almost half or more of the whole internal water carriage in each European shipping country. Even in the United Kingdom, the country most resembling Japan in the common sense, such river and canal transportations are very active and important.

On the other hand few lake transportation services are carried on in Europe, as in Japan. The Swedish lakes are used for cargo transportation with modern ships exceptionally. There are convenient water routes connecting the Baltic Sea with the North Sea through a system of canals. However, such Swedish lakes are quite small in comparison with the Great Lakes, and their transportation service is also much less important. It may also be said that no Swedish lake has its own independent shipping or water carriage business as regards cargo transportation. All other European lakes are only opened to small sight-seeing boats or limited local services.

The service carried on along coasting routes is, of course, very important in Europe. It is shipping service in the real meaning of the term and is the main domestic water transportation using the sea, which forms all of our Japanese domestic shipping service. This European coasting service which is truly substantial like the river service, shows that each country or each group has some individual characteristics but that they all have something in common as well. There are several kinds of patterns among the main shipping countries like that of the British coastwise service which is an island kingdom, that of the Italian coastwise service which is a peninsular kingdom and that of the Portuguese coastwise service which has only an own coast. On the other hand there are some group patterns; the Scandinavian countries commonly carry on a fjord coastwise service, the west European countries have a rather flat coastwise service, and France and Spain show a special pattern as stated previously. We cannot overlook these differences or characteristics in the whole European domestic coastwise shipping service.

When we attempt to approach such an European domestic water carriage service from the point of view of getting any good pointers for Japan, all of the above-said apparent patterns with their own specialities are naturally very instructive, for some of them give useful information while others give only a little or nothing. For example, the French long roundabout route between

the Mediterranean and the Atlantic coast — the service from Marseilles to L' Havre — has hardly any connecting reference, even if it is on a smaller-scale than that of the U.S.A. carried on between the Atlantic coast and the Pacific coast via the Panama Canal. Also the curved route like a hair-pin from Venice to Genoa, is in a sense distantly related to the Japanese domestic route on the difference that one is an island empire while the other is a peninsular kingdom, even though such a roundabout route from Fushiki (on the Japan Sea) to Osaka or Tokyo (on the Pacific coast) is actually and similarly in another sense carried on in Japan.

In spite of the rough grasp in a lump, on the whole, the above-said basic and special characters of European domestic shipping service show distinctly an original pattern in itself and in company with individualistic patterns in each country. While European domestic shipping seems at first sight to be closer to that of Japan than to America, its real pattern has its own specialities either individually or as a whole. Even the coastwise services of a few European countries which seem to be most similar to Japanese domestic shipping service have often some individuality in its formal figure as well as in its economical activity. European water carriage on rivers and canals, distinct from the sea, is itself without relation to Japan. Nevertheless, it uses very often the same ship in size and sort as Japanese domestic shipping and even European coastwise shipping. Also its practical methods of navigation, operation and transportation business are almost the same. The difference in its formal figure may not be necessarily important to us. Therefore the greatest care is exercised with reference to this matter.

C) Domestic Service of British Shipping

It may be better to refer to British domestic shipping service a little more in comparison with the Japanese; for both seem to resemble each other not only in a common sense but even in the substance of the practical performance of their transportation business or in the size and sort of ships used, though there are several remarkable distinctions in their economical activities.

British domestic shipping service consists roughly of two internal parts. One is the purely seaborne coastwise service that corresponds with that of Japanese domestic shipping. Another is the water carriage on their rivers and canals distinguishable from the sea. The latter is hardly to be found in Japan as above-mentioned. All British rivers are not so much wider or longer than Japanese rivers, but are deep enough for large ships to navigate. The canals are also highly developed in Britain. These are the main reasons for the growth of British river and canal transportation, which gives a distinct British character

as compared to that of Japanese domestic shipping service.

This British water carriage on rivers and canals, however, has few substantial differences from the coastwise service either English or Japanese as regards the ships used and their operation. In the actual performance of cargo transportation and the business administration of all enterprises there appears no change between the two. They both use almost the same sort of ships, small-sized or middle-sized steamers or motor ships, often commonly. Large barges over one or two thousand tons that are used to a great extent on continental rivers are seldom found on British rivers, nor has Japanese shipping used them yet. When we consider the domestic shipping service as true transportation that is carried on by comparatively small-sized vessels on domestic water routes, there is no substantial difference between British coastwise shipping service and their river (and canal) transportation service. Incidentally, the Kihansen, the special Japanese semi-steamer closer to a sailing-vessel, is hardly ever used in British domestic shipping circles, even though some British shipowners still own and operate their small wooden steamers.

Last, we must pay attention to a characteristic resemblance between the British domestic shipping service and that of Japan, even if it may partly depart from our main subject. Many British domestic ships are transporting their domestic coal, which is produced in two main coal-mine areas and is carried to a few manufacturing centers. This very much resembles the Japanese domestic shipping, in which the transportation of coal is still the most important business for many shipowners or shipping enterprises, and moreover the actual service is carried on along fixed routes from Kyushu and Hokkaido (coal-mine areas) to Tokyo, Osaka and Nagoya (manufacturing centers). Even if the importance of coal-transportation is really declining, it still forms a common backbone of both countries' domestic shipping services.

III Characteristics on the Function of American and European Domestic Shipping Services

The above-mentioned general explanation that the greatest economical function of each domestic shipping is to help its country's domestic commerce, or to transport home cargoes inside its own territory, in fact, is available only on a definite condition and frame. The difference in condition and frame sometimes causes discord or conflict in the method of explanation. A type of domestic shipping that is formed purely of coastwise transportation service is rather scarce. In almost all American and European countries the water carriages on rivers, canals or lakes are very active and important as much as

coastwise transportation.

Such transportation business on rivers, canals or lakes by modern ships, as above-mentioned, is often eminently important on the point of its role in the national economy or in its weight within the whole of domestic transportation excluding the services of railways, trucks and others. While those water carriages apart from sea-borne transportation are generally distinct from the narrow shipping business which is now apt to be understood as that of ocean navigation rather than coastwise or coasting navigation, they are often treated en bloc with their own coastwise transportation as a domestic service. Such an apparent contradiction seems to result from another common-sense opinion which is apt to understand analogically domestic shipping consisting of coastwise service and river, canal or lake services against ocean shipping services equal to overseas service to foreign countries. In many cases the same sort of ships, both in dimension and size, are navigating between coastwise lines and river, canal and lake routes. We can even find such cases where often the same ship is employed in common on both routes. On this point, let us consider for the moment that American and European domestic shipping consists in substance of two or three more internal subdivisible parts, that is, coastwise service, river and canal services, and lake service — or sea transportation and water carriage.

What functional characteristics do they show as far as has been supposed above? We must first pay attention to the functional versatility of water carriage carried on in rivers, canals and lakes. The fact that almost all continental rivers, either American or European, and American lakes are partially owned and used by several countries, not belonging to any single ownership, and the practical tendency that the water carriages carried on in rivers and lakes are performed so much on the aggregate and in liquidity make their traffic a many-sided service; for there are first, the pure domestic transportation service helping their domestic commerce, secondly, the transport service of export and import cargoes helping the country's overseas trade, and lastly, the cross-trade service — from foreign to foreign transport service — in connection with another country's commerce. So these water carriages have not a single economical function. It seems that a few famous European rivers like the Elbe, the Rhine and the Meuse, etc., make navigating ships engage in more of a so-called foreign trade than in domestic commerce. A great deal of the ships navigate from their home river-ports to foreign ports, or on routes between ports of other countries. On the other hand the American Great Lakes are in a special class by themselves being much bigger, wider and more stormy than the Japanese can imagine. The scale of transportation business, in the quantity of transported cargoes and in the hugeness of navigating ships is in fact American-sized. Apart from this problem the

so-called Great Lakes water carriage is not restricted within the frame of domestic service either of Canada or the U.S.A.. These lakes open their gates to many foreign ships which are, of course, used originally on an ocean route to help each others overseas trade. After all, the water carriage carried on in the Great Lakes includes many-sided economical functions. At least, for Japanese shipping the Great Lakes form one of the most important overseas markets, which has no connection with their domestic transportation service.

Besides of the above characteristics of American and European river and lake water carriage that can not be found in Japan, we must also give attention to some characteristics recognized in a common coastwise shipping service between Japan and other countries.

The U.S.A. intercoastal service between the Atlantic and the Pacific coasts is no doubt a special domestic transportation activity like those of Canada, France, Spain, etc.. The ships partially navigate along their own coasts and transport their home cargoes with a view to help their domestic commerce. Apart from the problem of the navigating distance, it seems that no essential difference can be found between such intercoastal services and Japanese coastwise services. However, there is a clear distinction between the ordinary coastwise service and these long intercoastal shipping activities. It is a fact that the coast does not belong to only one's own territory; in other words ships must inevitably run along longer foreign coasts on their way. These foreign coasts belong to several countries, at least to over two, each of which has their own goods and ports expecting the entrance of ships, exclusive of very few country like Spain and Pakistan. These intercoastal service ships are sure to call at foreign ports on their routes, if the law does not forbid it. In so far the seaborne transportation services serve partially the so-called foreign trade. Namely, they have also an economical function to help their own overseas trade or the foreign commerce of other countries. There is accordingly a very big and important difference in economical function between the above complex intercoastal shipping service structure and an ordinary, especially Japanese, simple coastwise service structure.

Finally, but rather as the most important problem we must keep our eyes on the economical function of European domestic shipping, either river and canal water carriage or coasting transportation; in almost all European shipping countries the majority of so-called domestic service ships does not always fix its navigation-field in only its own territory. They engage sometimes in purely their own domestic transportation and sometimes in foreign trade, even if coastwise and of a short distance. It seems there is no difference between the route or the service along their own coast and those in neighbouring waters. Namely,

there is an almost perfect combination of domestic (coastwise) service with coastal (adjacent sea) service. The strength of this combination in Europe is nothing to that in Japan, although a recent growth of the same tendency in the latter is itself worth of note.⁽²⁾

It is very natural that these European jointly-used (coasting) ships should have an economical function of helping the so-called foreign trade while promoting their own domestic commerce. While these coasting ships naturally transport their home cargoes from one domestic port to another domestic port, they also carry a vast volume of export-cargo and import-cargo from or to their own country. Moreover, they often engage in cargo traffic from one foreign country to another. It seems that the strength and degree of such a dependency on foreign trade cannot compare with the same in Japan.

Main reasons are first, the geographical neighbourhood or junction of European countries and secondly historical custom or tradition of European shipping. Ocean cargoes, that is, the main foreign trade-goods are shipped and landed by big ships in several famous large ports like London, Liverpool, Rotterdam, Amsterdam, Antwerp, Hamburg, and so on. From or to these biggest trade ports, the cargoes are carried by the smaller coasting vessels. There is a certain organic specialization and cooperation between ocean shipping and coasting or domestic shipping. The latter are very closely related to each other. Other well-known ports, like Genoa and Marseilles in the Mediterranean, and Oslo, Bergen, Stockholm and Copenhagen in Scandinavia, etc., also have the same conditions. Compared with Japanese domestic shipping, of which the connection with exports and imports is said to be still very little, European countries' coasting or domestic shipping show on the whole a big special economical function to serve their own and all European foreign trades.

(2) In the beginning of April 1965, a tonnage of 406,000 gross-tons—general cargo ships 387,000 and tanker 19,000—had been jointly-used between the domestic coastwise routes and the routes for neighbouring countries. These figures are less than 15 percent of the total registered domestic tonnage of 2,900,000 gross-tons.

APPROACHES TO THE HISTORY OF INDIVIDUAL BUSINESS UNITS

Tadakatsu INOUE

The first annual convention of the Japan Business History Society after its formal organization late in 1964 was held at Tokyo University for three days from November 5 to 7, 1965. While twenty-two scholars presented papers on "free topics," six made reports on the methodology of business history which was the "common topic" of the meeting. Among the latter, the writer was given an opportunity to submit a report on how the history of individual business units should be studied as business history. The following is a résumé of the paper read at the meeting within the time limit of thirty minutes.

I

The history of a business unit — a business man, a firm, or a company — holds a preëminent position in research in business history. Take, for example, *Harvard Studies in Business History*, the first series of monographs in business history issued under the auspices of the Harvard Business School since 1931. Almost all the monographs numbering nineteen volumes as of 1955 are either biographies of business men like John Jacob Astor, Jay Cooke, and the Hancocks or the histories of companies such as the Massachusetts-First National Bank, the Waltham Watch Company, and the Saco-Lowell Shops. To take another example, there is the *Business History Review* or its ancestor *Bulletin of the Business Historical Society*. Most of the articles which fill up the space during the past forty years are the histories of individual business men and firms. This is the same as to the periodicals and series of monographs issued in Germany, England, France, and Australia.

Although the history of individual business units occupies a high position in the study of business history, all the histories of this type are not worthy of the name of business history. Besides the books and articles contributed to the above mentioned periodicals and series, there are innumerable stories about business men and companies which would not qualify as business history. Sometimes, they are pieces of propaganda which were written on the inside and on behalf of the business men or companies concerned. Sometimes, they are journalistic articles which were written to be sold in order to obtain a living

for the author. Those stories about business men and companies do not belong to the school of truth, not to mention their qualification as business history. Even among histories written by scholars, however, there are those histories about business units which do not qualify for the field of business history. They may be economic, political, social, or legal histories of business units. It is necessary, thus, for a student who has the intention of writing a history of a business unit as business history to follow a certain method peculiar to business history. Then, what is this method of business history?

It must be noted also that, while the history of individual business units holds a preëminent position in research in business history, it is not the only subject, area, or type of study that calls for research in the discipline of business history. It is only prejudiced opinion to identify business history with business biography and company history. There are, to be sure, other approaches to business history. According to the late Professor Gras, for example, "there are ... the history of a function, such as production or marketing, the history of a whole industry, such as meat-packing or cotton textiles, and, of course, the general history of business." Then, what position does the history of individual business units hold in the whole system of business history?

It seems to me that there are at least two problems as mentioned above which would cause discussions among scholars under the subject imposed upon me, that is, how the history of individual business units should be studied as business history. At this meeting, however, I will arbitrarily take up only the first problem for fear that my remarks should become too wide to reach a settlement within the time allotted.

II

What is the principle or method to be followed in writing the history of a business unit not as an ordinary biography or company history but as business history? This question we are going to discuss in the following pages is inevitably related to that old but still new problem of what business history is. As everyone can find, there are several opinions even among business historians about the substance of business history. Thus, according to which opinion they hold, the writers will present fairly different types of business biographies and company histories. For this reason representative points of view among business historians are examined here.

(1) There is a group of business historians who follow business history as conceived and developed by Professors N.S.B. Gras and H.M. Larson. The outstanding characteristic of this school is that it proceeds from the stand-

point of administration. It seems to me that the term "standpoint of administration" or "administrative point of view" means three things in terms of epistemology. First, it expresses what is the central interest of this group of historians and, therefore, what is the object (*Erkenntnisgegenstand*) of this type of business history. Scholars in this group are primarily concerned not with the public aspects of business, but with the private aspects. They are originally interested not in the function which the business units perform within the national economy, but in the action, in the doing, in the living stream of efforts of the business institutions themselves. In short they emphasize the development of business administration, that is, of policy, control, and management. It is natural, thus, that the term "business" as the object of business history should be defined as "the administration of the combination of labor, natural resources, and capital in the production and exchange of goods or services with a view to earning profit."

Second, the "standpoint of administration" points out the method by which historians of this school approach the object of business history. For this, however, we can quote a pithy statement made by Professor Larson: "Business history proceeds from the standpoint of administration. Thus it has a central point to which to relate the various factors concerned, a center which through policy, control, and management coördinate the various factors. Again, it may deal with only a part of an aspect of a business unit, industry, or system, but it looks at that part as a segment of a whole which is directed by administrators." Differing from the economic determinism which leaves no important place for alternatives of policy, control, and management, this approach emphasizes the processes of trials of specific personalities in meeting the needs and opportunities created by a changing environment.

Lastly, the "point of view of administration" may be a standard one can use in making judgments about rightness and wrongness on a decision or action. The business historian of this school, with the interest and goals of a scholar, judges a decision or action as a business administrator would do, though there are, of course, other points of view — the various other individuals or groups concerned, and finally the total community or nation.

Now, what are the criteria of a good history of a business unit in terms of business history as conceived and developed by Professors Gras and Larson? First of all, the work must focus its attention on the administration of a business unit over a period of time. Secondly, the history must present the events from the point of view of the busy men responsible for the destiny of the unit. Only by showing these executives as they meet the needs and seize the opportunities created by a changing environment can the process of the changes that have

occurred in business administration be meaningfully presented. And, lastly, it must refer to the results of the choices of alternatives in using various factors in given situations to accomplish the end of the unit.

(2) There is a group of Marxians who are interested in research and writing on the history of business. Take, for example, those scholars in Eastern Germany. In writing the history of individual business units, such as Carl Zeiss (Jena) and Mansfeld, which were operated as private, profit-oriented enterprises in pre-revolutionary days, they proceed from the standpoint of class strife. For them, a business enterprise is the very place where a capitalist sweats his laborers who, in turn, struggle against him. Thus, differing from the abovementioned business history which considers the events only from the point of view of the business administrator, this type of study gives attention to stories about wage workers, the conditions under which they work, and their struggles for better working conditions, not merely to those of the capitalist and manager, the latter, in the Marxian conception, is merely a managing substitute for the former.

(3) There is a group of scholars who are attracted to the problem-area of economic development and the relationship of entrepreneurship to economic development which was originally illuminated by Professor Schumpeter. Although there arise various ramifications, the ideal type (in Weber's terminology) of this school is well illustrated in Dr. Fritz Redlich's early book *History of American Business Leaders: A Series of Studies*, Vol. 1: *Theory: Iron and Steel: Iron Ore Mining* (1940). The objective of the book is stated as follows: "Let me emphasize anew that I am dealing only and specifically with the creative entrepreneur, the entrepreneur who is important from the viewpoint of economic development. I do not deal with the pioneers in the American sense, although it will be necessary to mention some of these; for mere expansion of industry is not interesting in the light of this research." It must be apparent to everyone that Schumpeter's conception of the creative entrepreneur who is the bearer of economic development is the leading idea of this research. Please compare this with a study of the development of business administration which is but little concerned with the function which the business men and firms perform within the national economy.

(4) In a modified form of Schumpeter's theory, Dr. Redlich suggests another approach to the history of business in an essay titled "Innovation in Business," which was contributed to the *American Journal of Economics and Sociology* in April, 1951. The essay, on the one side, draws a sharp line between development and growth. The former is a qualitative change, while the latter, in contrast, is quantitative in character. On the other side it draws lines between

innovation and re-innovation, between primary and derivative innovation, between derivative innovation and copying, and between copying and routine. Then, it points out that, while development is due to the creative (and semi-creative) entrepreneur, the man able to achieve primary and derivative innovations in various degrees, growth is due to the copying entrepreneur as well as the creative (and semi-creative) entrepreneur. It seems to me that the interest or objective of the writer of this essay is broaden to include not only the relationship of the creative entrepreneur in Schumpeter's sense to economic development, but also that of the copying entrepreneur to economic growth, which had no important place in his *History of American Business Leaders*.

