

KOBE  
ECONOMIC & BUSINESS  
REVIEW

12th  
ANNUAL REPORT



THE RESEARCH INSTITUTE FOR  
ECONOMICS AND BUSINESS ADMINISTRATION  
KOBE UNIVERSITY

1 9 6 5

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## CONTENTS

	Page
Special Depreciation and Reduced Entry ..... Susumu WATANABE	1
Electronic Data Processing System in Japan..... Minoru BEIKA	7
A Chronological Table of Modern Japanese Shipping —No. 2, 1800~1912 .....	Seiji SASAKI 15
Overseas Operations of Japanese Business Enterprises in Brazil .....	Tadakatsu INOUE 39
A Note on Economic Accounting for Government Sector .....	Nobuko NOSÉ 47
International Liquidity and the Tokyo Meeting of the International Monetary Fund .....	Masahiro FUJITA 57
Intersectoral Transaction Table with Endogenous Foreign Trade Sector in the Indian Economy: 1955/56 .....	Hikoji KATANO 73
The System of Reserved Members for Seamen before World War II —The Employment System of Seamen in Japan— .....	Hiromasa YAMAMOTO 87
On the Automation of Banking in Japan .....	Jiro ONO 97
A Presente Etapa do Desenvolvimento Econômico do Japão .....	Yoshiaki NISHIMUKAI 111
Kostentheorie und dispositiver Faktor .....	Tetsuo KOBAYASHI 121
Grundprobleme der Privatisierung.....	Masaya OKADA 131

# SPECIAL DEPRECIATION AND REDUCED ENTRY

Susumu WATANABE

## I

There are various items in the tax law to be revised in accordance with the revision of our Commercial Code. But the notification of the Tax Administration Agency relating to the treatment of corporation tax in accordance with the enforcement of the Revised Commercial Code (December 31, 1963)— which shall be called hereunder “the Notification on Adjustment”— only treated the adjustment of provisions concerning procedures, leaving substantial spheres to the future as a problem of the rearrangement of the tax law, for substantial adjustment cannot be achieved through notifications without a revision of the tax law. Accordingly, although problems of a reduced entry, special depreciation, reserve for bad debts a/c, special allowance for bad debts a/c, reserve for profits comprised in accounts receivable a/c, etc., are treated in the above-mentioned notification, we find such adjustment of differences between the tax law and the accounting provisions of our Commercial Code postponed to the future, as related to the valuation of inventories (including the problems concerning the “cost or market” basis), valuation of securities, etc. It is inevitable to leave the settlement of problems requiring revision of the tax law to the future. In the following, we are going to examine the problems of special depreciation and the reduced entry which are both treated in the above Notification on Adjustment.

According to the Notification on Adjustment, the amount of depreciation (inclusive of so-called special depreciation) in excess of a “reasonable annual depreciation” provided by our Commercial Code (Article 285-3) is recognized as an expense on condition that the excess is credited to a specified allowance, and as to the reduced entry, the amount which may be treated as an expense when the reduced entry method is taken, can be included in expenses, if the corporation credits that amount to a specified allowance (but either to a specified allowance or to a specified reserve in case of nondepreciable assets), instead of taking the reduced entry method.

On this point the following is the conclusion arrived at by the subcommittee on the rearrangement of the tax law of the investigation committee on the tax system.

“In case an amount corresponding to a reduced value is credited to an allowance, the tax law should recognize the amount as an expense. And in case

of an amount credited to a reserve set up by the appropriation of profit, it should be treated the same as an allowance, and adjusted on the return. In these cases, depreciation deductible under the tax law should be calculated on the basis of the remainder after deducting the allowance or the reserve from the book value." "As regards special depreciations when the amount in excess of the reasonable depreciations is credited to an allowance or to a reserve, the excess shall be recognized as an expense, in the same way as the reduced entry is taken." (Proposals concerning the rearrangement of Personal Income Tax Law and Corporation Income Tax Law, December 1963, p. 72).

Thus, the Proposals concerning the rearrangement of the Tax Law allowed a depreciation in excess of a "reasonable depreciation" and the amount deductible as an expense when the reduced entry method is used, to be credited to a specified allowance as well as to a reserve set up by the appropriation of profit, for it is open to question whether to treat these amounts as allowances laid down under § 287-2 of the Commercial Code. So long as there are two different opinions as to the treatment of these amounts, it is not appropriate, we think, for the tax law to prescribe only one of these alternatives. The above mentioned Notification on Adjustment only recognizes the treatment of specified allowances in these cases (as regards reduced entry of nondepreciable assets either a specified allowance or specified reserve is allowed), which must be regarded as an extremely arbitrary decision on the part of the tax law.

Such a decision will result in an interference of the tax law with business accounting, leading to harmful consequences. If the intention is that an amount credited to a reserve set up by the appropriation of profit should be treated as a deduction by means of the tax law reform in the future, this intention should have been made clear in a preamble or so, for otherwise an arbitrary interpretation on an allowance provided by the Commercial Code would be forced by the tax law. There is an objection to the treatment of specified reserve, saying, "the method will lead to a most complicated and troublesome practice." But if the nature of the reserve in each case is properly understood, the method does not seem to bring about such a complicated result. Even if such a complexity should occur, a reasonable method ought not to be rejected for that reason.

The above-mentioned proposals state, "it must be avoided that an accounting procedure contrary to the Commercial Code should become more advantageous in the calculation of taxable income than a treatment conforming to the Code." As is well-known, calculation of taxable income in our tax law is based on the confirmed settlement of accounts. In this case the tax law should not require its special treatment (for example, the reduced entry) to be reflected on financial statements. Such a requirement is an unjustified interference of the tax law with business accounting. Similarly, when the treatment as a specified reserve

seems to suit the purpose of "judging the financial positions and operating results of a company", it is an improper interference of the tax law with business accounting to treat it as a specified allowance. Calculation of taxable income should start from proper financial statements prepared with no regard to special requirements of the tax law.

## II

Is it a proper accounting method to credit an amount of charged depreciation in excess of a "reasonable depreciation" to an allowance under § 287-2 of the Commercial Code? Our Corporate Accounting Principles distinguishes allowances belonging to a valuation account from those having the character of liability, dividing the latter into those which come under current liabilities and those of the nature of fixed liabilities. Within current liabilities fall "those allowances for a specified expenditure in the future, which will be used within a comparatively short period", while "those providing for an expenditure to be made after a considerably long time" are counted as belonging to fixed liabilities. Here it is made clear that allowances are set up to provide for a specific expenditure in the future. In this context, we understand that an expenditure means an outgo of money or other goods or an accrual of obligations to be paid. Thus, allowances credited on a balance sheet under the Corporate Accounting Principles are those provided for expenditures in the future. Also, "Guiding Principles to the Treatment of Financial Statements Regulations" defines liability reserve as "a provision for a specific expenditure in the future which is to be charged to the current period and whose amount can be estimated." Generally speaking, an allowance has to fulfill the following conditions; (1) it provides for a specific expenditure in the future; (2) that expenditure will certainly occur; (3) its amount can be estimated with considerable exactitude; (4) there is good reason to charge to current operation the amount put into the allowance of this period.

Under Article § 287-2, the Commercial Code stipulates that an allowance can be set up in the liability section of the balance sheet in order to provide for a specific expenditure or loss. The Commercial Code says "a specific expenditure or loss", while the Corporate Accounting Principles do not recognize an allowance providing for a specific loss, so there is an opinion that an allowance under the Commercial Code covers a wider range than that of the Principles. Contrary to this opinion, we find another view regarding "a loss" under the Code as being included in an expenditure under the Principles, so that "an allowance to provide for a loss falls within the range recognized by the Corporate Accounting Principles." We cannot agree to the latter interpretation, because "an expenditure" under the Principles cannot be considered to comprise "a loss". At any rate, there

are in fact two kinds of interpretations on the nature and content of an allowance under the Commercial Code.

The problem to be solved here is whether an depreciation in excess of a "reasonable depreciation" comes under the allowance stipulated by the Commercial Code or not. If an excessive depreciation is due to expected obsolescence on fixed assets, the excess will be justified as an allowance under the Code, when we adopt a wider interpretation of allowance, because it provides for a specific "loss". In this case, the amount of obsolescence should be charged against this allowance when an obsolescence occurs. But, if it is fairly sure that the obsolescence will take place, we can correct the remaining useful lives of fixed assets, so that it remains to be explained why an allowance due to obsolescence should be set up and whether the amount put in the allowance of this period is appropriate or not.

The problem of a depreciation in excess of a "reasonable depreciation", however, does not usually have to do with the case referred to above, but with the case of depreciation in excess of the proper burden of the period, i.e. the case where future depreciations are taken in advance. If we take the expression "depreciation" to mean all writing-downs of the book value of fixed assets except devaluation, then writing-downs in excess of the reasonable depreciation also belong to "depreciation". But since the important problem in periodic income accounting today consists in allocating properly the costs of fixed assets to each period, it must be answered why costs pertaining to future periods should be charged to a current period in advance. Even if allowances under the Commercial Code, including provisions for "losses" too, cover a wider range than that of the Corporate Accounting Principles, it does not follow that an excessive depreciation charged in advance can be included in an allowance. In this case, an amount exceeding a "reasonable depreciation" does not aim at providing for expenditures or losses, but at transferring future depreciations to this period, having no reason to become a proper expense in this period. The part of depreciation taken in advance is nothing but a retained profit from the viewpoint of periodic income accounting.

### III

In the preamble, the Notification on Adjustment says, "the Revised Commercial Code, however, is generally interpreted to deny the reduced entry, except in certain cases, making it open to question for the tax law to continue its former standpoint formally." This remark leaves room for concluding that there are certain cases where the Commercial Code also recognizes the reduced entry. But, the Commercial Code requires that an acquisition or construction cost be put



on fixed assets, and therefore, the Code should be understood to disapprove a reduced entry in any case. Perhaps the above preamble wanted to say that there is no problem relating to the calculation of the amount of depreciation and cost of transferred assets when the book value of assets after reduction (in the case reduced entry is allowed taxwise) coincides with the acquisition cost under the Commercial Code (to be sure, a problem arises when they do not coincide). Strictly speaking, however, we find a problem in this case, too. It is sure that the book value after reduction becomes the basis of calculation of the amount of depreciation and cost of transferred assets in the tax law, but the amount after reduction is not necessarily treated as the acquisition cost. Reduced entry, when allowed taxwise, is not compulsory, but the tax law only allows in certain cases to make an entry by a reduced amount. Suppose, for instance, that a governmental subsidy has been granted and the acquisition cost under the Commercial Code is considered to be the actual acquisition cost less subsidy. And if, in this case, a business did not take advantage of the reduced entry to its full extent, a new problem arises relating to interpretations on the acquisition cost of the Commercial Code and of the tax law. Therefore, the Notification on Adjustment should have shown a method of adjustment even in "certain cases" above mentioned.

The Notification confers the same effect as the reduced entry when a corporation credits the reducible amount to a specified allowance (in case of nondepreciable assets, specified allowance or specified reserve), i.e., it allows the credited amount to be included in expense. Therein underlies the conception that the reduced entry is a sort of special depreciation and since special depreciation can be credited to a specified allowance, the reduced entry, a kind of special depreciation, is allowed to be treated alike.

But, is it proper to regard the reduced entry as a sort of special depreciation? Certainly, the reduced entry resembles depreciation in that it reduces the book value of assets, which is the amount chargeable as depreciation thereafter. Compared with ordinary depreciation, special depreciation only changes the time of recognition of the expense, and is surely a sort of depreciation. Usually, however, charged depreciation has the effect of reserving current assets corresponding to the amount of depreciation, so long as revenues are large enough to cover that amount. But a reduced entry has not such an effect, because the reduced part, in effect, is excluded from the book value and the wear and tear on this part cannot be included in income accounting any more. Thus, a reduced entry is not the same as "special depreciation" in nature, but excludes the reduced part from the record, not reflecting its wear and tear on income accounting. Setting up of a specified allowance allowed by the new Notification brings about the same effect as a reduced entry. We do not insist that a step should be taken to make

it possible to recover the whole acquisition cost through depreciation even where a reduced entry is made. A reduced entry is well justified from the viewpoint of the tax law. But it must be clearly understood that the reduced entry method (or the method of setting up a specified allowance instead of the reduced entry) has not the same character as "special depreciation".

It is a mistake to regard a reduced entry as a kind of special depreciation and to conclude that an allowance in place of a reduced entry can be treated as an allowance stipulated by the Commercial Code, on the supposition that a special depreciation conforms to an allowance under the Commercial Code. An allowance in place of a reduced entry provides by no means for a special expenditure or loss. If the tax law wants to give the effect of a reduced entry even where a reduction is not made, it should approve that effect when a corporation treats it as a specified reserve (not a specified allowance), allowing a deduction of the amount of the reserve from the gross revenue.

In this case it must be noted that while the ordinary reserve can be put to another use changing the purpose, the purpose of the reserve set up instead of the reduced entry cannot be changed, because a part of the fixed assets corresponding to this reserve is subject to wear and tear with the lapse of time, namely, the real substance of this reserve is doomed to expire with the passage of time.

To sum up, for the tax law to govern the interpretation of allowance under the Commercial Code must be avoided by all means. Granting that there is the opinion that a special depreciation and an amount corresponding to a reduced entry can be treated as specified allowances, the tax law should recognize not only this view but also the treatment of those amounts as specified reserves, which was the conclusion of the subcommittee on the rearrangement of the tax law of the investigation committee on the tax system.

# ELECTRONIC DATA PROCESSING SYSTEM IN JAPAN

Minoru BEIKA

## I

The number of electronic computers used in Japan is now nearly the same as in European countries. Half of them are imported, chiefly from the U.S.A., while the other half are manufactured in Japan. Computers have been recently equipped in many kinds of business enterprises and other organizations with great rapidity. They are operated for both scientific and business use. The system approach of electronic data processing (EDP) has been studied by management consultants and specialists in business enterprises, several organizations and universities. Such remarkable expansion of business mechanization in Japan has been seen only within these last 10 or 15 years. The outline of the EDPS, its characteristics, and its management problems in Japan is shown in this short article.

## II

The punch card system machines (IBM and RR) were equipped in only 11 business establishments and 5 government and administrative offices in 1941 in Japan. In 1944, 10 out of 15 business establishments which had the PCS machines, belonged to life insurance companies, while the others were manufacturing companies. After World War II, some of the large industrial enterprises adopted PCS machines gradually, but the number of these enterprises were few, because the economic conditions of Japan had not recovered to the extent that many enterprises could adopt the machines, the size of enterprises was not so large, labour cost was relatively cheap while machines were relatively expensive for them. In 1952, the government adopted the policy of reducing business machines import taxes for the rationalization of office management, in response to the enormous economic development in Japan. Since then, many large-scale business enterprises and other organizations rapidly adopted the PCS machines. By 1961 there were 600 or over business firms and other organizations (about 800 establishments) so equipped.

In Japan, some kind of punch card system equipment was devised by a certain engineer in 1908, taking a hint from the development in the U.S.A. It can be compared with the Hollerith system of 1890 and the Powers system of

1907 in the U.S.A. But the machine was incomplete and did not develop further. Practically speaking, the Powers system machines were imported by the National Railway in 1923, and the Hollerith system machines by a manufacturing company in 1925. These were the beginning of the practical use of the PCS machines in Japan.

The increasing use of PCS machines in Japan is shown as follows, by the number of firms and establishments.

**1. Number of establishments (firms) used PCS machines in Japan**

	1956	1957	1958	1959	1960	1961
Central and local administrative offices	77( 38)	107( 44)	108( 45)	135( 48)	145( 58)	150( 57)
Public utilities	23( 8 )	28( 13)	32( 17)	37( 22)	40( 24)	41( 25)
Industry and mining companies	94( 70)	110( 80)	149(110)	180(136)	266(188)	282(221)
Financial companies	21( 21)	26( 25)	34( 33)	43( 40)	57( 52)	67( 58)
Insurance companies	24( 22)	25( 23)	25( 25)	26( 26)	27( 26)	27( 26)
Others	16( 13)	23( 22)	32( 30)	58( 47)	133(123)	219(199)
<b>Total</b>	<b>255(172)</b>	<b>319(207)</b>	<b>380(260)</b>	<b>479(319)</b>	<b>668(471)</b>	<b>786(586)</b>

Bookkeeping and accounting machines, which are preliminary to the PCS machines, are now very popular in large and small-sized business firms and other organizations in Japan, even if most of them are imported from American and European countries. But these machines could be found in fewer firms than in the case of the PCS machines before the War. The enormous diffusion of these machines has been seen literally in the last 15 years. They are now used not only in industrial and commercial firms, but especially, are available for customer services in commercial banks, and city and town offices. These single purpose office equipments were beginning to be practically used already in about 1880 in the business world in the U.S.A. and European countries.

The following table shows the tendency of the recent increase in Japan, although it is limited data only on large business firms who answered the questionnaire prepared by the Research Institute to which the writer belongs. The table shows the number of business firms which adopted bookkeeping and accounting machines, by the years.

**2. Number of business firms adopted the bookkeeping and accounting machines**

	1951	1952	1953	1954	1955	1956	1957	1958	1959
	2	8	16	18	20	29	32	27	4
	(Only by data answered to the questionnaire)								

The time lag of office machine use is very large between those countries

and Japan. The business world of Japan adopted business mechanization from simple office equipment to large-sized electronic computers, literally at one stroke, during the recent 10 or 15 years.

### III

Electronic computers were adopted by Japanese business enterprises and other organizations, not so late as in the case of the PCS machines, compared with European countries. The electronic computer was completed in 1946 in the U.S.A. for the first time, after experiments with the large-scale relay system computers since 1942.

Small-sized electronic equipments attached to the PCS machines were imported in to Japan in 1953, but real electronic computers were used in 1958 for the first time. Japanese computers were experimentally manufactured by domestic industrial companies at first in 1954. For the first several years, most users depended chiefly on imported computers. In 1958, 90% of the computers in Japan were imported, but in 1962, half of them were manufactured by Japanese companies.

#### 3. Electronic computers used in Japan

		1957	1958	1959	1960	1961	1962	Total
Large	Domestic	—	—	—	—	—	—	—
	Imported	—	1	—	6	8	6	21
	Total	—	1	—	6	8	6	21
Middle	Domestic	1	—	9	18	36	58	122
	Imported	—	2	16	16	66	80	180
	Total	1	2	25	34	102	138	302
Small	Domestic	1	3	6	13	43	97	163
	Imported	1	2	4	3	17	8	35
	Total	2	5	10	16	60	105	198
Total	Domestic	2	3	15	31	79	155	285
	Imported	1	5	20	25	91	94	236
	Total	3	8	35	56	170	249	521

In 1963, it is reported that 12,000 or more electronic computers were used in the U.S.A., 700 in West Germany, 600 in the United Kingdom and also in Canada, and a little less than 600 in Japan and France. These data may be inexact because of the rapid development in each country, but they show the recent general tendency of computers. Electronic computers are increasing at a high rate in Japan as in European countries. (It is reported that 1,400 Computers are used in 1964.)

In Japan, most of the large-sized computers are imports from the U.S.A. while middle and small-sized ones are more domestic products. Six electric industrial companies in Japan now are manufacturing their own computers with the encouragement of the government. But it is necessary for industries of electronic computers in Japan to depend on foreign technological development. This industry in the U.S.A. had been greatly developed not only by research and development activities of industrial companies, but also by the aggressive encouragement of the government.

The greatest users of computers are financial companies. Several kinds of manufacturing industries also use them to a considerable degree such as chemical, metallurgical, engineering, and electric machine industries. Large trading and commercial companies are also now important users. Central and local governments, other administrative offices, and universities are gradually adopting the EDPS.

The electronic data processing centers have been developed in Japan for middle and small-sized customers which can not have their own computers economically owing to their sizes. The number of these centers amount to about 80 in the whole country.

These computer centers consist of several types of organizations. One type is the suppliers service centers for their users. These centers are also useful in sales promotion for their foreign suppliers and domestic manufacturers. One type of center is the enterprises of the centers which are established for their own business of computing services.

In an other type, some users who are equipped with large-sized computers, engage in the computing business during the spare time of their computers. Some public bodies set up computer centers for small businesses. Some groups of middle and small sized wholesale firms intend to use computers jointly.

#### IV

Business mechanization in Japan shows two characteristics. One is the time element of its inducement, and the other is the size of the business and the industrial structure of Japan.

The characteristic feature of business mechanization in Japan is generally the following two ways. One is to mechanize a large quantity of routine clerical works, and the other is to mechanize integratedly routine electrical operations and data processing for management. Each of them is not separate, but related to each other. The division is useful for understanding the characteristics of business mechanization.

The former type is found in electronic data processing in fee calculating

and billing of electric power companies and other public utilities corporations, and in data processing of routine operations in financial companies (banking, insurance, etc.), and of tax clerical operations in administrative offices.

The latter type is found chiefly in electronic data processing of operational and managerial clerical works in manufacturing companies.

In Japan, the size of firms is relatively not so large, and labour cost in the industries is not so high as in the U.S.A. Therefore, office equipments of relatively higher prices should be used more efficiently and effectively in Japan than in the U.S.A. The simple mechanization of routine clerical works is found only in very large companies. Other largish and medium-sized companies have inevitably used these computers intensively to integrate effectively their routine clerical works and managerial data processing works. Originally, business mechanization in Japan did not always proceed with the so-called labour-saving function. Even in the PCS machine stage, several companies tried to use their equipment more intensively in Japan than in the foreign countries.

Within the recent few years, economic conditions in Japan have developed enormously and industrial firms have been confronted with a considerable labour shortage. Therefore, business mechanization in Japan has also developed rapidly, and many large-sized computers have been equipped in many firms and organizations as stated before.

Business mechanization in American and European countries has proceeded for about 80 years in steps from single purpose office equipments to the present electronic computers. On the other hand, every step of business mechanization has been adopted at the same time by many companies and other organizations in Japan. This time element or timelag has characterized the procedure and problems relating to business mechanization and management in Japan. Because method and organization of office management should develop gradually by steps according to business mechanization. In other words, managements in the Japanese business world seem to be greatly energetic, but have been confronted with many proper problems due to their unbalanced development.

## V

As stated before, electronic data processing of a large quantity of routine clerical works are found respectively in electric power companies, insurance corporations, and banking businesses in Japan. Several insurance corporations were the pioneers in Japan in adopting the PCS machines before the War, and now many of them use large computers. Electric power companies have mechanized their principal routine clerical works as fee calculation and billing, and engineering calculating operations. And now they must try to use more

effectively the computer as a management tool, on the one hand, integrate business automation to process automation, on the other hand.

Bank automation seems now to be at a new stage in Japan. The principal banks which are eager for higher mechanization, are now studying how to attain an on-line-real-time system to serve their customers and to reduce their operating costs. The principal banks in Japan have each 100 to 200 branches over the whole country, different from the bank system in the U.S.A. Therefore, they have hitherto proceeded with their business mechanization on the off-line-system by electronic computers, and some of them have established their independent data processing centers. And now they have begun to try to apply to on-line-real-time system to their multi-branch firms. A detailed explanation about the present bank automation in Japan is shown in an other article in this Review.

Recently local governments and large and middle-sized city administrative offices have interest in organization and method (O and M) technique of office management which has been developed in the United Kingdom. They have tried not only to improve their office works, but also to adopt more effective office machines. But generally speaking, there are not so many local governments and city offices which have electronic data processing systems. Their mechanized clerical works are now chiefly citizen taxes and utility services fees. Offices which have not been equipped with any computer yet, have deep concern for office mechanization. A detailed explanation of the mechanization of city offices was shown by an other writer in the previous Review.

In the cases of manufacturing industries, the computers tend to have been operated to integrate multi-purposes even in the PCS stage in Japan as stated before. In many cases, engineering and machinery industry companies have applied the EDP system in office works for material purchasing, stock control, and production control. These improvements in office management have necessarily brought about the improvement of clerical works in their manufacturing plants. Moreover, these improvement activities should be integrated to industrial engineering activities on manufacturing operations in the plants. This is now one of the important management problems facing our challenge. Improvement by the EDP system could not be confined in the offices, and tended to exert its influence on improvement in the plants.

In chemical industry companies, the technological development of process control by automation has gradually decreased clerical works in the plant, aside from the original office management problem. And then information for effective raw material purchasing and marketing activity should be given more importance by the development of the process automation. The EDP system is expected to absorb these problems.

At any rate the application of the EDPS to industrial companies in Japan



has been up to now accompanied by improvement in their clerical procedure and office organization. Up to the present, office procedure in Japan depended on pen and ink literally, and offices had few office machines. During a very short time, offices have introduced many calculators, adding machines, duplicating machines, bookkeeping and accounting machines, PCS machines and electronic computers almost at the same time. Therefore business mechanization is one of the most important management problems and will give an effective chance for management improvement to the companies in Japan. As a result, a considerable number of industrial companies have succeeded in management improvement by business mechanization, on the one hand, but not a few have confronted difficult management problems arising from their business mechanization on the other hand. Companies in which their top managements clearly recognized these problems and actuated their organizations to go on the expected EDPS, tend to succeed in their application. Companies in which their top managements did not always support staff members to endeavor in their application, tend to be at some deadlock relating to many human and organizational problems.

Apart from business applications, the computers have been utilized for operations research, PERT (Program Evaluation and Review Technique) system and other scientific uses. The computers are also expected to be used in documentation services in research and development activities of industrial companies in Japan.

## VI

The concept of the Integrated Data Processing System (IDPS) and Total System which have been developed by industrial companies in the U.S.A. during these last 10 years, is now common knowledge not only to theoretical study, but also to industrial application in Japan. System approach relating to electronic data processing application have been promoted by coordination between industry and university, though the theoretical approach in universities had not developed so much in recent years. But now a considerable number of part-time schools and seminars have been established for the development of middle management and top management by many management associations. Many specialists, system analysts, planners and programmers have been growing day by day, and playing important parts in management improvement in Japan.

But these activities for the study of the system approach tend to incline toward the technological side and not to be always conscious of real management problems relating to these system approaches. Accordingly there can be even now found an considerable degree of gap problems between active studies of the system approach and real management activities in Japan. As a result it

may be found that in some cases the company in which an excellent specialist for EDPS has been raised, can not always succeed well in management improvement in its business application. The present problems for EDPS are found to combine carefully the system approach and real management approach relating to organization and human behavior, in Japan.

## A CHRONOLOGICAL TABLE OF MODERN JAPANESE SHIPPING —No. 2; 1800~1912

Seiji SASAKI

With thanks for the many advantageous instructions and well-meant encouragement given to the preceding article, *A Chronological Table of Modern Japanese Shipping*---No. 1; 1600-1799, the author makes here a subsequent volume till 1912, the last year of Meiji. During these eleven decades a real modernization took place, at least a change from the old style to a modern style. There were two great historical turning-points, the reopening of the country to foreign commerce in 1856 and the Meiji Restoration in 1868. Both of them doubtless relate to us the dawn of modern shipping business in Japan, but the actual movement started especially after the later revolution. In this meaning, the great encouraging policies of the new Meiji Government and the progressive efforts of every shipowner that were exhibited concentrically within the later fifty years were the mainsprings in realizing the modern development of Japanese shipping.

Although it may be somewhat halfway to cut off this article at 1912, it is very usual and significant in Japanese history. A chronology of the subsequent period will be made in the future and be shown at another opportunity.

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- (1) Almost all the names of foreign visitors and ships were recorded only in the Japanese letter. So, when translated they may be spelled wrongly. On this point the author welcomes any advice.
  - (2) Dates before 1873 are based upon the lunar calendar that was in use in Japan at that time, except in a few special cases where the dates were clearly recognized in the solar calendar.
  - (3) The year-name put in parentheses following the Christian era is the name of the Japanese era.
  - (4) To old unfamiliar Japanese place-names are added their present prefecture-names (or popular local names) in brackets.
  - (5) To compare with European shipping history some important chronological events are added separately in main countries. (Marked by dotted lines).
  - (6) All the names of foreign vessels and their captains are not certain in popular Japanese historical books. The author will make an effort to look them up in other records hereafter, whenever possible.

## 1801 (Kyowa-1)

June Motojuro Tomiyama and others set up a national mark-pole on the island of Urup on which was recorded the words, "Tencho Chikyu Dai-nippon Hichi-zokuto"—it means "seven islands belonged to Japan forever".

## 1802 (Kyowa-2)

Feb. 28. The Dutch captain, Waldenall met the Shogun.  
..... (U. K.); The "*Charlotte Dundas*" made her trial run on the Clyde Canal.

## 1803 (Kyowa-3)

May Hendrick Zuff, clerk of the Dutch mercantile house, promoted to captain (representative).

July 8 An American ship came to Nagasaki and requested to open commercial relations.

## 1804 (Bunka-1)

Sept. 7 N.P. Rezanov, the Russian envoy, came to Nagasaki for the purpose of returning Japanese castaways and requested to open commercial relations.

..... (France); Coronation of Napoleon I (in December.)

## 1805 (Bunka-2)

Jan. 26 The Shogun gave a warning order against Russian ships to every clan.

Mar. 7 K. Toyama, the Shogun's envoy, met Rezanov in Nagasaki and refused his proposal to open commerce.

Mar. 26 Rezanov sailed out of Nagasaki.

## 1806 (Bunka-3)

Jan. 26 The Shogun gave an order again to a number of clans on precautions against the Russian ship.

Mar. 15 Hendrick Zuff came to Edo-Castle.

Sept. 10 Russian encroached on Saghalien.

..... (France & Holland); Loui, brother of Napoleon I, became the Dutch Emperor.

## 1807 (Bunka-7)

- Apr. 10 Japanese guards were sent to Sôya [Hokkaido] in response to the Russian invasion into Saghalien.
- Apr. 25 Russians invaded the island of Etorofu.
- Apr. 27 An American ship came to Nagasaki; this ship left the port after a three-day stay.
- May 21 Russians invaded Saghalien again.
- May 29 Russians invaded the island of Rijiri and burnt the official ship belonging to the Shogunate.
- ..... (U.S.A.); Robert Fulton built the paddle-steamer, "*Clermont*".

## 1808 (Bunka-5)

- Apr. 13 Rinzo Mamiya and Denjiro Matsuda set out for their Saghalien Exploration for about three months from Sôya [Hokkaido]. Mamiya traced the east coast while Matsuda explored the west coast.
- July 13 R. Mamiya reached Saghalien to make the second exploration; he went to the Siberian Continent crossing the "Mamiya Channel" with some Saghalien aborigines.
- Aug. 15 (s.c. Oct. 4) The "*Fehiting*", British ship, entered Nagasaki; she left the port on the 17th inst. From a sense of responsibility for this affair, Y. Matsudaira, Nagasaki magistrate, committed suicide.