(5) Lastly, we shall have to take up Professor Arthur H. Cole's *Business Enterprise in its Social Setting* which, in a sense, is a summary volume reflecting the operations of the Research Center in Entrepreneurial History in the decade after 1948. It seems to me that this book is based on the following fundamental considerations. First, the leading idea in the study of entrepreneurship is "to study the central figure in modern economic development, and, in my way of thinking, the central figure in economics." Here one may see the subject of the relationship of entrepreneurship to economic development which was discovered and formulated by Professor Schumpeter. But, secondly, the word "entrepreneurship" is interpreted in a much wider sense than in Schumpeter's system: "Usually, the word will be employed to mean function or activity. Here I shall have in mind the purposeful activity (including an integrated sequence of decisions) of an individual or group of associated individuals, undertaken to initiate, maintain, or aggrandize a profit-oriented business unit for the production or distribution of economic goods and services." The important thing is that "there is nothing in the definition given above that requires the employment of innovation in the activities of entrepreneurship, at least innovation in the usual sense." For the author, "the spread among business institutions of new ways of doing things, from one location to others, from industry to industry, and from plant to plant, is much more important for economic growth than the initiation of such new ways at specific points in space and time." Here one may see the same idea as shown in the above-mentioned essay by Dr. Redlich. But, thirdly, Professor Cole sees the economic and social consequences of entrepreneurship in a still more broaden sense. For example, he casts doubts upon the traditional assumption of economists that the entrepreneur should know instantly what is being done and how he should respond in the face of market criteria. He finds that there is no regard for misinformation, conflict of information, and lack of information. And, thus, he sees the need of research in conditions internal to the business units, such as the lines of authority and

communication between the administrative offices and officers and the information and data that flow through these lines of communication and authority. Finally, it must be noted that the concepts and models as developed by sociologists and psychologists, such as social reputation, role and sanction structure, or changing locus of effective sanctions, are successfully applied to studies of entrepreneurship.

III

Making a survey of the history of business history, we have renewed our understanding of how many points of view appear in this field of historical research and study. Then, how should those interested in writing business biographies and company histories think? It seems to me that there are several alternatives in deciding one's attitude. The first is to insist on a particularistic definition of the substance of business history as the late Professor Gras might do. This attitude, however, will not be a way of enriching the tasks of business history, though it has been somewhat useful in creating and establishing a new field of historical study against traditional historical scholarship in the economic field. The second is to attempt to arrive at a single mutually acceptable definition of business history. There are, to be sure, many business historians who have spent much time and endeavors to achieve this. But, how and when will it be attained? Dr. Redlich's recent term "history of business and business in history" is undoubtedly useful to put various opinions about business history in order. But what is the leading idea to unify these two categories? It seems necessary, as Professor R.C. Overton said at the Business History Conference held at Harvard Business School on October, 1961, to declare a period of patience to see whether performance will not jell our combined efforts into a systematic whole. And the third is to choose and realize one's point of view in accordance with what his central interest or objective is and then to expand and enrich the tasks which call for research by absorbing the results of scholars who proceed from other points of view. Whatever standpoint he might choose, the business historian of the present is marching forward along this line.

CUMULATED COST RATIOS FOR THE JAPANESE ECONOMY IN 1955.*

Nobuko Nosé

I. Introduction

Cumulated cost analysis, which has been promoted by Dr. G. Stuvél⁽¹⁾ and his successors,⁽²⁾ is a very useful tool for analyzing the structure of national income by industry groups and for measuring the influence of any economic plan.

Present study attempts to estimate the cumulated cost ratios by Japanese industry groups in 1955. For this purpose, first we intend to show a model for computing the ratios. Second, we provide the tables of the ratios by industry groups and by destination categories. For our attempts, the Japanese inter-industry tables in 1955 are used as the empirical data. Third, we intend to analyze the cumulated cost structure in the Japanese economy in 1955 and to compare this structure inter-temporally. On this stage, our chief attention is put on the two main cost factors, imports and wages. And finally we intend to make a brief comment on the result and on further study.

II. Model for computing cumulated cost ratios

Cumulated cost analysis attempts to estimate the ratios by two kinds of cumulations; to estimate the ultimate distribution of final factor costs payment by industry groups and to determine the ultimate distribution of sales by industry groups to the final destination categories (final demand). The former process is termed as 'cost cumulation', and the latter is termed as 'destination cumulation'. In the both cases, the principle is common and consistent. The basic cost items are three: direct cost, intermediate cost and total cost. Direct cost

* The author is profited very much by Dr. Stuvél's kind guidance and suggestions. Also the author particularly acknowledges Mr. S. Tamino's help for computing the data.

(1) G. Stuvél, *The Use of National Accounts in Economic Analysis*. Income and Wealth, series IV, (London: Bowes & Bowes), 1954, pp. 319-321. G. Stuvél, *Systems of Social Accounts*, (Oxford: Oxford University Press), 1965, pp. 227-230.

(2) G. F. Loeb, *Experience with Input-Output Analysis in the Netherlands*, Input-Output Relations, (Leiden H. E. Stenfert Kroese N. V.), 1953, pp. 167-185. Central Bureau of Statistics, *Cumulated Cost Ratios for the Netherlands Economy in 1950*, Statistical Studies, No. 6, Nov. 1955, pp. 3-30.

is the total of final factor cost paid directly by each industry concerned and is called alternatively as non-cumulated cost. For example, wages which an industry, say j , pays to laborer's household, say k , are direct labor cost. Intermediate cost is the final factor cost which is paid by the other industries, say l , who has delivered the intermediate products to the industry j . For example, imports which are paid by l to make an intermediate products for j as j 's input is intermediate import cost. The total of them is total cost and is called alternatively as cumulated cost. Final cost factors consist of imports, net indirect tax, wages, profits, depreciation allowances and an item for adjustment. On the other hand, final destination categories consist of consumption, stockpiling, government consumption, fixed capital formation and exports. We can deconsolidate more as Japanese statisticians do: fixed capital formation into government fixed capital formation, and divide exports into exports in ordinary sense and extraordinary exports respectively.

In the both way of cumulation, we use an assumption about a certain fixed relationship in inter-industry delivery of goods and services. As mentioned above, Japanese inter-industry tables provide the empirical basis for getting the cumulated cost ratios by Japanese industry groups.

i. Model for computing the ratios.

As our industry division is detailed one (35 sectors), it is preferable to estimate the ratios by an inversion method shown below.

Let x_{ij} as an amount paid by industry j to industry i , r_{kj} as an amount paid by j to final cost factor k and z_j as total sale of j , then $z_j = \sum_i x_{ij} + \sum_k y_{kj}$.

Also let $p_{ij} = \frac{x_{ij}}{z_j}$, $q_{kj} = \frac{y_{kj}}{z_j}$ and $r_{kj} = \frac{z_{kj}}{z_j}$ respectively. Here, q_{kj} , p_{ij} , r_{kj} are j th industry's direct cost ratios, intermediate cost ratios and total cost ratios respectively.

In the three cost ratios there are some relationship as follows.

$$\sum_{k=1}^m r_{kj} = \sum_{k=1}^n p_{kj} + \sum_{k=1}^m q_{kj} = 1 \quad \dots\dots\dots (1)$$

$$r_{kj} = q_{kj} + \sum_{l=1}^n r_{kl} p_{lj} \quad \dots\dots\dots (2)$$

$$\begin{pmatrix} k=1, \dots, m \\ j=1, \dots, n \end{pmatrix}$$

where r_{kl} is direct cost ratios of the industry l who provides intermediate products to j .

(3) Government of Japan, Ministry of International Trade and Industry, Research and Statistical Division, Interindustry Analysis for the Japanese Economy, (Tokyo, Sobunsha), 1962.

Now we intend to represent the ratios in Japanese industry groups by using matrix notation. Let P as a matrix whose one element is p_{kj} , Q as a matrix whose one element is q_{kj} , and R as a matrix whose one element is r_{kj} . Then,

$$Q = R(I - P) \dots\dots\dots (3)$$

or $R = Q(I - P)^{-1} \dots\dots\dots (4)$

where I is the unit matrix.

ii. Model for cumulated destination ratios for cumulated cost by destination categories.

Let W as an amount paid for goods and services by final destination category k to industry i .

Then $T = \sum_{i=1}^n W_{ik}$, $w_{ik} = W_{ik}/T_k$ = part of T_k paid to i . Now let s_{jk} as cumulated cost ratios of destination k in relation to final cost factor j . Then we get as follows:

$$s_{jk} = \sum_{i=1}^n r_{ji} w_{ik} \dots\dots\dots (5)$$

in matrix notation,

$$S = RW \dots\dots\dots (6)$$

where $W = (w_{ik})$ and $S = (s_{jk})$.

Substituting the relationship given in (4) into (6),

$$S = Q(I - P)^{-1}W \dots\dots\dots (7)$$

Then, after computing the ratios by above equations, we can estimate cumulated cost quotas easily, deviding the direct cost by the total cost and the intermediate cost by the total cost. For abbreviation, we like to use simbols D , I and T for direct cost ratios, intermediate cost ratios and total cost ratios respectively in the following sectors.

III. Result

Table 1 represents the results of the cumulated cost ratios by industry groups. First, using the table 1, we intend to investigate the general feature of Japanese industries. It is remarkable that i direct rate of turnover is 44.1% and this rate is comparatively low,⁽⁴⁾ and ii cumulated wage ratios and profit ratios are considerably high comparing with the other cost categories. More-

(4) In Netherlands, the rate of turnover is about 70.1%. Central Bureau of Statistics, Cumulated Cost Ratios for the Netherlands Economy, ibid p. 15 and Table 2. In Japan, this rate is 11.6%. See Table 1.

over, we can find that some industries depend much on external economy (or, in other words, cumulated import ratios are high), while another industries depend much on the domestic economy (or, in other words, their cumulated domestic factor cost ratios are high). But instead of these variances by industry groups, the average cumulated import ratio in Japan is not so high. Then, we intend to analyze cumulated cost ratios by every industry groups, using Table 1 and Table 2.

Table 2 is got by rearranging table 1 according to the order of co-efficient. First, we intend to investigate import ratios. It indicates that petroleum products industry's direct import ratio (M_D) is 42.4 and the highest in the all Japanese industry groups. As for the total import ratio (M_T), petroleum products industry's figure is the highest too. This industry does not buy from other industries, so that its intermediate import ratio (M_I) is 1.4 and is the least. Pulp, iron and steel and chemical industry buy much from the others and their M_I are more than ten times of petroleum products industry's M_I . Natural textile industry's cumulated import ratio is resemble to that of petroleum products industry's. On the other hand, in service, trade, mining industry, electric power industry and construction industry, their cumulated import ratios are considerably low. Generally, correlation coefficient between M_D and M_T is high and the coefficient between M_D and M_I is low. Typical example is petroleum products industry and the reverse case is iron and steel industry.

Second, we intend to investigate cumulated net indirect tax ratios. Table 2 indicates that food industry's non cumulated net indirect tax ratio T_D , intermediate net indirect tax ratio T_I and total net indirect tax ratio T_T are high. On the other side, in natural textile and iron and steel industry, T_D , T_I , T_T are low. Petroleum products industry's T_D , T_T are high instead of low T_I . Chemical industries (fertilizer, chemical intermediate product industry)' T_T are high because their T_I are high. Generally, the correlation coefficient T_D and T_T is 0.983 and highest in all cost categories. The correlation coefficient between T_D and T_I is 0.003 and the least.

Third, we intend to investigate the cumulated wage ratios. Table 2 indicates that scrap industry and miscellaneous groups' direct wage ratios (W_D) are blank. Therefore, we should omit these industries from analysis. Then petroleum products industry's W_D and intermediate wage ratio (W_I) are the liest respectively. Its W_D is 3.7 and W_I is 4 and total wage ratio (W_T) which is the liest also is 7.7. Natural textile industry's wage ratios are the same way. On the other hand, coal mining's W_D is 47.4 and the highest. Coal mining's W_T is the highest too, instead of that her W_I is low. In transportation and road industry the situation is resemble to coal mining industry. As a whole, in

chemical industries W_I are high because they buy much from the other industry groups. Generally, the correlation coefficient between W_D and W_T are 83.1% and not so high. As for the coefficient between W_D and W_I , it is -0.136 .

Forth, we intend to investigate cumulated profit ratios. It is remarkable that average of the direct profit ratio (P_D), the intermediate profit ratio (P_I) and the total profit ratio (P_T) are the highest respectively in those of the all cost categories. As for individual industry group, scrap industry's P_D and P_T are high as agriculture and trade industry. On the other hand, petroleum products industry's P_I ($=5$) and P_T ($=17.9$) are the liest respectively. In road industry, P_D , P_I , P_T are low. In iron and steel industry (including cost, wrought and rolled iron industry) P_I , P_T are comparatively high instead of their low P_D . Generally speaking, in service industries their P_I are low and in chemical industries P_I are high. The correlation coefficient of P_D and P_T is 0.82 and that of P_D and P_I is -0.531 .

Fifth, we intend to investigate cumulated depreciation allowances ratios from Table 1 and 2. These tables indicate that scrap industry and miscellaneous groups' figure are blank. Therefore we should omit them from analysis. In electric power industry, her direct depreciation cost ratio d_D is the highest, therefore, her total depreciation cost ratio d_T is highest. On the contrally, petroleum products industry's intermediate depreciation cost ratio d_I and d_T are the lowest (her d_D is comparatively high). Transportation and mining industry have high d_D and d_T , while chemical industries have high d_I and d_T . Table 1 indicates that correlation coefficient between d_D and d_T is 0.90 and is comparatively high, while the coefficient between d_D and d_I is -0.174 and negligible. Electric power industry's ratios are typical case.

Sixth, we intend to investigate cumulated value added ratios. Two tables indicate that in petroleum products industry and in natural textile industry of which cumulated import ratios are very high, the intermediate value added ratio Y_I and total value added ratios Y_T are low respectively. In electric power industry and in scrap industry, the direct value added ratios Y_D and Y_T are very high in spite of that their Y_I are low. In coal products industry and iron industry, Y_D are low and their Y_T are low. Generally, service industries' Y_D and Y_T are high as mining industries. In chemical industries, Y_I are high while their Y_D and Y_T are not very high. The correlation coefficient between Y_D and Y_T is little and that between Y_D and Y_I is less.

Table 4 represents that cumulated import ratios and wage ratios by Japanese industry groups in 1951 and 1959. Comparing these with table 1, we find that in Japanese industry groups' cumulated import ratios are more changeable than their cumulated wage ratios. For example, in general merchandize, processed

metal product, trade and scrap industry, their cumulated import ratios radically fall and in coal product industry and non-ferrous metal industry the rates rise. Cumulated wage ratios are comparatively stable and generally tend to fall. Table 4 indicates that petroleum product, cement, iron and steel and automobile are typical cases. Finally, we intend to analyze the cumulated cost ratios by destination categories represented in Table 4. It indicates that exports depend much on imports because the coefficient is the highest. Exports are the most import-intensive category in the all destination categories. The order of import-intensiveness of every destination category is: exports, stockpiling, consumption, extraordinary exports, fixed capital formation. The least import-intensive category is government consumption. As for cumulated net indirect tax ratio, consumption depends most on it. The order of net indirect tax intensiveness is consumption, stockpiling, extraordinary exports, exports. The least one is government capital formation. On the contrary, Table 4 indicates that the goods destined for government capital formation is labour-intensive because the ratio is the highest (0.4339). The order of labour intensiveness is: government capital formation, private capital formation, exports, private consumption. The least one is government consumption. Table 4 indicates the order of profit-intensiveness. That is; stockpiling, and extraordinary exports, consumption, exports. Stockpiling and extraordinary exports depend much on profit. The least destination category for encouraging profit is government consumption. The information provided by Table 4 suggests which destination category is a dominant factor for net national income formation. As for depreciation allowances ratios, exports much depend on this cost ratios and the order of depreciation allowances-intensiveness is exports, consumption, extraordinary exports, stockpiling. The least one is goods destined for government consumption. Table 4 indicates also that exports, extraordinary exports, consumption and private capital formation create total value added considerably because their coefficient are high. The least category for creating total value added is government consumption.

IV. Concluding remarks

The conclusion which we have got by analyzing the table is as follows.

1. Japanese industry groups are classified according to their cumulated cost ratios: group 1 is high D with high I , group 2 is high D with low I , group 3 is low D with high I , group 4 is low D with low I . Group 2 is subdivided into subgroup A that has high T and subgroup B that has low T , while group 3 is subdivided into subgroup C that has high T and subgroup D that has low T .

For example, in respect of import ratios, iron and steel industry belongs to group 1, petroleum products industry belongs to group 2 and to subgroup A, while agriculture belongs to group 2 and to subgroup B in respect of wage ratio.

2. As for destination categories, government consumption is the least factor for encouraging value added and its components. The goods destined for investment, for government or for private use, are labour-intensive, while exports and extraordinary exports are capital-intensive. On the other hand, the goods destined for stockpiling and for exports are import-intensive. It is our regret that we can not divide consumption into durable consumption and non-durable one on this stage of analysis. We intend to improve this point in further research. Moreover, we intend to compare the cumulated cost ratios internationally as intertemporarily. These attempts also remain as further task.

Table 1. Cumulated Cost Ratios in Japanese Industry Groups

per capita

Industry	Cord Number	Import			Net Indired Tax			Wages			Profits			Depreciation Allowances			Adjustment			Value added			Total		
		D	I	T	D	I	T	D	I	T	D	I	T	D	I	T	D	I	T	D	I	T	D	I	T
Agriculture, Forestry, Fishing	1	31	29	60	9	15	24	91	76	167	477	193	670	54	27	81		CR 2	CR 2	631	309	940	662	338	1,000
Coal Mining	2	15	24	39	23	14	37	474	121	595	35	178	213	77	41	118		CR 1	CR 1	610	351	961	625	375	1,000
Petroleum & Natural Gas	3	3	34	35	21	20	41	297	131	428	142	172	314	144	37	181				604	361	965	607	393	1,000
Metal Mining	4	5	22	27	15	13	28	352	72	424	273	132	405	70	20	90	26	CR 1	25	735	238	973	740	260	1,000
Food	5	91	39	130	218	43	261	82	127	209	74	274	348	14	39	53		CR 1	CR 1	388	482	870	479	521	1,000
Natural Textile	6	392	24	416	6	12	18	87	85	172	104	235	339	25	31	56		CR 1	CR 2	222	362	584	614	386	1,000
Chemical Textile	7	44	69	113	7	32	39	101	265	366	120	299	419	58	88	146	CR 36	CR 20	CR 56	249	665	914	293	707	1,000
Weaving & Apparel	8	26	212	238	5	26	31	103	211	314	62	315	377	11	63	74	CR 20	CR 14	CR 34	161	601	762	187	813	1,000
Paper & Pulp	9	20	57	77	14	30	44	110	256	366	97	343	440	32	72	104		CR 2	CR 2	252	700	952	272	728	1,000
Lumber & Wooden Products	10	40	47	87	27	23	50	138	150	288	79	433	512	8	56	64		CR 1	CR 1	252	661	913	292	708	1,000
General Merchandize	11	58	53	111	7	28	35	197	190	387	116	268	384	34	51	85	1	CR 4	CR 3	355	534	889	413	587	1,000
Coal Products	12	193	49	242	13	29	42	42	371	413		198	198	21	85	106		CR 1	CR 1	75	683	758	268	732	1,000
Petroleum Products	13	424	14	438	246	10	256	37	40	77	129	50	179	38	13	51				451	111	562	875	125	1,000
Fertilizer	14	112	91	203	6	37	43	85	241	326	68	281	349	38	79	117	CR 16	CR 21	CR 37	182	615	797	294	706	1,000
Chemical Product (Intermediate)	15	64	65	129	17	38	55	111	235	346	108	287	395	45	69	114	CR 32	CR 7	CR 39	248	623	871	312	688	1,000
Chemical Product (Final Use)	16	73	52	125	10	48	58	111	216	327	131	297	428	16	55	71	CR 4	CR 4	CR 8	264	611	875	337	663	1,000
Cement & Pottery	17	31	37	68	21	27	48	188	197	385	162	249	411	35	51	86			2	407	525	932	438	562	1,000
Iron & Steel	18	129	108	237	3	19	22	50	166	216	48	409	457	19	47	66			1	120	643	763	249	751	1,000
Cast, Wrought & Rolled Iron	19	13	155	168	4	23	27	82	199	281	53	389	442	22	58	80			1	162	670	832	195	805	1,000
Processed Metal Product	20	7	84	91	15	22	37	166	181	347	188	277	465	11	49	60		CR 1	CR 1	380	529	909	387	613	1,000
Nonferrous Metal	21	66	57	123	18	22	40	88	176	264	107	392	499	23	46	69			4	237	640	877	303	697	1,000
Machine (For Industry)	22	15	81	96	11	24	35	200	210	410	89	286	375	32	52	84				333	571	904	348	652	1,000
Precision Machine	23	17	55	72	43	26	69	217	185	402	167	241	408	8	43	51		CR 2	CR 2	435	493	928	452	548	1,000
Electric Machine (For Industry)	24	12	67	79	13	26	39	178	193	371	183	278	461	3	47	50				377	544	921	389	611	1,000
Electric Machine (For Houshold)	25	12	55	67	88	31	119	127	219	346	139	279	418	4	46	50				359	574	933	371	629	1,000
Automobil	26	20	73	93	45	29	74	142	248	390	96	289	385	3	55	58		CR 1	CR 1	286	621	907	298	702	1,000
Shipbuilding	27	12	82	94	13	25	38	201	213	414	104	292	396	5	55	60		CR 2	CR 2	323	583	906	335	665	1,000
Construction	28	5	60	65	6	33	39	182	228	410	86	342	528	5	53	58				280	655	935	285	715	1,000
Roads, etc.	29	5	51	56	2	26	28	358	200	558	24	260	284	24	48	72			2	409	535	944	414	586	1,000
Trade	30	2	16	18	22	21	43	197	125	322	429	128	557	30	30	60				678	304	982	680	320	1,000
Transportation	31	18	49	67	12	34	46	366	129	495	70	158	228	131	33	164				579	354	933	597	403	1,000
Electric Power	32	6	23	29	6	21	27	227	175	402	227	123	350	151	41	192				611	360	971	617	583	1,000
Service	33	6	37	43	29	39	68	254	163	417	174	203	377	55	41	96		CR 1	CR 1	512	445	957	518	482	1,000
Scraps	34	1	48	49		6	6		54	54	787	89	876		16	16				787	164	951	788	212	1,000
Miscellaneous	35	28	53	81	1	48	49		145	145	496	186	682		36	36	9	CR 2	7	506	413	919	534	466	1,000
	Average	57.0	59.1	116.2	28.5	26.3	54.7	161.2	177.0	338.1	161.3	252.1	413.4	35.5	47.8	83.4	-2.1	-2.3	-4.3	384.6	500.9	885.4	441.6	558.4	1,000
	r. T-D			0.921			0.983			0.831			0.823			0.900						0.516			
	r. D-I		-0.162			0.003			-0.136			-0.531			-0.174						-0.871				

Table 2. Cumulated Cost Ratios by Industry

1						2						3						4						5						6						7					
D		I		T		D		I		T		D		I		T		D		I		T		D		I		T		D		I		T		D		I		T	
In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient	In- dustry	Coef- ficient		
34	1	13	14	30	18	34		34	6	34	6	34		13	40	34	54	12		13	50	13	179	35		13	13	34	16	7	C R 36	14	C R 21	15	C R 39	12	75	13	111	13	562
30	2	30	16	4	27	35	1	13	10	6	18	35		34	54	13	77	29	24	34	89	12	198	34		34	16	35	36	15	C R 32	7	C R 20	14	C R 37	18	120	34	164	6	584
3	3	4	22	32	29	29	2	6	12	18	22	13	37	4	72	35	145	2	35	32	123	2	213	26	3	4	20	25	50	8	C R 20	8	C R 14	8	C R 34	8	161	4	238	12	758
4	5	32	23	3	35	18	3	4	13	1	24	12	42	1	76	1	167	18	48	30	128	31	228	24	3	1	27	24	50	14	C R 16	15	C R 07	16	C R 08	19	162	30	304	8	762
28	5	2	24	2	39	19	4	2	14	32	27	18	50	6	85	6	172	19	53	4	132	29	284	25	4	30	30	13	51	16	C R 04	11	C R 04	11	C R 03	14	182	1	309	18	763
29	5	6	24	33	43	8	5	1	15	19	27	19	82	2	121	5	209	8	62	31	158	3	314	27	5	6	31	23	51	34		16	C R 04	23	C R 02	6	222	2	351	14	797
32	6	1	29	34	49	38	6	18	19	4	28	5	82	30	125	18	216	14	68	3	172	6	339	28	5	31	33	5	53	25		35	C R 02	27	C R 02	21	237	31	345	19	832
33	6	3	32	29	56	28	6	3	20	29	28	14	85	5	127	21	264	31	70	2	178	5	348	23	8	36	36	6	56	24		9	C R 02	1	C R 02	7	249	32	360	5	870
20	7	33	37	1	60	14	6	32	21	8	31	6	87	31	129	19	281	5	74	35	186	14	349	10	8	3	37	28	58	13		1	C R 02	9	C R 02	15	248	3	361	15	871
24	12	17	37	28	65	6	6	30	21	22	35	21	88	3	131	10	288	10	79	1	193	32	350	8	11	5	39	26	58	23		27	C R 02	5	C R 01	9	252	6	362	16	875
25	12	5	39	31	67	11	7	20	22	11	35	1	91	18	166	8	314	28	86	12	198	22	375	20	11	33	41	30	60	5		23	C R 02	6	C R 01	10	252	35	413	21	877
27	12	10	47	25	67	7	7	21	22	2	37	7	101	35	145	30	322	22	89	33	203	33	377	5	14	2	41	20	60	6		4	C R 01	26	C R 01	16	264	33	445	11	889
19	13	34	48	17	68	1	9	19	23	20	37	8	103	10	150	14	326	26	96	6	235	8	377	16	16	32	41	27	60	28		2	C R 01	20	C R 01	28	280	5	482	22	904
2	15	31	49	23	72	16	10	10	23	27	38	9	110	33	163	16	327	9	97	23	241	11	384	18	19	23	43	10	64	26		12	C R 01	10	C R 01	26	286	23	493	27	906
22	15	12	49	9	77	22	11	22	24	24	39	15	111	32	175	25	346	6	104	17	249	26	385	12	21	18	47	18	66	30		33	C R 01	33	C R 01	27	323	17	525	26	907
23	17	29	51	24	79	31	12	27	25	7	39	16	111	21	176	15	346	27	104	29	260	15	395	19	22	25	46	21	69	20		10	C R 01	12	C R 01	22	333	20	529	20	909
31	18	16	52	35	81	24	13	29	26	28	39	25	127	20	181	20	347	27	107	11	268	27	396	21	23	21	46	16	71	27		20	C R 01	2	C R 01	11	355	11	534	10	913
9	20	35	53	10	87	27	13	8	26	21	40	10	138	11	190	9	366	15	108	5	274	4	405	29	24	24	47	29	72	10		26	C R 01	34		25	359	29	535	7	914
26	20	11	53	20	91	12	13	24	26	3	41	26	142	23	185	7	366	11	116	20	277	23	408	6	25	29	48	8	74	18		6	C R 01	25		24	377	24	544	35	919
8	26	25	55	26	93	9	14	23	26	12	42	20	166	24	193	24	371	7	120	24	278	17	411	30	30	20	49	19	80	21		5	C R 01	24		20	380	22	571	24	921
35	28	23	55	27	94	4	15	17	27	30	43	24	178	17	197	17	385	13	129	25	279	25	418	22	32	11	51	1	81	29		34		13		5	388	25	574	23	928
1	31	9	57	22	96	20	15	11	28	14	43	28	182	19	199	11	387	16	131	14	281	7	419	9	32	17	51	22	84	19		25		28		17	407	27	583	17	932
17	31	21	57	11	111	15	17	12	29	9	44	17	188	29	200	26	390	25	139	22	286	16	428	11	34	22	52	11	85	1		24		30		29	409	18	643	31	933
10	40	28	60	7	113	21	18	26	29	31	46	11	197	22	210	32	402	3	142	15	287	28	428	17	35	28	53	17	86	22		13		22		23	435	8	601	25	933
7	44	15	65	21	123	3	21	9	30	17	48	30	197	8	211	23	402	17	162	26	289	9	440	13	38	26	55	4	90	17		28		31		13	451	16	611	28	935
11	58	24	67	16	125	17	21	25	31	35	49	22	200	27	213	22	410	23	167	27	292	19	442	14	38	27	55	33	96	33		30		3		35	506	14	615	1	940
15	64	7	69	15	129	30	22	7	32	10	50	27	201	16	216	28	410	33	174	16	297	18	457	15	45	16	55	9	104	9		22		32		33	512	26	621	29	944
21	66	26	73	5	130	2	23	28	33	15	55	23	217	25	219	12	413	24	183	7	299	24	461	1	54	10	56	12	106	12		31		18	1	31	579	15	623	34	951
16	73	22	81	19	168	10	27	31	34	16	58	32	227	28	228	27	414	20	188	8	315	20	465	33	55	19	58	15	114	2		3		19	1	3	604	21	640	9	952
5	91	27	82	14	203	33	29	14	37	33	68	33	254	15	235	33	417	32	227	28	332	21	499	7	58	8	63	14	117	31		32		29	2	2	610	28	655	33	957
14	112	20	84	18	237	23	43	15	38	23	69	3	297	14	241	4	484	4	273	9	343	10	512	4	70																

Note: 1, 2, 3, 4, 5, 6, 7 mean import, net indirect tax, wages, profits, depreciation allowances, adjustment, value added respectively.

Table 3. Cumulated Import Ratios
and Wage Ratios in 1951 and 1959

	M 1951	M 1959	W 1951	W 1959
1	39	60	129	193
2	42	30	477	496
3	60	36	411	336
4	63	23	443	438
5	117	96	152	230
6	564	459	143	182
7	116	125	332	301
8	340	244	233	323
9	106	93	331	338
10	56	101	287	287
11	220	138	337	331
12	234	312	343	341
13	470	352	102	48
14	201	185	295	335
15	177	149	317	330
16	101	119	326	314
17	90	73	415	367
18	256	285	312	200
19	188	187	365	269
20	135	99	391	343
21	165	237	294	251
22	115	102	445	371
23	70	80	468	423
24	99	94	446	396
25	103	68	443	248
26	110	113	441	374
27	107	108	438	398
28	70	68	367	375
29	71	64	328	440
30	29	16	296	350
31	80	73	530	458
32	53	38	484	325
33	63	42	327	385
34	150	65	275	78
35	145	50	205	123
average	143	125	341	314

Note: M, W mean cumulated import ratios and cumulated wage ratios respectively.

Table 4. Cumulated Cost Ratios by Destination Categories per capita

	Cost factors	Consumption	Government Consumption	Stocks	Fixed Capital Formation (Private)	Fixed Capital Formation (Government)	Exports	Extraordinary Exports	Total of Final Demands
1	Imports	72.737	31.821	101.937	71.911	50.345	143.127	71.962	76.011
2	Net Indirect Tax	78.430	26.823	56.826	41.434	36.607	50.865	55.426	64.084
3	Wages	308.965	158.905	214.428	409.825	433.915	363.432	331.984	319.322
4	Profits	439.914	211.827	504.418	389.985	270.067	439.182	464.321	410.778
5	Depreciation allowances	8.099	38.265	71.027	61.670	58.310	90.998	74.479	74.530
6	Adjustment	C R 2.939	0.407	C R 8.945	C R 0.004	1.096	C R 10.095	0.026	C R 2.926
7	Value added	904.771	436.225	837.744	902.908	789.994	934.389	926.240	865.789

ACCELERATED GROWTH OF NATIONAL INCOME

Hikoji KATANO

R.F. Harrod [4, 5] and E.D. Domar [2] have shown that a steady growth of national income depends on both the average propensity to save and investment productivity (or reciprocal of capital coefficient), which are assumed as parameters given from the outside of their theoretical systems. The steady growth rate of national income is the product of these two factors. Then, for increasing the steady growth rate of national income, either the average propensity to save or investment productivity should be increased. In this paper, we will assume a constant investment productivity. So an increase in the steady growth rate of national income shall be brought about by an increase in the average propensity to save.

In this paper, we do not consider any investment function, which describes a private enterpriser's behavior to invest. The investment level, which is determined by the equilibrium system, is the investment level required for maintaining steady and accelerated growth. And we assume here that this requirement can be always maintained by the direction of the planning authority. Therefore steady and accelerated growths of national income can be always kept within planned paths. In this connection, we do not examine in this paper the stability or instability of growth paths.

In a developing country, it would be very difficult to increase the average propensity to save by one effort to a sufficient level to take the economy into a self-sustained situation. So, for a developing country, a mechanism to steadily increase the average propensity to save shall be considered. This process can be supported by a constant marginal propensity to save which is larger than the average propensity to save at the initial time period.

This process, by which the average propensity to save is steadily increased, can be developed by a generalization of Domar's steady growth model. This steadily increasing average propensity to save brings about a steadily increasing growth rate of national income. We call this growth with increasing growth rate *the accelerated growth*. On this accelerated growth path, the higher the marginal propensity to save, the higher the growth rate of national income.

Contributions by Domar-Fel'dman [3] and P.C. Mahalanobis [6, 7] have, on other bases of thinking, developed their ideas of the accelerated growth of national income. They develop their models from the view-point that the

accelerated growth of national income can be attained by increasing the investment allocation ratio to a sector producing capital goods. We can prove that the higher investment allocation ratio to a sector producing capital goods has the same effect of accelerating the growth rate of national income in the long-run as a higher marginal propensity to save has. The higher the investment allocation ratio to a sector producing capital goods, the higher the marginal propensity to save. And the higher the marginal propensity to save, the higher the growth rate of national income in the long-run. Then the higher the investment allocation ratio to a sector producing capital goods, the higher the growth rate of national income in the long-run.

At last, let us consider a feasible situation where the investment productivity of a sector producing capital goods is smaller than that of a sector producing consumption goods. Consideration on this situation lets us know that for maintaining the marginal propensity to save at a constant level required for the developing economy into a self-sustained situation, the investment allocation ratio to a sector producing capital goods should be kept at a level several times that of the required marginal propensity to save.

I. *Harrod's Steady Growth of National Income*

R.F. Harrod's contribution to the theory of economic growth was to show the dependence of steady growth of national income on both average propensity to save and investment productivity: the growth rate of national income is the product of these two factors.

Harrod's model consists of Keynesian aggregates. The price situation is kept constant. There is a certain relation between investment and increment in national income under normal capacity conditions. Assets are assumed to be permanently used. The average propensity to save is always kept constant. Output as a whole is distributed only to investment and consumption. Foreign trade is not considered.

Fundamental assumptions in Harrod's model are the following two:

1. Demand-supply (saving-investment) equilibrium is always maintained, and

2. Production process is always operated under normal capacity conditions.

Under these assumptions, Harrod's model is constructed as follows,

$$\begin{aligned} \Delta Y(t) &= sI(t) \\ (1) \quad S(t) &= aY(t), \\ I(t) &= S(t) \end{aligned}$$

where $Y(t)$, $I(t)$ and $S(t)$ stand for national income, investment and savings at

time t , a for average propensity to save and σ for investment productivity. The first relation shows that a certain amount of investment can generate national income increment being σ times of the investment under normal capacity condition. The second relation means that savings is a constant fraction of national income at all time periods. And the last relation shows the saving-investment equilibrium condition.

For initial conditions $[Y(0)$ and $I(0)]$ given from the outside of this system, the levels of national income and investment at time t can be determined by equilibrium system (1).

$$(2) \quad \begin{aligned} Y(t) &= (1 + a\sigma)^t Y(0) \\ I(t) &= (1 + a\sigma)^t I(0) \end{aligned}$$

These relations express growth paths over time of national income and investment respectively. On these growth paths, each growth rate is kept constant over time. We call a growth with a constant growth rate a *steady growth*.

II. Domar's Steady Growth of National Income

From a different origin of thinking in Harrod's model, E.D. Domar presented the same kind of steady growth of national income.

The framework and assumptions of Domar's model are almost the same as that of Harrod's. However, Domar constructs his model with a constant marginal propensity to save instead of a constant average one as in Harrod's model. Here is the only difference between Harrod's model and Domar's.

Thus Domar's fundamental model is constructed as follows:

$$(3) \quad \begin{aligned} \Delta Y(t) &= \sigma I(t) \\ \Delta S(t) &= s \Delta Y(t) , \\ \Delta I(t) &= \Delta S(t) \end{aligned}$$

where s stands for marginal propensity to save. The first relation has the same implication as the first relation in (1) has. The second relation shows that increment in savings is a constant fraction of increment in national income. The last relation stands for a continuous saving-investment equilibrium condition.

For simplicity, Domar assumes here that the marginal propensity to save equals the average one. Then the equilibrium system (3) becomes

$$(3^*) \quad \begin{aligned} \Delta Y(t) &= \sigma I(t) \\ \Delta S(t) &= a \Delta Y(t) . \\ \Delta I(t) &= \Delta S(t) \end{aligned}$$

From this equilibrium system (3*), the levels of national income and investment at time t can be determined for given initial conditions.

$$(4) \quad \begin{aligned} Y(t) &= (1 + a\sigma)^t Y(0) \\ I(t) &= (1 + a\sigma)^t I(0) \end{aligned}$$

These results show the same steady growth paths as Harrod's model does.

III. *Steady Increase in Average Propensity to Save*

The most urgent need of a developing economy is to increase its national income level as rapidly as possible. According to the lessons given by Harrod's and Domar's steady growth theories, the growth rate of national income is proportional to both the average propensity to save and its investment productivity. Therefore, an increase in the growth rate can be brought about by an increase either in the average propensity to save or in investment productivity. However, in this paper, we will develop our arguments under the condition of a constant investment productivity. So the growth rate will increase only through an increase in the average propensity to save.

For a developing economy, it may be very difficult to increase its average propensity to save by one effort to a sufficient level for a "take-off" of the economy.⁽¹⁾ So we will consider here an average propensity to save to steadily increase into a sufficient level for taking off a developing economy into a self-sustained situation. This process of steady increase in average propensity to save can be supported by a constant marginal propensity to save which is given at a larger level than the average propensity to save at the initial time period.

$$(5) \quad [s | s > a(0)] = \text{const.}$$

The outline of this process can be shown by Figure 1, which is pictured with the horizontal axis in terms of national income and the vertical axis of savings. An initial situation of national income and saving-investment is pointed at $[Y(0), S(0)]$. An average propensity to save at the initial time period is $a(0) = S(0)/Y(0)$. When a marginal propensity to save after the initial time period is kept constant and at a higher level than $a(0)$, the average propensity to save at time $t (t > 0)$ becomes larger than $a(0)$, and steadily increases as time goes on. Because as we have assumed

$$\frac{\Delta S}{\Delta Y} > \frac{S(0)}{Y(0)}.$$

(1) According to Rostow [10], for taking off a developing economy into a self-sustained situation, the average propensity to save has to rise somewhere around 5% to over 10% of the national income.