## 1809 (Bunka-6)

- June The Japanese given name of Saghalien was changed from "Karafuto" (or, "Kabafuto") to Kita Ezo (northern Ezo, or north island of Hokkaido).
- July 2 (or 11) R. Mamiya arrived at "Deren" rowing up the Amur.
- Sept. 28 R. Mamiya came back to Sôya after his fifteen months exploration.

## 1810 (Bunka-7)

- Mar. 15 Captain H. Zuff met the Shogun.
- ..... (France & Holland); Netherland was annexed to France.

## 1811 (Bunka-8)

- May 22 The Korean envoy came to Tsushima-Island.
- June 4 Two Russian ships and eight Russians, Golohnin and others, were captured by the Japanese authorities on the island of Kunashiri.
- ..... June 16 (s.c. Aug. 4); The English occupied Vatia.

## 1812 (Bunka-9)

Aug. 14 Kahei Takadaya and his vessel "*Kanze-maru*" were captured by a Russian ship,—her captain was Ricordo,—and were sent to Kamchatka.  
 ..... (Europe); Napoleon's Siberian campaign.  
 ..... (U. K.); Henry Bell built the steamer "*Commet*".

## 1813 (Bunka-10)

May 25 The Russian Ship, (Captain Ricordo), came to Kunashiri and asked for the release of Golohnin and other Russians through K. Takadaya.  
 June 29 Under order of English Java Viceroy, Ruffls, two English ships, "*Charlotte*" and "*Marina*"—commander, Waldenal—came to Nagasaki and attempted to take over the Dutch mercantile house. But, H. Zuff, the Dutch representative, refused flatly and made them return home.

## 1814 (Bunka-11)

Feb. 28 H. Zuff met the Shogun.  
 ..... (Europe); Abdication of Napoleon I.

## 1815 (Bunka-12)

..... (Europe); The War of Waterloo.

## 1816 (Bunka-13)

Oct. An English ship came to Okinawa and asked to open commercial relations.  
 ..... (France); The appearance of the first French steamer "*Erise*".  
 ..... (U.S.A.); A trans-atlantic liner service was opened by the Black Ball Line.

## 1817 (Bunka-14)

Sept. An English ship came to Uraga.  
 Nov. 3 ( s.c. Dec. 10) H. Zuff left Japan after his 19-years service. Yan Kok Browhof became the next Dutch captain (representative). (→Oct. 18th, 1823)  
 ..... (Germany); A steamer liner service was opened on the Wesel.

## 1818 (Bunsei-1)

May 13 Goldon, an Englishman, and his ship came to Uraga and asked to open commercial relations, but was refused.

1819 (Bunsei-2)

..... (U.S.A.); The trans-atlantic navigation of the "*Savanna*".

1821 (Bunsei-4)

A Dutch ship imported the first camel (transported to Edo).

1822 (Bunsei-5)

Apr. 28 An English ship came to Uruga to demand fuel and water.

..... (U.S.A. & France); A trans-atlantic liner service was opened between New York and L'Havre.

..... (Brazil); Independence of Brazil.

1823 (Bunsei-6)

July 6 (s.c. Aug. 11) Franz Balthaser von Siebold, German, came to Nagasaki as the doctor of the Dutch mercantile house.(→Dec. 5, 1829)

..... (U.S.A.); Declaration of Monroeism.

1824 (Bunsei-7)

May 28 The crew of an English whaling-vessel landed at Ôtsu-hama, Hitachi [Ibaragi Pref.] and demanded fuel and water. They were captured.

July 5 The crew of an English whaling-vessel landed at Takarajima, Satsuma [Kagoshima Pref.] and took on some cattle.

July 11 The captured English crew were released.

.....(U.K. & Europe); A steamer liner service was opened between England and the Continent.

1825 (Bunsei-8)

Feb. 15 Enactment of an order to repel foreign ships.

May An English ship appeared off the coast of Mutsu [Iwate Pref.].

1826 (Bunsei-9)

..... (Germany & U.S.A.); A liner service was opened between Bremen and New York.

1830 (Tempo-1)

..... (France); July Revolution.

..... (Belgium); Independence of Belgium.

..... (U.K.); The opening of a railway between Liverpool and Manchester.  
 ..... (U.K. & U.S.A.); A sailing-vessel liner service was opened between  
 Liverpool and New York.

## 1837 (Tempo-2)

June 28 The American ship, "*Morison*", attempted to enter Uruga and  
 was bombarded.

..... (U.K.); Establishment of the Peninsular and Oriental S. N. Co.

## 1838 (Tempo-9)

..... (U.K. & U.S.A.); Trans-Atlantic navigation of steamers. ("*Sirius*"  
 and "*Great Western*").

## 1839 (Tempo-10)

Edward Flanzissan came to Japan as the new representative of the Dutch  
 mercantile house. (→1842)

## 1840 (Tempo-11)

..... (China); Outbreak of the Opium War. (→1842)

..... (U.K.); Establishment of the Cunard Line.

..... (U.K.); Establishment of the Pacific Steam Navigation Company;  
 the company began service between England and the west-coast of South  
 America with two steamers, "*Chili*" and "*Peru*". They were the first  
 steamers to navigate the Pacific Ocean.

## 1842 (Tempo-13)

July 24 The amendment of the order to repel foreign ships; hence forth  
 foreign ships were given bunker, water and food.

## 1843 (Tempo-14)

Peter Albert Beque came to Japan as the new representative of the Dutch  
 mercantile house. (→1845)

An English ship came to Okinawa and surveyed Yaheyama and Miyako.

## 1844 (Tempo-15 &amp; Koka-1)

Mar. A French ship came to Okinawa and asked for mutual trade.

July 2 (s.c. Aug.15) The Dutch warship "*Parentan*" (Comander; Copus)  
 entered Nagasaki (left port on the 14th of October.).



Aug. 8 The Shogun accepted a letter from Dutch Emperor Willem II; he recommended to open the country.  
 ..... (U.S.A.); An American ship opened a liner service between Kwangtung (Canton) and Hongkong.

1845 (Koka-2)

Mar. 12 An American ship came to Nagasaki to return Japanese castaways.  
 May 15 An English ship came to Okinawa and forced the opening of mutual trade.  
 June 1 A return letter to the Dutch Government; the Shogunate refused the recommendation to open the country. (This letter was given to the Dutch representative on the 15th of August.)

1846 (Koka-3)

Apr. 5 An English ship came to Okinawa.  
 May 11 An American ship drifted ashore at the island of Etorof.  
 May 27 Biddle, Commander-in-chief of the American India Aquadron, came to Uruga in command of two warships and asked to enter into diplomatic relations, but was refused.  
 June 7 Biddle left Uruga.  
     Three French war-ships came to Nagasaki (left on June 9).  
 June 28 A Danish ship came to Uruga.  
 Aug. 23 An English war-ship came to Okinawa.  
 Aug. 29 The Japanese Emperor ordered the Shogunate Government to strengthen shore defenses.  
 Joseph Henry Le Faithson came to Japan as the new representative of the Dutch mercantile house. (→1850)

1847 (Koka-4)

June 26 A Dutch ship told that English ships might come to Japan.  
 ..... (U.S.A.); Establishment of the Pacific Mail Steam-ship Company.  
 ..... (Germany); Appearance of the Hamburg America Packet Fahrt A.G.

1848 (Kaei-1)

Mar. Foreign vessels made frequent appearances to the north of Tsushima.  
 May 7 American seamen who were the crew of the whaling-vessel, "*Radga*", were castaway on Hokkaido and were sent to Nagasaki.  
 ..... (U.S.A.); U.S.A. took California away from Mexico.

## 1849 (Kaei-2)

Mar. 26 The American warship, "*Preple*", came to Nagasaki to receive the American castaways.

Apr. 8 The English ship, "*Marina*", came to Shimoda and Uruga.

This spring defensive preparations for the sea were discussed actively in Japan.

Dec. 25 The order for coast defenses was given to the clans.

..... (U.K.); Repeal of the British Navigation Act.

## 1850 (Kaei-3)

Mar. 15 Joseph Henry Le-Faithson, Dutch Captain, went to Edo-Castle; It was the last reception by the Shogun to meet the Dutch representative.

Apr. 16 English seamen drifted ashore at Atsugishi [Hokkaido] and were sent to Nagasaki.

June 11 A Dutch ship that just entered Nagasaki communicated the hope of the U.K. and U.S.A. to open commercial relations with Japan.

D.C. Rosee, came to Japan as the new representative of the Dutch mercantile house.

..... (U.S.A.); The American Congress decided on the development of the Orient and the opening of Japan.

..... (U.S.A.); Establishment of the Colins Line.

..... (U.K.); P. & O. Co. opened a liner-service between Hongkong and Shanghai.

## 1851 (Kaei-4)

Jan. 3 An American ship returned Manjiro Nakahama, a Japanese ship-wrecked person, to Okinawa.

..... (France); Establishment of the Messagerie Maritime Company.

..... (Europe); Opening of a cable between Dover and Calais.

## 1852 (Kaei-5)

Jan. 17 An English ship came to Okinawa.

June 5 Yan Hendrick Dwkel Kurtius, Secretary of the Dutch Indian-governer-general, came to Japan as the new representative of the Dutch mercantile house and brought a letter from the Indian-governer-general.

June A Russian ship came to Shimoda.

## 1853 (Kaei-6)

Apr. 19 Matthew Calbraith Perry, an American commodore, came to

Okinawa in command of four warships.

- May 8 Perry came to Ogasawara-Islands in command of two warships.
- June 3 Perry came to Uraga in command of four warships.
- June 9 Perry gave an autograph letter of the U.S.A. President to the Tokugawa Shogunate.
- June 12 Perry left with the promise of coming again the following year.
- June 27 American warships came to Okinawa from Uraga.
- July 18 Euphymius Putiatin (or Evfimii Vasilievichi Putyatin) Russian admiral, came to Nagasaki in command of four warships—flag ship "*Diana*".
- Aug. 19 Putiatin gave a governmental letter to the Tokugawa Shogunate.
- Sept. 1 Russian troops landed on Saghalien with the aim of occupation.
- Sept. 15 Proclamation for releasing the prohibition against building large-sized vessels to clans.
- Dec. 5 Putiatin came again to Nagasaki.
- Dec. 25 Perry came to Okinawa.

#### 1854 (Kaei-7 & Ansei-1)

- Jan. 8 Putiatin left Nagasaki with the promise of calling again.
- Jan. 16 Perry came to Uraga in command of six warships.
- Mar. 3 (s.c. Mar. 31) Signing of the Kanagawa-Treaty with Perry (on the opening of two ports, Shimoda and Hakodate to the U.S.A.).
- Apr. 17 Perry visited Hakodate.
- May 12 Perry came back to Shimoda.
- May 22 Signing of the supplement to the Kanagawa-Treaty.
- Aug. 23 Signing of a friendship treaty with England.
- Oct. 10 Permission for the Dutch ship to enter Shimoda and Hakodate.
- Oct. 15 Putiatin came to Shimoda.
- Oct. 24 The Russian warship, "*Diana*", in which the Russian mission was going abroad, wrecked badly: The ship was repaired at Heda-no-Ura, Izu, [Kanagawa Pref.]
- Dec. 21 Signing of a friendship treaty with Russia. Opening of three ports, Shimoda, Hakodate and Nagasaki, to Russia.

#### 1855 (Ansei-2)

- Jan. 5 Exchange of the official Japanese-American Friendship Treaty.
- June 8 Dutch Emperor presented the steamer, "*Soomping*", to the Tokugawa Shogunate;—this was the first steamer in Japan and her name was changed to "*Kanho-maru*".

- Aug. 28 Stering, English Admiral, proposed to present a steamer.
- Dec. 23 Signing of a friendship treaty with Holland.

## 1856 (Ansei-3)

- Apr. 22 A schooner, so-called "Kimizawa-style", was built.
- July 3 Townsend Harris, American Consul-General, came to Japan. (→Mar. 27, 1862)
- ..... (U.K.); Establishment of the Anchor Line.

## 1857 (Ansei-4)

- May 26 Signing of the "Shimoda-Treaty" with Harris.
- July Establishment of the Nagasaki Iron-factory.
- Aug. 4 Putiatin came again to Nagasaki as the Russian envoy.
- Aug. 5 Pompe van Meeldelfort, Dutch naval surgeon, came to Japan; he taught European medical science and physical science. (→Sept. 29, 1861)
- Oct. 20 Harris met the Shogun.
- Dec. 24 Additional opening of four ports, Edo, Osaka, Hyogo and Niigata, to the U.S.A.
- A steamer, so-called "Ninoura-style", was built in Nagasaki.

## 1858 (Ansei-5)

- Mar. 20 The Emperor's government ordered the Tokugawa Shogunate not to sign the Japanese-American Commerce Treaty.
- June 19 The Tokugawa Shogunate signed the Japanese-American Commerce Treaty.
- Aug. 10 Signing of the Japanese-Dutch Commerce Treaty.
- Aug. 11 Signing of the Russo-Japanese Commerce Treaty.
- Aug. 20 Signing of the Anglo-Japanese Commerce Treaty.
- Aug. 23 Tadanori Mizuno was sent to the U.S.A. as the Shogunate's envoy.
- Sept. 3 Signing of the Japanese-French Commerce Treaty.

## 1859 (Ansei-6)

- May 4 Rutherford Alcock, English Consul-General, arrived at his post. (→Feb. 29, 1862)
- May 28 Three ports, Kanagawa, Nagasaki and Hokodate, were formally opened and permitted to engage in foreign trade with five countries; England, France, Holland, Russia and the U.S.A.

Aug. 10 P. Duchesne de Bellecourt, French Consul-General, arrived at his post. (→Mar. 24, 1864)

Aug. De Witt, Dutch Consul-General, arrived at his post. (→June 4, 1863)

#### 1860 (Manen-1)

Feb. (s.c.) The "*Kanrin-maru*", Japanese warship—commander; Kaishu (Rintaro) Katsu—, set sail for America; this was the first crossing of the Pacific Ocean made only by Japanese people. At this time Masanori Shimmi, the Shogunate's envoy, went to America on the American warship, "*Powhatan*", in order to exchange ratifications of the Japanese-American Friendship and Commerce Treaty.

June 17 Signing of the Japanese-Portugese Commerce Treaty.

Dec. 14 Signing of the provisional Japanese-Prussian Treaty.

#### 1861 (Bunkyu-1)

Feb. 21 Russian warships dared to occupy the island of Tsushima. They left there on the 15th of August, when the English warships attempted to drive them away.

June Proclamation for permitting both the owning and building of large-sized vessels and of buying foreign vessels for the whole nation.

Dec. 22 Yasunori Takeuchi and his mission started from Yokohama to Europe on an English warship.

#### 1863 (Bunkyu-3)

May 10 Choshu-han bombarded American warships at Shimonoseki.

May 26 Choshu-han bombarded Dutch warships at Shimonoseki.

June 1 American warships bombarded Shimonoseki.

June 5 French warships bombarded Shimonoseki.

July 2 English squadron (seven warships) bombarded Kagoshima.

Dec. 29 Signing of the Japanese-Swiss Commerce Treaty.

#### 1864 (Ganji-1)

July Establishment of the Kaigun-Sorenscho (Shogunate's Navy School).

Aug. 5 The allied fleet of England, France, Holland and the U.S.A., (seventeen warships) bombarded Shimonoseki.

#### 1865 (Keio-1)

Sept. 19 Leon Roches, French Minister, proposed that the Shogunate

should punish the Choshu-han.

Sept. 21 The allied foreign fleet came together to the Bay of Osaka for the purpose of pressing the Emperor's government which would not agree to sign all treaties with foreign countries.

#### 1866 (Keio-2)

Feb. 29 The Tokugawa Shogunate approved free trade with foreign countries.

Apr. 8 The Tokugawa Shogunate approved studying abroad.

June 21 Signing of the provisional Japanese-Belgian Commerce Treaty.

Oct. 12 Hidemi Koide and his mission, started out for Russia. (He came back on the 11th of May 1867.)

Dec. 7 Signing of the provisional Japanese-Danish Commerce Treaty.

#### 1867 (Keio-3)

May Takeaki Enomoto brought the "*Kaiyo-maru*" home from Holland.

May 25 Opening of Hyogo-port.

July 13 Signing of the formal Japanese-Belgian Commerce Treaty.

Sept. A regular steamer service was first carried out by the "*Kisho-maru*" (517 ton) between Edo and Osaka; so-called "*Joki-Hikyaku-Sen*" by Jirosaku Kano.

Sept.~Oct. Small steam-boat services,—"*Oiran-maru*", "*Inage-maru*", etc.—appeared in Tokyo Bay; they navigated mainly between Edo and Yokohama.

Oct. 14 Resignation of Yoshinobu Tokugawa, the last Shogun.

In this year the Pacific Mail Steamship Co. (U.S.A.) opened the San Francisco /Hongkong line.

#### 1868 (Keio-4 & Meiji-1)

Jan. Restoration of Imperial Rule.

Jan. 30 Foreign ministers met Emperor for the first time.

Apr. 11 Capitulation of Edo-fortress.

Apr. The "*Naniwa-maru*" (steamer) engaged in regular navigation between Edo and Osaka.

Sept. Edo changed its name to Tokyo.

Sept. 27 Signing of provisional Japanese-Swedish and Japanese-Norwegian Treaties.

Sept. 28 Signing of the provisional Japanese-Spanish Treaty.

Nov. Tokyo became the capital. Emperor moved from Kyoto to Tokyo.

In the spring many small steam-boat services appeared also in Osaka Bay; mainly between Osaka and Kobe.  
 ..... Opening of the Suez Canal.

## 1869 (Meiji-2)

- Jan. 10 Decree on buying foreign vessels by the clans.  
 Signing of the provisional Japanese-German Commerce Treaty.
- Feb. 22 Opening of commercial offices, so-called "Tsushoji", in every port. These offices managed commercial business, especially foreign trade.
- Feb. The Nagata Shipbuilding Factory began to build small wooden European-style steamer.
- Apr. 4 (s.c. May 19) The Port Rule of Osaka was enacted.
- Sept. "Ezo" changed its name to "Hokkaido".  
 The commissioner of Hokkaido colonization opened up a new route between Hokkaido and the mainland with two European-style sailing vessels, "*Kanrin-maru*" and "*Shohei-maru*". The next year the steamer, "*Koshin-maru*" was added to their fleet.
- Sept. 7 Signing of the Japanese-Austrian Commerce Treaty.

## 1870 (Meiji-2)

- Jan. Enactment of Merchant-ship Regulations; these were special regulations in order to establish the "Kaiso Kaisha" which was the first steamship company in this country.
- Jan. Every fuedal barrier was abolished; it meant free communication in the country.
- Jan. Telegraph service was first opened between Tokyo and Yokohama.
- May Japanese railway bonds were issued in London.
- July Enactment of Postal Regulations.
- Sept. A telegraph service was established between Osaka and Kobe.
- Oct. Yataro Iwasaki founded the Tsukumo Shokai; this was the origin of his further shipping enterprise, so-called Mistubishi Kaisha—there were some main changes—the Mitsubishi Shokai (14th of March, 1873), the Yubin Kisen Mitsubishi Kaisha (February, 1875), and at last it became the Nippon Yusen Kaisha (N.Y.K. Line) of today.
- In the first part of this year, the Pacific Mail Steamship Co., American, opened a new liner service from Yokohama to Shanghai via Kobe and Nagasaki.

## 1871 (Meiji-4)

- Jan. Shirobei Fukijima established the Kaisei-Toriatsukai-sho in succession to the above-mentioned Kaisei-Kaisha.
- Mar. Postal service was opened between Tokyo and Osaka (Kyoto).
- Apr. "*Kosan-maru*", the first iron-ship, was built in Osaka,—there is another opinion that the "*Niigata-maru*" (64 g.t.) built in Niigata in the same year was the first Japanese iron-ship.
- Apr. The Nagasaki Iron Factory changed its name to Nagasaki-Zosen-Kyoku (Dockyard) and belonged to the government Industry Ministry (Kobusho).
- July 4 Signing of the Japanese-Hawaiian Commerce Treaty.
- July 29 Signing of the provisional Japanese-Chinese Commerce Treaty.
- Aug. The Nippon-oku Yubin Jokisen Kaisha was established in succession to the Kaisei-Toriatsukai-sho.

## 1872 (Meiji-5)

- May Telephone service was established between Tokyo and Osaka.
- Oct. The first railway was opened between Shimbashi (Tokyo) and Yokohama.
- Oct. The Nagasaki Zosen-sho changed its name again to the Nagasaki Seisaku-sho (engineering factory).
- Oct. The Yokosuka Zosen-sho changed its position from Kobusho (Industry Ministry) to the Navy Ministry and also changed its name to Navy Arsenal.
- Oct. 8 Tomomi Iwakura went on a mission to Europe. (came back in September, 1873)
- Dec. 23 Adoption of the solar calendar. (Disuse of the lunar calendar).  
This day is just the same as the 1st of January, 1873.

## 1873 (Meiji-6)

- Apr. 30 Signing of the formal Japanese-Chinese Commerce Treaty.
- Aug. 21 Signing of the provisional Japanese-Peruvian Commerce Treaty.

## 1874 (Meiji-7)

- Apr. 4 The Japan-Formosa War (ended on May 22).  
By this war the Mitsubishi-Shokai received its first developmental chance.
- May A railway was opened between Osaka and Kobe.
- Sept. Enactment of the Telegraph Regulations.



## 1875 (Meiji-8)

Feb. The Mitsubishi Kaisha opened a liner service between Yokohama and Shanghai with four steamers—*Kanakawa-maru*, *Niigata-maru*, *Takasago-maru* and *Tokyo-maru*—; it led to hard competition with the Pacific Mail (American).

May Toshimichi Okubo, the Secretary of State for Home Affairs, made a presentation on shipping policy; he proposed to give exclusive protection to a single steamship company, the Mitsubishi Kaisha. (The new shipping policy was decided in August.)

June Dissolution of the Nippon-koku Yubin Jokisen Kaisha.

Sept. 15 The Mitsubishi Kaisha was given the first decree (chartered letter); the company gained a large subsidy (250,000 yen) and was given many ships without compensation. By this aid the Mitsubishi won over the Pacific Mail.

Nov. The Mitsubishi Kaisha opened its Okinawa line.

## 1876 (Meiji-9)

Feb. The Peninsular and Oriental Steam Navigation Co. opened a new service, Hongkong/Shanghai/Yokohama line, and challenged the Mitsubishi Kaisha. After a severe struggle the Mitsubishi won over the P. & O.

Sept. 15 The second decree (chartered letter) for the Mitsubishi Kaisha; by this the subsidy was divided among several lines, not in the form of en bloc.

Oct. 15 Tomiji Hirono opened the private Ishikawajima Hirono Dockyard—the origin of the Ishikawajima Heavy Industries Co. Ltd.

## 1877 (Meiji-10)

Feb. A railway was opened between Osaka and Kyoto.

Feb.~Sept. The Satsuma Rebellion.

Successful military transportation during this war gave the second but greatest developmental chance to the Mitsubishi Kaisha.

## 1878 (Meiji-11)

Mar. Establishment of the Central Telegraph Office.

Apr. Shozo Kawasaki established the Kawasaki Tsukiji Dockyard in Tokyo;—the origin of the Kawasaki Dockyard Co. of today.

## 1879 (Meiji-12)

Jan. The Mitsui Bussan Kaisha imported the first steamship, "*Hideyoshi*-

*maru*" (696 g.t.); she was used to carry Miike coal to Shanghai.  
Oct. The Mitsubishi Kaisha opened the Hongkong line.

## 1880 (Meiji-13)

Mar. Shozo Kawasaki established the Kawasaki Hyogo Dockyard.  
Aug. The Tokyo Fuhansen Kaisha (sailing-vessel company) was established.  
Aug. The Tokyo Kaiin-Ekिसai-Kai—seamen's association— was established.  
Nov. M. Matsukata, the Finance Minister, took up the readjustment of paper-currency.

## 1881 (Meiji-14)

Feb. The Mitsubishi Kaisha opened its Nagasaki/Vladivostok Line.  
Apr. Edward Hazlett Hunter, an Englishman, established the Osaka Iron Works;—origin of the Hitachi Shipbuilding & Engineering Company Ltd.  
Nov. The establishment of the Nippon Tetsudo Kaisha (private railway company) was approved.

## 1882 (Meiji-15)

Mar. 14 Hirobumi Ito departed for Europe in order to study the constitution of many countries.  
June Establishment of the Bank of Japan.  
July 26 Establishment of the Kyodo-Unyu Kaisha; this company was the strongest competitor of the Mitsubishi Kaisha and was given large-scale support by the government.  
Nov. Taisuke Itagaki and Shojiro Goto set out on their journey to Europe. .... (Germany); Establishment of the Hansa Steamship Company.

## 1883 (Meiji-16)

May The Kyodo-Unyu Kaisha opened a liner service between Kobe and Yokohama, so that there was a historically severe competition on this route between this company and the Mitsubishi Kaisha.  
Establishment of the Hakodate Dockyard Co.  
The "*Kosuge-maru*", wooden steamer of 1,946 ton, was built in the Nagasaki Dockyard; she was the first large-sized steamer over 1,000 ton made in Japan.

## 1884 (Meiji-17)

May 1 Establishment of the Osaka Shosen Kaisha (O.S.K. Line); the

company was a combined organization of 55 shipowners and their 95 small steamers.

#### 1885 (Meiji-18)

- Oct. 1 Establishment of the Nippon Yusen Kaisha (N.Y.K. Line); this was the union of the Mitsubishi Kaisha and the Kyodo Unyu Kaisha.
- Oct. Prohibition of building large-sized Japanese-style sailing vessels over 500 koku.
- Dec. The "*Yamashiro-maru*" (2,528 g.t.) which belonged to the N.Y.K. carried the first 988 Japanese immigrants to Hawaii.
- Dec. 22 Enforcement of the cabinet system; H. Ito became the first Prime Minister.

#### 1886 (Meiji-19)

- Feb. 29 Conclusion of the Japanese-Hawaiian Friendship Treaty in which the Japanese were permitted to go to Hawaii freely. (It was promulgated on the 2nd of June.)
- May 12 The N.Y.K. concluded through-cargo-transportation contracts with the P. & O. and the Pacific Mail.
- Oct. 21 The "*Normantol*", British steamer, sank off the coast of Kishu [Wakayama Pref.]
- Oct. The governmental Hyogo Dockyard was lent to Shozo Kawasaki; it was sold to him the next year—origin of the Kawasaki Kobe Dockyard.
- Nov. (or Dec.) Sōichiro Asano established the Asano Kaiso-ten as his private enterprise of shipping business under the great support of his patron, E. Shibuzawa; the firm bought the second-hand steamer, "*Bellona*" (1,138 g.t.)—built in Germany—, and changed her name to "*Hinode-maru*." She was one of the earliest large-sized tramp-steamer, so-called "Shagai-sen".

#### 1887 (Meiji-20)

- May Promulgation of the private railway act.
- The (Nada) Seiko Kaisha was established by some of the stronger Nada-Sake-makers and owners of sailing vessels. (There is another opinion that the firm was established in June of 1886.) Though at first it was only an union of many old sailing vessels, it began gradually to own steamers after the Sino-Japanese War.

## 1888 (Meiji-21)

Apr. 28 Nisaburo Hiroumi, the founder of the present Hiroumi Steamship Company Ltd., bought the steamer, "*Esmeralda*" (615 g.t.), from the A.T. Leinell Co. (English) for \$39,000; her name was changed to the "*Hokuriku-maru*". She was the most famous snip among the earliest Shagai-sen.

Establishment of the Seshu Nada-shuka Kogyo Kaisha; Some Nada-Saka makers established this company and bought three steamers—"Seshu-maru" (1,631 g. t.), "*Sekkai-maru*" (902 g. t.) and "*Setsuyo-maru*" (1,099 g. t.).

Oct. Enactment of the beacon-rule.

Nov. Signing of the Japanese-Mexican Commerce Treaty.

Dec. The Nagasaki Dockyard changed its name to the Mitsubishi Dockyard.

## 1889 (Meiji-22)

Jan. Michihisa Baba, the founder of the present Baba Steamship Co. Ltd., bought the steamer, "*Sharyo-maru*" (1,030 g. t.).

Feb. Promulgation of the constitution.

July 1 The Tokaido Line (railway) was opened to traffic.

## 1890 (Meiji-23)

Oct. Enactment of ships nationality rule.

## 1891 (Meiji-24)

June The N.Y.K. abolished sailing-vessels.

Sept. 1 The Tohoku Line (railway, private) was opened to traffic.

## 1892 (Meiji-25)

Nov. 30 The Japanese warship, "*Chishima*" collided with the English steamer, "*Rabenna*" and sank off the coast of Fukae [Ehime Pref.]

Establishment of the "Nippon Kaiungyo Domei-kai"; it was the first union of Japanese shipowners (steamers) except the N.Y.K. and the O.S.K.

About from this year the special terms, "*Shasen*" and "*Shagaisen*", were used among our shipping circle; essentially the former meant steamers owned by the "Big Two", the N.Y.K. and O.S.K, and the latter meant other steamers owned by all private shipowners, even though it was often described that Shasen were liners and Shagaisen were tramps.

## 1893 (Meiji-26)

July 1 Enforcement of the commercial law.

Nov. 7 The N.Y.K. opened its Bombay Line as the first ocean route; the first ship, "*Hiroshima-maru*" (3,276 g. t.) started from the port of Kobe on this day.

Dec. The N.Y.K. was reorganized as a joint-stock company.

Establishment of the Mitsubishi limited partnership (Mitsubishi & Co.); the company operated the Mitsubishi Dockyard and soon owned steamers.

At the end of this year the total tonnage of Japanese steamers was 167,490 g. t.; the Shagaisen had about 25 percent, 40,000 g. t. in all, while the N.Y.K. had 45 steamers, 64,157 g. t. (in September).

## 1894 (Meiji-27)

Aug. The Sino-Japanese War. (→1895)

Oct. 22 Signing of the amendatory Japanese-American Commerce & Navigation Treaty.

Dec. 1 Signing of the amendatory Japanese-Italian Commerce & Navigation Treaty.

## 1895 (Meiji-28)

June 8 Signing of the amendatory Russo-Japanese Commerce & Navigation Treaty.

July 16 Signing of additional agreement on the Anglo-Japanese Commerce & Navigation Treaty.

Aug. 20 Signing of the amendatory Japanese-Peruvian Commerce & Navigation Treaty.

Oct. 19 Signing of the amendatory Japanese-Danish Commerce & Navigation Treaty.

Nov. 5 Signing of the Japanese-Brazilian Commerce & Navigation Treaty.

..... (Germany); Opening of the Keel Canal.

## 1896 (Meiji-29)

Mar. 15 The N.Y.K. opened its Europe Line; the first ship was the "*Tosa-maru*" (5,402 g. t.).

Mar. 24 Enactment of the Act for encouraging navigation.

Enactment of the Act for encouraging shipbuilding.

Apr. Enactment of the (Marine) Ship-Inspect Law and the regulation of Officer.

- Apr. 4 Signing of the amendatory Japanese-German Commerce & Navigation Treaty.
- May 2 Signing of the amendatory Japanese-Swedish Commerce & Navigation Treaty.  
Signing of the amendatory Japanese-Norwegian Commerce & Navigation Treaty.
- June Establishment of the Toyo Kisen Kaisha; S. Asano established this large-scale liner company in place of the above-mentioned Asano Kaiso-ten.
- June 22 Signing of the amendatory Japanese-Belgian Commerce & Navigation Treaty.
- July 21 Signing of the amendatory Sino-Japanese Commerce & Navigation Treaty.
- Aug. The N.Y.K. opened its North-American Line from Kobe to Seattle; the first ship was the "*Miike-maru*" (3,308 g. t.).
- Aug. 4 Signing of the amendatory Japanese-French Commerce & Navigation Treaty.
- Sept. 8 Signing of the amendatory Japanese-Dutch Commerce & Navigation Treaty.
- Oct. 3 The N.Y.K. opened its Australia Line; the "*Yamashiro-maru*" set sail from Yokohama as the first ship.

## 1897 (Meiji-30)

- Jan. 2 Signing of the amendatory Japanese-Swiss Commerce Treaty.
- Jan. 26 Signing of the amendatory Japanese-Portugese Commerce & Navigation Treaty.
- June Establishment of the Uraga Dockyard Co.
- Sept. 25 Signing of the amendatory Japanese-Chilean Commerce & Navigation Treaty.
- Oct. The Toyo Kisen Kaisha opened its North-America Line (to San Francisco); the first ship was the "*Nippon-maru*" (6,048 g. t.).
- Oct. Enforcement of the gold standard system.
- Dec. 5 Signing of the amendatory Japanese-Austrian Commerce & Navigation Treaty.

## 1898 (Meiji-31)

- Feb. 3 Signing of the Japanese-Argentine Friendship, Commerce & Navigation Treaty.
- Feb. 25 Signing of the Japanese-Siamese Friendship, Commerce &

## Navigation Treaty.

June Organization of the official Marine Board (Kaiji-Kyoku).

June Signing of the International Postal Treaty.

## 1899 (Meiji-32)

Feb. The N.Y.K. joined the Japan/Europe Freight Conference; the N.Y.K. ship was permitted to enter London on her homeward journey.

Apr. The Osaka Iron Works opened its shipbuilding department; the origin of the present Hitachi shipbuilding & Engineering Co. Ltd.

June 1 Signing of the Japanese-Greek Friendship, Commerce & Navigation Treaty.

..... (Europe & Africa); The Boer War (→1902).

..... (China); The North China affair (→1901).

July 17 Enforcement of all amendatory treaties.

Sept. The O.S.K. opened a liner service from Kobe to North China.

## 1900 (Meiji-33)

Jan. 18 Signing of the Japanese-Congo Freindship Treaty.

Mar. 28 Signing of the Japanese-Spanish Preferential Commerce Treaty.

Dec. 28 Enactment of the Inspect Regulation of Ships.

## 1902 (Meiji-35)

Jan. 30 Formation of the Anglo-Japanese Alliance.

The Setsu Kôgyo Kaisha—combined company of the Seshu Nada-shuka Kôgyo Kaisha and the Seiko Kaisha—was reorganized into a joint-stock company “Tatsuma-shokai”; the origin of the Tatsuma Steamship Co. and its succeeding Shin-Nippon Steamship Co.

## 1903 (Meiji-36)

Apr. 29 The Mitsui Bussan Kaisha opened an independent shipping department, so-called “Mitsui Senpaku-bu.”

Nov. Establishment of the Japanese Shipowners Union (Nippon Senshu Domei-kai).

Kamesaburo Yamashita bought into the “*Kisagata-maru*” (2,372 g.t.) and became a shipowner; the origin of the Yamashita Steamship Co.

## 1904 (Meiji-37)

Feb. 10 The Russo-Japanese War (→1905)

By this war the N.Y.K.'s Europe Line (in January), Bombay Line and Australia Line (together in April) were stopped temporarily.

1905 (Meiji-38)

Dec. The Toyo Kisen Kaisha opened its South-America (west-coast) Line.

1906 (Meiji-39)

Oct. The anti-Japanese movement in San Francisco.

Nov. Establishment of the South Manchuria Railway Company.

1907 (Meiji-40)

Mar. Establishment of the Harima Dockyard Co.

Apr. 1 Establishment of the Nishin Kisen Kaisha (Sino-Japanese Steamship Co.).

1908 (Meiji-41)

July Building of new large semi-passenger-boats (8500 g.t.-class); the first ship was the N.Y.K. "*Kamo-maru*" (8,524 g. t.) built at the Mitsubishi Dockyard [Nagasaki].

The Mitsubishi Dockyard (Nagasaki) built also the first large turbine vessel, "*Tenyo-maru*" (13,454 g. t.) in this year; she was owned by the Toyo Kisen Kaisha with other two same-class vessels, "*Chiyo-maru*" and "*Shunyomaru*". They were used in its North-America Line.

1909 (Meiji-42)

Mar. Enactment of the Subsidiary Act for Ocean Line (Enyo-koro Hojo-ho); it was enforced the next January.

July 3 The O.S.K. opened its first ocean line from Hongkong to Tacoma.

1910 (Meiji-43)

Dec. Lieutenant Shirase and others started to explore the South pole on the wooden vessel "*Kainan-maru*".

1911 (Meiji-44)

June Establishment of the Yamashita Steamship Company. (unlimited partner ship).

May Establishment of the Meiji Kaiun Co. Ltd. (Meiji Shipping Co.).

Sept. 16 The N.Y.K. opened its Calcutta Line; the first ship, "*Nikawa-maru*" (3,782 g. t.), set sail from Kobe on this day.



Through this year the amendatory Commerce & Navigation Treaties were signed with many countries, included the U.S.A., Sweden, Norway, Germany, France, and the Netherlands.

1912 (Meiji-45 & Taisho-1)

- Mar. 10 The "*Kanagawa-maru*" (6,151 g. t.), a N.Y.K. liner for Europe, set sail from Kobe taking on board the first Japanese immigrants for the east coast of South America.
- Apr. Establishment of the Chosen Yusen Co. (Korea Mail-Steamship Co.).
- July 30 Demise of Emperor Meiji; the beginning of the Taisho Era.
- Oct. Formation of the Nanyo Yusen Gumi (association); the origin of the Nanyo Yusen Kaisha (the South Sea Mail-Steamship Co.)
- Nov. Establishment of the Hinode Kisen Co. Ltd. (Hinode Steamship Co.)

At the end of 1911 (Meiji-44) the total tonnage of Japanese steamers amounted to 1,854 vessels and 1,375,083 gross-tons. The "Shasen" held about 540,000 g.t. (about 40 percent); the N.Y.K. owned 70 vessels and 287,077 g.t. the O.S.K. 108 vessels and 149,937 g.t. the Toyo Kisen K. 9 vessels and 77,114 g.t. and the Nissin Kisen K. 12 vessels and 27,398 g.t. On the other hand, the fleet of about 700,000 g.t. was the so-called "Shagaisen". The rest, about 100,000 g.t. belonged mainly to the government. The main members of the Shagaisen-shu (owners of Shagaisen) who owned over ten thousand gross tons were as follows;

name	vessels	gross tons
The Kishimoto Steamship Co.	10	38,836
The Tatsuma Steamship Co. (limited partnership)	15	36,329
The Harada Shoko (limited partnership)	15	32,479
The Mitsui Bussan Kaisha	27	31,697
Keizo Oaki	14	21,951
The Itaya unlimited partnership	6	19,297
Nisaburo Hiroumi	7	17,868
The Okazaki Steamship Co.	8	16,930
Kentaro Kishimoto	5	14,629
The Mitsubishi limited partnership	30	14,263
Eizo Hachima	6	13,529
The Nippon Shosen Co.	4	10,441
Fujisuke Yamamoto	4	10,099

(quoted from pp. 360~361 of the *Nippon Kaiun Kokoku Shi*)

# OVERSEAS OPERATIONS OF JAPANESE BUSINESS ENTERPRISES IN BRAZIL

Tadakatsu INOUE

## I

There are two groups of "Japanese" business enterprises in Brazil. One consists of Brazilian chartered corporations which were established by Japanese immigrants in Brazil now numbering 550 to 560 thousand. The Bank of South America in San Paulo City is a representative one. Kunito Miyasaka, the founder and chief executive of the bank, is an immigrant who settled in Brazil after his graduation from Kobe Higher Commercial School, predecessor of the present Kobe University, in 1913. The bank is now being operated with some fifty branches and more than three thousand employees. Besides the bank, there are also several financial institutions, some warehouse companies, and many trading companies. In addition there is a rapid growth of manufacturing concerns founded by Japanese immigrants. According to a recent report prepared by the Japanese Consulate General in San Paulo, the number of such industrial enterprises in the San Paulo area amounts to twenty-five. They are expected to develop by leaps and bounds in tune with the rising tide of industrialization in Brazil, though their average size is still small.

Besides these business enterprises fostered by Japanese colonists, there is another type of "Japanese" enterprise in Brazil, which we are going to discuss in the following pages. They are Brazilian chartered business corporations owned and managed by Japanese companies for the purpose of engaging in foreign trade, banking, and manufacturing in Brazil. Among the trading companies, there are Kanematsu do Brasil, Marubeni-Iida do Brasil, Mitsubishi Shoji do Brasil, Nissho do Brasil, and Nichimen do Brasil. In the field of banking, there are the Sumitomo and Tokyo Banks. And, as the most striking group, there is a number of industrial enterprises which were established largely from 1955 to 1960. Chiefly located in San Paulo, the leading industrial state in the country, they are producing a variety of products as follows.

Toyobo do Brasil, a wholly privately-owned subsidiary of the leading Japanese cotton spinning company with the same name, is now operating two mills with about 30,000 spindles. Besides this company, there are three cotton and one woolen textile companies. They are Kanebo do Brasil, Tsuzuki, and Nichibo in San Paulo, and Kurabo do Brasil in South Rio Grande.

In relation to the textile industry there is Howa do Brasil in San Paulo which is now producing about 2,000 looms a year with an employment of seven hundred.

Toyota do Brasil, a Brazilian corporation owned and managed by the biggest automobile company in Japan, is producing jeep-type cars near San Paulo City.

In the field related to the automobile industry, NGK do Brasil, a producer of spark-plugs, stands out sharply above its competitors.

Ishikawajima do Brasil founded in 1959 as a Brazilian-Japanese joint venture in the field of shipbuilding is making a great contribution to Brazilian economy. The modern shipyard in Rio de Janeiro built nine steamers of 79,800 tons dead-weight in four years from 1961 to 1963.

The Minas Gerais Iron and Steel Company (Usinas Siderurgica de Minas Gerais S.A.), commonly called USIMINAS, is another Brazilian-Japanese joint undertaking. While its furnaces and mills in Itabira, Minas Gerais, with an annual capacity of 500-thousand tons of steel ingots are still under construction, they produced 187,222 tons of coke, 217,800 tons of pig iron, 73,468 tons of steel ingots, and 43,443 tons of plates in 1964.

Besides these, there are Yanmar Diesel Motors do Brasil, a well-equipped manufacturer of small-sized engines, Marukyu Agricultural Machinery, a subsidiary of Kubota Iron Works of Japan, Mitsubishi Heavy Industries, a subsidiary of a well-known Japanese corporation engaged in the boiler business, Niigata Engineering, Jatic Electric Machinery, Tamura Electric, Sadkin Lamps, Pilot Pen do Brasil, Nagaoka do Brasil, Ajinomoto do Brasil, Taiyo Fishing, Northern Brazilian Fishing, a subsidiary of Nihon-Reizo, and others.

## II

Brazil occupies the most important position among foreign countries into which Japanese capital is flowing. By September 1961, Japanese investments of all types in foreign countries amounted to \$440,000,000. Of the sum, \$190,000,000 or about 43 per cent went to Latin America, most of which was to Brazil.

The high position of Brazil with regard to foreign investments by Japanese, most of which took place from 1955 to 1960, is the result of several reasons. The existence of a large number of Japanese immigrants who have established a good reputation and considerably high social standing among Brazilians must have been a favorable factor for investing companies. The huge area filled with unexplored natural resources and the unlimited possibilities of the country must have been attractive to Japanese investors. The immediate cause, however, which promoted the flow of Japanese capital into the country was the policies for the industrialization of Brazil of the Kubitschek Administration which was formed after the fall of President Vargas in 1954. Protection to encourage home industries have made

it difficult for foreign manufacturers to export their finished products to Brazil. It was then only natural that some Japanese companies whose products had markets in Brazil should decide to set up factories in that country. This is true in the cases of Pilot Pen do Brasil, Yanmar Diesel Motors do Brasil, Toyota do Brasil, NGK do Brasil, and Ishikawajima do Brasil. Favorable treatment given to foreign investments which would contribute to the industrialization of Brazil has been another effective inducement for investing companies. Take, for example, the Act for Implantation of Automobile Industry in Brazil in 1956. Foreign manufacturers who would set up and operate production operations for automobiles in Brazil were to be guaranteed a special favor for the importation of necessary equipments and parts for a given period from 1956 to 1960. Toyota do Brasil, NGK do Brasil, and Yanmar Diesel Motors do Brasil are companies which were established under the stimulus of this law. In the same manner, Ishikawajima do Brasil and Niigata Engineering took advantage of the Merchant Marine Fund of 1958.

As we have just seen, Japanese investments in Brazil are much larger than in any other country. However it is still small as compared with the total foreign business investments in Brazil. Among the one hundred biggest enterprises in Brazil, fifty-four are foreign-owned companies, while only two were established with the participation of Japanese capital and management.

### III

Brazil has no legal restriction on the proportion of holdings by foreigners in almost all its chartered corporations. This should be compared with most of the South East Asian countries whose attitude towards foreign capital has been so suspicious that holdings of foreigners have generally been limited not to exceed a majority. Appreciating such conditions, the parent companies in Japan have usually adopted a policy of establishing wholly privately-owned subsidiaries in Brazil. Still there are several companies which preferred to set up and operate their overseas operations as joint undertakings. Among them, Ishikawajima do Brasil and USIMINAS, both of which were designed along the line of national policy, are joint enterprises in which government authorities of Brazil joined with Japanese interests in subscribing for shares. Pilot do Brasil, NGK do Brasil, Niigata Engineering, Howa do Brasil, Sadokin Lamps were other groups of joint enterprises in which leading Japanese immigrants in Brazil owned stock and elected directors.

Joint undertakings with Brazilians or Japanese immigrants have often been accompanied with subtle human relationships. Let us take, for example, some of the joint enterprises with Japanese immigrants. The resident managers

dispatched by their parent companies who have been trained and acquainted with more advanced administrative techniques in postwar Japan have been inclined to have a preconceived idea that the practices in Japan are always right and to force them on their fellow managers who have been conditioned to the slow pace of Brazilian business. On the other hand Japanese immigrants in positions of management who have passed through bitter experiences in the foreign land have been apt to assume an air of superiority, to despise the poor Portuguese of the newcomers, and to regard the successful overseas operations of Japanese business enterprises as their past efforts as immigrants. The result has been antagonism among the managers which has brought about conflicts and delays in business decisions. Confronted with such troubles, one of them was reorganized into a wholly privately-owned subsidiary of its Japanese parent corporation.

But one must not conclude from these facts that joint undertakings should be rejected as devices for launching business in Brazil. The subtle human problems may be solved by making greater efforts to promote mutual understanding between the two interests. It must be noticed here that there is a tendency among Japanese subsidiaries to open their securities to Japanese immigrants so as to better their relationship with the community.

#### IV

Each company engaged in business abroad must take into account the specific nature of problems arising from such operations. First, it must be seriously influenced by the general climate of opinion on "foreign-owned or-managed company" in the nation concerned. Secondly, it must be confronted with problems involved in setting up and operating production operations in a culture, political system, economic conditions foreign to it.

As to the first problem, the situation in Brazil, particularly under the administration of President Juseelino Kubitschek, was generally favorable to foreign investors including Japanese investing companies. As we have seen, there were no restrictions on the proportion of stock holdings and the participation in management by foreigners and no restraints on the remittance of dividends and redemption of capital funds. The only important restriction for a foreign-owned corporation was the conditions of employment under which two-thirds of all employees had to be native workers.

It is true, however, that the situation was somewhat changed in the last years of the administration of Ex-president João Goulart who adopted radical policies chiefly to gain the favor of trade unions. An act to restrict the remittance of dividends was enacted and some foreign-owned public utility corporations were expropriated by the government. But this administration was overthrown last

year by the outbreak of the revolution led by the military forces. It seems likely that the national feeling toward foreign investors will continue to be moderate.

As to the second problem, Brazil challenged the ingenuity and skill of the management of investing companies. There were no Japanese books dealing in detail with business conditions in Brazil and no consultants or attorneys versed in such problems. Each company had to proceed on a trial and error basis, and there were plenty of errors.

As has so often been the case, the dispatched Japanese managers were embarrassed by the different nature of labor and personnel problems encountered in Brazil. In some companies, the more advanced nature of the Labor Law in contrast to the inferior work performance capacities of the workers became the chief source of trouble. For example, in a cotton textile mill, some workers who needed a good round sum might displease their supervisors in every way and force them to take the final measure for discharge. Their intentions were obviously to exploit the provisions of the Labor Law under which any worker discharged after a service of one year without any justifiable reason was to be compensated by a dismissal allowance in proportion to the length of his service. In other cases, the different structures and functions of trade unions in Brazil required the special attention of Japanese managers. Broadly speaking unions in Brazil are ineffective at the local level. They play a relatively weak role both in handling the workers' grievances and in negotiating collective agreements with managements. In other words, they have not reached maturity as agents for negotiating company-level collective agreements. In turn, trade unions in Brazil point toward political action as the prime means for achieving the goals of labor. This was especially true in the days of Ex-president Goulart, when Japanese managers were frequently frightened by political radicalism among unions. Somewhat more common has been the question of the general attitude of Brazilians toward work. Cultural attitudes summed up in Japanese maxims "Time is money," "The early bird catches the worm," "A hard worker is a stranger to poverty" are not so highly valued in Brazil, partly because of cultural differences and partly because of the conditions associated with industrial development, the two being related to some degree. Generally speaking, work, especially physical labor, is viewed with disdain, while leisure and the pursuit of other satisfactions are considered more important. Thus the dispatched Japanese managers might become irritated while supervising workers who did not feel impelled to work either by the compulsions of inner conscience or the pressures of social sanction.

Besides the labor and personnel problems, there arose many questions in the field of production, marketing, and finance. As to production, Japanese companies in Brazil were frequently embarrassed by the lack of local suppliers who could meet quality requirements for the necessary parts and materials. Thus,

some had to reluctantly start with self-production of the articles in question, while some took the more patient method of training local suppliers by sending their engineers or by granting their jigs and tools or by both. In the field of finance, problems centered about how to get credit for a working capital. As is usual with developing countries, the deposited amount in Brazil was much smaller than in advanced countries. Sometimes, banks were founded and operated chiefly for the purpose of granting credit to particular groups of enterprises. In addition, the government set a limitation on the amount of private loans furnished by commercial banks in order to let more funds flow into key industries and to curb inflation. These conditions have made it difficult for Japanese producers in Brazil to get credit for a working capital as well as for expansion. Thus, it is not unusual for a manufacturer to open accounts with as many as twenty to thirty banks.

## V

Building upon each other's experience, Japanese concerns in Brazil seem to have developed from a stage of experimentation to a stage of stabilization, though they have not reached a stage of complacency yet. This will be highly appreciated by both the Brazilian and Japanese Governments who have much interest in the industrialization of the developing country. Then, how do these overseas operations benefit the investing companies in Japan?

1. As to dividends, ordinary monetary returns on foreign investments, they got nothing after the enforcement of a Brazilian act which virtually prohibited the remittance of dividends. At present, however, this does not seem to be a serious problem for those parent companies who are anxious to expand their Brazilian subsidiaries through reinvestment of profits rather than for gain.

2. As an effect of their investment in Brazil, some could promote their export business on very favorable terms. This was the case of Japan USIMINAS, a Japanese investing company to USIMINAS, and Ishikawajima-Harima, parent company of Ishikawajima do Brasil. The former exported furnaces and mills valued at about one hundred million dollars and the latter parts and materials amounting to about seven million dollars without tariff duties.

3. Some Japanese subsidiaries in Brazil successfully demonstrated the superiority of their products just among foreign-owned and-managed competitors including the U.S. and West German manufacturers. As a result, their parent companies in Japan gained a good reputation on their products all over the world.

4. Those employees who returned from subsidiary corporations in Brazil where they, as resident managers or engineers, gained various experiences on overseas operations would bring an international sense, ideas and visions to their

Japanese parent companies whose activities are becoming more and more international.

5. By setting up their subsidiaries in Brazil, Japanese manufacturers could obtain a firm and enduring footing in the Brazilian market which would sooner or later shut out almost all foreign-made products by the development of industrialization in the country.



# A NOTE ON ECONOMIC ACCOUNTING FOR GOVERNMENT SECTOR

Nobuko NOSÉ

## I

### *INTRODUCTION*

Many governments are more or less handicapped in devising a comprehensive fiscal policy because they lack the elementary tools for the national budget. As we see later, in the Japanese budget system, the situation is the same as in other countries. It is neither easy to get economic information nor to analyse the government's economic role from the budget because its form and structure are based on traditional principle and serve for accountability control.

Since the pioneering work of Sir John Hicks gave a solution to budget reform,<sup>1</sup> economic accountants have tried to give a model for the economic account for government sectors and are still trying on his line of thought.<sup>2</sup> Obviously these attempts are very fruitful because a prerequisite of social accounting is needed to set an economic accounting for the government sector. But the attempts are rather narrow because their analyses are limited to national income accounting only. In estimating the multiplier effect of the budget in the inter-industry level, we must take a step further: to inquire the principle of economic accounting for government sectors from the inter-industry accounting point of view.

In this note, we should like to make clear the character of the present Japanese budget, secondly we should like to show how to rearrange the central government account from the national income accounting point of view, and thirdly, we would like to see how to rearrange the budget from the inter-industry accounting viewpoint.

## II

### *THE JAPANESE BUDGET*

The present Japanese budgets<sup>3</sup> intend primarily to serve as an instrument for legislative and executive control over the collection and disbursement of public funds. In this paper, we should like to limit our interest to the central government's budget.

First of all, the basic accounting unit is the administrative unit. The accounts

of all administrative units, i. e., departments, are grouped into three main categories—the general account, the special account and the account of public undertakings, all of which are basic subsector accounts of the central government sector.

The general account is the budget for recording basic revenue, i. e., tax and basic expenditure on government service in a proper sense, such as defence, civil service, etc. The special account is the budget for recording the uses of funds for special activities, for example, controlling prices of foods, the mint and social insurance service and the sources of funds. In the Japanese budget system, there are 41 special accounts to record the revenue and disbursement of special government activities which are a mixture of the activity of government economic policy with that of quasi-public undertaking. The account of public undertakings is the account for the 13 public undertakings, for which funds are provided by the government. The principle of classification for the special account and the account for public undertakings is as follows: The units to be classified under the former must be controlled strictly by the general government; They have also a responsibility to account for Parliament and any surplus from them should be appropriated to the Exchequer. On the other hand, the units to be classified in the latter are independent of the control by Parliament and may decide how to appropriate their surplus; these rights are authorized by law. So far, the principle for sectoring the two accounts is institutional.

The Japanese budget system is mainly composed of the above three accounts. In addition to these, two other statements are provided for subsidiary purposes: One concerns financial transactions covering one fiscal year and the other the estimates of government investment and its source of funds. A brief summary of the Japanese budget is as follows:

- |                       |  |
|-----------------------|--|
| Main budgets          | 1. General account   |
|                       | 2. Special account   |
|                       | 3. The budget for public undertakings                              |
| Subsidiary statements | 1. The statement of government long term transaction               |
|                       | 2. The estimates of government investment and its source of funds. |

Second, we must make clear the principle of measurement of the government transactions recorded in the budgets. The accounting period of the Japanese budgets begins on 1st of April and ends on 31st of March, so that the revenue and expenditures are recorded as based on a 'fiscal year'. The figures are recorded by so called 'cash basis' because the main purpose of budgets is to serve to accountability control. Moreover, the activity of the government should be observed and measured on the fiscal year basis, on the principle of annuality. As for the measurement of capital formation and capital consumption, the government ac-

counts do not express the figure because they do not keep accounts of capital items and current items separately in the usual manner and they do not measure depreciation of the capital assets.

Third, we must investigate the account form of the government. The account form shown in Table 1 is the account for accounting purposes. The alternative form shown in Table 2 is the account for government activities from the viewpoint of the performance of the government. Needless to say, in analysing the economic activities of the government, the latter is more useful. But, as Table 2 shows, there is no clear-cut classification between current transactions and capital transactions. Therefore, its usefulness is limited because we can guess neither the figure of government savings nor government investments.

Table 1. The General Account

Wages and salaries	Tax and stamp duties
Travelling expenses	Revenue from monopoly proceed
Current expenditure for goods and services	Trading profits
Expenditure for equipment	Revenue from selling of properties which are government owned
Subsidies	National debt
Transfers to the other account	Miscellaneous revenue
Miscellaneous items	Surplus carried over from the previous fiscal year
Total	Total

Table 2. The Expenditure of the General Account

1. Expense of ministries and other bureaus
2. Grant to the local government
3. Defence service
4. Reparation and other obligation
5. Maintenance and development of land
6. Investment and subsidies to the private industries
7. Educational service
8. Social securities
9. Pensions
10. Redemption of national debt
11. Reserves
12. Miscellaneous
13. Total

The characteristics of the budget mentioned above show that the Japanese budgets are useful for accountability control only, and as a corollary it is necessary to reform the budget so as to rearrange the figures based on the economic accounting viewpoint in order to show the functions of the budgets economically meaningful.

### III

#### *THE ACCOUNTS OF THE GOVERNMENT SECTOR IN NATIONAL INCOME ACCOUNTING*

The main purpose of national income accounting is to express the transactions which relate to national income circulation by sector accounts in a calendar year. In this accounting system, the principle of accounting design based on Keynesian identities ( $Y \equiv C + I$ ,  $Y \equiv C + S$  and  $S \equiv I$ ) and the principle of measurement (accrual principle, the principle of real capital maintenance intact, etc.) are applicable for getting the accurate figures of inverse matrix of national income accounts.

As for the accounts of the government sector, first, it is necessary to make clear the contribution of the government to national production, the current consumption by the government sector, the transfer, savings and investments by the government sector. Second, it is needed to express the transactions by the government sector with non-government sectors—business sector, household sector and the rest of the world. As the first step for reforming the budget, it is reasonable to confine our attention to the first problem only.

First, the accounts of the government sector recorded in the budgets must be classified based on the principle of the national income accounting system. As we have seen in the previous section, the Japanese budgets consist of three types of accounts. Obviously, the general account refers to purely public administrative purpose only, so that it does not contribute to GNP at all. On the other hand, the account of public undertakings refers to the productive activity of the public sector, so that it is necessary to apply the form of the production account of the private business sector. Then we have a problem of classifying the special accounts which are a mixture of multi-functions of the quasi-administrative activities (i.e., social security, maintenance and improvement of land, etc.) with those of the quasi-business activities (i.e., saving and finance, control of special goods and funds, etc.). For national income accounting purposes, we have to divide the special accounts into the administrative accounts and public undertaking accounts. The accounts which are applicable to the quasi-public administrative activity should be consolidated to the general account and the accounts which are applicable to the quasi-public undertaking activity should be consolidated

with the account of public undertakings. An example of the former is the special account for social insurance and of the latter is the special account for national hospitals.

Second, we must reform the budget in line with the national income accounting.<sup>4</sup> As shown in the standard national income accounts by the U. N.<sup>5</sup> or by the O.E.E.C.,<sup>6</sup> the central problem remains that of gearing the budget so as to record the correct government saving (current account surplus/deficit). For this objective, the following adjustments are needed: (a) The receivable-payable basis must be applied, (b) separation of current transactions from capital transactions and also from transfers have to be taken into account and (c) imputation of accrued revenue and cost about properties which are government-owned should be considered. We must solve two problems concerning the above problems: One is how to treat the expenditure for defence purposes, and the other is what rate of imputation should be used. The temporary solution suggested by the S.N.A. and Manual is as follows: Regarding the first problem, the solution is to treat all government expenditures, except the expenditure for permanent buildings in married quarters, as current expenditures. For the second problem, a market rate is taken as the imputation rate, and the market rate is the interest rate of the long-term national debt for imputing the value added by the government properties.

In addition to these problems, depreciation allowance based on current replacement cost basis should be calculated.

The last problem is to design the account for the government sector. As for the account for public undertaking, it is reasonable to apply the account of the business sector. Hence, we must reiterate the form of account which is applicable to the general account and to the special account. This account system should have two parts: current account and capital account. The balancing item of the current account is current surplus/deficit (saving/dissaving) and that of the capital account is change in liquidity assets. The capital account is in turn, composed of two parts: real transactions and financial transactions.

The structure may be written as follows:

Table 3. Current Account

1. Direct tax revenue	1. Expenditures for goods and services
2. Indirect tax revenue	2. Current grants and subsidies
3. Property income	3. Current grants for overseas
4. Current grants from overseas	4. Imputed cost
5. Imputed income	5. Depreciation allowance
Balancing item	Current surplus/deficit (Saving/Dissaving)

## Capital Account

1. Current surplus/deficit	1. Fixed asset formation
2. Depreciation allowance	2. Stock adjustment
3. Capital transfer	3. Capital transfers and gifts
4. New borrowing	4. New lending
5. Repayment of loans to authority	5. Loan repayment by authority
Balancing item	Change in liquid assets

If it is necessary by reason of the complexity of any transactions adding to the above two accounts, a subsidiary current account and a subsidiary capital account are used.