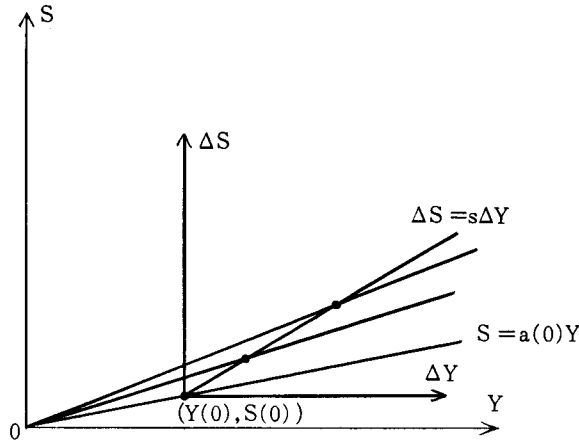


Figure 1

we have

$$\frac{S(t)}{Y(t)} = \frac{S(0) + \Delta S}{Y(0) + \Delta Y} > \frac{S(0)}{Y(0)} .$$

We have to examine this steadily increasing process of the average propensity to save in detail. Under the fundamental assumptions (1) and (2), for constant levels of the marginal propensity to save and investment productivity, the growth rate of national income at time t is

$$\frac{\Delta Y(t)}{Y(t)} = \frac{I(t)}{Y(t)} \cdot \frac{\Delta Y(t)}{I(t)} = a(t) \cdot \sigma ,$$

and the growth rate of investment is

$$\frac{\Delta I(t)}{I(t)} = \frac{\Delta I(t)}{\Delta Y(t)} \cdot \frac{\Delta Y(t)}{I(t)} = s \cdot \sigma .$$

From these relations, we have

$$\begin{aligned} Y(t) &= (1 + a(t-1)\sigma)Y(t-1) \\ I(t) &= (1 + s\sigma)I(t-1) \end{aligned} .$$

Thus we have

$$(6) \quad a(t) = a(t-1) \frac{1 + s\sigma}{1 + a(t-1)\sigma} .$$

This shows that when s is larger than $a(t-1)$, $a(t)$ is always larger than $a(t-1)$. For a constant s and σ , the relation (6) is a difference equation in a . By solving

this equation, we have

$$(7) \quad a(t) = a(0) \frac{1+s\sigma}{1 + \frac{a(0)}{s} [(1+s\sigma)^t - 1]} .$$

From this relation, we can deduce

$$(8) \quad \lim_{t \rightarrow \infty} a(t) = s .$$

This shows that the time path of $a(t)$ converges to s for any initial value of the average propensity to save. So it becomes clear from these relations that when the marginal propensity to save is larger than the average propensity to save at the initial time period, the average propensity to save at time t is steadily increasing and converging to the marginal propensity to save.

This process is graphically explained by Figure 2, which is constructed with the horizontal axis in terms of $a(t-1)$ and the vertical axis of $a(t)$. On this plane, the curve (6) and the 45° line through the origin are pictured. Only the non-negative region is economically meaningful. Interaction between the curve and the 45° line through the origin explains the convergence process of the average propensity to save to the constant marginal one, s .

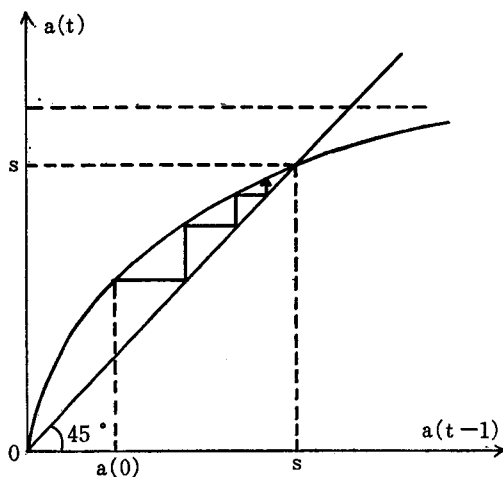


Figure 2

Thus, as the average propensity to save gradually increases and converges to the marginal propensity to save given as a constant, the growth rate of national income also gradually increases and converges to a certain value which is equal to the growth rate of investment, that is

$$(9) \quad \lim_{t \rightarrow \infty} a(t) \cdot \sigma = s \cdot \sigma .$$

This means that the larger the marginal propensity to save given as a constant, the larger the growth rate of national income.

IV. *Accelerated Growth of National Income.*

For constructing an accelerated growth model, let us give up Domar's assumption that the marginal propensity to save equals the average one, and generalize on Domar's steady growth model. In this connection, we shall return to equilibrium system (3).

In equilibrium system (3), the levels of national income and investment at time t can be determined for their given initial values⁽²⁾

$$(10) \quad Y(t) = \left[1 + \frac{a(0)}{s} ((1+s\sigma)^t - 1) \right] Y(0)$$

$$(11) \quad I(t) = (1+s\sigma)I(0)$$

The relations (10) and (11) show the growth paths over time of national income and investment. Here the investment is still steadily growing, but the growth rate is different from the growth rate in Harrod-Domar's steady growth: the growth rate of investment is now the product of the marginal propensity to save and the investment productivity.

From relation (10), the growth rate of national income becomes

$$(12) \quad \frac{\Delta Y(t)}{Y(t)} = a(t) \cdot \sigma .$$

$a(t)$ varies over time, and steadily converges to s (the marginal propensity to save). This is the same conclusion as we have taken in the preceding section.

This means that the larger the marginal propensity to save given as a constant, the larger the growth rate of national income.

V. *Marginal Propensity to Save & Investment Allocation Ratio.*

In the previous sections, we have shown that the larger the marginal propensity to save given as a constant, the larger the growth rate of national income. Let us examine this result from the view-point of an investment allocation ratio.

(2) This type of growth path of national income has already been used as a planning model of the First Five Year Plans in India. Cf. P. C. Mahalanobis & M. Mukherjee [8] and K. A. Naqvi [9].

Following the procedures developed by Domar-Fel'dman and Mahalanobis, let us examine the characteristics of the accelerated growth of national income. The following model can also be constructed in terms of Keynesian aggregates. Two sectors are considered in the model: Sector 1 producing capital goods and Sector 2 producing consumption goods. This sectoral classification is not for an intersectoral analysis of economy but for analysing an allocation of total investment to respective sectors. The price situation is kept constant. There are certain relations, in respective sectors, between investment and increment in national income under normal capacity conditions. Assets in respective sectors are assumed to be permanently used, and foreign trade is not considered.

Investment at time t is allocated to Sectors 1 and 2. k stands for investment allocation ratio to Sector 1. We do not consider the other producing sector, so that $(1-k)$ consequently becomes the investment allocation ratio to Sector 2. Let $I(t)$ be total investment (output of Sector 1), and $I_1(t)$ and $I_2(t)$ be investments allocated to the respective sectors, so that $I(t)=I_1(t)+I_2(t)$. Let σ_1 and σ_2 be the investment productivities of the respective sectors, which are assumed to be constant. Then we have the relation of these magnitudes to investment productivity as a whole of economy as follows

$$(13) \quad \sigma = k\sigma_1 + (1-k)\sigma_2 .$$

In Section 1, the investment allocated to this sector $kI(t)$ generates an increment of income of this sector $\Delta I(t)$ being σ_1 times of the investment. And in Section 2, the investment allocated to this sector $(1-k)I(t)$ brings about an increment of this sector $\Delta C(t)$ being σ_2 times of the investment.

Other notations are the same used in the previous sections.

And let us take fundamental assumptions (1) and (2). So our equilibrium system becomes

$$\begin{aligned} \Delta Y(t) &= \Delta S(t) + \Delta C(t) \\ \Delta S(t) &= s\Delta Y(t) \\ (14) \quad \Delta I(t) &= \Delta S(t) \\ \Delta I(t) &= k\sigma_1 I(t) \\ \Delta C(t) &= (1-k)\sigma_2 I(t) \end{aligned}$$

The first relation shows the balance equation of the national income increment, and the second relation expresses the saving function with the constant marginal propensity to save. The third relation stands for the continuous saving-investment equilibrium condition. And the last two relations stand for relations

between investment and increment of income of the respective sectors under normal capacity condition.

In this equilibrium system, σ_1 and σ_2 are parameters, which are exogenously given from the outside of the system. The allocation ratio of total investment to Sector 1 is given as a policy instrument, which shall be at the optimum size chosen by the planning authority. This size depends on what the authority considers to be the purpose of economic development. Thus we have five unknowns [$Y(t)$, $I(t)$, $S(t)$, $C(t)$ and s] for five equations included in system (14). When the initial levels of national income and investment are given, these five unknowns are uniquely determined by the five equations for given $Y(0)$ and $I(0)$.

By solving simultaneous equations (14), we have

$$\begin{aligned} I(t) &= (1+s\sigma)^t I(0) \\ (15) \quad Y(t) &= \left[1 + \frac{a(0)}{s} \{(1+s\sigma)^t - 1\}\right] Y(0) , \\ s &= k\sigma_1 / \{k\sigma_1 + (1-k)\sigma_2\} \end{aligned}$$

where

$$\sigma = k\sigma_1 + (1-k)\sigma_2 .$$

These relations show the same situation as accelerated growth has. The only addition is the third relation in (15). This shows the marginal propensity to save as a function of the allocation ratio of total investment to Sector 1. This marginal propensity to save is required for maintaining the policy to keep the allocation ratio of total investment in Sector 1: so we call this *the required marginal propensity to save*.

The relation

$$s = k\sigma_1 / (k\sigma_1 + (1-k)\sigma_2)$$

shows that the value of s corresponds to only one value of k .⁽³⁾ This means that when the value of k is given, the value of s can be correspondingly determined by the value of k . And here, the economically meaningful region and domain of s and k are

$$(16) \quad 0 \leq s \leq 1, \quad 0 \leq k \leq 1 .$$

Especially, when $\sigma_1 = \sigma_2$, we have

$$s = k .$$

(3) This relation has been proved, from another point of view, by S. Chakraverty [1].

This means that in this special case, the marginal propensity to save equals the allocation ratio of total investment to Sector 1.

From the third relation in (15), we have

$$(17) \quad \frac{ds}{dk} = \sigma_1 \sigma_2 / \sigma^2 > 0 .$$

This shows that the higher the allocation ratio of total investment to Sector 1, the higher the marginal propensity to save. However, we already know that the higher the marginal propensity to save, the higher the growth rate of national income in the long-run. Thus, along line of Domar-Fel'dman and Mahalanobis, we see that the higher the allocation ratio of total investment to Sector 1, the higher the marginal propensity to save, and the higher the marginal propensity to save, the higher the growth rate of national income in the long-run.

However, in the fundamental equation of accelerated growth of national income (the second relation in (15)), $a(0)$ is given by the initial conditions, but σ depends on the allocation ratio of total investments to Sector 1 for given investment productivities of the respective sectors. Considering relation (13), the higher the allocation ratio of total investment to Sector 1, the higher σ for $\sigma_1 > \sigma_2$, the constant σ for $\sigma_1 = \sigma_2$, and the lower σ for $\sigma_1 < \sigma_2$. So in case $\sigma_1 > \sigma_2$, the initial growth rate of national income $a(0)\sigma$ is increased by a higher allocation ratio of total investment to Sector 1. On the other hand, in case $\sigma_1 < \sigma_2$, the initial growth rate is decreased by the same cause. We consider the case $\sigma_1 < \sigma_2$ as feasible in an actual situation. An increment in income per unit of investment may be smaller in Section 1 than in Section 2. In this feasible case, a higher allocation ratio of total investment to Sector 1 brings about a lower growth rate of national income at the initial time period. However, a higher allocation ratio of total investment to Sector 1 accelerates the growth rate of national income over time. And this acceleration of the growth rate can sufficiently cover any loss at the initial time period. Thus the growth rate of national income is accelerated in the long-run.

Moreover, from the relations mentioned above, we have

$$(18) \quad \frac{d^2s}{dk^2} = \frac{-2\sigma_1\sigma_2(\sigma_1 - \sigma_2)}{\sigma^3} .$$

From this relation together with the other relations concerned with the marginal propensity to save, we see a relation between the marginal propensity to save and the allocation ratio of total investment to Sector 1, which are pictured in Figure 3. The marginal propensity to save is the increasing function in the allocation ratio of total investment to Sector 1. And this increasing function

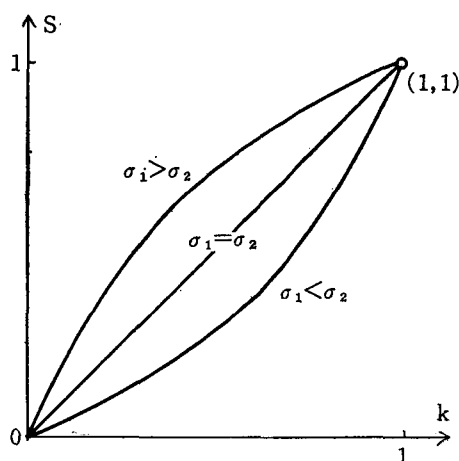


Figure 3

diminishes for $\sigma_1 > \sigma_2$, linear proportional for $\sigma_1 = \sigma_2$, and increases for $\sigma_1 < \sigma_2$. In the feasible situation mentioned above, where $\sigma_1 < \sigma_2$, the marginal propensity to save is always smaller than the investment allocation ratio to Sector 1. And, for a lower value of the investment allocation ratio to Sector 1, the value of $\frac{ds}{dk}$ is rather small; after the value of the ratio becomes higher than a certain level, the value of $\frac{ds}{dk}$ becomes rapidly larger and larger. This means that in a feasible situation of economy, for maintaining the marginal propensity to save at a constant level required for taking off the developing economy into a self-sustained situation, the investment allocation ratio to Sector 1 should be kept at a level several times of the required marginal propensity to save.⁽⁴⁾

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TECHNOLOGICAL DEVELOPMENT AND LABOUR RELATIONS IN THE JAPANESE SHIPPING INDUSTRY

Hiromasa YAMAMOTO

After the Second World War in various fields of industry the technological developments including automation have been developing, accompanied by the large impacts on industrial relations.

In the shipping industry there were few important technological developments except the invention of the diesel engine after the appearance of steam and iron ships. However, in recent years several countries have developed the study of ship automation and the ships which have adopted the automation apparatus in the engine-room are already in operation.

In this article the writer wishes to give a brief survey upon the automation adopted by the Japanese merchant fleet and the impact of the program of improving labour productivity upon the labour-management relations of the shipping industry.

I

Program for the development of ship automation in Japan⁽¹⁾

In March 1959 the Minister of Transport referred the development program for ship automation and also technical problems to be solved to the Naval Architecture Council. The Council submitted to the Minister in February 1960 the report that comparatively long period would be needed to complete the ship automation and that the research and study with regard to the ship automation should be developed in an adequate order so that each result of the study may be immediately applied to the ship building.

Following the report the Ministry of Transport started in 1960 the three-year plan for modernization and speed up of ships providing the subsidy amounting to approximately 100 million yen for the fundamental study of ship automation. At the same time the Ministry of Transport drew up the long-term development program for modernization of ships aiming firstly at the automation

(1) refer to; Ministry of Transport, Reports of test design of modernized ship; High-Speed Cargo liner, 1963, Tanker, 1964, Ore Carrier, 1965 (Japanese)

of the main and auxiliary engines and also the modernization of loading facilities for the reduction of the crew costs, secondly the adoption of new ship design including improvement of shell for the reduction of the shipbuilding costs, and thirdly the development of the crude oil engine. In 1963 the Ministry began the second three-year plan for the systematic study of ship automation on the one hand, and also requested the Japan Naval Architecture Association to complete test designs of modernized ships which was intended to put in practical use the ship automation having been developed or expecting to be easily developed. The study groups of the association completed the test designs of a cargo liner in March 1963, a tanker in March 1964, and an ore carrier in March 1965.

In drawing up these ship designs, the designing groups succeeded in reducing the manning scale of test ships to about a half in comparison with those of ships of similar class. A cargo liner of 9,000 gross tons was designed to be operated with twenty members, a tanker of 65,000 deadweight tons with nineteen members, and an ore carrier of 65,000 deadweight tons with fourteen members. The reduction of manning scale of the test designs was to be attained through the automation of the main and auxiliary engines which were controlled by the operator at the bridge, in addition to the adoption of highly mechanized berthing apparatus on the one hand, and through the reorganization of work relationships among the crew on the other hand. In the test ships the traditional working system such as deck and engine-room departments was abolished and integrated to ship-operating department, while the crew to be composed of the new type of well-trained members. It was required for them to fulfill both duties of ordinary deck and engine room departments and also able to operate the automation apparatus and other new mechanism. Therefore, in order to operate the newly designed ships by the expected number of the crew which is much fewer than those of traditional ships, the reform of the educational system for ship officer and seamen is necessary in addition to the retraining of officer and ratings.

At present if the ships are constructed according to the developed designs mentioned above, it is impossible of reducing the manning to the scale intended by the designing group, because laws, such as Seamen's Act and Ship Safety Act, providing the manning scale and also qualifications of crew members hinder such a large scale reduction, even if we do disregard the conflicts between management and labour with regard to the integration of work system and the reduction of the manning scale. As is suggested in the preceeding paragraphs, though the test design of automatic ships developed in Japan in recent years seems to be located in the earlier stage of ship automation, it has already shown impact on manpower requirements and work relationships, and it has brought many

important problems to be solved in near future by both management and labour such as retraining, displacement and adjusting the relationship between labour and management.

II

Automation and Mechanization of the Japanese Merchant Fleet and Reduction of the Manning Scale

According to the common usage in Japan, the ship of which engines are operated remotely and/or the main and auxiliary engines are more or less automated are called automatic ship. Such ships — so-called “automatic ship” — are fitted with some of highly mechanized apparatus for ship operation, berthing and communication, and also provide the crew with modern living spaces.

The first ship which adopted automation of engine-room in Japan is the Kinkazan-maru, cargo liner of 10,000 deadweight tons. She succeeded in her maiden voyages in December 1961 with fourteen members of engine-room department. At that time the number of the crew was forty, but after the test voyage period the crew has been reduced to thirty-seven in number which is fewer than the manning of ordinary ships of similar size by ten. The Mississippi-maru, cargo liner of 9,050 gross tons was constructed in May 1964 based on the test design of automatic ship stated in the preceeding section. Her manning scale is twenty-eight which is fewer than that of ordinary ship of similar size by twenty. However, the number of her crew does not reduce so greatly as expected by the test design group, and the work system on board ship also hasn't been realized according to the idea of the test design because of the existence of seamen's act. Therefore, if the laws prescribing the qualifications of the crew and the manning scale were remedied, and further if the negotiations between labour and management regarding to reform the work system reached to agreement, the manning scale of the Mississippi-maru would be decreased much further.

It is estimated that in 1964 there were fifteen ocean-going automatic ships among Japanese ocean-going fleet, which amounted to about two per cent of the fleet.⁽²⁾ However, the ships which will be constructed henceforth by Japanese shipping companies are expected to adopt more or less automation and/or highly mechanized apparatus, because all Japanese shipowners, facing the big bargaining power of seamen's union and the steady increase of seamen's wage, feel it necessary to adopt ship automation so as to decrease the ratio of the crew

(2) The All Japan Seamen's Union, the Nineteenth Annual Report, p. 128.