In the first place, all activities of the government are recorded in the above accounts under their proper items based on the department level. Then, following their functional characteristics, the accounts have to be consolidated and transactions between each account (transfer items) may be cancelled out. In keeping this consolidation process as comprehensive and accurate as possible, it is required to apply the same accounting basis and rule in each accounting unit.

## IV

*THE ACCOUNTS OF THE GOVERNMENT SECTOR IN INPUT-OUTPUT ACCOUNTING*

The main purpose of inter-industry accounting is to provide the picture of inter-industry flows of intermediate products for obtaining the stable input-output matrix and the capital matrix as well.

The principles and rules of inter-industry accounting<sup>7</sup> — the sectoring principle, the principle of accounting design and of measurement of products— may serve to this objective. Since inter-industry accounting has a character of a real accounting, some of the main principles are the same as those in national income accounting: i.e., separation of current transactions from capital transactions and from transfers, accrual basis, imputation for non-market transactions, calendar year basis, principle of real capital maintenance are all applicable to inter-industry accounting.

However, the other principles are different from those of national income accounting. Firstly, sectoring of the economy is required to express the division of sectors in more detail, and the flow of products have to be divided according to industry. Furthermore, for analysing the stable cost structure, the main product of industry should be considered as homogeneous. Subsidiary products have to be transferred to the industry producing them as the main product, and

by-products should be recorded as the negative inputs of the relevant industry. Moreover, the rest of the world sector is required to be divided into two categories: competitive import and complementary import. The objective of input-output analysis in the form of input-output accounting is to depict the mechanism of inter-industry flow of goods and services based on pure technical relationships. The saving-investment relationship and consumption function, which are determined in final demand sectors through economic behaviours, are given from outside of the inter-industry relationships. Therefore, it is not necessary to set appropriation accounts in input-output accounting system. The design of accounts is different from national income accounts as will be shown later. Thirdly, as for valuation of goods and services, special treatment of net indirect tax is required because it is desirable to estimate inverse matrix in terms of producers' costs. Therefore, net indirect tax should be broken down according to commodity, complementary import, competitive import, etc. Hence, the accounting principles for the government sector, which have to be taken into account from the input-output accounting point of view, may be summarized in the followings:

First, the expenditures of budgets should be broken down by industry in the sense mentioned above. Second all current and capital transactions of the budgets should be divided in such a way as to make clear the distinction between the current government expenditures and capital expenditures to industries and those to the rest of the world. The dividing principle of current transactions from capital transactions is the same as those of national income accounting. Therefore, the same rules are applicable: for example, military expenditures are treated as current expenditure. Third, we must investigate the Japanese budget structure which consists of the general account, the special account and the account for public undertakings. As shown in section II, the sectoring principle of the Japanese system is purely institutional. But, as shown above, for input-output accounting purpose, the basis of sectoring can be purely economic activities. Then, the budget structure should be reformed in such a way that any accounting unit, of which activity has its counterpart in the private business sector, has to be transferred into the relevant private industry. For example, the educational service of the government can be omitted from the Japanese budget system and be consolidated with the educational service industry.<sup>8</sup> All of public undertakings have their counterparts in the private sectors and all of quasi-productive sections of the special account produce real goods and services, so that the government sector is reduced into the sector which merely provides pure public administrative services and maintains social capitals.

Next, we must consider the accounting structure of the government sector from the input-output accounting view-point. As shown in Table IV, main

accounts are the current expenditure account and the capital expenditure account. But these accounts are different from the government accounts of national income accounting, because for input-output analysis it is only necessary to get information about the government current expenditures and capital expenditures to industries and households. As mentioned above, appropriating activity of the government, especially current surplus/deficit, is not necessary for input-output accounting. The government current appropriation account does not appear explicitly. It is, say, a shadow account which provides the fund to the current

Table 4. Current Expenditure Account

Current goods and services	Funds for current government expenditure transferred from government current appropriation account*
Net indirect tax	
Employment	
Depreciation allowance	
Complementary import	
Total	Total

\*This account is identical to the current account shown in Table 3.

Table 5. Net Indirect Tax Account

Net indirect tax levied on competitive import	Total net indirect tax which is transferred to government current appropriation account
Net indirect tax levied on industries	
Net indirect tax paid by households	
Net indirect tax paid by government (which is levied on government consumption)	
Net indirect tax levied on complementary import	
Net indirect tax levied on replacement expenditure in industries	
Net indirect tax levied on replacement expenditure in households	
Total	Total

Table 6. Social Capital Account

Extension expenditure for social capital	Funds which is transferred from depreciation allowance account as the residuals of replacement expenditure Funds for extension which is transferred from government capital account
Total	Total



Table 7. Replacement Account

Replacement expenditure to industries	Funds for replacement expenditure which is transferred from depreciation allowance account
Total	Total

expenditure account and to the capital expenditure account. The current expenditure account and the capital expenditure account are supplemented by the net indirect tax account, and the replacement of the social capital account respectively.

The input-output accounts for the government sector are more sophisticated than the government accounts for national income accounting. It is a prerequisite for keeping the input-output accounts for the government sector to keep the national income accounting as exactly as possible.

## V

### *SUMMARY AND CONCLUSION*

From the above considerations, we obtain the following conclusions.

1. The Japanese budget which consists of the general account, the special account and the account of public undertakings are useful to serve to Parliament in accountability control because its sectoring principle, valuation principle, design of the accounts are convenient for the purpose of financial control. However, we can not expect to obtain the economic information from the budget at all.
2. From the national income accounting point of view, it is needed to reform the budget and the principles as follows: (a) The accounting system should be divided into public administrative sector and the public business sector. (b) Accrual basis, imputation of non-market transaction, calculation of capital consumption by the replacement cost basis should be applied. (c) The government accounts should be consisted of the current account and the capital account. These principles serve to get the figure of the government saving and investment, so that we can get an information for estimating the multiplier effect of the budget.
3. From the input-output accounting point of view, it is required to reform the budget as follows in line with the inter-industry basis: (a) The accounting system should be divided into pure public administrative section, social capital formation section and transfers to private businesses. (b) All revenues and expenditures of budgets should be broken down by industries, household sector,

competitive import, complementary import and export. (c) The government account is required to be consisted of the current expenditure account and the capital expenditure account. These principles may serve to provide an information for estimating the multi-sector multiplier effects of the budget.

The principle considered above is also applicable for all local and provincial governments. In Japanese economy, the role of the governments, the central government and the local governments, is considerably important. Therefore, it is very important and necessary to estimate the reasonable figures of the multiplier effect of the budgets and of the multi-sector multiplier effects of the budgets. To this extent, it must be the first and most important step for this objective to make the exact government account from the view-point of economic accounting.

Moreover, the introduction of the economic accounting into the budget has another merit: Following the method of economic accounting, the reformed budget may depict the figure of value added and that of resource used up in each department, so that these figures provide a true measure of the efficiency of the public policies.<sup>9</sup>

Above all, it is obvious that many fruitful results could be expected in introducing the method of economic accounting principles into the government budget based on the input-output accounting system.

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# INTERNATIONAL LIQUIDITY AND THE TOKYO MEETING OF THE INTERNATIONAL MONETARY FUND

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## I

At the Annual Meeting of the International Monetary Fund in Tokyo, on September 7, 1964, we heard about many recent international monetary situations with regard to international financial co-operation. But there is much to wonder, regarding the various discussion based on the present international liquidity problem, since the central governors and their associates have formally or informally for a number of years been attending the monthly meetings of the Bank for International Settlements in Basle, and other organizations.

Mr. Robert V. Roosa stated that the difference expressed in Tokyo were not unfortunate or accidental results of any failure in communication or of understanding; they were not expressions of suspicion or ambition by one country or another; they were instead an open invitation to every interested person everywhere to begin to participate more fully, alongside representatives of the various governments, in a fundamental analysis of some of the issues which have arisen as those governments have attempted, thus far behind closed doors, to survey the possible long-run course of the international monetary system.

At the same time, we have the remarkable announcement made by the Ministers and Governors of the "Group of Ten" in Tokyo on September 7. That is to say, it is the following communiqué: 1. On the occasion of the Annual Meeting of the International Monetary Fund, the Ministers and Central Bank Governors of the ten countries (Belgium, Canada, France, the Federal Republic of Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States) participating in the General Arrangements to Borrow, met under the chairmanship of Mr. K. Tanaka, Minister of Finance of Japan. Mr. Pierre-Paul Schweitzer, the Managing Director of the International Monetary Fund, took part in the meeting, which was also attended by the Secretary General of the Organization for Economic Co-operation and Development (OECD), the General Manager of the Bank for International Settlements (BIS), and the President of the Swiss National Bank. 2. The Ministers and Governors reviewed developments in the international payments situation and received reports from their Deputies on plans and procedures being developed for carrying out decisions

taken in the Ministerial Statement of August 1, 1964. These include the study to be made in working party 3 of the OECD on the adjustment process, the study by the Deputies on the creation of reserve assets, and the arrangements being made to strengthen international monetary co-operation through "multilateral surveillance." They recalled their views expressed in the Ministerial Statement of August 1, 1964, supporting a prospective increase in Fund quotas. 3. The Ministers and Governors also reviewed with the Managing Director of the Fund and approved a working program initiated by the Deputies to consider the attitude of the participants toward the renewal of the General Arrangements to Borrow, on which decisions must be taken under the provisions of these Arrangements by October 1965. Thus, the former is a proposal for increasing the International Monetary Fund quotas, the latter is a proposal for creating new reserve assets or new reserve currency. Needless to say, the controversial points of international liquidity were made clear by remarkable discussions in the past several meetings of the International Monetary Fund.

## II

First of all, we must examine the nature and components of international liquidity. International liquidity consists of all the resources that are available to the monetary authorities of countries for the purpose of meeting balance of payments deficits. Such liquidity ranges from assets readily available to resources that become available only after extensive negotiation. It may take many forms; reserves of gold and foreign exchange; other assets that can be mobilized in case of need; facilities to draw on the International Monetary Fund or to borrow from other international institutions; various arrangements with foreign central banks or governments to borrow. It also includes, conceptually, such elements, not readily subject to statistical measurement, as a country's capacity to borrow in the money markets of other countries and, for a reserve center, the willingness of other countries to accumulate further holdings of its currency.

Two classification types of international liquidity have come into use in recent years. The first distinguishes between "owned" reserves and borrowing facilities; the second between liquidity that is available automatically or without prior conditions that significantly restrict the user's right access, and liquidity that is available only on prescribed or negotiated conditions as to use or as to policies to be pursued by the country using it.

But, these two classifications do not quite coincide. Liquidity of wholly or virtually unconditional nature would at the present time include holdings of gold and foreign exchange in freely convertible currencies, gold tranche positions in the International Monetary Fund, and in many instances, bilateral mutual

credit or swap arrangements. Most other forms of international liquidity fall in the conditional category, though in some instances the degree of conditionality involved may be slight.

In considering the bearing of the supply of international liquidity on the promotion of adjustment processes, however, the International Monetary Fund authority's opinion points out the following careful two points.

1. The determination as to whether the available supply of liquidity is adequate or inadequate must always be a matter of judgment, and a collective judgment is particularly difficult to arrive at because the balance of advantage, at any rate in the short run, may be different with respect to, and in the opinion of, different countries. Action in the liquidity field which absorbs unemployment in one country may promote excessive demand in another, and change in the supply of international liquidity is likely to involve some transfer to resources, at least temporarily, between countries.

2. International liquidity is heterogenous in character and the need for it at any time cannot be expressed in a single over-all figure. Whether or not a common objective of economic policy would, on balance, be promoted by a larger world total of liquidity depends on many factors, such as its composition (as between gold, foreign exchange, credit facilities, etc.), the way in which it is distributed among countries, and the manner in which any increase would be brought about.

In another aspect, we can find that reserves consist of three components: (a) gold, (b) foreign exchange, almost exclusively key currencies, in western Europe mostly dollars, (c) credits, granted or potentially by international agreement, therefore having the character of "conditional reserves." Moreover, these credit arrangements can be (1) multilateral and institutional, as the International Monetary Fund drawing right and stand-by arrangements; they can be (2) multilateral and incidental as to borrowing arrangements; or they can be (3) strictly bilateral. So, gold and foreign currency contain the category of "genuine reserves". In foreign currency, also, part of reserves will therefore always consist of currencies that are convertible into gold, as with the dollar, or of currencies of those countries with whom the bulk of trading is effected, as in the sterling area. Especially, foreign currencies are "genuine reserves" in so far as the holder is autonomous in his decision with regard to their use, but since there is always an element of confidence with regard to their exchange value they are well characterized by the term "fiduciary". Potential credits are an enlargement of the reserves of debtor countries, and as such desirable. The three possible components of reserves thus have totally different aspects as to freedom of use, transferability, profitability, and exchange risk.

Generally speaking, two types of classifications in the international liquidity

theory have come into use. The first is the imported quantity theory, the second is the balance of payments theory. The former shows that there are proportional relations between the growth ratio of reserves (gold and foreign currency and facilities) and world imports, in other words, it emphasizes the existing functional relation among the above-mentioned two factors.

On the other hand, the latter shows that international liquidity depends upon the swing range of balance of payments in a country, in other words, it emphasizes the strength in disequilibrium of the balance of payments.

The various reformal plans will derive from the first type, the modified or strengthened plans will come from the second type.

If there exists the following formula between the demand for international liquidity and the supply of international liquidity, the change in international liquidity will be explicit.

$$\bar{Y} = Y + F_e + F_d \quad (1)$$

$$\bar{Y} = C + S = C + M_c + I + M_i + F_a + G \quad (2)$$

$$Y = C + I + X \quad (3)$$

$$\begin{aligned} X + F_e + F_d &= X + F_a + G \\ &= X - M + F_e + F_d \\ &= F_a + G \end{aligned} \quad (4)$$

$$X - M + F_c + F_d = F_a + G \quad (5)$$

Now, we must consider the importance in changing the motive of X-M and G. [where  $\bar{Y}$ ,  $Y$ ,  $F_e$ ,  $F_d$ ,  $S$ ,  $C$ ,  $M_c$ ,  $I$ ,  $M_i$ ,  $X$ ,  $F_a$ ,  $G$ , mean: national income, net national products, net foreign revenue, net foreign grants, saving, purchase of consumer goods, purchase of imported consumer goods, purchase of investment goods, purchase of imported investment goods, exported goods, net foreign loan, international liquidity reserves (gold and foreign currency level.)]

Still, the imported quantity theory shows as follows,

$$G = kM \quad (6)$$

(where  $G$  mean gold and foreign currency,  $k$  stands for reserve ratio and  $M$  is imported amount.)

$$\text{So, } G = kiY \quad (7)$$

(where  $Y$ ,  $i$  mean; national income, propensity to import.)

Furthermore, we have the following equation as to the measure of international liquidity in a country

$$L = R - R_{min} + F_o + F_p - \Delta R_{min}. \quad (8)$$

(where  $L$ ,  $R$ ,  $R_{min}$ ,  $F_o$ ,  $F_p$ ,  $\Delta R_{min}$  mean: international liquidity in a country, gold and foreign currency reserves, minimum limits of  $R$ , official financiability, private finance, increased amount arising from  $F$ .)

## III

Mr. Piere-Paul Schweitzer, the Managing Director of the International Monetary Fund, pointed out in his opening address at the Tokyo Meeting the following two points. In regard to international liquidity the outstanding feature of payments trends during the past year has been the reduction of basic imbalances and the calm on the exchange markets. Consequently, this has become a very suitable period for considering the longer-term problem of the best means of providing adequate liquidity for the world.

During the past year, the Fund has intensified its studies of international liquidity. These studies have, we believe, done much to clarify the nature of the problems and to help in finding satisfactory and acceptable solutions. The Executive Directors have devoted a key section of their Annual Report to a statement of their findings and their conclusions. Chapter 3 of the Report sets out the broad issues of international liquidity. Chapter 4 deals with the particular role that the Fund now plays in this field and the even larger role that it could play in the future. There has also been close and fruitful cooperation during the year between the Fund and the group of senior officials of the ministers of finance and central banks of the ten countries that participate in General Arrangements to Borrow. The report of this group was recently made public as an annex to the statement of ministers and governors of these ten countries.

Our concern about international liquidity—its level, its composition, and its distribution—arises from the objectives which guide our policies and which we hope to see achieved in world economy. These objectives include high levels of employment and an adequate rate of economic growth, freedom of trade and payments from restrictions, and reasonable price stability. Measured against these criteria, the record of the two decades since the end of the war, although not perfect, cannot be considered unsatisfactory. Much has been achieved: a tremendous expansion of world trade; the convertibility of all major currencies; greatly reduced reliance on restrictions and on bilateralism; considerable, though still insufficient, progress in the developing countries; high levels of employment; and avoidance of the extremes of inflation and deflation in most areas of the world. The record looks even better if we recall the experience of the twenty years after the end of World War I. We want to ensure that the liquidity conditions for the future will be such as to make it possible for us to earn a similar verdict, or even a better one, during the next decade—although we fully realize that action in many fields other than that of liquidity will be necessary to achieve this end.

In the past decade a large part of the supply of international liquidity arose in the form of liquid claims on the United States, associated with the U.S. balance

of payments deficit. It is unlikely that the payments deficit of the United States will contribute to the creation of reserves in the future on the same scale as it has done in recent years, and this would not indeed be desirable. Increased reliance has thus to be placed on other, more deliberate, measures to provide international liquidity as needed. It is obvious that any new developments in this direction raise many economic, technical, and also political problems. They deserve and will receive the most careful study, and Mr. P. Schweitzer does not here want to anticipate the outcome of such a study.

However, at this time Mr. P. Schweitzer does wish to direct particular attention to two propositions of a general character that are contained in the Report of the Executive Directors and that have Mr. P. Schweitzer's strongest personal support. In the first place, while thinking about possible reform of the present monetary system, we must remain continually aware that this system is very much a going concern. Its benefits have been great and continue to be great. In our efforts to supplement and improve this system, we must continually be conscious of the need for orderly development.

Secondly, where decisions are taken to create and administer liquidity by deliberate international action, it is particularly important that the advantages of the multilateral institutional approach be kept in mind. An international organization provides the forum for a balanced consideration, and hence the best reconciliation of the various objectives in the international financial fields as they affect all countries.

Since international liquidity in the form of reserves and access to credit comes into play when a country's international payments are in surplus or deficit, any consideration of the role of liquidity or its adequacy must pay particular attention to the manner in which disequilibria arise and the policies that are to be followed to eliminate them.

In this connection, let us draw particular attention to the importance of what has been called "conditional liquidity". That is liquidity that is available to countries on the understanding that they will follow constructive policies to eliminate their payments deficits. The main source of conditional liquidity at present lies in the member's drawing rights on the Fund in the credit tranches.

Next, as for the role of the International Monetary Fund, Mr. P. Schweitzer considers as follows.

The discussions that have taken place during the past year in the Fund and elsewhere have led to the conclusion that there is case for an increase in Fund quotas and hence in the conditional liquidity to which members have access. As the Governors know, the question of quotas would, in any case, come up for consideration in connection with the quinquennial review to take place during 1965. Schweitzer strongly feels that an increase in the quotas of Fund members



at an early date is, at the present time, both justified and necessary, and Schweitzer urges the Governors to give it their most careful attention. If it is also the view of the Governors, as Schweitzer has every confidence it is, that such an increase in Fund quotas is appropriate, the Executive Directors will no doubt be able to prepare proposals for concrete action both to raise the quotas of the Fund membership as a whole, and to introduce special additional quota increases for individual countries whose present quotas are out of line.

There may also, over the long run, be a need for action to increase the unconditional liquidity of members. The Fund's Annual Report gives some technical and tentative indications of various ways in which this could be achieved through the mechanism of the Fund. This is not a question for decision at this time. As the Executive Directors have indicated, it "would require careful consideration from many points of view before any decision could be reached as to whether it would be appropriate for the Fund to undertake such operations", and it is their intention "to give these matters further study in the period ahead." The Fund staff will also co-operate closely with the Study Group which has been set up by the ten participants in the General Borrowing Arrangements to investigate possible methods of adding to reserves by some form of international action.

It is now twenty years since the new framework of an international monetary system was conceived and embodied in the Articles of Agreement of the Fund at Bretton Woods. Although it would not be reasonable to expect the existing system, or indeed any system, to be perfect, it has proved eminently workable and adaptable to changing circumstances. It is, however, appropriate that after twenty years the system should be given the examination that is now taking place. Mr. P. Schweitzer is sure that, as a result of the work that is being done, the international monetary system will emerge strengthened and even better equipped to serve the interests of the community of nations in accordance with the objectives of the Fund.

Therefore, as above-mentioned, the Managing Director's address made the official opinion clear as to the authorities' position of the Fund. First of all, he explains about the present adequacy of liquidity as follows: the adequacy or otherwise of international liquidity is an important determinant of the levels of world trade and economic activity. International liquidity should not, of course, be regarded as a sort of money which finances international trade: this is financed by normal trade and banking credits granted in national currencies. But consisting as it does of resources which governments hold or which are available to them to finance payment deficits, it has important implications for all countries' domestic financial policies.

In many cases of difficulty, including those caused by short-term capital outflow, much of the burden of adjustment can properly be allowed to fall on

the countries' gold and foreign exchange reserves, that is, on their immediately available supplies of international liquidity. But, in other cases, it may be that stringent policy measure, both internal and external, may have to be taken. In some cases, the second course of action may be forced unnecessarily on authorities who find that, owing to international liquidity, they do not have the leeway to permit the reserves to take the strain. Measures unduly restrictive of economic activity may thus have to be adopted. Of course, in other cases, effective policy measures are essential.

The excessive availability of liquidity is also to be avoided as it reduces the discipline of the payments position and encourages postponement of necessary corrective action.

Our recent studies have led us to the conclusion that international liquidity is at the present time adequate. In this case, the rate of increase of reserves over the next 10 years or so appears likely to fall short of requirements. The growth of international trade may possibly slacken from the almost 6 per cent rate of the past decade, but it certainly should not be less than 4 per cent per annum. Also, it would not be safe to assume that there would be any reduction in the magnitude of payments disequilibria relative to the volume of trade. So much for the demand for international liquidity. On the supply side, reserves are unlikely to grow much more rapidly than 2.5 per cent per annum, especially since their generation through increased holdings of dollars as a result of U.S. payments deficits is likely to slow down. When this is set against the fairly conservative estimate of a 4 per cent increase in world trade, it is not difficult to see why the Fund believes that it is necessary to continue and possibly to broaden international action directed toward creating international liquidity.

It seems to us that the task of ensuring an adequate supply of liquidity does not require any drastic overhaul of the present arrangements, which are based primarily on the use of gold and reserve currencies, supplemented by drawing rights on the Fund. The smooth working of these arrangements has not been without its problems and difficulties, but, on the whole, in the last twenty years has served the world well.

According to the International Monetary Fund authorities, the total volume of international liquidity is adequate and the ratio between the world official gold, foreign exchange (currency) reserves and the total world import in the free world was 51 per cent at the end of 1957, 21 per cent in 1913, 42 per cent in 1928, 100 per cent in 1937-38, 91.2 per cent in 1948, 65.6 per cent in 1958. And the American ratio of total world international liquidity was 49 per cent in 1948, 32 per cent in 1958.

On the contrary, Prof. Robert Triffin estimates that when the rate of trade growth in the free world is 3-6 per cent from 1958 to 1967, the requisite increasing

amounts of currency (monetary) reserves sums is \$ 12.7-24.1 billion, the estimation amount of increasing monetary gold is regarded as optimistic when \$ 10 billion and pessimistic when 4 billion.

So, when Prof. Triffin presumes the above sum to be \$ 7 billion, the shortage of international liquidity may be estimated at the level of 6-7 billion. Consequently, Triffin announced the New World Central Bank System that has a new bank-note issue right; this is the famous "Triffin Plan" for reforming the International Monetary System.

But, Triffin regarded the rate of economic growth that will be based on the average rate of world trade growth as 4-5 per cent and 6 per cent. In addition to these estimation of the International Monetary Fund of 30 per cent, he measured 43 per cent, 35 per cent, 26 per cent and the requirements for international liquidity were calculated as \$ 18.5 billion in 1958.

#### IV

The typical doctrine of Continental Europe is clear in the following address of the Finance Minister of France, Valéry Giscard d'Estaing.

The world monetary system must be set in concentric circles: the first one being gold, and then second, if necessary, recourse to deliberate and concerted creation of either reserve assets or credit assets. The inner circle is gold.

The importance of the role of gold does not arise from any charm inherent in the metal itself but from the following fact: as long as the present situation prevails, with separate national sovereignties throughout the world acting freely in the monetary field, without recourse to arbitration and certainly not subject to coercion, reference will have to be made to gold, the only monetary element outside the scope of government action.

While noting the basic role of gold, we do not believe that the pace at which it is mined will spontaneously adjust its volume to the needs of the world, the rapid technological transformation of which may be observed here more clearly than anywhere else.

Thus it may be necessary to seek out supplementary sources for supplying owned reserves.

The basic distinction has rightly been made between credits for balance of payments, such as those so usefully granted by the Fund under Mr. Schweitzer's inspiring management, and the creation of fiduciary means for supplying reserve assets.

Internally, the action of the Fund might be compared to that of a bank which grants credits to help its customers bridge over temporary difficulties.

On the other hand, the creation of reserve assets would be akin to the role

of a central bank whose operations are geared to the general needs of an economy. If and when fiduciary means must be added to gold, they should be issued in accordance with objective rules and through mutually undertaken action.

In Mr. Giscard d'Estaing Plan, three considerations should underlie the studies to be made on this subject:

1. If such reserve assets are, over the long run, to be added to, and possibly substituted in part for gold in its present function, they must be of an objective nature, governed by strict rules concerning their creation and volume.

2. As there is always temptation to accumulate an oversupply of world liquidities, cautious regulations would be required in order to assess the need for such a creation and to adjust its amount.

3. The group of those with whom would rest the responsibility and burden for such operations with the Fund and with due regard to the interest of the world community as a whole.

To sum up: first, under present circumstances, gold remains, in our minds, the basis of the international payments system.

Secondly, if the need were to arise for an increase in the amount of owned reserves, there should be a concerted and limited recourse to additional fiduciary means, instead of to the uncertainties and instabilities of the gold exchange

Table 1. Gold Holdings of IMF and Main World Countries (\$ million)

	1953	1958	1964 (Dec.)
U.S.A	22091	20582	15388
Germany (West)	325	2639	4149
France	617	750	3632
Switzerland	1458	1925	2532
U.K.	2263	2807	2307
Italy	346	1086	2104
Netherlands	737	1050	1621
Belgium	776	1270	1434
Canada	986	1078	1007
South Africa	176	211	592
Japan	18	54	290
India	247	247	247
IMF	1702	1332	2425
World Total (exclude Communist Sphere)	36250	39445	43020
U.S.S.R.	6700	8000	9000

Source: I.M.F., International Financial Statistics, Nov. 1964, International Financial News Survey, Jan. 1965.

standard. Such a substitution should be brought about gradually and not by disrupting the present system, which, under present circumstances, provides an adequate safeguard for the functioning of international payments. Indeed, it is normal that various central banks will go on keeping, in their reserves, dollars, pounds sterling, or French francs, owing to the particular financial relationship they maintain with the countries issuing currencies.

So, we do not support wholeheartedly, but can understand sufficiently this plan (new reserve assets plan).

However, we want to more deeply know the true value of this plan that takes a serious view of gold as the international currency more than any other theory.

## V

Then, we have the following various proposals in Japan. The Yanagida group study report should be most carefully studied as one of them. So we agree to the proposal in which the International Monetary Fund quotas are to be substantially increased, but this plan has four other points: 1. "Balance of payments discipline" to be further strengthened for promoting world economic expansion, 2. Re-appraisal of gold holding policy to be made, 3. Problems of developing countries to be seriously considered, 4. A clear orientation toward establishment of internationally managed monetary system to be made and a closer co-operation of businessmen for this purpose to be enhanced.

As for the substantial increase of the International Monetary Fund quotas, these groups have strong interest. This proposal is as follows:—The supply of international liquidity must be increased in order to meet the demands of the expanding world economy. But, such an increase would not be fully attained by relying mainly upon owned reserves under the current gold exchange standard system. The increase of borrowing facilities should constitute the core of the countermeasures. Borrowing facilities can be increased by credit extension activities between central banks. We must cope with the speculative movements of short-term capital which will be activated much more in the future. For this purpose, some short-term, bilateral and dynamic credit extension activities between central banks will be very effective. However, in order to increase the liquidity to such an extent as will be required for the sound development of world trade and capital transactions, we are in need of more medium-term and multilateral borrowing facilities. It seems that we can attain this target best by increasing the International Monetary Fund quota.

The amount of increase of the International Monetary Fund quotas by this plan should be substantial, about 50 per cent, for the following reasons.

First, the demand for international liquidity is expected to increase noticeably

before the quinquennial review of the International Monetary Fund quotas in 1970.

Secondly, we cannot expect that the owned reserves will be increased to such a substantial degree as will become a main source of international liquidity in the future.

Thirdly, the substantial increase in the International Monetary Fund resources resulting from the proposed quota increase would not give rise to any undesirable result in so far as the International Monetary Fund authorities hold a prudent attitude in their fund operation, and respective countries carry out sound economic policies. In fact, the amplification of lending power would enable the International Monetary Fund to cope with any possible situation with some leeway.

In addition to the general increase in the International Monetary Fund quotas, we should point out the importance of the selective increase of quotas which would result in the relative adjustment of individual quotas. For, the present shortage of currencies of Continental Europe within the International Monetary Fund may limit the lending activities of the International Monetary Fund in the future. On the other hand, the selective increase of quotas will enable subscribing countries to increase the right to vote and the right to borrow. Continental European countries, which are very likely to become important subscribing countries, would welcome this result.

In this case, the amount of selective increase of quotas should be substantial. At present, the quotas held by the United States and the United Kingdom are predominant, and small-scale adjustment of quotas would not substantially increase the influence of Continental European countries. If the present situation continues way into the future, Continental European countries may become reluctant to co-operate within the system of the International Monetary Fund. In view of the importance of the close co-operation of all countries in the International Monetary Fund, it is essential to redistribute the voting power more equitably among the major countries.