Table 1. The comparison of the manning with regard to automatic ship and ordinary ship

		SS. Kinkazan-maru Cargo liner	SS. Mississippi-maru Cargo liner	ordinary cargo ship of similar size*
officers	deck department	5	5	5
	engine-room	5	4	4
	wireless operating	3	} 2	3
	purser	2		2
	total	15	11	14
ratings	deck	12	10	14
	engine-room	7	4	13
	steward	6	3	7
	total	25	17	34
grand total		40	28	48

source; The Ministry of Transportation and Communication

* according to the manning scale before the productivity program was enforced.

cost of total operating cost. In consequence so-called automatic ships seem to be added to Japanese merchant fleet in a comparatively rapid pace.

In addition to the adoption of automation by newly-built ships, after the remedy of manning clause in trade agreement in April 1961 (see the next section) various kinds of mechanical apparatus and instruments have been introduced to a considerable number of ships already in operation, accompanied by the transfer of works to shores which had been performed on board, so as to decrease the manning through the mechanization and reduction of ship works. Among the mechanizations introduced into Japanese ships already in operation there were autopilot, auto-alarm and other self-controller and remote indication apparatus in various kinds of mechanism. Interphone and various kinds of electric instruments have been also adopted.

III

Technological Development and Labour Relations

1. Co-operation of seamen's union for program of improving labour productivity and the remedy of the manning agreement.

Before entering into consideration of the problem, it may be useful to give a brief survey for the labour-management relation of the Japanese shipping industry and the characteristics of seamen's employment system.

In Japan both officers and ratings are organized by the All Japan Seamen's Union, the single industrial union in the Japanese shipping industry. The union maintains collective bargaining with two shipowner groups of ocean-going

ships and also with two shipowner groups of coastwise trades ships. Seamen are employed permanently by respective shipping companies, and they are promoted according to seniority based on the period of the continuous employment in the same company. Consequently the movement of maritime labour between shipowners seldom occurs in Japan, though seamen often change their ship in the same company by the direction of the company. Promotion from ratings to officers is comparatively difficult due to educational system for seamen and also due to the company promotion policy.

Seamen's union decided in the fourteenth National Convention of October 1955 to co-operate with management for the program of improving labour productivity, in sharp contrast with the left-wing union policy which made clear their resistance against the program. The decision of the union for co-operation is based on following reasons. Automation and mechanization of ships may be expected to provide union members with better working conditions and safety. It seems sure that the program of improving labour productivity may give impact on manpower as it develops. But the union will be able to counteract by gaining shorter work hour and longer paid vacation which make union members possible not only to secure employment but to enjoy leisure time and other social life. The union also expects to gain larger relative share in proportion to the increase of labour productivity when the program develops.

The remedies of manning clause in the trade agreement may be regarded as the first co-operation of the union with companies' program of improving labour productivity. For ocean-going ships the union agreed with the remedy of the manning clause in April 1961, and for coastwise ships in October 1959. Trade agreement before the remedy defined that the manning scale was to be determined according to the standards such as gross tonnage, horse powers of the main engine and also areas in which the ship would operate, without any regard to the volume of works to be performed in the ship or to the degree of mechanization of ships. In addition the number of the crew of Japanese ships set by the old manning clause was more than those of most foreign flag ships not only in total number but especially in case of a ship doctor and wireless operators. But new agreements as to the manning, abolishing the old standards by which manning had been set, defined that each company might decide unilaterally the number of the crew of respective company ships in consideration of the volume of ship's work under the premise of eight hour work day, securing holidays, and preventing daily overtime work, if the captain of the ship concerned consented with it. Thus, shipping companies might decide the manning scales of respective ships without negotiation or consultation with the union, though it

is necessary for companies to give immediate notice to the union after the decision. Conflicts concerning the manning scale were to be dealt according to the ordinary grievance procedures. These changes of the manning clause give shipping companies the incentive to reform the work relationships of the crew and to adopt automation and mechanization of ships for the purpose of reducing the manning scale and the crew costs.

2. The reduction of the manning by the program of improving labour productivity

After the remedy of the manning clause, most shipping companies have proceeded the program of improving labour productivity. The program which is applied to ships already in operation includes the reduction of works on board ship through the abolition and decrease of works by transfer of a part of jobs to shoreside and by mechanization of ship on the one hand, and the reorganization of working system on the other hand. For example, cleaning of exhaust trunk casings has disappeared from the jobs of engine-room department in some ships. Various kinds of desk work have been transferred to the company offices on land. Some ships are to defer some of maintenance works such as painting to the period when the ship would stay in dock. Port relief system is also adopted so as to help the crew when the ship is in port.

When the volume of works on board ship has reduced by the program, it is quite natural that working system and job classification of the crew should be changed. Though the change of working system did not destroy the traditional divisions of work such as deck, engine-room and steward department, the job classification of ratings were considerably changed. As for deck department jobs of carpenter, store-keeper and quartermaster are integrated into "deck-hand", and ratings are classified as boatswain, deck-hands (able seamen) and deck-men (ordinary seamen). Under new job-classification some members of deck-hands stand watch according to the three-shift system while others fulfil their duties as day men, and there are fewer day men than old work organization because productivity program has decreased the volume of maintenance and repairing work. A similar kind of changes has occurred in engine-room and steward department.

The work organization of automatic ships also maintains the traditional departmental division of works as stated before, though panel control appears among the works of engine-room department and re-classification of jobs has been enforced. Companies give crew members of automatic ship necessary training for several months. In case of these ships the manning scale is usually decided after the they have finished test voyages.

Table 2 shows the decrease of the manning of the Japanese merchant fleet due to the program of improving labour productivity which was enforced during the period from July 1961 to March 1963.

Table 2. Decrease of the manning of the Japanese merchant fleet, (July 1961-March 1963)

	No. of firms belonged to	No. of firms en- forced producti- vity program	No. of vessels en- forced producti- vity program	total No. of decrease of the manning	averaged No. of decrease of the manning per ship	No. of seamen employed
Shipping companies engaged mainly in foreign trade	98	70	864	2,302	2.7	45,593
Shipping companies engaged mainly in coastwise trade	103	22	64	137	2.1	13,935

Source; A.J.S.U., the Eighteenth Annual Report (Japanese), pp. 94-95.

Among the vessels in which the manning is decreased there are thirty ocean-going ships and nine coastwise trade ships newly built while the rests are ships which were in operation when the program was enforced. Therefore, it is relevant to consider that the decrease of the manning in this period has been produced mainly by the reduction of crew members who were on board ships already in operation. The surplus of seamen which was resulted by the program was absorbed in the same shipping firm either as a port relief or as a reserved member of the crew or as the crew member of newly built ships, because the surplus was rather small in comparison with the total number of seamen employed and the program of improving labour productivity in Japanese shipping industry has not brought the radical change to the qualifications of seamen yet.

3. Grievances of union members in relation to working conditions

In April 1964 the seamen's union researched the opinions of union members regarding to the program of improving labour productivity enforced by respective shipping companies. According to the result made public by the union, though members of the union did not always object to the union's co-operation with the management for the program, considerable number of them were unsatisfactory to working conditions on board ship after the program had been enforced. Because they felt that the manning had been reduced in larger proportion to the reduction of volume of works on board ship, so that the volume of works per head to be performed or intensity of works had consequently

increased.⁽³⁾

In face to the unsatisfaction of union members the union proposed to the management to remedy the manning clause in the trade agreement, while the union endeavored vigorously to improve the working conditions through grievance procedures. In April 1965 the union reached to the following agreement with the management in relation to the remedy of the manning clause; that when the company intended to decrease the manning of a ship, the company would notice the devices of decreasing works and the contents of jobs in detail during the period of three months prior to the determination, that at the determination of the manning the company would pay adequate consideration to the opinions of the union, that as for the overtime works more than thirty hours a month an extra overtime rate should be applied, that the period on board ship by which a seaman would be qualified to take a paid vacation would be shortened by a month, and that in case of ocean-going ships the company would endeavour to adopt port relief system at home port.⁽⁴⁾

By this remedy of the trade agreement the seamen's union succeeded in removing the grievances of union members regarding to working conditions. However, there remain several important problems for the union to be solved in near future. One of them is to increase wages of seamen in proportion to the increase of productivity of labour, while other of them are programs with which the union will be able to adapt itself to the changing conditions that ship automation will produce. In the next section, the union program for ship automation will be dealt briefly.

IV

Problems the seamen's union facing to

Up to the present the productivity program including ship automation which has produced in the Japanese shipping industry has not given large impact upon the work organization on board ship, manpower requirements as to in quality and quantity and the relation between labour and management. It is due to the fact that automation and other technological developments which have been adopted by the Japanese merchant fleet stand only at the earlier stage of development which may be expected to occur in future. However, it ought to be expected that ship automation will develop in accelerated speed under the conditions that each shipping firm, facing to the tendency of decreasing supply of labour,

(3) Sen-in Shinbun (newspaper of A.J.S.U.), July 15, 1964.

(4) Sen-in Shinbun, May 1, 1965.

has to compete in the international trade routes. Consequently it is inevitable for the seamen's union of Japan that in near future it will face the problems which will occur in accompany with the development of ship automation.

The union does not make public the concrete program by which the union will prepare for the situation in future. However, the outline of the program may be found in the report of the union which was issued in July 1964 in response to the inquiry of the International Transportation Workers' Federation with regard to the conditions of ship automation in Japan and also to the union program for them. According to it the seamen's union intends to counteract the decreasing demand for seamen due to ship automation by shorter work hour and longer paid vacation.

With regard to the change of seamen's qualifications the union plans to reorganize and enlarge the retraining course of seamen which is now enforced. In addition, the union pointed out the importance of improving the social security for seamen in order to aid the unemployed who might be produced in the process of ship automation.

However, the union does not consider the possibility that ship automation would change the relation between labour and management. The change of work relationships and manpower requirements contains the possibility of destroying the physical condition by which the industrial union could be organized and have been maintained, because the traditional skills of seamen will be no longer needed as the ship automation will develop, and because the speed and scale of adopting ship automation will differ among shipping firms due to their financial situations or trade conditions. In Japan seamen are employed as permanent employees by shipping firms, and there is little labour mobility between shipping firms. Therefore the effect of ship automation upon the labour-management relations will appear more drastically in Japan than in any other countries. Accordingly prospects for future labour management relations in the Japanese shipping industry depend upon whether the union will be able to maintain its industrial organization under the unusual employment system and the different speed of ship automation penetrating shipping firms.

BRAZILIAN POSITION IN THE LATIN AMERICAN FREE TRADE ASSOCIATION

Yoshiaki NISHIMUKAI

I

The ECLA reports have made clear the necessity of establishing a common market for the economic development of Latin America.

According to one of these,⁽¹⁾ the necessity is based on the progress of the import substitution process in Latin America. The developing countries in this region have a highly increasing demand for imports, especially for machineries, equipments and raw materials, while the demand for their exports has been on the decline, and the capacity to import, as a consequence, has recently been stagnant or decreasing. One of the solutions for overcoming this difficulty is to produce within this own region goods and services required for their economic progress. The possibility of promoting this process of substitution for imports, on the other hand, depends on some important factors, such as the expansion of their domestic market, the availability of capital, and the existence of skilled laborers. In most of the Latin American countries, however, these factors are limited, if we consider them with respect to each country. Therefore, the difficulty of imports constitutes one of the basic obstacles to the economic development of this region. The only solution to avoid this unfavorable situation, as the ECLA report said, is to create a common market, by which the necessary conditions for import substitution can be improved.

But, regarding the Brazilian economy, there is another important viewpoint which is different from the ECLA report. Even if it can be accepted that for most of the Latin American countries, the necessity of import substitution and the insufficiency of domestic markets make a common market condition *sine qua non* to economic development, the case of Brazil must be considered separately: the Brazilian domestic market is the largest on this continent; her continental expansion with disposable resources, facilitate substitution for imports. Under these conditions, it is reasonable to allege that a common market will be useful but not necessary for Brazilian development. It is said that this is the general

(1) ECLA, *The Latin American Common Market*, New York, 1959.

opinion among economists and business men of Brazil,⁽²⁾ though a definite conclusion must be reached only after more profound studies.

In fact, the process of import substitution in Brazil has already been developed much more intensively than that of other Latin American countries. But Brazilian industrialization based on the substitution process suffers from three main flaws which have weakened its contribution to improving the standard of living. In the present stage of development, it is the most important problem to eliminate these flaws. From this point of view, the economic significance of a common market or LAFTA, the first step in the development of the Latin American Common Market, to Brazil must be re-examined.

The first flaw in industrialization is that all industrialization activity is directed towards their domestic market to the detriment of exports, be they industrial goods or new primary commodities.⁽³⁾ The Montevideo Treaty provides a partial solution to this problem. The differential treatment that the members of LAFTA accord one another means in practice that the importing country provides a subsidy for the exporting country. By encouraging exports, this will enable a gradual change to be made in the structure of production. Brazil which is a relatively advanced country in this region can expect that exports, especially of industrial products, will increase, and this will contribute to the increase of her industrial productivity which will expand the possibility of their exports to non-member countries. This observation can be justified by the fact that one of the principal objects of the Treaty of Montevideo is the expansion of intra-regional trade of new commodities, including industrial products.

The second flaw is that the choice of industries to be established has been based more on circumstantial reasons than on considerations from the economic field and consequently, in many instances, the substitution process has been directed especially towards industries producing consumer goods. The gradual development of LAFTA will make it possible to embark on a co-ordinated import substitution in respect to raw materials, intermediate products and capital goods from the rest of the world. This is the object of mutual agreements on complementarity by industrial sectors stipulated in the Montevideo Treaty. This would mean that imports of Brazil would become diversified again and recover the flexibility they are now losing.

The combination of the first two defects in the industrialization process leads to the third flaw, that is, failure to strengthen the structure of Brazilian

(2) J. P. de Almeida Magalhães, *Desenvolvimento Econômico*, Rio de Janeiro, 1962, pp. 95-96.

(3) ECLA, *Economic Development, Planning and International Co-operation*, Santiago, 1961, pp. 14-15.

economy so as to withstand external fluctuations. This brought about a new kind of external vulnerability resulting from the disappearance of the reducible margin of imports. When exports decline cyclically, inability to import essential goods has an unfavourable effect on the rate of growth and even leads to a contraction of the economy. The most adequate remedy is not to curtail income until imports fall to the level where they can be balanced by exports, but to readjust imports so that with a smaller volume it will still be possible to maintain the level of income and to continue to raise it. But, for this remedy, it is necessary that there exists a reducible margin of imports. In Brazil, as a result of the import substitution policy referred to above, such a reducible margin has been narrowed until it is insufficient for the proposed readjustment. Economic growth, then, suffers a setback or slackens its pace, until the situation rights itself through import substitution and the encouragement of new exports. It is, therefore, necessary for Brazil to pursue a more far-sighted policy that anticipates the requirements of economic development, instead of merely attempting to meet them when they arise. In such a policy, import substitution and the bolstering of new exports have to be carried on as a continuous and regular process. LAFTA can contribute to make it easier to implement the policy through the elimination of the first two defects in the Brazilian industrialization process.

Concluding the considerations referred to above, the significance of LAFTA to Brazilian economy has to be appreciated not from the standpoint of the acceleration of import substitution but from all angles, especially from the viewpoint of correcting the flaws in its industrialization. LAFTA can assume an important role in correcting these flaws through the possible expansion of exports, including some manufactured goods, and regional co-operation in the import substitution process. In this sense, it can be said that LAFTA is not only useful but indispensable to Brazilian economic development, at least in its present stage. However, it is natural that the importance of LAFTA should be lessened, if the expected functions do not satisfy the requirements of Brazilian economy. In reality, the present situation of LAFTA contains some important problems in performing the objects of the Treaty of Montevideo. We can find these problems in Brazil's attitude at recent conferences of the contracting parties.

II

In the First and the Second Conference of the Contracting Parties, Brazil showed a positive attitude in carrying out the objects of the Treaty, acknowledging its leading position based on the fact that it is one of the most industrialized countries in the region and has the largest market that includes half of the total

population of the member countries. Brazil reduced appreciably her import duties on important commodity items from the members of LAFTA and exempted these imports from some restrictions. The number of products benefited by these concessions was increased at the Second Conference and the National Lists, which became effective on January, 1963, contained 7,565 concessions, among which 1,243, or 16.4% were conceded by Brazil.⁽⁴⁾

However, it was made clear at the initial conference that Brazil's positive attitude was not followed by other members, which, with a few exceptions, only sought to gain concessions offered by Brazil and did not try to reciprocate with concessions which could substantially contribute to the expansion of intra-regional trade. Moreover, the products contained in the National List of each country had no similarity, and this made Brazil doubt the effects of LAFTA on its economy. The Montevideo Treaty aimed to expand intra-regional trade through double effects consisting of the National Lists and the Common List. But this presupposed that results of negotiations of the National Lists would tend to be projected and reflected in the Common List. For this purpose, it is indispensable that the principles which lead to the negotiation of the National Lists are the same as those for the Common List. Mutual concessions realized in the initial negotiations of the National Lists did not have the object of liberalizing the regional trade of a determined product. They aimed at an exchange of advantage based on the conception of reciprocity. This was a natural consequence of the mechanism of negotiations provided in the Treaty, which had not any automatic requirements for across-the-board reductions of restrictions on commodities actually or potentially entering the trade. For example, even if Paraguay reduced restrictions on steel pipe imported from Brazil — therefore from all other members — this did not mean that all members had to reduce restrictions on this commodity. The economy of scale is an important factor in the production of steel pipe, but only a combined market between these two countries is insufficient to constitute such a factor. Therefore, for Brazil which found that one of the effects of LAFTA was the expansion of export of manufactured goods, it was necessary in order to channel the results of the National Lists into the Common List, that all the members regard the conception of reciprocity as that in which they would give identical concessions to the same products. But this was hardly acceptable to the other members who had already created some industries and had planned to establish others.

Confronted with these situation of LAFTA, the Brazil's attitude changed remarkably after the Third Conference from first being progressive to becoming

(4) *Conjuntura Econômica* (International Edition), April, 1963, p. 41.

conservative later. Brazil decreased the number of products which become effective in the National List of 1964. This can be verified by the fact that the number of products newly contained in the Brazilian List only corresponded to less than 9% of the overall total.⁽⁵⁾ In addition, the rate of reduction of restrictions on commodities already contained in the Brazilian National List was lessened as much as possible. This striking change of Brazilian attitude was based on the intention to acquire reciprocal concessions which Brazil had given to the other members, much more than it had received. This was directly motivated by the fact that Brazil had experienced a considerable deficit in the balance of intra-regional trade, to which we shall refer later.

Another important fact which showed the change in Brazilian attitude at the Third Conference was the proposal of a resolution which required the co-operation of an economic development policy and a commercial policy, and the harmonization of trade restrictions. This proposal came from the necessity for Brazil to transform LAFTA into a customs union as soon as possible, because if the margin of privilege of intra-regional trade stayed unchanged, it would be difficult to expand and diversify intra-regional trade and this difficulty would constitute a crucial problem for Brazil which, as a relatively advanced country in that region, had suffered from competition with the rest of the world. Brazil's proposal was adopted as Resolution No. 75 with the support of some of the other members.