Finally, in connection with the increase in the International Monetary Fund quotas, we should make efforts for the alleviation of borrowing conditions from the International Monetary Fund. At the same time, some provisions of the General Arrangements to Borrow should be improved. For example, the exercise of the General Arrangements to Borrow requires the consent of all participating countries, and, therefore, it lacks mobility to some extent.

It is necessary for us to look into, and have a clear perspective of, an international monetary system for the future, and we should analyze all problems as they arise in the course of the actual development of international economy.

Of course, we can pick up the following various plans:

1. Centralization of International Reserves—R. Triffin, J.M. Keynes, M. Stamp, J. Angell, R.F. Harrod, O.L. Altman, David Rockefeller, L. B. Yeager.
2. Improvement of the Gold Standard System—E.M. Bernstein, R.F. Harrod, P. Jacobsson, F.A. Lutz, F. Machlup, R.V. Roosa, H.C. Wallich, Xenophon Zolotas.
3. Flexible Exchange Rates and Return to the Gold Standard—J.E. Meade, Jacques Rueff, M.A. Heilperin, T. Balogh, H.G. Johnson.
4. Changes in the Price of Gold—R.F. Harrod, F. Machlup, P. Wonnacott, Kiyozo Miyata.

In short, as for the Reforming Plans of the International Monetary System derived from the changing of international liquidity positions, we are most familiar with the Triffin Plan, but we should be prepared to handle the multiple currency system by F.A. Lutz as the first approach.

Table 2. International Liquidity Reserves in Japan (\$ million)

	gold	foreign exchange	I.M.F. gold tranches	total reserves
1937~	279	17	—	296
1948	3	—	—	3
49	4	—	—	4
50	7	—	—	7
51	10	—	—	10
52	16	963	—	979
53	18	805	0.1	823
54	21	717	0.1	979
55	23	746	62.5	832
56	23	918	62.5	1004
57	23	501	—	524
58	54	807	6.25	923
59	244	1077	125.0	1447
60	247	1577	125.0	1949
61	287	1199	180.0	1666
62	289	1553	180.0	2022
63	289	1589	180.0	2058
64		1999	180.0	2179

Source: I.M.F., International Financial Statistics and the Asahi Shimbun, Jan. 16, 1965.

## VI

We may introduce Mr. Einosuke Ashiya's calculation of international liquidity. This study is the most respectably worthy of the international liquidity theory in Japan.

Mr. Ashiya calculated from the above-mentioned equation (Chapter II)—

$$L = R - R_{min} + F_o + F_p - \Delta R_{min}$$

Table 3. International Liquidity in Apr. 1964 (\$ million)

	gold	foreign exchange	gold tranche	total
all member countries	40200	25065	3940	17421
industry countries	34520	10520	3329	13154
U.S.A.	15596	212	1035	5160
U.K.	2484	173	489	2439
industrial Europe countries	15335	6760	1624	4383
France	3175	1282	451	1238
Germany	3843	3255	552	1340
Italy	2343	714	226	496
Canada	817	1786	—	492
Japan	289	1617	180	680
South Africa	630	96	38	188
Latin America	1170	1500	106	984
Asia	580	2810	42	926
Africa	70	885	29	222

Source: Einosuke Ashiya, "The Controversy of International Currency" 1964, Tokyo, pp. 19-23.

Table 4. International Liquidity Ratio

1947	64.8%
1948	57.3%
1949	58.1%
1950	58.9%
1951	43.5%
1952	44.4%
1953	47.3%
1954	46.2%
1955	42.1%
1956	38.6%
1957	35.8%
1958	38.9%
1959	37.5%
1960	33.9%
1961	33.1%
1962	32.9%
1963	31.5%
1964	31.4%

Source: Calculated from, I.M.F., International Financial Statistics.



From this view, an adequate international liquidity in Japan is as follows:

$$L = R - R_{min} + F_o + F_p - \Delta R_{min} = 1878 - 1000 + 355 + 800 - 400 = 1633$$

That is the level of \$1633 million.

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# INTERSECTORAL TRANSACTION TABLE WITH ENDOGENOUS FOREIGN TRADE SECTOR IN THE INDIAN ECONOMY: 1955/56

Hikoji KATANO

We now have *the Inter-Industry Transaction Table: 1955/56*, prepared by the Indian Statistical Institute. This table is constructed on the assumption that all imports are treated as fully competitive. However, for some analyses, we have to use the intersectoral transaction table based on the assumption that all imports are considered as fully non-competitive. Especially for a short-term analysis, this type of table is needed. For this purpose, in this paper, we construct a table by rearranging the above-mentioned table given by the Indian Statistical Institute.

## 1. *Basic Statistical Data: ISI's Table.*

1. The basic statistical data for our present analysis are derived from "*Inter-Industry Transaction Table: 1955/56*", which was prepared, in terms of 36 sectors, by the Indian Statistical Institute.<sup>(1)</sup> Hereafter, for simplicity of description, we shall call this *the original table*. Even though this original table has some inaccuracies and ambiguities, this is the only statistical data available under the present situation, so we have no power to correct or even to detect them. However, we can estimate economically meaningful results, from these statistical data, as a first approximation to describe the structure of the Indian economy of 1955/56. And, in case these remarks should throw an unfavorable light on our results, let us remember that without it would have been impossible to proceed with our analysis.

## 2. *Fundamental Structure of the Original Table.*

1. According to the original table, the structure of intersectoral transaction of Indian economy has been constructed as follows:—

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(1) Cf. Indian Statistical Institute (Inter-Industry Research Unit), *Inter-Industry Transaction Table: 1955/56 (at market price)*, revised version in mimeographed paper, November 5, 1962.

And, as to the characteristics and qualifications of this table, we refer to the Indian Statistical Institute (Interindustry Relation Section), *Inter-Industry Relations in the Indian Union, 1951/52*, in *Papers on National Income and Allied Topics*, Vol. I, 1960,

$A^*_{i1} \dots A^*_{ij} \dots A^*_{in}$	$C^*_i$	$F_i$	$E_i$	$-M_i$	$X_i$
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
$A^*_{i1} \dots A^*_{ij} \dots A^*_{in}$	$C^*_i$	$F_i$	$E_i$	$-M_i$	$X_i$
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
$A^*_{n1} \dots A^*_{nj} \dots A^*_{nn}$	$C^*_n$	$F_n$	$E_n$	$-M_n$	$X_n$
$T_1 \dots T_j \dots T_n$					
$U_1 \dots U_j \dots U_n$					
$V_1 \dots V_j \dots V_n$					
$X_1 \dots X_j \dots X_n$					

where the following notations are used,

$X_i$  : rupee value of i-th domestic product per year,

$A^*_{ij}$  : rupee value of j-th commodity required for producing one crore rupees of i-th domestic product,

$C^*_i$  : rupee value of consumer's expenditure for i-th commodity per year,

$F_i$  : rupee value of public authorities' expenditures and public & private capital formation expenditures for i-th commodity per year,<sup>(2)</sup>

$E_i$  : rupee value of i-th exports per year,

$M_i$  : rupee value of i-th imports per year,

$T_j$  : rupee value of indirect taxes in j-th sector per year,

$U_j$  : rupee value of wage income in j-th sector per year,

$V_j$  : rupee value of non-wage income in j-th sector per year,<sup>(3)</sup>

and these rupee values are expressed in terms of "crore rupees".

2. This structure is constructed on the basis of the following fundamental equations,

$$X_i = \sum A^*_{ij} + C^*_i + F_i + E_i - M_i$$

$$X_i = \sum A^*_{ji} + T_i + U_i + V_i$$

These equations imply the demand-supply equalities of all commodities concerned. The first equation shows us the allocation relation of each commodity. The second means the distribution relation of revenue in each sector. This structure naturally assumes an equality of expenditure to revenue in each sector.

3. The most important equation for our purpose is the first one. The equation is constructed on the basis of the following fundamental relation.

(2) This term is, more accurately, composed of public authorities' current and capital accounts, private capital account, and changes in inventories.

(3) This term includes a provision for depreciations.

(Domestic Product) *plus* (Import)  
 =(Demand for Domestic Product *plus* Import).

This relation depends on the assumption of indifferent and competitive use both of domestic product and of import. This means *substitutability* between domestic product and import. We have now so many theoretical and empirical works by means of intersectoral analysis that we can not make a complete list of those works. But most of them have developed their arguments on the basis of this fundamental relation.<sup>(4)</sup>

4. For the purpose of this paper, we assume that all imports in the Indian economy can not be substituted by domestic products, especially for such a short period as one fiscal year. We call this *a non-substitutable import*.<sup>(5)</sup> For a develop-

(4) So long as we are concerned with works on Indian economy, there are not so many in number, but we have now the following:

Bharadwaj, R., *Structural Basis of India's Foreign Trade*, Series in Monetary and International Economics, No. 6, University of Bombay, 1962.

Frish, R., *Planning for India: Selected Explorations in Methodology*, Studies relating to Planning for National Development, No. 3, Indian Statistical Institute, 1960.

Sandee, J., *A Demonstration Planning Model for India*, Studies relating to Planning for National Development, No. 4, Indian Statistical Institute, 1960.

(5) By the way, we explain here our terminology of *non-substitutable import*. We consider this to be one kind of non-competitive import. But we have already had W. Leontief's definition of non-competitive import [cf. W. Leontief, Domestic Production and Foreign Trade: The American Capital Position Re-Examined, *Economia Internazionale*, VII, 1954, and his Factor Proportion and the Structure of American Trade: Further Theoretical and Empirical Analysis, *Review of Economics & Statistics*, November 1956]. His definition of non-competitive import has some differences from ours so we do not use the terminology "non-competitive" import in place of "non-substitutable" import.

According to W. Leontief's definition, competitive import is defined as "import of commodity which can be and is, at least in part, actually produced by domestic industry". And that which does not come within the field of this definition is regarded as "non-competitive" import. But, in our case, even though the product classified in the same industrial sector as the import belongs can be and is, at least in part, actually produced by domestic industry, so long as the import can not be substituted, in its quality and/or in its quantity, by the domestic product, we consider such kind of import as having the qualification of being non-substitutable. This is the reason why we do not use the terminology "non-competitive" import in place of "non-substitutable" import.

Explicitly, according to the Leontief's definition, this sort of import must be treated as a competitive one. R. Bharadwaj's work [*Structural Basis of India's Foreign Trade*, Series in Monetary and International Economics, No. 6, University of Bombay, 1962] shows us a typical example in which W. Leontief's definition has been adopted immediately to the Indian economy. However, we must notice that Leontief has defined his competitive and non-competitive imports on the basis of the U.S. economy, and not on the basis of a developing country's economy like the Indian economy. In the U.S. economy, which has enough excess capacities to fill up a short supplies of any domestic products even within a short period of time, a decrease in import of a commodity, which

ing country like India which has been growing by fully making use of its productive capacities under less advanced levels of technology, almost all imports have this qualification of being non-substitutable. For example, a decrease in import of food grains can not be substituted by an increase in domestic agricultural products, because the full capacity in the domestic agricultural sector has been utilized for supplying products to nations and an increase in the capacity can not be attained within such a short period as one fiscal year. And a decrease in imports of some kinds of machineries can not be substituted by an increased supply of domestically produced machineries, because, besides the bottlenecks due to full capacity, these kinds of machineries can not be produced in the domestic industry, because of the low levels of technology in the developing country. We consider, in this paper, all imports for a developing country play their role for filling up such kinds of bottlenecks. So we take here the assumption that all imports concerned are non-substitutable.

5. Assuming non-substitutability between domestic product and import, we have naturally to treat the demand-supply relations of the domestic product and import separately. In case we use the joint demand-supply relation of domestic product and import, which has been shown above, the assumption of the non-substitutability between domestic product and import becomes inefficient, because, in this case, both domestic product and import are treated as indifferent. Then we develop our argument on the basis of the following fundamental relations.

$$\begin{aligned} (\text{Domestic Product}) &= (\text{Demand for Domestic Product}), \\ (\text{Import}) &= (\text{Demand for Import}) \end{aligned}$$

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is both domestically produced and imported, can be easily substituted by an increase in the domestic product of the same kind of commodity. But we can not suppose the same situation in a developing country's economy. Even though the same kind of commodity in our proposed sectoral classification is both domestically produced and imported, we can not expect the substitutability of a decrease in import by an increase in supply of a domestic product. Because, even if these domestic product and import are classified in the same sector, there are some differences in their qualities. And even if these qualities are the same in each other, we can not expect extra capacities to produce the commodity by the substitution of domestic products in our developing economy, especially for a short period of time, because our economy is developing by fully making use of our capacities and these capacities can not be easily increased within a short period of time.

The important point is this: Recognizing the substitutability of a decrease in import by an increase in supply of a domestic product in the U.S. economy, W. Leontief has defined his competitive import as an import with the same kind of domestic product, at least in part. And we will define our non-substitutable import as an import with the same kind of domestic product but without the substitutability between domestic product and import. Thus we consider the difference in these definitions on imports with partly common qualifications due to the differences in their economic backgrounds.

These are the fundamental relations of our proposed model.

### 3. *Selection of Sectors for Model.*

1. When we employ an intersectoral analysis as our tool to investigate our subject, the number of sectors concerned can never be too large for an analytical purpose, the more detailed, the better. Now, owing to the original table, we can use at least 36 sectors as a model. However, we select 10 domestic sectors for our proposed model. Since our analysis may be effective only as a first approximation due to inaccuracies and ambiguities in statistical data available to us, it is quite enough to use these 10 domestic sectors for getting meaningful results as a first approximation. As a matter of fact, these 10 domestic sectors are enough for us to manage with our limited ability of computation.

2. The following considerations have to be taken into account when defining sectors for our proposed model.

The selected sectors have to reflect actual situations in the Indian economy. Actually, this means to aggregate all these 36 sectors in the original table so as to classify them according to categories such as primary production, small-scale industry, large-scale industry, and other activities. In this respect, we have depended on the main categories shown in the original table.

We will divide the category of primary production into both agriculture and mining, and the category of large-scale industry into both large-scale light and heavy industries.

Out of the category of other activities, we select, at first, two sectors: transport and communication, and construction. The rest of this category means the service sector. Next, considering the important role the financing organization plays in the process of income distribution among sectors, we separate this sector out of the entire service sector. Lastly, we divide the rest of the service sector into both trade and distribution and other services.

A vertical aggregation of sectors has not been taken into account here.<sup>(6)</sup>

The following sectors were finally selected:—

- 1st sector: agriculture,
- 2nd sector: mining,
- 3rd sector: small-scale industry,
- 4th sector: large-scale light industry,

(6) Cf. J. Sandee, *A Demonstration Planning Model for India*, Studies relating to Planning for National Development, No. 4, Indian Statistical Institute, 1960. In his proposed model, the small-scale food industry has been added to agriculture, while cement manufacturing and small-scale building materials industry have been aggregated with construction.

- 5th sector: large-scale heavy industry,  
 6th sector: transport and communication,  
 7th sector: construction,  
 8th sector: trade and distribution,  
 9th sector: financing organization,  
 10th sector: other services.

For simplicity, we shall call each sector by its classified number; for example, 5th sector for large-scale heavy industry, etc..

3. The original table has been constructed in terms of 36 industrial sectors. For the purpose of our model, these 36 sectors are classified as follows:—

<i>(Aggregated Sectors)</i>	<i>(Original 36 Sectors)</i>
agriculture	agriculture plantation
mining	animal husbandry, fishery, forestry coal mining & coke making all other mining
small-scale industry	small-scale metal & metal working small-scale building materials & wood manufactures small-scale textile & textile products small-scale food, drink, tobacco, oil small-scale glass & ceramics small-scale leather & leather products small-scale other products; miscellaneous
large-scale light industry	food, drink, tobacco, oil cotton textile other textiles jute & other fibres glass & ceramics leather & rubber paper, printing & stationary
large-scale heavy industry	iron & steel non-ferrous metals engineering chemicals, etc. cement, etc. other building materials & wood manufactures electricity generation & transmission

	defense materials
	large-scale unclassified
transport & communication	railways & communication
	other transport
construction	construction
	residential property
trade & distribution	trade & distribution
financing organization	banks, insurances and co-operatives
other services	professions, services, institutions, etc.
	public administration

#### 4. *Groups of Income Earners.*

1. We classify all income earners in our economy into two groups: workers and non-workers. The workers' group is composed of wage and salary earners and self-employed persons. The non-workers' group is composed of the remaining income earners. e.g. rentiers, share-holders, etc.. For the sake of convenience, we shall call the income of workers *wage* in its loosest sense, and the income of non-workers *profit*. Such a classification depends on whether the income earner is a labor-contributor to industrial activities or not.

2. In this classification, we can find some overlapping of one person over several sectors. The person, who is employed, for example, in the 5th sector and receives his salary for his labor contribution to the sector, may, at the same time, receive his income from dividends for his holding shares from another sector as well. In such a case, we list him in either group; he is a worker as a labor contributor to the 5th sector and, at the same time, he is a non-worker as a share-holder without any contribution of labor to industrial activities. Such an overlapping may be supposed to present some confusion to the problem of sectoral allocation of labor power, because the same person is listed in two or more sectors at the same time. But, actually, this does not cause any confusion. As the workers receive their incomes in return for their labor contributions and the non-workers get their incomes without any contributions of labor to industrial activities, their labors are contributed only to the 5th sector in which they are employed as workers. And, we suppose, it is not necessary for us to consider an infeasible case in which the same person belongs to two or more sectors as a worker at the same time.<sup>(7)</sup>

(7) According to the results of the National Sample Survey [National Sample Survey Report No. 14: *Some Characteristics of the Economically Active Population*, 4th to 7th Rounds (April 1952-March 1954), Government of India, 1958-59], we see that some workers are engaged in secondary occupations. But this does not mean that these workers work in their secondary occupations as well as their primary occupations at the same time.



3. In the original table, incomes of all classes have been divided into two parts: wage-income and non-wage-income. Non-wage-income includes provisions for depreciation. In addition to these income groups, there is another item of indirect taxes which composes a part of the value-added.

For the purpose of our proposed model, we shall arrange these items in the following ways: (1) Income of self-employed persons is included in the category of non-wage income. So it is necessary to separate the income of self-employed persons from that of non-wage-income, and add it to wage income. And (2) indirect taxes are included in the category of profit.

Then the scheme becomes as follows,

$$\left. \begin{array}{l} \text{wage-income in } j\text{-th sector} : U_j - U_j \\ \text{non-wage income in } j\text{-th sector} : V_j - \left\{ \begin{array}{l} V_j^* \\ V_j^{**} \end{array} \right\} \\ \text{indirect taxes in } j\text{-th sector} : T_j - T_j \end{array} \right\} \begin{array}{l} W_j : \text{wage in } j\text{-th sector} \\ P_j : \text{profit in } j\text{-th sector} \end{array}$$

Here,

$V_j^*$  : income of self-employed person in  $j$ -th sector,

$V_j^{**}$  : rent, profit, etc. in  $j$ -th sector.

According to R. Narayanan & Bina Roy's work,<sup>(8)</sup> we can approximately calculate the ratios

$$v_j = \frac{V_j^*}{V_j}.$$

So we can have

$$V_j^* = v_j V_j, \quad V_j^{**} = (1 - v_j) V_j.$$

Then we can arrange both  $W_j$  and  $P_j$  for the purpose of our model, that is

$$\begin{aligned} W_j &= U_j + V_j^*, \\ P_j &= V_j^{**} + T_j. \end{aligned}$$

##### 5. *Final Bills on Goods & Services.*

1. We assume, in this paper, that the workers spend the entire amount of their income only for their own consumption. This means they do not save even a little part of their income for any purpose and do not pay any taxes.<sup>(9)</sup> This assumption may be, to some extent, quite different from the actual situations.

(8) R. Narayanan & Bina Roy, 'The Movement of Distributive Shares in India, 1948/49 to 1957/58, revised version in mimeographed paper, *ISI. PD. WP/111 (247)*, March 22, 1962. And, in these respects, M. Mukherjee [On the Available Estimates of the Breakdown of National Income by Distributive Shares in India, in *Papers on National Income and Allied Topics*, Vol. II, 1962] gives us a comparison of available estimates of distributive shares in India.

(9) For the original table in which indirect taxes are shown on an independent entry, the taxes mentioned here imply direct taxes (income tax, etc.).

Some of the workers can save a part of their income for their future use or some other purposes and do pay some kinds of taxes. But, we suppose, the percentage of the amount of money saved and of taxes paid by the workers as compared to the full amount of their income as being very small. This is the reason why we take this assumption for our proposed model.

The non-workers spend a part of their income for their own consumption. From a part of their remaining income, they pay taxes; the rest is saved for their future use or some other purpose. These saved-money and paid-taxes are, in turn, allocated to several uses; for example, public authorities' current expenditure, private and public capital formations, etc.. However, in this paper, we propose to join these consumption expenditures of non-workers and other kinds of expenditures together into one combined expenditure. We call this *the non-workers' expenditure* on goods and services.

After all, we use, in this paper, two kinds of final bills on goods and services, the workers' consumption expenditures and the non-workers' expenditures.

2. In the original table, consumption expenditures have been treated as the whole of consumptions. But, for the purpose of our proposed model, this has to be divided into two parts, consumption expenditures of workers and non-workers. And, in order to compose the non-workers' expenditures, we have to combine the latter with other non-workers' expenditures, (public authorities' current expenditures, private and public capital formation, etc.).

The scheme in this stage is as follows:—

$$\begin{array}{l}
 \text{consumption expenditure} \\
 \text{on } i\text{-th commodity} \\
 \text{the other} \\
 \text{expenditure} \\
 \text{on } i\text{-th commodity}
 \end{array}
 : \begin{array}{l}
 C_i^* \\
 F_i - F_i
 \end{array}
 \left\{ \begin{array}{l}
 B_i^o - B_i^o \\
 \bar{C}_i \\
 C_i^o
 \end{array} \right.
 \begin{array}{l}
 \text{workers' consumption} \\
 \text{expenditure on } i\text{-th} \\
 \text{commodity} \\
 \text{non-workers' expenditure} \\
 \text{on } i\text{-th commodity}
 \end{array}$$

Here,

$\bar{C}_i$  : non-workers' consumption expenditure on  $i$ -th commodity.

We suppose that components in workers' consumption expenditure are different from components in non-workers' consumption expenditure due to the difference in their (average) income levels. We assume here that the workers' income level is, in clear-cut shape, lower than the non-workers' income level. This means that the minimum income level in the non-workers' group is higher than the maximum level of the workers' income. This is not actually true, but we take this assumption for the sake of convenience in the course of our arguments.

Then, using the National Sample Survey's statistics on consumer expenditure,<sup>(10)</sup> we can estimate the percentage distribution of the workers' consumption expenditures on respective commodities, which are expressed by notations

$$a_1, \dots, a_i, \dots, a_{10},$$

where  $a_i$  stands for the ratio of the workers' consumption expenditure on  $i$ -th commodity. So we can calculate the respective components of  $B_i^o$  and  $\bar{C}_i$  as follows,

$$B_i^o = a_i C_i^*,$$

$$\bar{C}_i = (1 - a_i) C_i^*.$$

Thus we can arrange both  $B_i^o$  and  $C_i^o$  for our purpose, that is

$$B_i^o = B_i^o$$

$$C_i^o = \bar{C}_i + F_i.$$

#### 6. Separation between Domestic-Product-Input and Import-Input.

1. As we have explained above, the original table is founded on the indifferent treatment between domestic product and import. This is based on the assumption that all imports are substituted by domestic products. In this case, all inputs are treated as joint inputs of domestic product inputs and import inputs. But, for the purpose of our proposed model, we have to assume that all imports are non-substitutable for domestic products. Our model, then, will be constructed on this assumption. Thus all inputs have to be divided into two parts, domestic product inputs and import inputs.

2. For this purpose, the joint input  $A_{ij}^*$  must be divided into two parts, domestic product input  $A_{ij}$  and import input  $M_{ij}$ , that is

$$\text{joint input: } A_{ij}^* \text{ — } \begin{cases} A_{ij} : \text{domestic product input} \\ M_{ij} : \text{import input} \end{cases}$$

3. Simultaneously, the workers' consumption expenditures and the non-workers' expenditures have to be also divided into both expenditures on domestic products and on imports, respectively, as follows,

(10) National Sample Survey Reports No. 40 & No. 47 [*Report No. 40, Tables with Notes on Consumer Expenditure*, 9th Round (May-November 1955), Government of India, 1955 and *Report No. 47, Tables with Notes on Consumer Expenditure*, 10th Round (December 1955-May 1956), Government of India, 1961]. For the purpose of covering the whole period of 1955/56 fiscal year, we use here statistics prepared by combining the 9th and 10th Rounds data.

$$\begin{array}{l}
 \text{workers' consumption} \\
 \text{expenditure} \\
 \text{on i-th commodity}
 \end{array}
 : B_i^o - \begin{cases} B_i & : \text{workers' consumption expenditure} \\ & \text{on i-th domestic product} \\ B_i^M & : \text{workers' consumption expenditure} \\ & \text{on i-th import} \end{cases}$$

$$\begin{array}{l}
 \text{non-workers' expenditure} \\
 \text{on i-th commodity}
 \end{array}
 : C_i^o - \begin{cases} C_i & : \text{non-workers' expenditure} \\ & \text{on i-th domestic product} \\ C_i^M & : \text{non-workers' expenditure} \\ & \text{on i-th import} \end{cases}$$

4. In case these separations are completed, the fundamental relations for our model must be expressed as follows,

$$\begin{aligned}
 X_i &= \Sigma A_{ij} + E_i + B_i + C_i, \\
 M_i &= \Sigma M_{ij} + B_i^M + C_i^M.
 \end{aligned}$$

In the first stage of these separations, we pick up items which we can clearly identify as belonging to  $M_{ij}$ ,  $B_i^M$  and  $C_i^M$  out of i-th import  $M_i$ . For example, an import of iron ore should belong to import input to the iron and steel manufacturing sector. For this purpose, we can use statistics given by *The Department of Commercial Intelligence and Statistics*.<sup>(11)</sup> These components are expressed by

$$M'_{ij}, B_i^{M'}, \text{ and } C_i^{M'}.$$

In the course of this working, we assume (1) imported primary products are not used as input for the 1st sector, (2) the 3rd sector does not use any imported goods as input, and (3) the workers do not consume imported goods except agricultural products (e.g., food grains, etc.).

In the next stage, the remaining part of import components

$$M'_{ij}, B_i^{M'} \text{ and } C_i^{M'}$$

are estimated according to the proportional allocation of

$$(M_i - \Sigma M'_{ij} - B_i^{M'} - C_i^{M'}) = Q_i$$

with

$$(A_{ij}^* - M'_{ij}), (B_i^o - B_i^{M'}) \text{ and } (C_i^o - C_i^{M'}).$$

Expressing the percentage components for this proportional allocation as  $\beta_{ij}$ ,  $\beta_{B_i}$ , and  $\beta_{C_i}$ , we can calculate the remaining part of import components as follows,

$$\begin{aligned}
 M'_{ij} &= \beta_{ij} Q_i, \\
 B_i^{M'} &= \beta_{B_i} Q_i, \\
 C_i^{M'} &= \beta_{C_i} Q_i.
 \end{aligned}$$

Thus we can have

(11) The Department of Commercial Intelligence and Statistics, *Accounts of Foreign Trade of India*, March 1956, Government of India, 1956, and *Annual Statement of the Foreign Trade of India*, Vol. 1, (For the four fiscal years ending March 1956 and the nine months, April to December, 1956), Government of India, 1963. We mainly depended on the latter.

Table 1; **Intersectoral Transaction Table: 1955/56.**

	1.	2.	3.	4.	5.	6.	7.	8.
1.	1,830.73	0.25	353.36	429.34	19.48	142.61	20.02	92.98
2.	2.35	4.70	12.83	15.34	38.35	37.09	8.89	5.12
3.	55.49	1.15	77.43	8.28	6.14	4.72	77.44	15.13
4.	41.51	0.91	179.02	271.08	22.44	12.54	6.08	52.23
5.	9.08	8.65	69.43	43.91	200.50	43.91	151.05	13.69
6.	5.51	1.80	28.78	45.39	32.43	16.72	38.94	31.54
7.	—	—	—	—	—	—	—	—
8.	22.44	3.37	108.67	147.70	78.20	32.37	65.57	66.21
9.	1.70	0.13	—	4.33	3.37	1.19	—	28.31
10.	66.37	1.31	—	20.24	13.67	12.20	97.76	25.32
M.	9.49	4.60	46.38	153.99	112.79	39.17	61.14	9.68
	2,044.67	26.87	875.90	1,139.60	527.37	342.52	526.89	340.21
W.	3,445.85	40.54	528.29	234.39	115.52	341.96	366.81	1,332.09
P.	1,170.90	111.54	128.51	424.46	278.86	171.09	591.05	350.34
X.	6,661.42	178.95	1,532.70	1,798.45	921.75	855.57	1,484.75	2,022.64

$$\begin{aligned}
 M_{ij} &= M_{ij}' + M_{ij}'' \\
 B_i^M &= B_i^{M'} + B_i^{M''} \\
 C_i^M &= C_i^{M'} + C_i^{M''}
 \end{aligned}$$

Lastly, we can get

$$\begin{aligned}
 A_{ij} &= A_{ij}^* - M_{ij} \\
 B_i &= B_i^o - B_i^M \\
 C_i &= C_i^o - C_i^M
 \end{aligned}$$

### 7. *Introducing of Foreign Trade Sector.*

1. In the above-mentioned fundamental relations, each imported commodity has been treated separately. However all imported commodities are different in kinds to each other, all these imports are purchased by the payment of foreign currency which has been obtained in return for exports. So we propose to treat the imports as a commodity produced by a set of inputs (i.e. an export composite commodity). This means that the second fundamental relation becomes

$$M = \Sigma M_j + B_m + C_m,$$

where

$$M = \Sigma M_i, \quad M_j = \Sigma M_{ij}, \quad B_m = \Sigma B_i^M \quad \text{and} \quad C_m = \Sigma C_i^M.$$

As we have already shown, on this occasion, we introduce one special kind of activity of production, which is concerned with foreign trade,

$$(e_1, \dots, e_{10}); \quad \Sigma e_i = 1,$$

This activity means that an input of an export composite commodity ( $e_i$ ) produces

INTERSECTORAL TRANSACTION TABLE WITH ENDOGENOUS FOREIGN TRADE SECTOR IN THE INDIAN ECONOMY: 1955/56 85

(Unit: Rs. one crore)

9.	10.	E.		B.	C.	X.
—	0.49	82.96	2,972.22	3,289.81	399.39	6,661.42
0.10	4.74	25.58	155.09	29.89	— 6.03	178.95
—	37.01	19.65	302.44	980.61	249.65	1,532.70
4.15	11.70	375.12	976.78	745.79	75.88	1,798.45
2.57	21.95	26.12	590.86	85.82	245.07	921.75
14.12	8.43	17.12	240.78	420.58	194.21	855.57
—	—	—	—	510.46	974.29	1,484.75
1.36	21.17	57.32	604.38	1,154.93	263.33	2,022.64
3.85	—	—	42.88	60.07	28.06	131.01
3.32	—	—	240.19	398.72	709.75	1,348.66
0.66	18.60	—	456.50	8.61	234.81	699.92
30.13	124.09	603.87	6,582.12	7,685.29	3,368.41	17,635.82
56.31	1,223.53	—	7,685.29			
44.57	1.04	96.05	3,368.41			
131.01	1,348.66	699.92	17,635.82			

one crore rupees worth of foreign currency. And this amount of foreign currency is immediately directed to the same value of imports. Thus the activity means also that the input of the export composite commodity produces one crore rupees of imports. Then we can introduce here one new and additional sector of foreign trade. We call this foreign trade sector the *m-th sector*.