With respect to the control of foreign capital, Resolution No. 81 was also adopted. The problem of the control of foreign capital constituted one of the special aspects of LAFTA, as well as the disparity of economic level among the member countries and the difficulty of transportation. This Resolution recommended studies on the possibility of harmonizing the criteria connected with the control of foreign capital, so that investments might not be concentrated in only some sectors or regions with less productivity and primitive economic structure through excessive stimulus given by some members to foreign capital. In fact, the policies of the members applying for foreign private investments are of various kinds from extremely free to highly restrictive. This means that any stimulus given by a country to foreign investments in a determined sector can give rise to serious trouble to other countries which have already established that particular sector. Considering this possibility, Brazil insisted at the first negotiation of the Common List held in 1964 that products to be contained in the Common List should be those imported from non-member-

(5) CEMLA, *Boletín Quincenal*, Vol. X, Núm. 4, 25 de febrero de 1964, p. 58.

countries, that is, mainly manufactured goods.⁽⁶⁾ Because concessions permitted on products contained in the Common List are, different from those of the National List, irrevocable and import duties and other restrictions on these commodities are to be totally eliminated after the completion of the formation of a free trade area. Brazil intended to increase her investments in the manufacturing industry which had a comparative and absolute advantage among member countries, by means of including manufactured goods in the Common List and of harmonizing the policy of foreign capital among the members.

It can be said that Brazil's requirements mentioned above show that the situation of LAFTA was then not satisfactory to this country. But the unsatisfactory effects of LAFTA, which stiffened the attitude of Brazil can not exclusively be attributed to the opportunism and adherence to industrialization shown by other members. The fundamental cause existed in the provisions of the Montevideo Treaty itself. But an analysis of this aspect is beyond the scope of this study. We shall concentrate our observation on the Brazilian position in the trade among the members of LAFTA.

III

LAFTA became effective on January 1, 1962, after the installation of the Permanent Executive Committee and the holding of the First Conference of the Contracting Parties. Only a few years have passed since the beginning of activities by LAFTA. Therefore, it is impossible to appreciate all aspects of LAFTA and, in fact, its activity has been chiefly directed toward the expansion of intra-LAFTA trade. This is the reason why we shall focus our attention only on changes in intra-regional trade, without considering other aspects of the function of LAFTA, such as benefits of the regional division of labor, economy of scale, terms of trade, competition and consequent improvement of productivity, infant creation and protection.

However, even with regard to the movement of intra-LAFTA trade, it is difficult to verify clearly any contributions after the establishment of LAFTA. In addition, available statistical data are not sufficient to appreciate its effect. With these restraints, we shall give an outline of the changes in intra-regional trade.

As shown in Table 1, this trade had rapidly increased from 659 million dollars in 1961 to 951 in 1963, or an increase of 44.3%. The level in 1963 corresponded with the highest of the 1950's. The percentage of intra-LAFTA

(6) "ALALC e os Capitais Internacionais," *Desenvolvimento & Conjuntura*, ano XIII, no. 9, setembro de 1964, p. 56.

Table 1. Intra-LAFTA Trade (million of dollars)

Year	Exports	Imports	Total	Indices 1952=100	As a percentage of total trade
1952	359	449	808	100.0	8.4
1953	509	525	1,034	127.9	11.3
1954	495	539	1,034	127.9	10.4
1955	508	574	1,082	133.9	11.0
1956	358	408	766	94.8	7.6
1957	396	441	837	103.6	8.1
1958	374	403	777	96.1	8.2
1959	324	355	679	84.0	7.2
1960	340	375	715	88.6	6.9
1961	299	360	659	81.5	6.0
1962	355	420	775	95.9	7.0
1963	425	526	951	117.7	8.4

(Source) CEMLA, *Boletín Quincenal*, Núm. 13, 10 de julio de 1964, p. 223.

trade over the total trade of the members increased from 6% in 1961 to 8.4% in 1963. This rate was also among the highest levels after the late 50's. The trade between Brazil and other member countries was expanded by 70% in the period from 1961 to 1963, although the remarkable decrease of wheat imports from Argentina registered in 1961 made it difficult to get on overall idea regarding the influence exercised by LAFTA. Brazil's trade with other members absorbed 8.3% of its total trade in 1963, while this rate was only 7.2% in 1959-1960 (See Table 2).

Table 2. Intra-Regional Trade of Brazil (million of dollars)

Year	Exports	Imports	Total	Balance	As a percentage of total trade
1952	124.4	86.9	211.3	+37.5	6.20
1953	108.7	209.5	318.2	-100.8	11.13
1954	143.5	153.1	296.6	-9.6	9.28
1955	145.2	194.7	339.9	-49.5	12.35
1956	99.8	117.1	216.9	-17.3	7.98
1957	139.8	114.1	253.9	+25.7	8.81
1958	143.1	106.6	249.7	+36.5	9.62
1959	75.1	117.0	192.1	-41.9	7.23
1960	86.4	108.3	194.7	-21.9	7.13
1961	95.2	45.2	140.4	+50.0	4.90
1962	75.8	128.6	204.4	-52.8	7.60
1963	75.9	164.0	239.9	-88.1	8.29

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, p. 18 and ano VIII, no. 2, fevereiro de 1964, p. 85.

The balance of intra-regional trade of Brazil, however, became adverse and the deficit amounted to 88.1 million dollars in 1963. It was because imports increased to 164 million dollars, which reached the highest level since 1955, on the other hand, exports decreased in 1963 by 20% as compared with those in 1961 and showed the lowest level of the last twelve years. As we have seen, this unfavorable balance of intra-regional trade was the principal motive to stiffen Brazil's attitude in the negotiations at the Third Conference.

But a violent fluctuation in trade was one of the fundamental characteristics of intra-regional trade of Brazil (See Table 2). Both exports and imports were not stable and thus the balance of trade did not show a special trend. Moreover, the balance of trade during the ten years before LAFTA became effective registered an import surplus amounting to 91.3 million dollars. Therefore, the unfavorable balance of intra-regional trade of Brazil during 1962-63 could not be attributed only to the relative deterioration of Brazilian position resulting from negotiations for reducing the restrictions. Nevertheless, it must be noted that the balance of trade by countries in each of the two years before and after LAFTA became effective showed some important changes: the balance with Chile turned from an export surplus of 4 million dollars to an import surplus amounting to 27 million dollars; the import surplus found in the trade with Mexico, which was only 2.6 million dollars, rapidly increased to 26.5 million dollars; the deficit in the balance of trade with Peru increased from 4.6 to 26.3 million dollars (See Table 3).

Table 3. Balance of Intra-LAFTA Trade of Brazil

(thousand of dollars)

	1960	1961	1962	1963
Argentina	-38,476	+37,620	-37,086	-41,800
Colombia	+215	+910	+123	+300
Chile	+2,965	+1,146	-6,219	-20,900
Ecuador	+39	+67	+25	0
Mexico	-1,155	-1,425	-10,049	-16,500
Paraguay	+567	-18	+1,174	+7,000
Peru	-2,169	-2,438	-12,263	-14,000
Uruguay	+16,071	+14,169	+11,500	+3,200
Total	-21,943	+50,031	-52,805	-88,100

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, p. 84.

The second feature of the intra-regional trade of Brazil was its concentration in trade with a few countries, such as Argentina, Chile and Uruguay. Brazilian trade with these three countries has traditionally absorbed about 99%

of her total trade with countries associated now with LAFTA.⁽⁷⁾ Even in the period from 1960 to 1961, this occupied about 95%. This percentage, however, tended to decline after 1962, chiefly because of the decrease of imports, that is, 85.8% in 1962 and 83.2% in 1963. The percentage of imports from the three countries declined remarkably from 96% in 1960 to 79.1% in 1963, while that of exports remained relatively stable. On the other hand, the trade with Mexico rapidly increased because of the expansion of imports, the rate of which was about 11% in 1963, whereas it was only 1.3% in 1960. The same trend could be found in imports from Peru and exports to Paraguay (See Table 4 and 5).

Table 4. Brazil's Exports to the LAFTA Countries

	1960		1961		1962		1963	
	US \$1,000	%	US \$1,000	%	US \$1,000	%	US \$1,000	%
Argentina	56,392	63.3	67,436	70.9	48,461	64.0	46,200	60.9
Colombia	253	0.3	1,149	1.2	157	0.2	500	0.7
Chile	11,551	13.4	8,768	9.3	9,350	12.3	10,400	13.7
Ecuador	41	0.0	74	0.1	28	0.0	0	0
Mexico	189	0.2	219	0.2	304	0.4	1,400	1.8
Paraguay	995	1.2	593	0.6	2,134	2.8	2,900	3.8
Peru	371	0.4	1,241	1.3	1,244	1.6	1,000	1.3
Uruguay	16,597	19.2	15,726	16.5	14,130	18.7	13,500	17.8
Total	86,389	100.0	95,206	100.0	75,805	100.0	75,900	100.0

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, p. 84.

Table 5. Brazil's Imports from the LAFTA Countries

	1960		1961		1962		1963	
	US \$1,000	%	US \$1,000	%	US \$1,000	%	US \$1,000	%
Argentina	94,868	87.6	29,816	66.0	85,547	66.6	88,000	53.7
Colombia	38	0.0	230	0.5	44	0.0	200	0.1
Chile	8,586	7.9	7,622	16.9	15,569	12.2	31,300	19.1
Ecuador	2	0.0	7	0.0	3	0.0	0	0
Mexico	1,344	1.3	1,644	3.6	10,353	8.0	17,900	10.9
Paraguay	428	0.4	611	1.4	957	0.7	900	0.5
Peru	2,540	2.3	3,679	8.2	13,507	10.5	15,400	9.4
Uruguay	526	0.5	1,557	3.4	2,630	2.0	10,300	6.3
Total	108,332	100.0	45,175	100.0	128,610	100.0	164,000	100.0

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, p. 84.

(7) "ALALC — Propósitos e Planos," *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, p. 69.

The third feature was that the trade of Brazil with the members of LAFTA was concentrated in a few products both in exports and in imports. In exports, the major part was occupied by coffee, banana, pine-tree and mate. In imports, wheat, fresh fruits, niter and malt constituted the main staples.⁽⁸⁾ But after LAFTA became effective, the composition of intra-regional imports of Brazil made a striking change, that is, the percentage for food appreciably declined and instead that of raw materials and intermediate products increased (See Table 6). Food absorbed about 90% of the imports of Brazil from LAFTA

Table 6. Composition of Intra-Regional Imports of Brazil (%)

	1959	1960	1961	1962	1963
Livestock	0.2	0.4	2.2	1.3	2.5
Raw Materials	4.2	5.8	16.8	12.1	11.0
Food	90.4	85.4	59.5	60.8	46.5
Chemicals	1.0	2.4	4.6	3.2	3.8
Machineries	0.0	0.3	0.5	0.5	2.0
Other Manufactured Goods	4.2	5.5	15.6	22.0	33.9
Special Transactions	0.0	0.0	0.6	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, stembro de 1964, pp. 92-99.

Table 7. Composition of Intra-Regional Exports of Brazil (%)

	1959	1960	1961	1962	1963
Livestock	0.6	0.0	0.1	0.1	0.0
Raw Materials	34.9	35.5	40.0	34.0	36.6
Food	59.5	55.9	47.8	51.5	51.3
Chemicals	1.4	1.6	1.7	1.4	1.7
Machineries	1.8	1.5	6.0	9.8	6.8
Other Manufactured Goods	0.9	4.3	3.1	2.7	3.0
Special Transactions	0.9	1.1	1.2	0.5	0.6
Total	100.0	100.0	100.0	100.0	100.0

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, pp. 92-99.

countries in 1959, but this percentage sharply declined to 61% in 1962 and 46.5% in 1963. The main cause of this change was the decrease of wheat imports from Argentina, resulting from the bad harvest of that country. On the contrary, the imports of other manufactured goods — consisting mainly of intermediate products — rapidly increased from only 4.2% in 1959 to 33.9% in 1963. The principal cause of this increase can be found in the reduction of

(8) *Ibid.*, p. 69.

import restrictions on copper, zinc and lead from Mexico, Chile and Peru. In the item of raw materials, remarkable increases can be observed in wool and liquid gas from Argentina, crude petroleum from Chile and wool from Uruguay. These changes observed in the composition of imports indicate the effort of Brazil to convert imports of these products from extra-regional countries to that from members of LAFTA. As compared with the aspect of imports, there can be seen no significant change in the composition of exports. Exports of food and raw materials still constituted about 90% of the total exports to LAFTA countries. The only appreciable change was a little increase in exports of machineries which consisted of sewing machines, type-writers, elevators and railway vehicles.

IV

Now we shall analyze some factors which gave rise to the unfavorable balance of intra-regional trade of Brazil. On the side of exports, we can find three principal factors which unfavorably influenced their expansion. These are, (1) the impact of political instability which became aggravated from the middle of 1961, (2) the overestimation of the rate of exchange despite the acceleration of inflation, and (3) the economic recession of Argentina which is the greatest market for Brazil. Above all, the second factor became a great obstacle to the expansion of exports. For example, the rate of exchange which was fixed at the level of 450 cruzeiros (equivalent to 1 dollar) on September 6, 1962 by Instruction No. 230 of SUMOC, was not modified until April 22, 1963, while the general level of prices increased more than 40% in the same period.⁽⁹⁾ Thus, the fundamental causes which unfavorably influenced exports of Brazil were found not in the relative deterioration of Brazil's position resulting from negotiations in reducing and eliminating trade barriers, but in its internal factors. This consideration will be justified by Tables 8 and 9.

Table 8 shows the evolution of 28 principal export items which were given concessions by other member countries. In spite of the concessions, these exports decreased as compared with the level which had been reached before LAFTA became effective. The percentage of intra-regional exports of Brazil declined from 85% in 1960-61 to 81% in the 1962-63 period. Only a few commodities, such as iron ore, cotton, railway vehicles and sewing machines, showed a little increase. These facts indicated that the benefits which Brazil was conceded by other members were, in large part, offset by their internal

(9) *Desenvolvimento & Conjuntura*, ano VII, no. 2, p. 98, ano VIII, no. 2, p. 80 and *Conjuntura Econômica*, ano XVIII, no 2, índices econômicos.

Table 8. Brazilian Exports with Concessions of Customs
Duties and Other Restrictions (thousand of dollars)

	1959	1960	1961	1962	1963
Livestock	12	2	—	2	4
Raw Materials	22, 161	28, 081	34, 258	21, 990	23, 518
Food	42, 349	46, 785	43, 107	37, 056	36, 609
Chemicals	21	50	45	32	19
Machineries	537	313	797	1, 565	2, 665
Other Manufactured Goods	6	725	881	26	7
Total	65, 086	75, 956	79, 088	60, 671	62, 822

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, pp. 92-99.

Table 9. Brazilian Imports with Concessions of Customs
Duties and other Restrictions (thousand of dollars)

	1959	1960	1961	1962	1963
Livestock	136	149	519	1, 113	3, 203
Raw Materials	2, 959	3, 776	4, 449	3, 207	3, 207
Food	103, 633	91, 742	26, 389	77, 000	73, 234
Chemicals	531	1, 084	402	1, 252	1, 932
Machineries	—	197	77	16	551
Other Manufactured Goods	3, 513	3, 943	5, 175	27, 025	46, 827
Total	110, 772	100, 891	37, 011	109, 613	128, 954

(Source) *Desenvolvimento & Conjuntura*, ano VIII, no. 9, setembro de 1964, pp. 92-99.

unfavorable conditions.

On the side of imports, it must be noted that Brazil, which was confronted with an increasing demand for raw materials and intermediate products and with the inflexibility we have just mentioned, conceded a reduction in import restrictions chiefly on these commodities and tried to increase their import from the members of LAFTA. As a consequence, imports of raw materials and other manufactured goods — consisting mainly of intermediate products — sharply increased (See Table 9). Considering by commodities, a remarkable increase can be found in copper and sheet iron from Chile, sheet iron, copper, zinc and lead from Mexico, and copper, zinc and lead from Peru. The import of these four products, which were only 3.9 million dollars in 1960-1961, increased to 69.5 million dollars, or by seventeen times, in the 1962-1963 period. The share of these imports in intra-regional imports of Brazil also rose from 2.5% to 23.7%, respectively. In addition to the concessions given by Brazil, it is doubtless that the overestimation of their rate of exchange contributed to the increase of imports.

In conclusion, we can see some important changes in the structure of the intra-regional trade of Brazil after LAFTA became effective. They are the increase of trade with member countries, especially with Mexico and Peru, the decrease of imports from three southern countries, and a sharp increase of imports of raw materials and intermediate goods. But the export of manufactured goods, which was expected to be an effective measure in the economic development, did not increase. Moreover, the balance of intra-LAFTA trade was highly unfavorable to Brazil. As we have seen, these facts made this country stiffen its attitude in negotiations for reducing import restrictions. But these unfavorable situations resulted not only from the deterioration of the Brazilian position in the negotiations, but from internal factors such as its political instability and overestimation of the rate of exchange. Therefore, the economic significance of LAFTA to Brazil cannot be estimated only by the unfavorable balance with which it was confronted.

Nevertheless, there remains another aspect of the problem. Even if internal factors which gave rise to the unfavorable balance can be adequately solved in the near future, the effects of LAFTA on Brazilian economy will not necessarily be satisfactory. Because LAFTA contains its own basic problems which have made it difficult to promote the liberalization of trade and the economic integration of member countries. They are with regard to the mechanism of reducing and eliminating import restrictions, the agreement on complementarity, and the principle of reciprocity, an analysis of which is not within the scope of this study. But the contribution of LAFTA to the economic development of Brazil and all other members can not be perfectly realized without the solution of these problems.

INFORMATION SPECIFICATION FOR BUSINESS MANAGEMENT (I)

— A Case Study —

Jiro ONO

I

The so-called “Systems Approach” has recently become one of the most remarkable tendencies in the study of business administration, especially from a few years ago.

In this approach, “Information” is regarded as one of the most basic components or elements which build a business system. That is, it is considered to have the same significance as “Personnel,” “Equipment,” “Material,” “Money,” “Energy,” etc. This is because many kinds of information are converted into various actions through “Decision Making,” then fed back from action-points to decision-points and reconverted into the next corrected actions;⁽¹⁾ that is, they, including their processing- and communication-technology, play the part of the nervous system in a business.

Moreover, we must specially note that as the scale of a business grows larger, the more important the function of the above-mentioned information technology becomes, and that the cost of information (for its gathering, processing, storing and communicating) has a tendency to form a more and more substantial part of the whole expenses in a business. “Accelerated Innovation” and “Dynamic Development of Social Economy” require that all business enterprises, in spite of their growth and complexity, increase their adaptability — not only of individual functions, but also of the whole of each business — to internal and external conditions which are always changing with very high speed, by means of information technology. That is, for the promotion of their adaptability, information technology is very essential. We are certain that this is the reason why many businesses in Japan have promoted office automation, installing PCS or EDPS, from about ten years ago.

However, there are still some difficult problems in putting this information technology into practice. As one we can point out the problem of what kinds of information are necessary for the management of a business.

(1) J. W. Forrester; *Managerial Decision Making* — in M. Greenberger edit. “Management and the Computer of the Future”, 1962, p. 36~p. 91.

In this paper, it is my intention to outline the result of a case study which was carried out during the year from April 1964 to March 1965 with regard to this problem, and to examine some important points in the office automation of the corporation we studied.

II

First, in this section, we shall outline the characteristics financial position and management problem of X corporation which was the object of our research.

X corporation was organized on May 2, 1920. Its work consists of the production and sale of pasteboards, pasteboard-boxes and other concerned paper-products for packing. As of March 1965, the capital stock amounted to three billion yen, the total resources employed were about twenty-three billion yen and the sales in a year came to about twelve billion yen. These amounts are all of the first rank in this type of industry.