2. In our model, all items are measured in terms of unit rupee values (one crore rupees). This is naturally true for all imports. Then, one unit of any import always means one crore rupees of import, which has been obtained in return for the same value of export composite commodity. This situation is indifferent to the kinds of imports. In this respect it is unnecessary to consider different kinds of imports from the view point of the production theory. We do not consider the different kinds of import inputs, but suppose only one kind of aggregated import input which is unified in terms of foreign currency (even though this is expressed in terms of rupee value).

### 8. Balance of Trade Deficit.

1. In our proposed model, the balance equation in the foreign trade sector takes the form of

$$M = \sum E_i + D$$

This balance of trade deficit *D* has been in this paper, assumed to be the non-workers' borrowing from abroad. Even though this has to be refunded in the near future, this plays the role of inflating the non-workers' expenditure.

In this case, the total amount of the non-workers' expenditure becomes

$$\Sigma P_j + D.$$

This amount covers the non-workers' aggregate demands for all commodities,

$$\Sigma P_j + D = \Sigma C_i + C_m$$

9. *Structure of Intersectoral Transaction.*

As a result of these considerations, a new structure of intersectoral transaction can be constructed on the basis of the following fundamental equations,

$$\begin{cases} X_i = \Sigma A_{ij} + E_i + B_i + C_i, \\ M = \Sigma M_j + B_m + C_m, \\ X_j = \Sigma A_{ij} + M_j + W_j + P_j, \\ M = \Sigma E_i + D, \\ \Sigma W_j = \Sigma B_i + B_m, \\ \Sigma P_j + D = \Sigma C_i + C_m, \end{cases}$$

10. *Intersectoral Transaction Table: 1955/56.*

Using the statistical data given by the original table and other sources, which have been referred to above from time to time, we can make up our intersectoral transaction table: 1955/56.<sup>(12)</sup> This is shown by *Table 1*.

(12) We note here some points of this table:

- a) According to this table, the total of value-added is Rs. 10,957.65 crores. From the National Income Statistics [Central Statistical Organization, *Estimates of National Income: 1948/49 to 1961/62*, Government of India, 1963, and *National Income Statistics: Proposals for a Revised Series of National Income Estimates for 1955/56 to 1959/60*, Government of India, 1961.], we can see that corresponding estimates of total value-added amounted to Rs. 10,660.00 crores. The difference between these two estimates is about Rs. 300.00 crores. This means about a 3% error. Then we shall use this table without making any corrections by making use of the National Income Statistics.
- b) Non-workers' real expenditure on 2nd domestic products has a negative value. This is caused by the comparatively large size of inventory change due to the real expenditure on the 2nd domestic product by non-workers.

## THE SYSTEM OF RESERVED MEMBERS FOR SEAMEN BEFORE WORLD WAR II

—The employment system of seamen in Japan—

Hiromasa YAMAMOTO

In Japan, seamen on foreign-going ships are employed by respective shipping companies as “permanent” or “eternal” employees. This employment system of seamen is called “the system of reserved members,” because if a shipping company employs seamen permanently, it has to maintain reserved members of the crew so as to fill up the position of seamen who are staying on land due to vacations or illnesses. This employment system of seamen is peculiar in Japan, for in other countries seamen are usually employed on a voyage basis.

But before World War II the matter was different. Most Japanese shipping companies commonly hired seamen only for the period of a voyage or several voyages, as is seen now in other countries. The employment relation between employers and seamen was short and intermittent in its character. The exception was found in several large shipping companies. Two leading liner companies, the Nihon Yusen Kaisha (NYK Line) and the Osaka Shosen Kaisha (OSK Line), and several other large shipping companies adopted the system of reserved members, though the system of the prewar period was not necessarily combined with the permanent employment system.

In this article the writer wishes to trace the development of the system during the prewar period and to sketch an outline of the system.—

### I

#### *Origin of the system of reserved ship officers*

During the Edo period Japan adopted a national isolation policy, prohibiting foreign trade and the construction of large vessels. During this period the domestic merchant fleet engaged in coastwise trade with small Japanese-type sailing ships. In 1853 the prohibition order of constructing large vessels was abolished and at the same time the Tokugawa Government began to import western-type sailing vessels and also to encourage construction of such vessels. The first steam-boat was introduced into Japan in 1855 for military purposes. However it was not until 1870 that steam-boats were added to the Japanese merchant fleet. In this year the government established the Kaiso Kaisha, a



public corporation which operated government-owned steamers carrying passengers and mail in coastwise trade. But the company dissolved in 1875 because of financial loss. On the other hand in 1870 Yataro Iwasaki established the Tukumo Company, the origin of the Mitsubishi Kaisha which changed its name to the present Nihon Yusen Kaisha (NYK Line). The company engaged in coastwise trade with three steamers at the beginning of its activities. The government gave the Nihon Yusen Kaisha subsidies so as to foster a modern shipping company in Japan.

At the introduction of western-type sailing vessels and steamers into Japan, Japanese seamen had neither experience nor technical knowledge as to how to operate steam engines and also how to use the compass. Though unlicensed seamen might be supplied from the crews of Japanese-type sailing vessels, qualified personnel who could stand in the position of shipmaster, chief engineer or other officer were not found in Japan. Therefore Japanese steam-ship operators had to depend upon foreign seamen for their ship operation.

Facing a lack of qualified seamen the Japanese government ordered the Nihon Yusen Kaisha to open a vocational school for seamen. Thus in 1875 the Mitsubishi Merchant Marine School, origin of the present Tokyo Marine College, was established for the purpose of training merchant marine officers with the government-owned training steamer. The course of training was divided into two sections, the regular course was five school years for seamen on ocean-going ships and the short course was three school years for seamen on coastal ships. For the first trainees fifty-one men were selected. They were obliged to work in the Nihon Yusen Kaisha for certain period after they finished the training course. With the development of a Japanese merchant fleet the number of trainees in the merchant marine school was increased, but until 1882 when the Mitsubishi Merchant Marine School was reorganized into a national institution only forty-eight deck officers were supplied to the Japanese merchant fleet. In this year only thirty-three Japanese seamen were included in officers who held shipmaster licenses in a total of one hundred and forty members in the Japanese merchant fleet.<sup>(1)</sup> It is clear that the training of licensed seamen in Japan did not check the dependence of the Japanese merchant fleet upon foreign seamen. Such conditions did not disappear until the 1900's when the number of Japanese officers surpassed that of foreign officers in the Japanese merchant fleet.<sup>(2)</sup>

In the foregoing paragraphs a brief survey has been given with regard to the labor market of the Japanese shipping industry at the stage of its moderniza-

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(1) Hiroshi Sasaki, *Maritime Labor Policy and Seamen's Union*, 1962. p. 100.

(2) Dept. of Transport and Communication, *History of Transport and Postal Works*, Vol. 6. p. 1137.

tion. Those conditions of maritime labor naturally influenced the employment system of officers in the Nihon Yusen Kaisha.

The Nihon Yusen Kaisha was established in 1885 as a result of the reorganization of the Mitsubishi Kaisha. Though it is not clear what kind of employment system was adopted by their predecessor, the Nihon Yusen Kaisha employed Japanese officers as permanent employees from the beginning of the company in contrast with the fact that the company employed foreign officers for short terms according to the seamen's article of agreement.

In the earlier stage of the employment system ship officers were unpaid when they were off article though the employment relation between the company and officers was maintained. But in 1894 the company carried into effect a retirement pension plan for Japanese ship officers. The plan was so designed that the longer the period of employment in the company, the greater the amount of pension to be paid. It is said that the wage system at that time also had a device to encourage the continuous employment of ship officers.

In 1902 the Nihon Yusen Kaisha enforced a company regulation for reserved ship officers.<sup>(3)</sup> According to this regulation, under the name of reserved ship officers the following three categories were included; (a) ship officers waiting for ship; (b) ship officers on vacation; (c) ship officers off article because of some other reasons than mentioned in a and b. The reserved ship officers were paid the total or a part of their wages and also allowances according to their conditions. In other words the Nihon Yusen Kaisha paid the total or a part of wages and allowances to ship officers with no regard as to whether they were on article or off article. Through this reserve system the company was able to secure the necessary number of ship officers for the operation of their company fleet, stabilizing their employment. By means of the company rules as mentioned above the Nihon Yusen Kaisha employed ship officers as permanent employees. We should pay attention to the fact that in order to retain permanent employees it was necessary for the company to maintain reserved seamen with pay if the company did not hire a relief staff. Maintaining reserved seamen of course added an additional labor cost burden to the company.

The Osaka Shosen Kaisha, one of leading liner companies in Japan, which was set up in 1884, also put into practice the reserved ship officer system at an early stage of the company. Though the details of the system of the earliest period are not clear, we can discover the fact that the company retained reserved ship officers in 1891 and employed officers as permanent employees.<sup>(4)</sup>

(3) With regard to the system of reserved members of this and other companies, data used in this article are from the writer's interview with company officials and also from company records.

(4) Fifty Years of the Osaka Shosen Kaisha, 1931, pp. 669-670.

As we have shown above, the two leading liner companies of Japan, the Nihon Yusen Kaisha and the Osaka Shosen Kaisha, employed ship officers as permanent employees and adopted the reserved ship officer system before 1900. But in those days such an employment system in seamen was exceptional among Japanese shipowners. Almost all Japanese shipowners hired ship officers on a voyage basis. Here we should make clear the position of the Nihon Yusen Kaisha and the Osaka Shosen Kaisha in the Japanese shipping industry of those days, because it will be helpful in explaining why the reserved seamen system was adopted especially by these two companies. The Nihon Yusen Kaisha and the Osaka Shosen Kaisha were the two big companies, having an overwhelming position among Japanese shipowners. In 1895 the total tonnage of steamers of Japanese registry amounted to 331,374 gross tons; the NYK fleet and the OSK fleet amounted to 94,332 gross tons and 19,886 gross tons respectively<sup>(5)</sup> The rest of the tonnage was scattered among many small shipowners who usually owned several ships of less than 1,000 gross tons. More important was the fact that subsidies for vessel construction and liner service were concentrated on the big two, especially on the Nihon Yusen Kaisha. The big two operated ocean-going and neighboring sea liner trades with large steamers with the assistance of the government. In contrast, the rest of the shipowners usually engaged in coastal or nearby sea tramp trade without subsidies.

Until 1900 many ship officers had been trained and supplied to the Japanese shipping industry since the establishment of the Mitsubishi Merchant Marine School of 1875, however most of them held licenses for coastal trade and there were few ship officers who had adequate training or experience for ocean voyages.

Numbers of Deck Officers Holding License for Ocean Trade in 1895

	Master	1st Officer	2nd Officer	Total
Japanese	227	171	209	607
Foreigner	308	100	67	475

Numbers of Deck Officers Holding License for for Costal Trade in 1895

	Master	1st Office	2nd Officer	Total
Japanese	432	429	697	1,558
Foreigner	2	10	10	22

Source; Dept. of Transportation and Communication, op. cit., P.1205.

(5) S. Unekawa, *Kai-un Kokoku Si* (The Development of Japanese Shipping Industry) 1927, p. 281 and p. 638.

It was especially true for shipmasters of ocean-going vessels. Therefore the NYK liner fleet on ocean trade had to depend upon foreign ship officers notwithstanding the effort of the company to substitute them with Japanese. Of course the wages of foreign ship officers were much higher than those of the Japanese who had the same qualification. Accordingly the Nihon Yusen Kaisha and the Osaka Shosen Kaisha devised the reserved ship officers system which was supported by the permanent employees system for the purpose of securing a pool of Japanese ship officers who would be able to take the place of foreign ship officers. The emergence of the reserved ship officer system was therefore mainly due to the poor supply of qualified Japanese ship officers for ocean-going vessels, though the intention of the company to maintain such a system gradually changed as the conditions of the labor market for seamen and trade unionism among seamen developed. On the other hand, other shipowners than the NYK and the OSK, whose ships engaged in main coastal tramp trade, had no necessity to employ ship officers as permanent employees because substitutes were easily found. In addition if they desired to employ ship officers as permanent employees because of some reason or other, it would result in additional labor cost to them. For they would have to pay allowances to ship officers off article.

## II

### *Reserved ship officer system adopted by large tramp operators*

During World War I the Japanese shipping industry doubled its tonnage to over three million gross tons. Many tramp operators began to engage in ocean-going tramp service, and they earned large wartime profits. Thus during the war many Japanese shipowners increased the size of their fleet.

During and after the war the reserved ship officer system was adopted by several large tramp operators such as the shipping division of the Mitsui Bussan Co., Kawasaki Steamship Co., Yamashita Steamship Co., Tatsu-uma Steamship Co., Kokusai Steamship Co., and the shipping division of the Mitsubishi Shoji Co. These companies began to provide ship officers with retirements pensions, the amount of which would increase according to the service period in the company.

Most of the reserved ship officer systems which were adopted by large tramp operators had similar structures, though some of them rather resembled that of the liner companies. The former was different at an important point from the latter. The former did not necessarily combine with the permanent employees system. Under the former system the reserved seamen were classified in class A, B and C. The reserved ship officers of class A were composed of ship officers who were waiting for their next service under order of their company to change ships

and of officers who were under medical treatment for injury and illness owing to their service. They were paid the same amount of allowances as their wages. When an officer got off his ship because of illness or vacation, he was classified as reserved officer of class C, and he had no pay.<sup>(6)</sup> If the ship officers of class C entered the status of waiting for their next service, they were classified as class B and paid about a half of their wages. However, in practice, the classification of reserved officers was operated elastically so as to encourage continuous employment. For example an officer who remained in service for several years without a break in his work was sometimes classified in class A or B when he got off his vessel owing to private reasons. On the other hand an officer who had less qualification and bad character was sometimes exempted from the chance to enter class B from class C by the company. More important, in the case of tramp operators the application of the reserved ship officer system was often limited to a part of the officers. Captains and other officers of higher ranks came under the application of the system, but officers of lower grades were often hired on a voyage basis without application of the system so as to minimize additional labor costs of allowances for reserved officers.

As we have shown above, the reserved officer system of most large tramp operators had some important differences from that of liner companies. But the differences between them should not be overestimated. Because ship officers who were hired on a voyage basis by large tramp operators did not usually change their vessels and employers, though their employment relation might be intermittent. They usually remained under the same employer with the expectation of being eligible for the reserved officer system and also for promotion to higher ranks.

The reserved ship officer system had been employed by the liner companies and large tramp operators until 1942 when all seafarers were under wartime labor control. But during the prewar period most of the Japanese shipowners who mainly engaged in coastal and ocean tramp trade employed ship officers on a voyage basis. Consequently ship officers who were employed by large shipping companies seldom changed their employers, while officers employed by small shipping companies often changed their vessels and employers. Therefore the labor market of ship officers during the prewar period was divided into one large labor pool from which small ship owners could hire officers, and several other small factions of labor pools which were maintained by large shipping companies. Movement of labor between the former and the latter scarcely

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(6) After World War I large shipowners began to provide ship officers with paid vacations. If an officer remained in service for a year without any break in service, he was given a vacation of two weeks with pay.

occurred, because large shipping companies would seldom hire ship officers who had been employed by other companies, and officers who were employed by large companies preferred to remain in the same company.

### III

#### *Beginning of the system of reserved members for unlicensed seamen*

The system of reserved members for unlicensed seamen was introduced much later than in case of ship officers. The system of reserved members for unlicensed seamen was also at first adopted by the Nihon Yusen Kaisha. Though the company employed ratings of the catering department as permanent employees from its beginning, the company had employed ratings of the deck and engine departments on a voyage basis until February 1920. Afterwards applicants for the company as unlicensed seamen were selected and adopted as boys. After they finished a training of one year, they were promoted to ordinary seamen or firemen and at the same time were employed as permanent employees. According to the company regulation reserved members, that is, unlicensed seamen waiting for their next service on land were paid allowances. But when they were on vacation, no allowance was usually paid.<sup>(7)</sup>

The Osaka Shosen Kaisha also adopted the system of reserved members for unlicensed seamen in 1921. But the Osaka Shosen Kaisha did not employ unlicensed seamen as permanent employees. According to the company regulations for unlicensed seamen which was enforced in April 1921, unlicensed seamen were qualified as reserved members with pay if they worked continuously in the company for a long period. For example if a seaman worked for a period longer than eight years and he remained on the same ship without any break in his service for a period longer than four years, he was put in the position of a reserved seaman when he was off article, provided with an allowance which was the same amount as his wage until he could engage in his next service. Seamen who worked in the company for a period longer than three years and remained on the same ship for a period longer than one year and seamen who got off ship owing to illness or injury were also nominated for reserved seamen, and they were provided with allowances which amounted to half of their wages. The period of being reserved seamen was not determined by company regulations. The company ordered a reserved member to engage in the next service in consideration with the manning requirement of the company fleet and the period of off articles of respective members. Therefore the period of staying

(7) M. Sakamoto, "Development of Maritime Labor in Japan" (Japanese), Magazine of the Association of NYK Captains, Nov, 1955. pp. 13-14.

on land as reserved seamen was different among seamen. In other words a paid vacation was not necessarily admitted as the right of reserved members by the company.

In the Osaka Shosen Kaisha the wages of unlicensed seamen increased as their work period in the company increased, and the company promoted them principally according to their seniority in the company. Therefore the system of reserved seamen enforced by the Osaka Shosen Kaisha was regarded as a measure for encouraging seamen to work continuously in the company.

Large tramp operators who adopted the system of reserved ship officers also adopted the system of reserved seamen which had a similar structure with that of the Osaka Shosen Kaisha, while a large part of Japanese shipowners who engaged in tramp trade with small tonnage boats hired unlicensed seamen on a voyage basis before World War II.

The labor market of unlicensed seamen during the prewar period was therefore divided into one large labor pool and several other small factions, as we have pointed out with regard to the labor market of ship officers. Movement of labor between the former and the latter also seldom occurred, though more seamen changed vessels from large shipping companies to small shipowners in comparison with the case of ship officers.

#### IV

##### *Summary and Notes*

Before World War II only the liner companies and the large tramp operators adopted and maintained the system of reserved members for seafarers, which today is adopted in combination with the permanent employment system by all Japanese shipping companies operating foreign-going ships, while most of the shipowners hired seafarers on a voyage basis.

In summing up the development of the system of reserved members for seafarers, with regard to ship officers the two liner companies adopted the system during the period of modernization of Japanese shipping industry, and large tramp operators followed during and after World War I. With regard to unlicensed seamen, liner companies and large tramp operators adopted the system after World War I.

The system of reserved members for seafarers was carried into effect by companies either in combination with the permanent employment system or combined with company welfare plans and a wage structure which were devised to encourage continuous employment.

Then, why did the large shipping companies adopt and maintain the system? Clarifying this question will be reserved for a later opportunity. However, some

hint should be presented here. Adoption of the system of reserved ship officers by the two liner companies was due to the necessity of securing the required number of qualified officers, as we have pointed out in the foregoing paragraphs. But securing and maintaining a labor pool of qualified members, in other words, the short supply of qualified seafarers is not an adequate explanation of why the system was adopted by other companies or why the system was maintained by all of them notwithstanding the additional labor costs. Because after World War I when the system was newly adopted by liner companies and large tramp operators, the short supply of seafarers gradually disappeared and there were rather symptoms of an oversupply. In addition during the interwar period seafarers were commonly oversupplied, as is shown in unemployment statistics of seamen of this period.

The key for solving this question may be found in the development of unionism among seamen. Trade unionism among unlicensed seamen developed during World War I and in May 1921 the Japan Seamen's Union was organized as a result of the combination of small unions. The union put all its energy into the establishment of a union-operated job exchange service. The ship Officers' Club, which was set up in January 1896 and whose activities at first were limited to friendly association, changed its character to that of a trade union after World War I. The adoption of the system of reserved members for unlicensed seamen and officers after the war coincided with the development of trade unionism among seamen and their efforts for securing a job-exchange service. The above fact suggests that the system of reserved members was introduced and maintained by large shipping companies for the purpose of either establishing harmonious labor relations with the crew of the company fleet or of disturbing the organizing of the crew.



# ON THE AUTOMATION OF BANKING IN JAPAN

Jiro ONO

## I

In Japan, the automation of banking has progressed rapidly within the last ten years. This means the installation of large-scale computers, design of so-called on-line systems, efforts for the development of MICR or OCR techniques, research on more efficient management information systems, etc. that have been carried out in large-scale banks.

However, they have not always been successfully put into practice as matters stand, and there are many middle- or small-scale banks which cannot promote such high-grade office automation projects because of difficult problems involved.

It is my intent to give an outline of the present state of affairs and to examine some important points in regard to the automation of banking in Japan.

## II

In this section, we shall outline the banking system in Japan, especially the kinds of banks and their operations so that we may more easily proceed to the main issue.

It is necessary to recall that the first banking institution in Japan was the Kawase Kaisha (an exchange firm) established in the Meiji Era, 1869.

Today, as of 1962, there are several kinds of banks as follows:

### (1) The Bank of Japan

This is the central bank of Japan whose main functions are the issue of paper money, short-term loans to other financial institutions by means of rediscounting commercial notes or loans secured by the pledge of security collateral, handling of deposits of other banks held for settlement because of various transactions among themselves, underwriting and selling of government bonds, and other financial services for the government.

### (2) Long-term Credit Banks

In Japan there are three banks whose functions are provided by the Long-term Credit Bank Act of 1952, that is, the Industrial Bank of Japan, the Long-term Credit Bank of Japan and the Hypothec Bank of Japan.

Their main functions are the supply of funds for industrial firms for capital

expenditure, for which funds are ordinarily raised by the issue of bonds.

They are not permitted to take in deposits of the general public, but only of the government, other public organizations and their clients.

### (3) Ordinary Banks

By "ordinary banks" we mean the seventy-seven banks whose functions are provided by the revised Bank Act of 1927.

They are classified into two kinds of banks, that is, thirteen "urban banks" and sixty-four "local banks." The former consists of so-called large-scale banks, such as the Sumitomo Bank, Sanwa Bank and Bank of Tokyo, which have many branches—from 72 to 226—scattered throughout the country, though only the Bank of Tokyo has a dual character as a special bank for foreign exchange services as well as those of an ordinary bank. The latter banks are almost all middle- or small-scale ones whose main banking areas are limited to a few prefectures.

It is often said that they carry out the same functions as savings banks and commercial banks in USA or Europe, that is, their important operational functions are the handling of demand and fixed-time deposits (in Japan demand deposits are divided into savings deposits and current deposits, and the former cannot be withdrawn by checks), short-term secured loans, discount of commercial notes, investment of bank funds in securities, remittances by drafts, foreign exchange services, etc.

### (4) Trust and Banking Companies

In Japan, today there are eight financial companies of this kind such as the Mitsubishi Trust & Banking Co., Mitsui Trust & Banking Co., Chuō Trust & Banking Co., and so on. They perform trust services as their main function, including ordinary bank functions. But their legal character is the same as the above-mentioned ordinary banks because trust and banking companies were also established on the ground of the revised Bank Act of 1927.

### (5) Mutual Financing Banks

They are previous mutual financing associations reorganized on the ground of the Mutual Financing Bank Act of 1951. Their main functions are handling of deposits, loans, discount of commercial notes, remittance by drafts, etc. in addition to mutual financing services, though their service area is usually limited to one or two prefectures.

As will be also mentioned in the next section, the character of the present seventy-two mutual financing banks is practically becoming the same as that of local banks, except that mutual financing banks cannot get commercial notes re-discounted at the Bank of Japan.

### (6) Credit Companies

Most of the 535 credit companies were established by reorganization from

previous industrial financing associations, urban credit associations and so forth, on the ground of the Credit Company Act of 1951.

They are small-scale financial institutions which supply funds to small firms. Credit companies receive the deposits of the general public including their members, provide loans secured by a kind of certificate to the members, discount commercial notes and handle domestic remittance services. To the general public loans can be made only with the pledge of the borrower's deposit. Their banking area is usually limited to a city or several wards of a city or a few counties of a prefecture by the articles of the association.

#### (7) Other Financial Institutions

The above-mentioned are the main financial institutions in Japan.

However, in addition, we can point out eleven public financial institutions such as the Nippon Development Bank, Financing Corporation for Small Business, and so on.

Agricultural co-operative associations, credit associations and depositories for workers also function as considerably important financial institutions though the scale of each is very small.

### III

In this section, we will give an outline of actual states of bank automation, especially the installation of PCS and EDPS in Japan. It is needless to describe the installation of many kinds of billing machines and bookkeeping machines (for example, NCR class 3000, NCR class D32, NCR class 2000, Burroughs series F760, Burroughs series F2500, Friden Computyper, etc.), because they have already been in use for deposits- or loan-services in each of the above-mentioned financial institutions for many years.

As I have mentioned in the last section, Japanese financial institutions are classified into several categories. The EDPS and PCS which are installed in banks of each category are, as of March 1962, as follows:

(1) The Bank of Japan (the number of branches is 44, the number of officials is 7,290 and the amount of deposits is 2,117,033 million yen): IBM 1401 1set, IBM PCS 5sets.

#### (2) Long-term Credit Banks

The Industrial Bank of Japan (branches 11, officials 2,653, deposits 99, -700 million yen): IBM 1410 2sets, IBM PCS 6sets.

The Hypothec Bank of Japan (branches 5, officials 486, deposits 3,707 million yen): NEAC 1201<sup>(1)</sup> 1set.

#### (3) Ordinary Banks

## a. Urban Banks

The Fuji Bank (branches 189, officials 11,183, deposits 816,731 million yen): IBM 1440 1set, USSC type 80 2sets, OKITAC 5090B<sup>(2)</sup> 1set, NCR MICR Sorter-Reader 1, IBM PCS 3sets.

The Mitsubishi Bank (branches 160, officials 10,155, deposits 781,130 million yen): IBM 7010 1set, IBM 1401 2sets, Burroughs MICR Sorter-Reader 1, IBM PCS 4sets.

The Sanwa Bank (branches 187, officials 11,441, deposits 748,325 million yen): USSC type 80 1set, IBM 650 1set, Burroughs B270 1set, Burroughs MICR Sorter-Reader 3, IBM PCS 5sets.

The Sumitomo Bank (branches 155, officials 9,860, deposits 746,248 million yen): NCR Elliott 405 1set, NCR 304 1set, NCR 315 1set, IBM PCS 3sets.

The Tokai Bank (branches 172, officials 9,196, deposits 535,317 million yen): IBM 7070 1set, IBM 1401 1set, HITAC 3031<sup>(3)</sup> 1set, IBM PCS 3sets.

The Dai-Ichi Bank (branches 105, officials 6,338, deposits 495,153 million yen): IBM 1410 1set, IBM MICR Sorter-Reader 1, IBM PCS 2sets.

The Mitsui Bank (branches 107, officials 6,812, deposits 473,808 million yen): IBM 1401 2sets, IBM PCS 5sets.

The Kyowa Bank (branches 226, officials 8,156, deposits 352,505 million yen): IBM 1401 1set, IBM PCS 3sets.

The Daiwa Bank (branches 112, officials 6,520, deposits 327,700 million yen): IBM 1410 1set, IBM PCS several sets.

The Bank of Kobe (branches 146, officials 5,200, deposits 257,940 million yen): IBM 1410 1set, IBM PCS 4sets.

The Hokkaido Takushoku Bank (branches 113, officials 4,056, deposits 210,698 million yen): IBM 7070 1set, IBM PCS a few sets.

The Nippon Kangyo Bank (branches 126, officials 6,646, deposits 476,034 million yen): IBM 1401 2sets, Burroughs MICR Sorter-Reader 1.

## b. Local Banks

The Saitama Bank (branches 98, officials 3,758, deposits 301,647 million yen): IBM 1401 1set, IBM 1460 2sets, NCR 513 1set, IBM PCS 3sets.

The Shizuoka Bank (branches 143, officials 3,174, deposits 191,395 million yen): IBM 1440 1set.

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- (1) The EDPS made by the NEC (the Nippon Electric Co.). Series 1201 is one of the smallest-scale computers, that is, its internal memory is 120 words, though the NEC is now making other type of computers of middle-or large-scale size, for example NEAC 2203, NEAC 2230 and so on.
  - (2) A middle-scale EDPS made by the Oki Electric Industry in Japan. This series EDPS has an internal memory of 4K or 8K words.
  - (3) A middle-scale EDPS, of 40K characters, which is made by the Hitachi Seisakusho in Japan.

The Hokuriku Bank (branches 131, officials 3,160, deposits 182,084 million yen): IBM 1401 1set, IBM PCS 2sets.

The Yokohama Bank (branches 86, officials 2,514, deposits 172,435 million yen): NCR 315 1set, FACOM 212<sup>(4)</sup> 1set, PCS 2sets.

The Yamaguchi Bank (branches 112, officials nearly 1,900, deposits 140,479 million yen): IBM 1401 1set.

The Kyoto Bank (branches 49, officials 1,086, deposits 68,997 million yen): IBM PCS 1set.

The Ohita Bank (branches 71, officials 1,201, deposits 46,776 million yen): PCS 2sets.

#### (4) Trust and Banking Companies

The Mitsubishi Trust & Banking Co. (branches 29, officials 2,262, trust deposits 506,945 million yen, other deposits 75,830 million yen): IBM 1401 2sets, IBM 1460 1set, IBM 7040 1set, IBM PCS 3sets.