As we can see from the figures in Tables 1 to 8, X corp. has grown rapidly in about the last four years, that is, from March 1961 to March 1965. Capital investment (107% in its ratio of growth), sales (100%), production (113%), total income (120%) and number of employees (74%) has also remarkably increased. ("Total income" is the so-called total corporate income which should belong to total resources employed by the business, that is, it is profit before subtraction of interest charges, income tax and other financial cost items.) When we rank these ratios of growth in their order, they are total income, sales, capital investment, production and number of employees for the two years till March 1963. These facts show that X corp. made very sound growth within these two years.

However, thereafter, both sales and total income of X corp. seem to have a tendency to stagnate. Table 9 shows the decreasing tendency of the profit ratio of capital; that is, both the turnover and sales profit ratio of capital are decreasing. This stagnation may have been brought about as a result of the recent economic recession in Japan.

We must also take into consideration the fact that some important characteristics of X corp. might tend to make this stagnation much more serious. They are, (1) Because the revolution in packing technique — that is, the change from timber-boxes to pasteboard-cases — has already finished its first stage, the development of new markets is going to be very difficult.

(2) The packing pasteboard-case industry is especially liable to be influenced by the business cycle of other industries. Though necessities of life must be produced and sold with first priority in spite of the recession, packing

Table 1. Comparative Figures of Assets (¥1,000)

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
tangible fixed assets	3,973,486 100	4,499,013 113	5,464,941 137	5,643,811 141	5,719,985 144	5,813,995 146	6,225,863 157	6,859,540 173	6,851,674 173
total assets	11,143,505 100	14,509,820 130	15,652,116 141	17,443,724 159	18,146,629 163	20,352,396 183	21,974,003 196	23,335,569 208	23,002,219 207

Table 2. Comparative Figures of Sales (¥1,000)

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
paper	339,170 100	544,209 161	455,990 135	659,044 194	768,029 227	853,726 252	1,016,463 300	686,526 203	682,823 187
pasteboard	1,505,844 100	2,149,181 142	2,520,468 167	2,738,691 181	2,928,251 194	3,511,769 234	3,798,101 250	3,733,175 247	3,449,270 227
packing case	4,008,064 100	4,631,598 115	5,133,585 128	5,549,970 138	5,630,253 141	6,456,766 161	7,028,904 176	7,701,617 178	7,785,115 195
other	159,570 100	188,591 117	215,457 134	155,437 94	160,424 101	184,304 115	198,535 125	167,381 105	160,421 101
total	6,012,648 100	7,513,579 125	8,325,500 135	9,103,150 150	9,426,957 157	11,006,565 184	12,042,062 200	12,288,699 205	12,027,629 200

Table 3. Comparative Figures of Sales Ratio of Each Product

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
paper	5.6%	7.2%	5.4%	7.3%	8.1%	7.8%	8.4	5.5%	5.3%
pasteboard	26.5	28.4	30.1	30.0	30.2	31.8	30.8	31.1	28.2
packing case	65.3	61.8	62.1	61.0	60.0	58.7	59.2	62.2	65.1
other	2.6	2.6	2.4	1.7	1.7	1.7	1.6	1.2	1.4
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4. Comparative Figures of Production (¥1000.000)

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
paper	843 100	897 106	1,307 155	1,710 203	1,861 221	2,073 246	2,185 256	2,266 268	2,214 263
pasteboard	3,036 100	3,937 129	4,300 142	4,712 156	5,063 167	5,566 184	6,107 202	6,745 222	6,740 221
packing case	2,574 100	3,029 117	3,107 124	3,202 125	3,403 132	3,661 143	4,054 157	4,492 173	4,791 185
total	6,453 100	7,863 122	8,714 135	9,624 149	10,321 159	11,300 175	12,346 191	13,503 209	13,745 213

Table 5. Comparative Figures of Production Ratio of Each Product

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
paper	13.1%	11.4%	15.0%	17.8%	18.0%	18.4%	17.4%	16.9%	16.0%
pasteboard	47.0	50.1	49.3	49.0	49.0	49.3	49.6	49.8	49.0
packing case	39.9	38.5	35.7	33.2	33.0	32.3	33.0	33.3	35.0
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 6. Comparative Figures of Total Income (¥1,000)

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
total income	376,162 100	471,814 125	688,076 181	679,947 179	821,363 213	801,783 207	835,675 221	829,793 220	831,967 220

Table 7. Comparative Figures of Employee

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
clerical staff	626 100	833 133	870 139	1,019 165	1,010 164	1,094 179	1,067 172	1,187 191	1,172 187
labor force	1,331 100	1,521 115	1,720 129	2,021 152	1,977 149	2,095 156	1,979 148	2,286 172	2,216 167
total	1,957 100	2,354 121	2,590 133	3,040 155	2,987 152	3,189 163	3,046 157	3,473 177	3,388 174

Table 8. Comparative Figures of Employee in Each Office and Factory

name of factory	kind of product	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
Yodogawa	paper	231	227	171	229	224	225	218	222	216
Arakawa	"	84	85	68	89	90	96	95	105	98
Tonegawa	"	—	85	141	202	205	202	195	204	204
Osaka	pasteboard packing case	239	258	237	319	285	289	273	241	238
The Second Osaka	"	—	—	—	—	—	—	—	—	25
The First Tokyo	"	182	222	165	272	252	278	256	27	276
The Second Tokyo	pasteboard	—	—	—	43	44	52	47	285	49
Shimizu	pasteboard packing case	133	139	120	177	166	168	151	50	155
Nagoya	"	166	198	149	229	225	220	208	158	208
Kyoto	"	95	119	88	115	150	165	153	217	152
Kokura	"	137	145	113	156	152	153	153	160	160
Sapporo	"	92	120	81	125	128	139	128	162	144
The New Sapporo	"	—	—	—	—	—	—	—	151	—
Hakodate	"	64	80	58	79	76	84	81	98	94
Sendai	"	89	97	80	128	126	129	115	143	132
Maebashi	"	—	—	46	73	72	95	96	116	118
Matsuyama	"	90	104	88	120	112	135	125	126	133
Wakayama	"	55	63	56	81	81	90	82	93	90

Tosu	"	—	—	—	39	47	63	64	87	82
Hiroshima	"	—	—	59	89	85	99	84	180	93
Shiga	"	—	—	—	—	—	—	—	89	86
Nagano	"	—	—	—	—	—	—	—	60	62
Head Office	—	105	149	111	158	156	159	172	192	191
Twelve Branch Offices	—	178	237	623	249	280	312	307	345	340
Eleven Agencies	—	17	26	22	27	31	41	43	42	42
Other	—	0	0	114	0	0	0	0	0	0

Table 9. Comparative Figures of Three Profitability Ratios

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
Profit ratio of capital	3.4%	3.3%	4.5	3.9%	4.5%	4.0%	3.8%	3.6%	3.6%
Sales profit ratio	6.2	6.3	8.5	7.4	8.7	7.4	6.9	6.7	6.9
turnover of capital	0.55	0.52	0.53	0.53	0.52	0.54	0.55	0.53	0.52

Table 10. Comparative Figures of Worker's Productivity (¥10,000)

	1961 Mar.	1961 Sept.	1962 Mar.	1962 Sept.	1963 Mar.	1963 Sept.	1964 Mar.	1964 Sept.	1965 Mar.
clerical staff	985	902	956	905	941	1,010	1,130	1,038	1,030
labor force	485	506	501	478	522	540	620	592	620

cases are given only a second or third priority because of their nature in that they only "pack" other products for a given time. As a result, the recession gives amplified effects to the pasteboard-case industry in sales-conditions of price, lot, quality of pasteboard, colours of print, etc. That is, expenses for packing are apt to be the first object of cost-saving from the viewpoint of customers.

(3) As I stated before, X corp. is now ranked first in the pasteboard-packing-case industry. Its share in the market is largest. This fact means that many other small businesses — especially in the process of packing-case production which is technically easiest, they are said to be a few thousand — are its competitors, who can more flexibly adapt themselves to their customers' demands because of their adaptability though their scale of business may be small.

(4) X corp. works on customers' orders which are varied. The size of the case, quality of pasteboard, colours and forms of print, lot size of an order, etc. are naturally different among customers, even in regard to same articles of the same size in the same industry. Here we must note that this special characteristic requires much more adaptability on the part of X corp. to the always changing demands of its customers, and that on account of this characteristic salesmen are considered to play the most important role in X corporation. This means the importance of coordination between sales plan and production plan, too.

(5) The fifth characteristic is that freight charges play a considerably significant part in the whole of expenses. It is said that a business will be unprofitable if packing case factories are not within fifty kilometers of their customers. As a result, X corp. has many factories scattered throughout the country.

(6) However, the management system of X corp. has been considerably centralized. The various budgets, in regard to sales, profits, expenses, etc. are decided by the head office; the performance records of each factory (not only of production but also of sales, because the factories of X corp. each have their own sales section) are reported monthly to the head office, and each factory is controlled on this ground.

(7) A cost accounting system for various kinds of orders has not still been established. This fact makes the above-mentioned centralized management system useless. Because the sales-force which is considered to be the most important cannot know whether its acquired orders are profitable or not. Though the performance is periodically compared with the budget as a whole, it is too late to evaluate the profitability of a present order of a certain kind and its production cost.

(8) As a result of the above-mentioned characteristics of X corp., it (or each of its factories) has always on hand a large amount of products and materials

(paper).

(9) The above-mentioned several characteristics of X corp. make its office work very complex. As we can see in Table 7 and 10, the efficiency of the clerical staff did not grow so fast as that of the labor force though number of the former increased much more. In other words, the rationalization of office work must be considered as one of the most important means to break through the present stagnation, if the present centralized management system is to be improved.

III

In the case of X corporation's office work rationalization, a specification of information for management, as well as an increase in its processing- and communication-capacity, is now necessary. That is, X corp. must now respecify what kinds of information are necessary in their present given conditions; management system, present grade of office automation, traditional transaction conventions, etc.

Next, in this section, we will examine the importance of information specification.

The schedules, statements and reports which are made at present in each department and each factory are as follows:

(1) Schedules, Statements and Reports Made by Each Department of The Head Office

The Department of Purchase

1. budget schedule of materials purchased.
2. list of issued orders for paper.
3. list of price of purchased paper.
4. list of paper inventory at the end of the month.
5. purchase record of paper.
6. budget schedule of payment for purchase.

The Department of Accounting

1. roughly estimated profit and loss statement.
2. various kinds of statements of accounts.
3. statement of operating ratios.
4. comparative statement of profit and loss.
5. statement of appropriation of earned surplus.
6. report on balances of cash, deposits, notes and debts for the last ten days.
7. schedule of daily cash budget.
8. schedule of monthly cash budget and its performance.

9. detailed statement of long- and short-term debts.
10. record of cash receipts and expenditures for the last six months.
11. schedule of cash budget.

The Department of Internal Audit

1. budgetary statement of profit and loss.
2. statement of budget variance analysis.
3. schedules of monthly budget in each of the factories.
4. report on specially authorized decision-items.
5. report of internal audit.

The Department of Pasteboard-case Production

1. schedule of paper consumption plan.
2. report of each factory's monthly production.
3. report of monthly production analysis of pasteboards and packing-cases.
4. statement of budget variance analysis of product-cost.

The Department of Paper Production

1. budget schedule of paper production.
2. report of monthly paper production.

The Department of Sales

1. report of sales performance for the last ten days.
2. collection performance statement.
3. report of sales-activities for the last ten days.
4. information for sales.
5. list of sales performance to main customers.
6. list of new accepted orders.
7. price list of accepted orders.

The Department of Management Service

1. basic budget schedule.
2. capital budget schedule.
3. statement on capital investment.

The Department of Affiliated Companies

1. report of affiliated companies' monthly production.
2. roughly estimated profit and loss statement.
3. performance report of affiliated companies.
4. cash budget schedules of ten main affiliated companies.
5. report of affiliated companies' audit.

(2) Schedules, Statements and Reports Made by Each Factory

In regard to purchasing activities,

1. report on receipts, disbursements and balance of paper (for the last ten days),
2. budgetary schedule of paper consumption (monthly),

3. report on contingencies occurring concerning the purchased paper (irregularly),
4. statement of analysis of payments-budget variance (monthly),
5. statement of analysis of purchase-budget variance (monthly),
6. purchase plan schedule of miscellaneous stores (monthly),

In regard to accounting,

1. detailed statement of consumed paper (monthly),
2. detailed statement of amount paid to sub-contractors (monthly),
3. various kinds of accounts (monthly),
4. report on receipts, disbursements and balance of inventories (monthly),
5. daily report (daily),
6. reply to analysis report of budget variance (monthly),
7. report on specially authorized decision items (monthly),
8. budget for each of the next six months (periodically),
9. statement of analysis of cash-budget variance (monthly).

In regard to personnel management,

1. statement of paid wages, inclusive of extra wages (monthly),
2. list of attendance records (monthly),
3. statistics of monthly occurring accidents (monthly),
4. schedule of personnel posts arrangement (once a year),
5. schedule of clerical staffs' posts arrangement (once a year),
6. report on education of new employees (once a year).

In regard to production,

1. report of total amount of production (monthly),
2. report of pasteboards production (monthly),
3. report of packing-cases production (monthly),
4. report on packing-cases production operation (monthly),
5. research report on the lot-size of accepted orders (quarterly),
6. report on pasteboard's strength test,
7. inspection report of purchased paper,
8. report on pasteboards and packing-cases not manufactured yet of which orders have been accepted (monthly),
9. report on receipts, disbursements and balance of paper (for the last ten days),
10. detailed statement of fixed assets (twice a year),
11. sketch of fixed assets location (twice a year),
12. detailed statement of idle and useless fixed assets (twice a year),
13. statement of various kinds of tax in regard to fixed assets (twice a year),
14. monthly report on equipments (monthly),
15. report on use of pasteboard manufacturing machine (irregularly),

16. report on accidents (irregularly).

In regard to sales,

1. report on the sales of main competitors for the last ten days (for the last ten days),
2. schedule of estimated cash receipts (monthly),
3. statement of analysis of cash-receipts-budget variance (monthly),
4. statement of analysis of collection-budget variance (monthly),
5. report on C grade affiliated companies (monthly),
6. research report of customers (monthly),
7. research report of collection (monthly),
8. report on the cash receipts of main competitors (monthly),
9. report on sales performance (for the last ten days),
10. report on the last ten days' sales activities (for the last ten days),
11. report on the last ten days' accepted orders (for the last ten days),
12. sales to product cost ratio (for the last ten days),
13. report on accepted orders from green-groceries for the last ten days (for the last ten days),
14. schedule of sales plan (monthly),
15. list of unit price of accepted orders (monthly),
16. list of sales performance to main customers (monthly),
17. monthly report on pasteboard (monthly),
18. budgetary schedule of sales to main customers (periodically),
19. schedule of estimated sales in the next period (periodically).

In regard to general business affairs,

1. monthly report on kilometers consumed by company cars (monthly).

The various kinds of information which are made by each of the departments in the head office are offered to the managements of factories and the managements of the head office, though all management necessarily do not get all kinds of information. On the other hand, those made by each factory are sent to the concerned departments of the head office. Under certain circumstances, each factory is ordered to send a special report to a department of the head office.

We will next consider characteristics or problems with regard to the above-mentioned present information specification in X corp. First, we can raise the question whether the various kinds of information which are made and offered in accordance with the order of each concerned department of the head office are sufficiently used by the management or not. For example, one of the men in the lower management level in a factory said that he could not understand the reason why he had to make so many reports of a similar kind while he could

not get necessary information for his work. We are sure that various kinds of schedules, statements and reports are not always useful for every level of management of X corp.

Second, as I have stated before, it must be pointed out that this inconsistency is brought about by the fact that X corp. adopts a considerably centralized management system while the daily activities of local factories and sales-forces have substantial weight in the whole of X corporation's works.

Moreover, as we can understand from the above-stated materials, most of the schedules, statements and reports offered by each factory and each department are of a periodical character. They are not so useful for daily disposal of individual orders though they are necessary for periodical budgetary control of each factory or each department. That is, necessary information for the management of X corp. is not always sufficiently specified. Especially, what kinds of information are necessary for lower managements and sales-forces, and what kinds of information are necessary for coordination between their daily activities and their control in the general management view point of X corp. must be respecified.

Third, it is to the lack of information in regard to sales- and production-management that X corp. must pay attention in the first stage.

A cost report for each order, a credit status report of individual customer, a coordination schedule of production in accordance with new-accepted orders or an alteration in the contents of an already accepted order, a more rational schedule of centralized inventory or production of paper (at present, paper which has considerable value is always stored in each factory. Because, otherwise, the factory cannot meet a sudden order. However a centralized inventory of paper is not considered as impossible if necessary information is given to paper-manufacturing-factories in an appropriate cycle.), etc. must be developed as a beginning in improvement.

Next, additional information necessary for the coordination of all business activities of X corp. will have to be examined. However, this problem is too difficult to solve in the present stage.

At a future opportunity I hope to examine it more logically.

January 18, 1966

DIE PRIVATISIERUNG DER PREUßAG

Masaya OKADA

I

Die ersten Volksaktie sind in der Bundesrepublik im Frühjahr 1959 anlässlich der Teilprivatisierung der Preußag⁽¹⁾ geschaffen worden. Das erste Objekt der Privatisierung durch Volksaktien wurde nicht, wie zunächst geplant, das Volkswagenwerk, sondern die Preußag. Das hat mehrere, verschiedenartige Gründe. Die ungeklärten Rechtsverhältnisse beim Volkswagenwerk standen einer raschen Privatisierung dieses Unternehmens im Wege. Da nun seit dem Beginn der Propagierung der Volksaktienidee schon fast zwei Jahre verstrichen waren, mußten die Regierung und die parlamentarische Mehrheit der Bundesrepublik bemüht sein, Kleinaktien eines anderen Unternehmens anzubieten und zu sozialen Bedingungen auszugeben, sollte die Volksaktie nicht in den Verdacht geraten, lediglich eine Wahlparole gewesen zu sein, deren Realisierung hinsichtlich des Zeitpunktes und der Art völlig ungewiß war.

Unter den vielen bundeseigenen Unternehmen, die einer Privatisierung durch Volksaktien grundsätzlich fähig sind, standen nach dem Volkswagenwerk zunächst die Kieler Howaldtswerke Aktiengesellschaft und die Preußag zur Diskussion. Die Howaldtswerke sind als Werftunternehmen jedoch besonders krisenempfindlich und man sah deshalb vorläufig davon ab, sie in eine Volksaktiengesellschaft zu verwandeln. Bei der Preußag hingegen gab es kaum derartige Schwierigkeiten und Bedenken, und hinzu kam die nicht sehr gut ausgewogene Bilanzstruktur des Unternehmens, die nur durch Zuführung von Eigenkapital behoben werden konnte. Ende 1958 standen einem Anlagevermögen von DM 167 Millionen nur eigene Mittel in Höhe von DM 100 Millionen, davon DM 75 Millionen Grundkapital gegenüber.⁽²⁾

Die Preußag ist als Konzerntochter der VEBA⁽³⁾ ihrerseits selbst wieder ein Konzern, der an mehr als einem Dutzend Gesellschaften beteiligt ist und über 20000 Arbeitnehmer beschäftigt. Ihre Tätigkeit umfaßt vor allem die

(1) Preußische Bergwerks- und Hütten-Aktiengesellschaft.