The Sumitomo Trust & Banking Co. (branches 31, officials 2,420, trust deposits 445,612 million yen, other deposits 71,579 million yen): IBM 1401 1set, IBM PCS 7sets.

The Mitsui Trust & Banking Co. (branches 29, officials 2,245, trust deposits 348,800 million yen, other deposits 66,536 million yen): IBM 1401 2sets, IBM PCS 6sets.

The Toyo Trust & Banking Co. (branches 22, officials 1,909, trust deposits 374,454 million yen, other deposits 17,242 million yen): RR EDPS 1set.

The Yasuda Trust & Banking Co. (branches 28, officials 1,844, trust deposits 203,272 million yen, other deposits 41,423 million yen): Burroughs 205 1set, OKITAC 5090M 2sets, IBM PCS 5sets.

The Nippon Trust & Banking Co. (branches 24, officials 1,192, trust deposits 20,482 million yen, other deposits 48,431 million yen): IBM PCS 1set.

#### (5) Mutual Financing Banks

The Nippon Mutual Financing Bank (branches 127, officials 3,708, deposits 179,824 million yen): IBM 1401 1set.

The Heiwa Mutual Financing Bank (branches 30, deposits 42,996 million yen): IBM PCS 1set.

The Hyogo Mutual Financing Bank (branches 59, officials 2,099, deposits 39,297 million yen): ICT-Samas PCS 1set.

The Tokyo Mutual Financing Bank (branches 30, officials 2,006, deposits 34,230 million yen): ICT-Samas PCS 1set.

The Nagoya Mutual Financing Bank (branches 40, officials 1,653, deposits

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(4) A small-scale computer, of 56 words memory, which is made by the Fuji Communication Apparatus Mfg. Co. in Japan.

33,758 million yen): IBM 1440 1set.

The Fukutoku Mutual Financing Bank (branches 29, officials 2,291, deposits 31,903 million yen): IBM 1440 1set.

The Chuoh Mutual Financing Bank (branches 45, officials 1,669, deposits 29,641 million yen): IBM PCS 1set.

The Kinki Mutual Financing Bank (branches 43, officials 1,803, deposits 28,352 million yen): ICT-Samas PCS 1set.

The Kure Mutual Financing Bank (branches 25, officials 534, deposits 6,834 million yen): NEAC 1201 1set.

#### (6) Credit Companies

The Shiba Credit Co. (branches 12, officials 554, deposits 14,547 million yen): HITAC 201 1set.

The Hiroshima Credit Co. (branches 22, officials 592, deposits 14,328 million yen): NEAC 1201 1set.

The Tokyo Industrial Credit Co. (branches 9, officials 503, deposits 13,325 million yen): RR 1004 1set, IBM PCS 1set.

The Chuoh Credit Co. (branches 10, officials 338, deposits 11,220 million yen): RR PCS 1set.

The Ueno Credit Co. (branches 5, officials 330, deposits 10,139 million yen): RR 1004 1set.

The Arakawa Credit Co. (branches 7, officials 322, deposits 9,311 million yen): NEAC 1201 1set.

The Tohbu Credit Co. (branches 9, officials 402, deposits 9,109 million yen): RR 1004 1set.

#### (7) Other Financial Institution

Though the EDPS or PCS installed cannot be individually shown here, generally, each of the other public financial institutions—for example, the Nippon Development Bank—has a set of EDPS or PCS, almost all made by the IBM Corporation.

However, agricultural co-operative associations or credit associations, that is, other small local financial institutions have not yet obtained such a high-grade office machine except in a very few cases.

## IV

In this fourth section, we shall try to consider the contents and the important features of application of the many kinds of machines, especially of the EDPS or PCS, in banking operations in Japan.

### (1) Motives for Automation of Banking in Japan after World War II.

After World War II, the mechanization of banking office-work in Japan

has been promoted by six motives as follows:

The first is the inflation of currency just after the War.

The increase of circulating currency necessitated the installation of many kinds of machines at the windows of each bank. That is, in this early period of the after-war era, tellers-machines, other accounting machines for deposit book-keeping, counters for metallic- and paper-currencies, etc. were considerably well provided.

The second motive is the strengthened financial control of the government on the ground of the execution of the so-called Dodge Policy for the recovery of Japanese economic stability.

Since the execution of this policy in 1949, the Ministry of Finance and the Bank of Japan have made their—direct and indirect—control of all kinds of financial institutions stronger. As the result, most banks have been required to prepare many kinds of reports and statistics in regard to their banking operation, not only to provide the Ministry of Finance and the Bank of Japan with data for financial control, but to carry out their own loan-management more carefully. To facilitate this procedure, a PCS or EDPS based on punched cards has been installed. This tendency to install the PCS or EDPS for preparation of many kinds of statistics, as we will state later too, is still seen at present.

The third is the increase of clerical work on account of the rapid growth of Japanese economic activities.

Even at the present, we are sure that the increase of clerical work—measured by the number of all kinds of slips processed—is, on the average, from eight to fifteen percent a year.

The fourth motive is the tendency for the amount of a transaction-unit to become smaller and smaller as the result of severer competition, especially centering around the collection of deposits, among banks.

As the result of the great damage suffered by World War II, and because of inflation, which is still in progress at present, the reformation of the taxation system and the change of various other social and economic systems, the Japanese banking system has had the constructional feature of "Over Loan" since the War.

Because of this constructional feature, financial institutions, even large-scale urban banks, have had to compete with one another to collect deposits of even small amounts. Thus, the variety of deposits and loans cannot but increase. as we can see in the motto "Development of a New Products" of a bank.

It will be needless to say that this state of affairs is one of the most important factors which increases office work, though its effect cannot be measured separately from one of the third motive.

The fifth is the difficulty of securing employees and the rising tendency of personnel expenses, especially for the young generation.

In addition to this difficulty, we must consider such factors as deterioration in the quality of employees, high cost of office-space, and the limit of personnel managements in a office.

In the present state of affairs, banking operation dependent on the manual work of many employees is becoming impossible, at least in urban financial institutions.

The sixth motive is the generalization of our modern business management concept that regards data-processing as one of the most important tools for management.

This concept of the so-called Management Information System that uses a high-grade EDPS as its central information sensorium for decision making has recently attracted the attention of management or data processing specialists.

In Japanese financial institutions too, this concept is moving toward generalization. And we are sure that this conceptual tendency in regard to management has a considerable influence on the promotion of banking automation, especially on the recent installation of EDPS in urban banks.

With these motives, the automation of banking in Japan has progressed for the last nineteen years.

## (2) Application Fields of the EDPS or PCS

Though the application fields of the EDPS or PCS are of course not always completely the same among various banks, as main fields we can show the following: that is, handling of deposits, loan operation, clearance and classification of checks or notes, settlement of accounts between the head-office and branch-offices, domestic remittance by drafts, services for deposits (demand deposits, fixed-time deposits, trust deposits), payroll, information retrieval for personnel management, accounting or bookkeeping, preparation of all kinds of statistics (especially on each kind of loan and deposits), investment analysis in securities, financial analysis of each branch or each special service (for example, trust service), inventory management for office supplies etc.

These main fields of application are almost the same in small- or middle-scale financial institutions, too. Even banks, which have not yet installed a EDPS or PCS or which have only insufficient machines to process all of above-mentioned fields automatically, intend to apply the EDPS or PCS to these fields in the future, though special banks—for example, trust and banking companies—regard the special field as the most important in promoting their banking automation.

## (3) Features of Application of the EDPS or PCS

However, the method and degree of the above-mentioned application, especially the scale or kind of EDPS installed, are different among banks, and



each of the application-fields has not always the same weight in the present automation of banking.

The following is a statement of several features in the character of banking automation in Japan.

First, we must consider the correlation of the installation of a EDPS or PCS with the scale and the character of banks.

According to the opinion of Prof. M. Beika (Professor of Business Administration, The Research Institute for Economics and Business Administration, Kobe University), there is the following tendency in regard to the installation of the EDPS or PCS:

In thirteen urban banks a relatively large-scale EDPS, which consists of a large-scale computer such as IBM 7070—in a few cases it has a small-scale satellite computer as an auxiliary—or a few middle-scale computers such as USSC, is likely to be used at banks which have deposit-amounts over 500 billion yen, officials over 9,000 and branches over 150. An EDPS which consists of a middle-scale computer seems to be installed at banks which have deposit-amounts from 200 billion to 500 billion yen, officials from 5,000 to 8,000 and branches from 100 to 150, but exceptional cases are the Hokkaido Takushoku Bank and Bank of Tokyo.

In sixty-four local banks, only seven banks have installed an EDPS or PCS. However, except for the Saitama Bank which is larger than the Bank of Kobe in its deposits-amount and which has installed a considerable large-scale EDPS nearly equal to that of large-scale urban banks, here also is a tendency for a middle- or small-scale EDPS as IBM 1410, 1401, 1440, etc. to be installed at banks which have deposits-amount from 150 billion to 200 billion yen, officials from 2,000 to 3,000 and branches from 80 to 100.

Of eight trust and banking companies, each of the five companies which have deposits-amount from 250 billion to 600 billion yen, officials from 1,900 to 2,400 and branches from 20 to 30 has a large- or middle-scale EDPS which is nearly equal to that of large-scale urban banks.

The other remaining companies are so small in comparison with the above-mentioned five that they cannot yet install an EDPS.

Of seventy-two mutual financing banks, eight banks have already installed such a small-scale EDPS or PCS as IBM 1401, RR 1004, ICT-Samas PCS, etc.

These banks range from 30 billion to 180 billion yen in deposits-amount, from 1,600 to 3,700 in the number of officials and from 30 to 127 in the number of branches, except in the case of the Kure Mutual Financing Co.

Of 535 credit companies, each of seven companies which range from 10 billion to 15 billion yen in deposits-amount, from 300 to 600 in the number of officials and from 5 to 22 in the number of branches has installed a small-scale EDPS or

a PCS.

On the correlation of the installation of a EDPS or PCS with the scale of the bank, we are also sure that there is such a tendency as above-mentioned, in the present state of banking automation in Japan.

Secondly, however, we must pay attention to the fact that some kinds of banks with a certain scale in regard to deposits-amount, official-number and branch-number have not always installed a certain scale of EDPS or PCS. Though this fact is not seen in urban banks or trust and banking companies, it can be remarkably observed in local banks, mutual financing banks and credit companies, that is, in financial institutions with local characters.

In other words, generally speaking, it is pointed out that banks which have many branches all over the country have promoted their office automation to a considerably high degree and each bank has an EDPS suitable to its scale of banking operations, but that, however, the automation of financial institutions with local characters has not progressed so much and that the automation of each institution has not always been promoted in the same manner.

Local banks especially have not so earnestly promoted their banking automation as urban banks. Many of the local banks, in the installation of an EDPS or PCS, are behind even the mutual financing banks and credit companies which exist in such large cities as Tokyo, Nagoya and Osaka. That is, some of the above-mentioned local financial institutions have relatively far promoted their banking automation in comparison with their scale of operations.

Here, we can find an important feature that a financial institution, whose operation area is a large city or its environs, has a more positive tendency to install an EDPS or PCS than other institutions.

This tendency seems to be the result brought about by its operating conditions in that the above-mentioned six motives are more seriously felt because of its existence in a large city, and that the concentration of its relatively small number of branches in a narrow area makes the formation of the so-called Integrated Data Processing System much easier. On the other hand, because of the lack of these conditions, other local financial institutions are not able to promote so positively their banking automation in spite of their relatively large-scale operations.

However, we must point out another feature, that is, each of the institutions has a tendency to install the same kind of EDPS or PCS as that of other similar institutions which have already been installed.

For example, when once the Bank of Japan installed a PCS of IBM, some large-scale urban banks followed the example and all together installed the same kind of PCS.

Even today, this tendency has an important influence on the banking

automation of Japan. While on the one hand several local smaller financial institutions of the same kind in nearly the same area are about to install competitively a certain kind of EDPS or PCS, on the other hand, many larger-scale local banks have not yet a basic idea of the automation of banking because very few of them have installed such high-grade office machines. The installation of an EDPS in Japanese financial institutions is decided not only by their own operating need but also by the motive of other similar institutions.

Thirdly, we desire to state the features of the main application fields or the grade of application of the EDPS.

As we have already mentioned, even at present, one of the most important application fields is the preparation of statistics, especially in regard to loans, though statistics in regard to foreign exchange, deposits, owned securities, personnel management, etc. have also considerable importance.

In the present Japanese banking system, the preparation of loan statistics—daily, weekly and monthly—means to provide the management with the most important information for decision making, in addition to giving the Ministry of Finance and the Bank of Japan necessary data for the financial control of Japanese economy.

Also in other application fields, a few banks attain a considerable high-grade banking automation stage.

The first topic is the application of the On-Line System to savings-deposit services.

Concretely, at present, only the Mitsui Bank is developing the On-Line System which consists of two sets of IBM 1410, and trying to connect its data-processing center with about thirty branches in the City of Tokyo.

Though all large-scale urban banks are still at the stage of watching the results of the Mitsui Bank experiment, they regard the On-Line System in deposit services as one of the most important application fields.

For example, the Sanwa Bank has tried to concentrate its savings-deposits works of the busiest six branches in the City of Osaka in the data-processing center in the head-office as a preparatory step in the realization of the On-Line System. The Tokai Bank has also developed the same system.

In this system, the record of savings-deposits received in each branch is—by NCR 2000—punched on paper tape, and at the same time typewritten on the customer's passbook. At the end of the day the punched tape is collected by mail-cars. Afterwards the punched tape is converted into cards, the data being processed by the EDPS. Calculation of interest, bookkeeping, summing up of the day's deposits-amount, preparation of records necessary for the operation of each branch, etc. are carried out within the day, though by work beyond office hours. By nine a.m. of the following day, the records necessary for their

daily work is returned to each branch.

It is said that by this system it has become possible for the busiest branch with the narrowest operating space to give sufficient attention to customers.

Though this type of system is not the so-called On-Line System from a serious point of view, the experiment is useful to investigate the possibility of concentration of savings-deposits work.

And, in the present state as it is too, it seems to have a considerably profitable effect, especially in financial institutions with a relatively small number of branches in a large city. Some of the above-mentioned mutual financing banks and credit companies intend to adopt this type of system in the near future.

The second topic is the automatic settlement system of domestic exchange of the Tokai Bank.

This EDECS—Electronic Data Exchange and Control System—which is constructed with HITAC 3031, a specially designed EDPS for its data processing is a kind of On-Line System for the settlement of domestic exchange accounts between the head-office and its branches, and it also seems to play an important part in the settlement of other accounts among offices.

The development of this type of EDPS is a remarkable feature in the Japanese banking system which is built on several large-scale urban banks with many branches.

It is one of the most important application fields whose structure we must consider more intensively.

The third topic is the application of the so-called MICR for classification and other kinds of data processing of checks and notes which have already been exchanged.

In a few large-scale banks, the code numbers of each branch are, with a magnetic ink character, typewritten on already exchanged checks and notes, and according to this code number their classification is carried out.

At this point the application still now remains in an experimental and primitive stage, because its data processing is limited to the classification of checks and notes within a bank. And we must also consider the more serious problem whether the system, the MICR or OCR, is suitable to the Japanese banking system or not.

Facts that prohibit the generalization of MICR are found in various Japanese banking conventions. The most important is that the check system is not so generally used for transactions as in the USA, and that therefore most of the smaller financial institutions cannot economically use the MICR system, or cannot install the equipment necessary for the MICR system. The number of checks circulating in Japan seems to be only one-hundredth or one-fiftieth of that in the USA.

Another important fact—though it is felt as a serious prohibitive course in all of the other application fields of the EDPS—is the technical backwardness of each apparatus made in Japan, especially for input-output of data. This fact means that the general adoption of MICR in Japan cannot but depend on expensive apparatuses made in foreign countries because banking operations require high-grade reliability of machines, and that, also on this point, most of the smaller financial institutions cannot profitably install equipments necessary for the MICR system.

However, in accordance with the development—of technique and consciousness—of banking automation in other operation fields, the MICR or OCR will be adopted to a great extent. All financial institutions regard it as one of the most important application fields.

The fourth topic is information retrieval for personnel management by the EDPS. For example, in the Sanwa Bank, detail data of 11,441 officials are all filed on magnetic tapes at the data processing center. The necessary data, for example, to organize a task force to carry out a certain project, can be retrieved without delay, complying with the personnel management division.

In such a large-scale and complex business organization as an urban bank in which many employees of high-grade intelligence are important factors for its growth, a rapid and correct personnel management is one of the decisive strategies.

In addition to this fact, we must pay attention to the possibility that the system may develop into a more wide-range information retrieval system, including the retrieval of other necessary information for the whole of management.

## V

In this paper, so far, we have described the present state of banking automation in Japan, and examined some features or problems involved.

In the progress of office automation of banks in Japan, there are some prohibitive factors difficult to solve, that is, the technical backwardness of apparatuses made in Japan, conservative attitude of local banks toward promoting banking automation, difficulty in regard to personnel management, (in Japan, it is very difficult to adopt a special attractive salary system and a three-shift operating system for the data processing center of business because of the seniority rule and the Labor Standard Law.) and some other prohibitive factors due to Japanese banking conventions.

However, beyond these difficult problems, financial institutions in Japan will promote the automation of their banking operations. And we are also sure that they must endeavor to attain this purpose not only in order to grow

themselves but also in order to develop the whole of Japanese economy.  
1964, 12. 13.

## A PRESENTE ETAPA DO DESENVOLVIMENTO ECONÔMICO DO JAPÃO\*

Yoshiaki NISHIMUKAI

A base da economia japonêsa foi destruída durante a segunda guerra mundial. É largamente sabido que as principais indústrias foram arrasadas muitas vês pelos ataques aéreos dos países aliados. Não é exagerado dizer que o desenvolvimento da economia japonêsa depois da guerra, se iniciou em meio a esse verdadeiro caos. Assim, a economia japonêsa, tem se reconstruído a passos lentos por volta de 1955, porém, já tinha ultrapassado a etapa da reconstrução e entrado na fase do novo desenvolvimento. Realmente, propriamente dita, se nós observarmos uma das cidades, não encontraremos nenhuma cicatriz da terrível destruição da guerra e não nos parecerá àquela que foi destruída há quinze anos.

O desenvolvimento econômico do Japão depois de 1955, é bastante notável e a média da taxa anual do crescimento econômico dá-nos porcentagem de 10 por cento. A taxa anual de aumento da renda real nacional *per capita* foi de 7 por cento no período de 1953 a 1959. Esta taxa foi a maior do mundo. Considerando que, no mesmo período, essa taxa dos Estados Unidos foi de 0,8%, na Inglaterra, de 2,1%, na França, de 3,7%, na Itália, de 4,2% e mesmo na Alemanha Ocidental, de 5,3%, podemos compreender a rapidez do crescimento da renda japonêsa. Ademais, em apenas dois anos, 1959 e 1960, a renda real japonêsa cresceu cerca de 30 por cento, e a produção industrial e mineral mostrou o aumento espantoso, de mais de 50 por cento. Baseando-se neste rápido crescimento econômico, os núcleos da política econômica do atual governo, mantêm a taxa anual de crescimento econômico em 9 por cento e esperam duplicar a renda nacional nos próximos 10 anos.

A rapidez do desenvolvimento era tal que surpreendeu os próprios japoneses. Era, portanto, natural que se tornasse alvo de intrêsse da parte de outros países. Assim, uma revista norte-americana descreve o problema:

“Os líderes das indústrias japonêsas se mostram confiantes de sí, a ponto de afirmar coisas que para os norte-americanos, seriam impossíveis, isto é, esses industriais opinam que a economia japonêsa faria duplicar, nos próximos 10 anos, a renda nacional sem provocar a inflação.”

Diz ainda o articulista que, para as pessoas que visitam o Japão pela primeira

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\*Conferência pronunciada no Curso de Introdução à Cultura Japonêsa do Instituto Mackenzie a 14 de setembro de 1961.

vêz, esta afirmação afigurar-se-á como sendo fútil e sem nenhuma base, porque o Japão tem poucos recursos e, por tanto, é forçado importar quasi 90 por cento de petróleo, 80 por cento de ferro, 45 por cento de outros metais, cem por cento de algodão e de borracha e 50 por cento de outras matérias primas. Apesar disso, os japoneses declararam que o Japão pode realizar a sua meta. Na realidade, a experiência japonesa nos últimos 10 anos indica que há possibilidade de aumentar a sua taxa de crescimento ainda mais rápido. E essa mesma revista qualificou o crescimento econômico nos últimos anos de “desenvolvimento a jato.”

Agora, em que fatores se baseia este rápido crescimento da economia japonesa? Talvez, possamos apontar dois fatores principais: o primeiro é o aumento notável do investimento nos equipamentos que se verificou depois de 1955, cuja taxa anual alcança a 29%. Essa taxa alta de aumento do investimento é raramente verificada em outros países. O aumento do investimento nos equipamentos pode ser exprimido melhor com as palavras “inovação tecnológica.” Pela circunstância de que a inovação tecnológica no Japão consiste na introdução da tecnologia avançada e no melhoramento tecnológico nas indústrias já existentes, a inovação teve de aparecer de maneira drástica.

O segundo é a chamada “revolução dos bens de consumo” no campo da procura. Esta revolução de consumo significa a expansão de procura de utilidades domésticas, isto é, a de bens duráveis de consumo, tais como televisão, máquina de lavar e equipamento de ar condicionado. Essa expansão estimulou as indústrias e, indiretamente, outros setores que têm relações com essas indústrias. Como fatores que trouxeram a revolução de consumo, podemos enumerar o melhoramento do nível de vida dos trabalhadores em decorrência do desenvolvimento dos sindicatos depois da guerra, e a elevação do nível de consumo dos camponeses, elevação esta baseada principalmente na reforma agrária.

Ademais, podemos considerar os fatores peculiares no Japão que possibilitaram o rápido crescimento da economia japonesa, entre os quais podemos citar a existência da força de trabalho em abundância, o alto nível de acumulação do capital que se conseguiu no passado, graças ao baixo nível de salário, e à alta taxa de poupança. Sobre estes fatores voltarei a abordar mais adiante.

Agora, vamos examinar se a economia japonesa tenha a possibilidade de continuar seu crescimento rápido, ou, se o rápido crescimento, que foi possibilitado pelos fatores acima referidos, seja um fenomeno temporário. Em outras palavras, vamos examinar a situação do rápido crescimento no processo do desenvolvimento econômico do Japão. Não basta apreciar apenas os índices econômicos superficiais, tais como a taxa de crescimento e o nível de renda. Precisamos considerar a etapa atual do desenvolvimento econômico dentro de



uma conjuntura mais ampla sobre a qual se baseia esse desenvolvimento. Creio que é mais útil observar este problema do que analisar somente a prosperidade atual da economia japonesa. Assim pensando, gostaria de tentar esclarecer resumidamente a presente etapa do desenvolvimento econômico do Japão. Temos uma obra bastante concisa que se refere à present etapa do desenvolvimento econômico do Japão. É a obra do prof. Rostow intitulada "The Stages of Economic Growth". Como a tradução da obra foi publicada em português neste ano, creio que alguns dos senhores tenham tomado conhecimento.

Neste livro, o prof. Rostow esclareceu cinco etapas do desenvolvimento econômico. A primeira etapa é a chamada "sociedade tradicional", isto é, a sociedade primitiva que está produzindo alimentos para a subsistência como se observa ainda em algumas sociedades. A segunda etapa é "a sociedade em pleno processo de transição", onde está começando o investimento e estão acontecendo os comércios, algumas indústrias e a atividade bancária. A terceira etapa é "o arranco", ou seja "take off", que é a etapa mais importante do desenvolvimento econômico. Os países que agora estão nesta etapa são a Índia e a China Comunista, onde a produção industrial está aumentando e a poupança também está crescendo em decorrência do aumento da renda nacional e é possível investir de 5% a 10% da renda nacional.

A quarta etapa do desenvolvimento econômico é a da sociedade que está continuando "a marcha para a maturidade," tendo como exemplo o México atual, onde é possível investir de 10% a 20% da renda nacional e entrar na etapa da maturidade tecnológica. Segundo o prof. Rostow a economia japonesa se achava numa fase adiantada dessa quarta etapa, já em 1940, isto é, antes da última guerra mundial.

A quinta etapa é "a era do consumo em massa". Alguns países desenvolvidos, entre os quais os Estados Unidos, já estão nesta etapa, em que se processa a diversificação da produção caracterizada pela alta produtividade e sendo variedades dos bens de consumo muito numerosas, acompanhada de aperfeiçoamento de seguro social, e encurtamento gradual das horas de trabalho. Os países que na atualidade estão nesta etapa são os Estados Unidos, Canadá, Inglaterra, a Austrália, a Suécia, a França, e a Alemanha Ocidental. O prof. Rostow argumentou que a economia japonesa entrou nesta era de consumo em massa no decênio inaugurado em 1950.

Essa é uma das definições importantes da presente etapa do desenvolvimento econômico do Japão, que não deixou de exercer forte repercussão sobre os japoneses. A meu ver, a tese do prof. Rostow, em primeiro lugar, foi grandemente aceita porque até então estavam habituados os japoneses com a teoria germânica das etapas do desenvolvimento econômico. Entretanto, gostaria de expressar a minha opinião, fazendo algumas restrições à tese do prof. Rostow.

Em primeiro lugar, há certa dúvida no argumento de que a economia japonesa já tenha ultrapassado a etapa da “maturidade tecnológica” antes da última guerra. Segundo a definição do prof. Rostow, a “maturidade tecnológica” é o processo em que a tecnologia moderna acaba sendo aplicada na utilização da maioria dos recursos num país. Estava neste sentido a economia japonesa em 1940 na etapa da maturidade tecnológica? Lembrando apenas a existência da agricultura atrasada, esse argumento do prof. Rostow seria duvidoso. Ele tenta responder a esta questão, apontando a utilização muito intensiva da terra no Japão, mas esta resposta não é convincente. O seu argumento nos parece ser incompatível com o fato de que, no período de post-guerra, está se procedendo rapidamente a inovação tecnológica em todos os setores das indústrias e esta inovação é uma das causas do rápido crescimento econômico do Japão.

E, segundo lugar, há dúvida quanto à aplicabilidade indiscriminada da definição de etapa do consumo em massa dos bens de consumo no Japão como nos países europeus e nos Estados Unidos. Na atualidade, creio que a economia japonesa se acha no início do consumo em massa, e não estaria na era do consumo em massa no sentido verdadeiro.

Sobretudo, como referi no início, na economia japonesa atual pode-se observar simultaneamente os dois fatores, isto é, a inovação tecnológica e a mudança da forma de consumo. Francamente falando, podemos notar a grande distância entre a realidade de economia japonesa e a tese do prof. Rostow.

Mas, não há um modo de pensar que possibilite a compatibilizar dois pontos em foco? Podemos considerar que a presente etapa do desenvolvimento do Japão é a época em que a marcha para a maturidade tecnológica e a transferência ao consumo em massa no alto nível são fenômenos concomitantes.

O prof. Rostow definiu a etapa anterior à marcha para a maturidade tecnológica, como sendo a etapa do “arranco”, e ainda prevendo uma fase da pré-condição para este arranco, para assim sistematizar as etapas do desenvolvimento econômico. No caso típico como na Inglaterra, a revolução agrária formou a pré-condição, e, portanto, independentemente poderíamos estabelecer a etapa do arranco. No Japão, todavia, depois da restauração Meiji em 1868, o aumento da produtividade na agricultura e a industrialização marcharam simultaneamente. Neste sentido, podemos considerar que a formação das pré-condições e o arranco na economia japonesa foram fenômenos simultâneos. A justaposição de algumas etapas do desenvolvimento resulta do retardamento do desenvolvimento econômico. Em outras palavras, geralmente a economia retardada pode entrar no processo do “crescimento continuado”, apenas quando sucede o início simultâneo de várias etapas do desenvolvimento econômico. Será possível aplicar esta hipótese na presente etapa

da economia japonesa.

Agora, se a presente etapa do desenvolvimento econômico do Japão se acha na etapa acima referida, quais seriam as possibilidades do manter o seu rápido crescimento econômico? Vou tentar explicar este problema detalhadamente mais adiante, mas em suma, uma economia em que se verifiquem concomitantemente a inovação tecnológica no setor da oferta e a mudança da forma do consumo no setor da procura, teria os fatores para o rápido crescimento econômico. Porque os dois lados, isto é, a oferta e a procura, operam mutuamente e criam a situação muito dinâmica. Portanto, se tentarmos explicar a possibilidade de manter o rápido crescimento econômico sem negar a tese do prof. Rostow, poderíamos explicá-la com a sobreposição das etapas do desenvolvimento econômico, ou os fatores duplos.

Em seguida, gostaria de apresentar mais uma tese que dispõe a etapa do desenvolvimento econômico do Japão, no sentido comparativo com a do prof. Rostow. Essa é a tese do prof. Lewis (*The Theory of Economic Growth*).

Ele tenta compreender etapas do desenvolvimento econômico em relação à mudança da taxa de acumulação do capital e da oferta da força de trabalho. O prof. Lewis divide o desenvolvimento capitalista em duas etapas. A primeira pode ser caracterizada por oferta ilimitada da mão-de-obra e na segunda esta oferta da mão-de-obra torna-se limitada.

Na primeira etapa, o capital pode ser acumulado, baseando-se na oferta ilimitada da força de trabalho, ou, em outras palavras, no baixo nível de salários. Mas, uma vez que a taxa de acumulação do capital alcança à taxa de aumento do trabalho, a taxa de lucro decresce em princípio, por causa do aumento da taxa de salários e, por isso, a taxa de crescimento econômico também tornar-se-ia baixa. Segundo a prof. Lewis, a Inglaterra e a França já entraram na segunda etapa em meados do século XIX, e a Alemanha por volta de 1950. Assim, êle argumenta que a economia japonesa entrará na segunda etapa nos próximos dez anos, baseando-se na previsão de que a taxa de crescimento demográfico decrescerá rapidamente.

Como observamos facilmente, há grande diferença entre estas duas teses que definiram a presente etapa do desenvolvimento econômico do Japão. Segundo o ponto de vista do prof. Lewis, a atual economia japonesa se encontra ainda na primeira etapa do desenvolvimento capitalista. E o seu rápido crescimento econômico pode ser explicado pela existência de mão-de-obra em abundância, pelo baixo nível de salários, e pela alta taxa de lucros. Conforme o cálculo econômico, as características da atual economia japonesa são a alta taxa de inversão, a alta taxa de poupanças, o baixo nível de salários, e a alta taxa de crescimento econômico. Por conseguinte, não são poucas as pessoas que concordam com essa tese. Apesar disso, nós encontramos ainda duas restrições nesta tese.