(2) Hammerschmidt, Rolf: Betriebswirtschaftliche Probleme der Volksaktie, Inaugural-Dissertation zur Erlangung der Doktorwürde einer Hohen Staatswirtschaftlichen Fakultät der Ludwig-Maximilians Universität zu München, 1959, SS. 50-51.

(3) Vereinigte Elektrizitäts- und Bergwerks-Aktiengesellschaft.

Erzeugung von Blei, Zink und anderen NE-Metallen, die Gewinnung von Steinkohle, Kali, Erdöl und Erdgas, den Wasserwerks-, Brunnen- und Rohrleitungsbau und darüber hinaus betätigt sie sich u.a. auch im Verkehrswesen und auf dem Gebiet der Kernenergie. Zu alledem ist natürlich erhebliches Kapital erforderlich. Seit der Währungsreform bis 1957 hat die Preußag rund 600 Millionen DM investiert, wovon der ausschlaggebende Teil im Wege der Selbstfinanzierung aufgebracht wurde. Für die Jahre 1958 bis 1961 wurden weitere Investitionen in Höhe von 350 Millionen DM geplant. Ihre Finanzierung erschien durch Abschreibungen bis auf eine Lücke von 120 Millionen DM gesichert. Um sie schließen zu helfen, war die Aufstockung des nur 75 Millionen DM betragenden Grundkapitals um 30 Millionen DM auf 105 Millionen DM geplant.⁽⁴⁾

Die eben dargelegten Gründe waren der Anlaß dafür, daß auf einer außerordentlichen Hauptversammlung der Preußag am 2. Februar 1959 der Beschluß gefaßt wurde, das Grundkapital von DM 75 Millionen um DM 30 Millionen auf DM 105 Millionen zu erhöhen. Alleinaktionärin der Preußag war bislang die Vereinigte Elektrizitäts- und Bergwerks-Aktiengesellschaft, Hamburg. Die VEBA ist eine Dachgesellschaft, deren Grundkapital zu 100% beim Bund liegt. Außer ihrer Preußag-Beteiligung besitzt sie das Grundkapital der Bergwerksgesellschaft Hibernia zu 100% und ist mit über 83% an der Preußischen Elektrizitäts Aktiengesellschaft beteiligt.⁽⁵⁾

Gleichzeitig mit dem Kapitalerhöhungsbeschluß der Preußag verzichtete die VEBA auf ihr gesetzliches Bezugsrecht und schuf somit die weitere Voraussetzung für die erste Teilprivatisierung eines wirtschaftlichen Unternehmens des Bundes durch Volksktien.

II

Das neugeschaffene Grundkapital der Preußag in Höhe von DM 30 Millionen wurde in 300000 Aktien im Nominalwert von je DM 100 gestückelt. Die Aktien laufen auf den Inhaber und sind ab 1. April 1959 gewinnanteilberichtigt. Der Gesamtbetrag der Emission wurde von einem Bankenkonsortium unter gemeinsamer Führung der drei Großbanken zum Kurs von 145 fest übernommen und zum gleichen Kurs dem Publikum angeboten. Die Zeichnungslisten lagen vom 24. bis zum 31. März 1959 bei den Kreditinstituten auf; für die Preußag-Belegschaft dauerte die Zeichnungsfrist bis zum 4. April.

(4) Hirche, Kurt: Das Experiment der Volksaktie, 1961, S. 84.

(5) Bund der Steuerzahler: Die Bundes-Konzerne, Schach dem Staatskapitalismus durch Privatisierung, 1957, S. 71 ff.

Besonders günstige Bezugsbedingungen galten für die Betriebsangehörigen und Pensionäre der Preußag und ihrer Tochtergesellschaften, insgesamt etwa 34000 Personen. Ferner wurden die Bankprovision und die Börsenumsatzsteuer, die beim Kauf der Aktien anfallen, von der Gesellschaft getragen und schließlich hatten die Belegschaftsangehörigen die Möglichkeit, zunächst nur 20% des Kaufpreises zu zahlen und den Rest in zwei gleichen Jahresraten zu entrichten, wobei die Bankzinsen ebenfalls von der Gesellschaft getragen werden.

Trotzdem war das Interesse der etwa 22000 aktiven Belegschaftsmitglieder und der 12000 Pensionäre nur gering, denn es konnten nur etwa DM 750000, nach dem Nennwert gerechnet, bei diesem Personenkreis untergebracht werden. Damit verfügt die Belegschaft nur über 0.714% der Stimmrechte in der Hauptversammlung.

Während der Erfolg bei der Zeichnung der Preußag-Aktien bei der Belegschaft also erheblich hinter den Erwartungen zurückblieb, war er beim allgemeinen Publikum außergewöhnlich groß. Es ist zu entnehmen, daß etwa 210000 Personen Kaufanträge gestellt haben, die sich insgesamt auf etwas über DM 100 Millionen Nennwert belaufen. Dieser Erfolg erstaunt um so mehr, als der Kreis der zeichnungs- und bezugsberechtigten Personen begrenzt war.

Kaufanträge durften nur von deutschen Staatsangehörigen gestellt werden, die, soweit sie der Veranlagung zur Einkommensteuer unterliegen, im Jahr 1957 ein steuerpflichtiges Einkommen von nicht mehr als DM 16000 hatten. Personen, die nicht zur Einkommensteuer veranlagt werden, waren nur dann kaufberechtigt, wenn ihre Einkommen aus nicht selbständiger Arbeit im Jahr 1958 insgesamt nicht mehr als DM 16000 betrugen. Die Einkünfte von Ehegatten wurden dabei zusammengerechnet, doch war jeder Ehegatte berechtigt, einen Kaufantrag im Zulässigen Höchstbetrag von DM 500 zu stellen. Personen unter 21 Jahren waren nur bezugsberechnet, soweit sie erwerbstätig sind und im übrigen die genannte Einkommensgrenze nicht überschritten hatten. Juristische Personen waren von der Zeichnung grundsätzlich ausgeschlossen.

Im Kaufantrag, der an die Kreditinstitute zu richten war, mußte der Antragsteller zugleich die Erklärung abgeben, daß er die Aktien für eigene Rechnung erwirbt, den Antrag nicht auf Grund einer Vereinbarung mit Dritten abgibt und bei keinem anderen Kreditinstitut einen Kaufantrag für Preußag-Aktien gestellt hat. Ferner mußte er das für ihn zuständige Finanzamt von der sich aus § 22 der Abgabenordnung ergebenden Geheimhaltungspflicht entbinden und das Kreditinstitut ermächtigen, beim Finanzamt die Bestätigung einzuholen, daß die Einkünfte des Antragstellers die genannten Höchstbeträge nicht überschreiten. Im Verkaufsangebot der Preußag wurde versichert, daß sich die Nachprüfung durch die Kreditinstitute nur auf die Frage erstrecken werde, ob

der Antragsteller die Einkommensgrenze nicht überschritten hat. Auskunft über die genaue Höhe des Einkommens wird nicht verlangt.

Angesichts des großen Erfolges der Zeichnungsaktion beschloß das Bundeskabinett am 3. April 1959, zusätzlich zu den DM 30 Millionen Preußag-Aktien, die aus der Kapitalerhöhung stammen, DM 53 Millionen aus dem Vermögen der VEBA zu privatisieren. Die weitere Privatisierung der Preußag war für einen späteren Zeitpunkt ohnedies geplant.

Auf Grund dieses Beschlusses verbleiben der VEBA, also indirekt dem Bund, nunmehr DM 22 Millionen Aktien, das entspricht 20.95% des Grundkapitals. Um bei dem freien Aktienbesitz von insgesamt DM 83 Millionen Konzentrationen zu unterbinden, die sich im weiteren Verlauf durch Aufkäufe größeren Stils an der Börse ergeben könnten, wurde in die Satzung der Preußag die Bestimmung aufgenommen, daß jeder Aktionär höchstens für ein Tausendstel des Grundkapitals, also für DM 105000, Stimmen in der Hauptversammlung abgeben kann. Sollte ein Aktionär, zum Beispiel aus Rendite-Überlegungen, mehr Aktien erworben haben, so ruhen die Stimmrechte aus den Aktien, die über den Betrag von DM 105000 hinausgehen. Außer dieser Stimmrechtsbeschränkung wurde in der Satzung bestimmt, daß der Bund, unabhängig von der Höhe seiner Kapitalbeteiligung, vier von insgesamt einundzwanzig Aufsichtsratsitzen besitzt. Der Bildung von Aktienpaketen soll auch die Verpflichtung der fünfzig am Konsortium beteiligten Banken entgegenwirken, innerhalb eines Zeitraumes von fünf Jahren weder für eigene noch für fremde Rechnung Aufkäufe zu tätigen.⁽⁶⁾

Die statistischen Erhebungen des Emissionskonsortiums über die berufliche Zusammensetzung der Kaufinteressenten ergaben folgendes Gesamtbild:

	Zeichner	Nennbetrag DM
1. Belegschaftsangehörige der Preußag und ihrer Tochtergesellschaften	2384	750800.—
2. Beamte	17752	8164300.—
3. Angestellte	62844	28769400.—
4. Arbeiter	11025	4392700.—
5. selbständige Gewerbetreibende	16397	7802000.—
6. freie Berufe	27274	12708600.—
7. Pensionäre	22139	10280700.—
8. Frauen	56304	26720300.—
	216119	100088800.—

(6) Hammerschmidt, Rolf: a. a. O., SS. 52-55.

Während die gut verdienenden Angestellten und die Frauen den größten Anteil (über 50%) der Preußag-Volksaktien übernommen haben, kann das Interesse der 22000 Beschäftigten in der Preußag als gering bezeichnet werden.⁽⁷⁾ Damit war aus einer Aktiengesellschaft, die bisher nur den Bund zum Aktionär hatte, nach der Formel: „Aus 1 mach 216000“ die zunächst größte deutsche Publikumsaktiengesellschaft geworden.⁽⁸⁾

III

Das Zeichnungsergebnis der ersten Volksaktienausgabe hat sowohl bei dem Privatisierern als auch bei den Eigentumsstreuern lebhaftes Befriedigung ausgelöst.

Zunächst kann festgestellt werden, daß im Zeitpunkt der Emission eine breite Streuung der Preußag-Aktien erreicht worden ist. DM 83 Millionen Aktienkapital verteilen sich auf 210000 Aktionäre, das heißt im Durchschnitt ist jeder Aktionär mit nominal DM 400 an der Gesellschaft beteiligt.⁽⁹⁾

Die Preußag-Volksaktie hielt den Ausschluß der juristischen Personen zwar beim Ersterwerb der Aktie aufrecht und dehnte ihn auch auf die Investmentgesellschaften aus. Darüber hinaus schloß sie — wohlgerne immer nur beim Ersterwerb — auch alle die natürlichen Personen aus, die jährlich mehr als 16000 DM Einkommen haben. Diese Ersterwerbsbeschränkungen werden dem gewünschten Charakter der Volksaktie (breite Eigentumsstreuung, Erwerb vor allem durch Arbeitnehmer) auch wesentlich mehr gerecht als die ursprünglich geplante Volkswagen-Volksaktie.

Diese hinsichtlich der Eigentumsstreuung positiv zu wertenden Fesseln sind beim Zweiterwerb und jedem weiteren Verkauf der Preußag-Aktien beseitigt worden. Nicht nur natürliche Personen, sondern auch juristische Personen jeder Art können die Preußag-Aktien kaufen. Die Gefahr, daß die Preußag-Aktie im Laufe der Zeit in den Portefeuilles bestimmter wirtschaftlicher Mächtigkeitsgruppen landet, ist also ständig gegeben.

Das für die Öffentlichkeit so stark in den Vordergrund geschobene Bemühen, eine breite Aktienstreuung und einen Kauf durch solche Schichten zu erreichen, die bisher noch keine Aktien in Besitz hatten, ist also zwar begonnen, aber nicht konsequent zu Ende geführt worden. Denn zur Erreichung dieses Zieles kommt es eben nicht nur darauf an, wer die Aktien zum ersten Male

(7) Klug, Oskar: Volkskapitalismus durch Eigentumsstreuung, Illusion oder Wirklichkeit? 1962, S. 55.

(8) Hirche, Kurt: a. a. O., S. 86.

(9) Hammerschmidt, Rolf: a. a. O., S. 60.

erwirbt, sondern wo sie für die Dauer bleiben. Hätte die Bundesregierung die breite Eigentumsstreuung auch für die Zukunft sichern wollen, so hätte etwa der Besitz des einzelnen Aktionärs an Preußag-Volksaktien ständig auf einen geringen Teil des Grundkapitals beschränkt und vor allem bestimmt werden müssen, daß auch künftig nur Personen mit einem Jahreseinkommen bis zu 16000 DM die Aktien erwerben dürfen. Allenfalls hätte in begrenztem Umfang vom Zweiterwerb ab auch der Kauf durch Investmentgesellschaften zugelassen werden können. Diese Wege sind bewußt nicht beschritten worden.⁽¹⁰⁾

Besonders groß war der Erfolg des Verkaufs von Preußag-Aktien, soweit er die Privatisierung wirtschaftlichen Vermögens der öffentlichen Hand zum Ziel hatte. Während der Bund ursprünglich nur den aus der Kapitalerhöhung stammenden Betrag privatisieren wollte, konnte er auf Grund des guten Zeichnungserfolges weitere DM 53 Millionen Aktien beim Publikum unterbringen. Wenn nach der Börseneinführung eine starke Nachfrage nach Preußag-Aktien einsetzen sollte, wird der Bund aus dem verbliebenen Bestand der VEBA weitere Aktien verkaufen können, was schon im Hinblick auf die Kurspflege wünschenswert wäre, da ein allzu kräftiger Kursanstieg nur zu spekulativen Verkäufen Anlaß geben und die breite Streuung auf die Dauer gefährden würde. Sollten jedoch alsbald viele Preußag-Aktien angeboten werden, so wird der Bund diese, ebenfalls aus Gründen der Kurspflege, selbst kaufen müssen, da im Fall der Preußag weder ein Großaktionär noch eine Bank die Kurspflege übernehmen kann, da den Konsortialbanken, wie bereits erwähnt, Aufkäufe dieser Aktien nicht gestattet sind.

Insgesamt kann die Teilprivatisierung der Preußag als ein geglückter Start des Volksaktienplanes in der Bundesrepublik bezeichnet werden und es war sicherlich kein Nachteil, daß mit einem kleineren Objekt als dem Volkswagenwerk begonnen worden ist.⁽¹¹⁾

1965, 11, 17

(10) Hirche, Kurt: a. a. O., SS. 88–89.

(11) Hammerschmidt, Rolf: a. a. O., S. 64.

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THE RESEARCH INSTITUTE FOR ECONOMICS AND BUSINESS ADMINISTRATION, KOBE UNIVERSITY



HISTORICAL SKETCH

In 1919, a research organization named the Institute for Commerce was founded in Kobe Higher Commercial School, one of the chief predecessors of Kobe University, with a gift made by F. Kanematsu & Company, a leading mercantile firm in Kobe. The organization was designed to carry on and facilitate integrated research on business and commerce and to formulate and publish the results of these studies and investigations in such form as to make them available to the business community.

With the founding of Kobe University of Commerce, successor of Kobe Higher Commercial School, in 1929, the Institute extended its research activities by adding several divisions. One was the famous Latin-American Library, which soon became the center of research in this field in Japan. A room for statistics equipped with various computing machines was established and began publication of "Juyo Keizai Tokei" monthly and "Sekai Boeki Tokei" annually. A filing room was prepared to deposit press clipping files systematically arranged by topics and dates. Another room was designed to become the center of all possible original records and data having to do with the beginning and progress of Japanese business.

On the campus of Kobe University of Commerce, another organization named the Institute for Business Mechanization was founded in 1941 utilizing business machines donated by the IBM Corporation and others. With Professor Yasutaro Hirai as its head a broad and forward-looking plan for business mechanization in Japan was developed.

In 1944, Kobe University of Commerce changed its name to Kobe University of Economics. After the war, however, the University was consolidated with three other colleges in Hyogo Prefecture to become Kobe University. With this development, the two Institutes were also amalgamated into the Research Institute for Economics and Business Administration, Kobe University. At present, the Institute, with its seventeen full-time professional staff members, carries on studies and investigations in international economy, business administration, and business mechanization in Japan.

LOCATION AND BUILDINGS

The Research Institute for Economics and Business Administration is located on the campus of Kobe University, Rokko, Kobe. It is a three-story building named the Kanematsu Kinenkan and has a floor space of about 2,900 square meters, which includes a president's room, forty-one offices, six rooms used as a library, a room for statistics, three conference rooms, etc. Adjoining is a one-story building recently built to install business machines.

ORGANIZATION

Under the directorship of a president, the Institute operates with two research groups one of which consists of five sections while the other has four sections. Each research group and its sections are as follows:

A Group of International Economy

- (1) International Trade
- (2) Economy of Latin-America
- (3) Maritime Economy
- (4) International Finance
- (5) International Law of Economy

B Group of Business Administration

- (1) Business Administration and Business Mechanization
- (2) Accounting
- (3) International Management
- (4) Labor Problems

Besides the regular work of the Institute organized in this manner, research committees may be created to carry on any special work requiring the joint study of academic and business circles. At present, there are three committees, that is, the *Finance Committee*, *Latin-America Committee*, and *International Economy Committee*.

For convenience and greater efficiency in carrying out its research activities, the Institute has a general office which is responsible for, 1) the collection and preservation of a comprehensive collection of books, periodicals, pamphlets, and original records and data of finance, trade, commerce, industry and business generally; 2) the classification, cataloguing, indexing, arranging, annotation and compilation of these research materials; and 3) the formulation and publication

of the results of the investigations and studies accomplished by the professional staff members of the Institute.

As an affiliated institute, the Documentation Center for Business Analysis has been recently established. It is the first systematic information facility in the field of business administration in Japan that has been recognized and authorized by the Ministry of Education. The purpose is to collect and to make intensive control of all kinds of materials on business administration and to make them available to scholars, universities, governments, and business world with the aid of modern documentation techniques.

THE RESEARCH INSTITUTE FOR
ECONOMICS & BUSINESS ADMINISTRATION
KOBE UNIVERSITY

Director: Minoru BEIKA
Secretary: Teiji NAKAYAMA

GROUP OF INTERNATIONAL
ECONOMIC RESEARCH

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Seiji SASAKI	Professor of Maritime Economy Dr. of Economics
Hiroshi SHINJO	Professor of International Finance Dr. of Economics
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Jiro YAO	Professor of International Finance Dr. of Economics
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Hikoji KATANO	Associate Professor of International Trade
Hiromasa YAMAMOTO	Associate Professor of Maritime Economy
Yoshiaki NISHIMUKAI	Associate Professor of Re- gional Study on Latin America

GROUP OF BUSINESS
ADMINISTRATION RESEARCH

Susumu WATANABE	Professor of Accounting Dr. of Business Administration
Minoru BEIKA	Professor of Business Administration and Business Mechanization Dr. of Business Administration
Tadakatsu INOUE	Professor of International Management
Yoshimoto KOBAYASHI	Professor of Labor Problems Dr. of Business Administration
Nobuko NOSÉ	Associate Professor of Accounting Dr. of Business Adminis- tration
Jiro ONO	Associate Professor of Business Administration and Business Mechani- zation
Masaya OKADA	Research Associate in Business Administration and Business Mechani- zation

Office: The Kanematsu Memorial Hall,
THE KOBE UNIVERSITY
ROKKO, KOBE, JAPAN