Em primeiro lugar, a hipótese de que a oferta de mão-de-obra é muito elástica, não é válida na realidade da economia japonesa, porque a taxa de salário tem sido aumentada notavelmente nesses 15 anos. Em segundo lugar, a simplificação de todos os fatores do rápido crescimento na oferta da mão-de-obra não corresponde à minha opinião, embora a análise do prof. Lewis seja limitada ao campo da oferta. Ademais, sua tese sobre as etapas do desenvolvimento econômico desconsidera todos os fatores no campo da procura.

Não obstante, é muito interessante observar o fato de que esta simplificação reflete as características da economia japonesa mais do que a tese do prof. Rostow. Como já referi, a maturidade tecnológica nesta tese é definida em relação ao grau de utilização dos recursos. Contudo, o prof. Rostow não introduziu a força de trabalho nesses recursos. Não analisou o fato importante do emprêgo de mão-de-obra pelo capital. Por isso, êle concluiu que a economia japonesa se encontrava na etapa da maturidade tecnológica antes da última guerra mundial, embora houvesse muitos setores pré-capitalistas nessa economia, tais como a agricultura e algumas pequenas indústrias. Se êle tivesse observado a relação entre o capital e o emprêgo do trabalho, concluiria que a atual economia japonesa é anterior à maturidade tecnológica, isto porque a segunda etapa que o prof. Lewis definiu é a economia caracterizada pelo pleno emprêgo.

Considero que a atual economia japonesa está na primeira etapa no sentido do prof. Lewis, quando limitarmos apenas no setor da produção ou da oferta. Foi por essa razão que citei a tese do prof. Lewis, apesar de certas restrições acima citadas, para salientar o fator da força de trabalho em confronto com o de consumo enfatizado pelo prof. Rostow.

Após essas considerações gerais, entremos na análise específica da economia japonesa e examinemos a presente etapa do desenvolvimento econômico do Japão, em relação a seu processo histórico. Podemos dividir o desenvolvimento econômico do Japão em três etapas. A primeira é o período de 1868 a 1905 e a segunda de 1906 a 1945, isto é, o período compreendido entre as duas guerras mundiais, e a terceira, de 1946 até agora.

A primeira etapa corresponde à etapa do arranco definida pelo prof. Rostow. A sua definição, entretanto, não basta para caracterizar a primeira etapa do desenvolvimento econômico do Japão. Pois, segundo a definição do prof. Rostow, a taxa do investimento há de aumentar rapidamente na etapa do arranco. Mas, na primeira etapa da economia japonesa, essa taxa permaneceu mais ou menos constante, variando de 18% a 20%. Essa taxa de inversão cresceu consideravelmente na segunda etapa, tornando-se ainda mais notável na terceira etapa, especialmente após 1955. Limitando nossa observação à taxa de inversão, a economia japonesa tem-se elevado o seu nível de etapa em etapa e, assim, podemos dizer que, atualmente, se encontra na etapa com a taxa de inversão mais

elevada.

Em segundo lugar, a média da taxa anual de aumento da oferta da força de trabalho foi de 3,5% na primeira etapa, 2,1% na segunda, e na última etapa, 4,6%. Devemos notar o fato de que essa taxa decresceu na segunda etapa para depois aumentar na terceira. A presente etapa do desenvolvimento econômico do Japão é a etapa em que a taxa de aumento da mão-de-obra é a mais alta até hoje registrada.

Em terceiro lugar, a taxa de aumento da produtividade do trabalho, isto é, a da produção *per capita*, foi de, 1,9% na primeira etapa, 3,8% na segunda e 5,1% na última. Como se observa, essa taxa tem sempre aumentado, desde a primeira etapa até agora, sendo a taxa atual 2,5 vezes maior do que a da primeira.

Finalmente, a taxa de crescimento econômico, isto é, a soma destas duas taxas, foi de 5,4% na primeira etapa, 5,9% na segunda e de 9,7% na última. Assim, atualmente o Japão se encontra na etapa em que a economia está crescendo muito rapidamente. Ademais, precisamos notar que esse rápido crescimento é mantido pela alta taxa de aumento da força de trabalho e da produtividade, em confronto com as duas etapas anteriores. Em outras palavras, o crescimento econômico na primeira etapa baseou-se principalmente na alta taxa de aumento de mão-de-obra e na segunda, pela taxa de aumento da produtividade. O crescimento atual, entretanto, é acelerado pelas duas taxas acima mencionadas.

Como se observa, o ponto de vista do meu argumento sobre as etapas do desenvolvimento econômico do Japão está no campo da produção, ou seja, da oferta e, por isso, a mudança da relação entre o capital e o trabalho torna-se um fator determinante. Não obstante, a sua mudança só foi mostrada indiretamente através da mudança da produtividade do trabalho, porque não podemos dispor dos dados sobre o estoque do capital, ou seja, "capital-stock" da economia japonesa. Todavia, presume-se que o coeficiente do capital, isto é, o volume do capital necessário para produzir a unidade marginal do produto, tem sido constante em todas as etapas. Por conseguinte, podemos considerar que o aumento da produtividade do trabalho acima referido reflete a elevação da intensidade do capital. Dessa forma, a atual economia japonesa pode ser definida como sendo a etapa em que a intensidade do capital e o emprego do trabalho estão aumentando rapidamente. A rápida elevação da intensidade do capital significa a introdução da nova tecnologia e, por isso, é o demonstrativo de que a inovação tecnológica tem sido o fator principal do rápido crescimento econômico do Japão.

Em seguida, vamos examinar como será a economia japonesa no próximo futuro. Com isso, poderemos responder ao importante problema apresentado no início da minha preleção, qual seja, a possibilidade da economia japonesa de manter por longo tempo o seu atual ritmo do crescimento.

Podemos prever facilmente que a taxa de aumento da oferta do trabalho decrescerá rapidamente no próximo futuro, porque a taxa de crescimento demográfico já está acusando a tendência para o decréscimo. Por conseguinte, considerando à luz da análise acima, poderíamos concluir que a economia japonesa entrará numa outra etapa, a saber, a quarta.

É discutível se essa quarta etapa da economia japonesa será a mesma que o prof. Lewis definiu como a segunda etapa do desenvolvimento da economia capitalista, porque a taxa de aumento do trabalho não é determinada apenas pela taxa de crescimento demográfico. Nos vários setores da economia japonesa, existem muitas empresas minúsculas e as chamadas "family industry". Para que a economia japonesa alcance a etapa com a maturidade capitalista, precisaria atravessar pelo processo de decomposição dessas unidades econômicas para formar o mercado livre de trabalho.

Em relação a este ponto, gostaria de apresentar resumidamente a chamada "dualidade estrutural" que é uma das características importantes da economia japonesa. Teoricamente falando, o conceito da dualidade estrutural significa que as indústrias mais eficientes coexistem permanentemente com as menos eficientes. A dualidade estrutural da economia japonesa pode ser observado na grande discrepância dos salários entre as grandes empresas e as pequenas e na grande diferença entre o nível de vida na zona rural e urbana. Além disso, podemos apontar a nova discrepância entre as indústrias crescentes e as decrescentes que surgiu em decorrência da evolução da liberalização do comércio exterior. Nas sociedades onde existe o regime de livre concorrência, esse fenômeno da dualidade estrutural é, já por natureza, anormal, porque, nessas sociedades, os fatores da produção devem transferir-se dos setores menos eficiente para os mais eficientes, e, no conjunto, as eficiências há de se igualar. Apesar disso, porque existe a dualidade estrutural na economia japonesa? Podemos buscar uma das causas no excedente da população. Nas análises econômicas, tratar da população como sendo um fator independente muitas vezes é criticado. Entretanto, nos países superpovoados como o Japão, não podemos desprezar a sua influência. Existindo a população em excesso, as mãos-de-obra não podem ser empregadas integralmente nas indústrias mais produtivas, sendo uma parte delas forçada a trabalhar nas menos produtivas. Consequentemente, a taxa de salário e o nível de vida são impelidos a se manter em baixas condições.

Precisamos considerar, entretanto, o problema do excedente da população relacionando-o com a taxa do crescimento econômico, pois pode-se criar o excedente populacional, quando a taxa de crescimento econômico seja inferior à de crescimento demográfico. Portanto, o problema da dualidade estrutural da economia japonesa deve ser considerado também em relação ao crescimento econômico. O rápido crescimento atual está aumentando as oportunidades dos

empregos e, neste sentido, a dualidade da economia japonesa está caminho de decomposição. Mas, embora se mantenha elevada a taxa de crescimento econômico, o processo dessa decomposição demandaria um lapso de tempo considerável. Não podemos concluir de pronto, que no próximo futuro a economia japonesa entre na segunda etapa da definição do prof. Lewis.

Em seguida, devemos considerar a discrepância entre a produtividade e o salário. Esta discrepância nos parece durar ainda por longo tempo, embora com atenuações gradativas. Portanto, seria melhor concluir que o fator do rápido crescimento neste campo se preserve. Do ponto de vista das comparações internacionais a alta taxa de poupança e a baixa taxa de distribuição da renda para o trabalho são as características principais da economia japonesa, e elas não desaparecerão num próximo futuro.

Agora, vamos examinar os fatores de desenvolvimento no lado do consumo. A forma de consumo tem a possibilidade de se transformar rapidamente em decorrência da elevação do nível da renda nacional. A procura em quantidades consideráveis dos bens duráveis de consumo nem sempre é impossível, mesmo quando o nível da renda se mantenha relativamente baixo. Acaso sendo impossível, seria difícil explicar o fato de que essa procura está tendo rápido aumento na economia japonesa, apesar da sua relativamente baixa renda nacional. O nível da renda nacional *per capita* do Japão é apenas 236 dólares, isto é, 11% do nível dos Estados Unidos. Na Europa, é somente Portugal que tem o nível de renda mais baixo do que o do Japão.

Por conseguinte, não estaria certo apreciar o nível da renda nacional *per capita* como índice de uma etapa do desenvolvimento econômico porque esse nível recebe a forte influência da situação dos recursos naturais em que se coloca o país. Não podemos negar, mesmo num país da baixa renda como é o Japão, a possibilidade de expandir a procura para os bens duráveis de consumo, de baixo nível em qualidade e em tamanho. A mudança da forma de consumo não se evidenciaria nos países sub-desenvolvidos seguindo a ordem verificada nas experiências dos países desenvolvidos. Essa procura estimularia as indústrias, especial de máquinas, e será um fator considerável do rápido crescimento econômico do Japão.

Em suma, os dois fatores, isto é, a perduração da discrepância entre a produtividade e o salário e a mudança da forma de consumo, possibilitariam o rápido crescimento da economia japonesa, ainda dentro da dualidade de que fizemos referência.

Finalmente, vamos examinar resumidamente o caso em que diminua rapidamente a discrepância entre a produtividade e o salário. A taxa de poupança diminuiria. Se não houver a baixa no coeficiente do capital, a taxa de crescimento econômico naturalmente decresceria. A baixa taxa de crescimento econômico,

como dissemos atrás, anularia praticamente a possibilidade da dissolução da dualidade estrutural da economia japonesa. A chave do problema, portanto, está no coeficiente do capital. Como já me referi, esse coeficiente foi constante em todos os processos do desenvolvimento econômico do Japão. Para promover a modernização da economia japonesa, foi preciso engrandecer empresas. Isto redundaria naturalmente na elevação do coeficiente do capital, e se assim não aconteceu, é porque alguns fatores agiram em contrário, compensando o efeito daquele, poupando os capitais.

O rápido aumento da procura no próximo futuro trará benefícios à produção em larga escala, agindo no sentido de diminuir o coeficiente do capital. Por outro lado, a economia japonesa tem a necessidade de expandir o investimento para os setores de construção, transporte, comunicação e energia elétrica, de elevado coeficiente do capital. Por conseguinte, não poderíamos esperar, no plano geral da economia japonesa, o abaixamento desse coeficiente. Na realidade, o coeficiente do capital aumentou de 50% nos últimos dez anos.

Em conclusão, a quarta etapa do desenvolvimento econômico do Japão será a era do consumo em massa que o prof. Rostow definiu, mas não será, do ponto de vista das características estruturais, a etapa do pleno emprego que o prof. Lewis definiu.



# KOSTENTHEORIE UND DISPOSITIVER FAKTOR

Tetsuo KOBAYASHI

## I

In den letzten 15 Jahren ist die Struktur der betriebswirtschaftlichen Kostentheorie in Deutschland, wie es weit bekannt ist, auf dem Grunde der Gutenbergischen Entwicklungen noch einmal gründlich geprüft worden. Diese moderne Kostentheorie hat mehrere Charakteristiken : z.B. (1) die klare Systematisierung der Kosteneinflußgrößen und damit die genau isolierende Betrachtung für jede Kostenabhängigkeit, (2) die realistische, produktionstheoretische Analyse der quantitativen Abhängigkeiten zwischen Faktoreinsatzmengen und technischen Leistungen und (3) die systematische Berücksichtigung des dispositiven Standpunktes von Geschäfts- und Betriebsleitung bzw. des Einflusses der dispositiven Entscheidungen.

Diese Punkte sind zwar miteinander stark verbunden, aber der letzt genannte Punkt—systematische Berücksichtigung des Einflusses der dispositiven Entscheidungen—kann der Kernpunkt sein, mit dem man die modernen, kostentheoretischen Erkenntnisse als Ganzes systematisiert.

Solchen Gedankengang kann man schon in dem methodischen Standpunkt des Buches Gutenbergs, „Betriebswirtschaftslehre Bd. 1. Produktion“, vor allem in seiner Auffassung des Produktionsprozesses finden. Während Gutenberg unter dem Produktionsprozeß nämlich einen Kombinationsprozeß der Elementarfaktoren (menschliche Arbeitsleistung, Betriebsmittel und Werkstoff) versteht, weist er als der zusätzliche, vierte Faktor auf den „dispositiven“ Faktor hin. Die Aufgabe des dispositiven Faktors—d.h. die Geschäfts- und Betriebsleitung—besteht darin, drei Elementarfaktoren zweckmäßigerweise zu einer produktiven Kombination zu vereinigen, und wir können denken, daß Gutenberg von diesem mit dispositivem Faktor verbundenen Standpunkt (od. Aufgabe) die Betrachtungen über Produktionsprozeß systematisiert, und zwar daß sich diese Betrachtungsweise auch auf die kostentheoretischen Perspektiven erstreckt.

Der dispositive Faktor enthält nach Gutenberg drei Schichten: (1) die aus der Individualität der Geschäfts- und Betriebsleitung resultierende Irrationalität, (2) die Rationalität, die betriebspolitischen Forderungen in ein rationales Schema umzugießen und (3) die gestaltende-vollziehende Schicht, welche das Geplante verwirklicht. Aber der dispositive Faktor soll hier als die eigentlich bewegende Kraft des Betriebsprozesses aufgefasst werden, und zwar bei den produktions-

und kostentheoretischen Betrachtungen, nicht als ein Produktionsfaktor, sondern als ein Standpunkt behandelt werden, denn der dispositive Faktor gehört dabei nicht zur Produktions- und Kostenfunktion, sondern er übt von außen die verschiedenen Einflüsse auf die Produktions- und Kostenfunktion aus. Es handelt sich also nicht um den dispositiven Faktor selbst, sondern es ist eigentlich wichtig, den aus dem dispositiven Faktor resultierenden Standpunkt, bzw. den Einfluß der dispositiven Entscheidungen in die kostentheoretischen Betrachtungen einzuführen.

Somit können wir die folgende Frage stellen: wann und wie beeinflußt der dispositive Faktor den Produktionsprozeß als Kombinationsprozeß? und welche Ereignisse erscheinen in verschiedenen Kostenabhängigkeiten? bzw. wie können von dispositivem Standpunkt der Geschäfts- und Betriebsleitung die kostentheoretischen Erkenntnisse systematisiert werden?

Auf diese Problemstellung können wir in der modernen Kostentheorie mehrere Beantwortungen finden. Aber hier betrachten wir, um möglichen Mißverständnis zu vermeiden, nur die dispositiven Anpassungen, vor allem die produktionstechnischen Anpassungsformen bei Beschäftigungsveränderungen (quantitative Anpassung, zeitliche Anpassung, intensitätsmäßige Anpassung usw.). Diese Begrenzung ist auch notwendig, um am klarsten das Problem des dispositiven Faktors in der modernen Kostentheorie zu ergreifen.

Man soll dabei darauf achten, daß die verschiedenen Anpassungsformen nicht nur den Unterschied der technischen Möglichkeiten von Beschäftigungsveränderungen zeigen. Außer den technischen Möglichkeiten werden nämlich mit jeder Anpassungsform die bestimmten Bewußtheiten der Geschäfts- und Betriebsleitung über künftige Markt- bzw. Wirtschaftslage (od. auch die technischen Entwicklungen) verbunden.

Darüber schreibt Gutenberg wie folgt:

„Die Anpassungsmaßnahmen sind ..... nicht so sehr von der gegenwärtigen wirtschaftlichen Lage bestimmt, in der sich die Betriebe befinden, sondern vielmehr von den erwarteten, künftigen marktlichen und technischen Entwicklungen.“<sup>(1)</sup>

„Hier ist nun der Punkt, an dem deutlich wird, daß die moderne Kostentheorie ohne systematische Verwendung des Moments der Erwartungen nicht mehr auskommt. Die ‚Erwartungen‘ bzw. die aus ihnen und den technischen Gegebenheiten des Betriebes resultierenden ‚Verhaltenweisen‘ stellen eine Kosteneinflußgröße dar, die in der betriebswirtschaftlichen Kostentheorie als neue zusätzliche Variable eingebaut werden muß.“<sup>(2)</sup>

Unter bestimmten technischen Bedingungen können wir auf ähnlicher

(1) Gutenberg, E., Betriebswirtschaftslehre Bd. 1, 6. Aufl., S. 240.

(2) Gutenberg, E., a.a.O., S. 258.

Weise z. B. auch die folgende Aussage machen. Wenn die günstige Geschäftslage in der näheren Zukunft nämlich dauernd erwartet werden kann, passt man sich dem gegenwärtigen, übermäßigen Bedarf quantitativ bzw. zum Teil zeitlich an, und wenn nur der plötzliche Aufschwung erwartet werden kann, passt man sich dagegen möglicherweise unter der schon bestehenden Kapazität intensitätsmäßig an.

Wir können also unter den verschiedenen Anpassungsformen bei den Beschäftigungsveränderungen einerseits den Unterschied der technischen Möglichkeiten—d.h. bei der quantitativen Anpassung: Veränderung des Bestandes vom Betriebsmittel, bei der zeitlichen Anpassung: Veränderung der Arbeitszeit, bei der intensitätsmäßigen Anpassung: Veränderung des Intensitätsgrades—und andererseits die verschiedenen Bewußtheiten der Geschäfts- und Betriebsleitung über die gegenwärtige und künftige Markt- bzw. Wirtschaftslage verstehen.

Wenn man von dem dispositiven Faktor ausgeht, kann man auch sagen, daß die fundamentalen Erkenntnisse über die technischen, quantitativen Abhängigkeiten zwischen Faktoreinsatzmengen und ihren technischen Leistungen (vor allem in einzelnen Aggregaten), in der modernen Kostentheorie unter Berücksichtigung vom dispositiven Standpunkte und damit von seinen Wirkungen auf die Produktionsprozesse, zu einer kostentheoretischen Aussage vereinigt werden.

## II

Wenn man zur Unternehmungsleitung die kostentheoretische Aussage heranziehen wollte, scheint dieser Standpunkt sehr wichtig zu sein. Aber es gibt auch die kritische Stellungnahme gegen diesen Standpunkt.

Z. B. weist Mellerowicz darauf hin, daß der Begriff von Gutenberg „quantitative Anpassung“ die aus der politischen Beurteilung resultierende Tatsache, wie die neue Beschaffung der Maschine, enthält, und in Bezug darauf wirft er vor, daß Gutenberg das theoretische Problem mit dem politischen Problem vermenget hat.<sup>(3)</sup>

Bei der traditionellen Betrachtungsweise kann diese Kritik einen Sinn haben, denn die traditionellen Autoren versuchten unter der Annahme der bestimmten Kapazität den Gesamtkostenverlauf als die rein technische Erscheinung zu erklären. Und die kritische Stellungnahme läßt sich auch in der folgenden Form äußern: bei der Kostentheorie soll nämlich die reine, interne Abhängigkeit zwischen Faktoreinsatzmengen und Leistungen erklärt werden und die Betrachtung dafür soll von der subjektiven Beurteilung, wie die Anpassungsbeurteilung über die marktlichen Zustände, nicht beschädigt werden.

(3) Mellerowicz, K., Kostenkurven und Ertragsgesetz, ZfB, Jg. 23(1953), Nr. 6. S. 336

Jedoch soll auch darauf geachtet werden, daß mehrere Autoren schon auf die Notwendigkeit, den dispositiven Standpunkt bzw. die Einflüsse der dispositiven Entscheidungen in Erwägung zu ziehen, früher als Gutenberg hingewiesen haben. Z.B. wies Henzel darauf hin<sup>(4)</sup>, daß die verschiedenen Höhen der Kosten, je nach der dispositiven Maßnahme sogar bei dem selben Beschäftigungsgrad erscheinen können, und Schneider versuchte unter Berücksichtigung der dispositiven Entscheidungen die variablen- und fixen Kosten mit den notwendigen- und nicht-notwendigen Kosten zu ersetzen.<sup>(5)</sup> In Bezug darauf behauptet Henzel, wie folgt;<sup>(6)</sup>

„An Stelle der bisherigen einseitigen Betrachtung einer Abhängigkeit der Kosten vom Beschäftigungsgrad muß die Erkenntnis treten, daß die Kosten von einer Vielheit von Faktoren und in weitem Maße von der Disposition der in der Unternehmung tätigen Menschen abhängen. Und daraus ergibt sich die Forderung einer bewußten Beeinflussung und Gestaltung dieser Faktoren und nicht nur eines einzigen Beschäftigungsgrades.“

Diese Autoren haben zwar keine vollständige bzw. positive Systematisierungsweise der Kostentheorie als Ganzes. Aber man findet in den Hinweisen dieser Autoren wenigstens eine kritische Stellungnahme gegen die traditionelle Betrachtungsweise, die, insofern der dispositive Standpunkt nicht berücksichtigt wird, nur begrenztes Geltungsfeld der kostentheoretischen Aussage haben kann.

Somit können wir die Einführung des dispositiven Standpunktes bzw. Einflusses nicht ohne weiteres ablehnen, und zwar nicht wegen der einfachen Befürchtung dafür, daß der eigentliche Sinn der betriebswirtschaftlichen Kostentheorie beschädigt werden mag. Vielmehr soll es im wesentlichen wichtig sein, die folgenden Fragen zu stellen: bis zu welchem Grade kann die Gültigkeit der kostentheoretischen Aussage, wenn man den dispositiven Standpunkt systematisch in Erwägung zieht, vergrößert werden und welchen substantiellen Sinn für die praktische Unternehmungsführung hat diese Vergrößerung der Gültigkeit der kostentheoretischen Aussage? Ist es außerdem unvermeidbar, daß die Betrachtung der internen Abhängigkeit der Faktoreinsatzmengen von betrieblichen Leistungen dabei beschädigt wird?

### III

Aber auf diese Fragen kann man schon in der modernen Kostentheorie die

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- (4) Henzel, F., *Kosten und Leistung*, 3. unveränderte Aufl. der *Kostenanalyse* (1937), Stuttgart 1957, S. 49f.
  - (5) Schneider, E.; *Die Problematik der Lehre von den festen Kosten*, *Weltwirtschaftliches Archiv*, Bd. 60(1944), Heft 3. S. 313f.
  - (6) Henzel, F. a.a.O., S. 191.

fundamentare Beantwortung finden.

Die moderne Kostentheorie führt nämlich den dispositiven Faktor ein, um für die betriebswirtschaftlichen Probleme die technische Abhängigkeit zwischen Faktoreinsatzmengen und Leistungen heranzuziehen. Dort ist nicht ausschließlich der Einfluß der dispositiven Entscheidung betont, sondern wird zunächst die technische Abhängigkeit ermittelt und danach erst die Problematik des dispositiven Faktors erörtert.

Das ergibt sich aus den Betrachtungen über die Kostenverläufe bei den vorgenannten Anpassungsformen. Jeder Kostenverlauf wird nämlich einheitlich von den eindeutigen Abhängigkeiten zwischen Faktoreinsatzmengen und technischen Leistungen in einzelnen Aggregaten, d.h. von den Verbrauchsfunktionen abgeleitet. Die Verbrauchsfunktion stellt die technische Abhängigkeit der Verbrauchsmengen jedes Kostenfaktors von Leistungen jedes Aggregates in einer Zeiteinheit (Leistungsgrad) dar. Jeder Kostenverlauf verschiedener Anpassungsformen wird durch die Vermittlungsvariable „Leistungsgradintensität“ (bei der quantitativen- und zeitlichen Anpassung: die bestimmte Intensität, bei der intensitätsmäßigen Anpassung: veränderliche Intensität) einheitlich von den eindeutigen Verbrauchsfunktionen eingeleitet, obgleich die Wahl der Anpassungsform letztlich am meisten von der Beurteilung der Unternehmensleitung entschieden wird. Anders gesagt, werden von dem dispositiven Standpunkt die Bestände des Betriebsmittels, die Zahl der Arbeitsstunden und der Grad der Leistungsintensität entschieden, aber wenn sie einmal entschieden werden, wird jeder Kostenverlauf eindeutig von den bestimmten Verbrauchsfunktionen eingeleitet. Und die Autoren der modernen Kostentheorie ermitteln diese technischen Verbrauchsfunktionen, bevor sie den dispositiven Standpunkt berücksichtigen.

Vielmehr wirft Gutenberg in der Diskussion über das Ertragsgesetz bzw. in seiner produktionstheoretischen Betrachtung stark vor, daß die traditionelle Kostentheorie im Gegenteil keine vollständigen Erkenntnisse über eindeutige, technische Abhängigkeiten zwischen Faktoreinsatzmengen und Leistungen in einzelnen Aggregaten hat. Seiner Behauptung ist im wesentlichen zuzustimmen, obgleich sie einige begriffliche Unklarheiten enthält.<sup>(7)</sup>

Infolgedessen können wir grundsätzlich die Kritik nicht einräumen, daß die Betrachtung der internen Abhängigkeiten zwischen Faktoreinsatzmengen und betrieblichen Leistungen, wenn man den dispositiven Standpunkt einführt, beschädigt wird. Die produktionstheoretische Analyse von Gutenberg zeigt

(7) Kobayashi, T., Die Betrachtungsweise der neueren, betriebswirtschaftlichen Kostentheorie—Auffassung des Ertragsgesetzes—, KOBE Economic & Business Review No. 9. 1962, S. 117 ff.

vielmehr, wie wichtig diese Erkenntnisse der internen, technischen Abhängigkeiten sind. Sie sind als fundamentale Erkenntnisse auch dann unentbehrlich, wenn man umfassend den dispositiven Standpunkt bzw. die Einflüsse der dispositiven Entscheidungen in Erwägung zieht.

Und zwar in diesem Punkte sind Gutenberg und andere Autoren der modernen Kostentheorie im wesentlichen von den Vorläufern wie Henzel und Schneider zu unterscheiden.

Diese Vorläufer berücksichtigten nicht vollständig die technischen Voraussetzungen der gegebenen Produktionsprozesse, sondern dachten explizite bzw. implizite, daß die Höhe der Kosten ausschließlich von den dispositiven Entscheidungen beeinflußt wird.<sup>(8)</sup> Aber auch die Autoren der traditionellen Kostentheorie verneinen nicht, daß die Höhe der Kosten von den dispositiven Entscheidungen beeinflußt wird. Vielmehr behaupten sie, wie oben erwähnt, daß die Betrachtung der internen Abhängigkeiten zwischen Faktoreinsatzmengen und Leistungen, wenn man den dispositiven Standpunkt einführt, beschädigt wird. Wenn man nur die Einflüsse der dispositiven Entscheidungen betont, kann die Kritik gegen die traditionelle Kostentheorie also nicht vollständig sein, um die effektiven Erkenntnisse zu entwickeln.

Dabei muß man innerhalb des von technischen Bedingungen der gegebenen Produktionsprozesse begrenzten Dispositionsraums die dispositiven Einflüsse auf den Kostenverlauf untersuchen und wir müssen bei Gutenberg und anderen Autoren der modernen Kostentheorie darauf acht geben, daß die rein internen Abhängigkeiten zwischen Faktoreinsatzmengen und Leistungen, d.h. die technischen Verbrauchsfunktionen als die Voraussetzung der dispositiven Entscheidungen ermittelt werden. Anders gesagt, weil diese technischen Abhängigkeiten zwischen Faktoreinsatzmengen und Leistungen von strengen, produktionstheoretischen Analysen genau bestimmt werden, wird die sich auf diese Zustände aufbauende Betrachtung über dispositive Einflüsse auf den Kostenverlauf erkenntnistheoretisch gerechtfertigt.

Dabei sind diese als Verbrauchsfunktion ermittelten Abhängigkeiten zwischen Faktoreinsatzmengen und technischen Leistungen allerdings nicht die Abhängigkeiten zwischen Kosten und Beschäftigungsgrad in der gesamtbetrieblichen Produktion, sondern die Teil-Abhängigkeiten in einzelnen Aggregaten bzw. Teileinheiten. Die Forderung der traditionellen Kostentheorie mag also nicht insofern erfüllt werden. Aber es ist ursprünglich unmöglich, für den Kostenverlauf in der gesamtbetrieblichen Produktion so eindeutige, interne Funktion wie Verbrauchsfunktion der einzelnen Aggregate zu finden, denn der gesamtbetrieb-

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(8) Henzel, F., a.a.O., S. 56. Schneider, E. Industrielles Rechnungswesen, 2. Aufl., Tübingen 1954, S. 218.

liche Produktionsprozeß besteht aus verschiedenen Teileinheiten und sein Kostenverlauf wird nicht immer gleichförmig von eigentlichen Kostenfunktionen der einzelnen Teileinheiten, d.h. Verbrauchsfunktionen abgeleitet. Wenn die jeweiligen Leistungsgrade aller Betriebsteile trotz der Veränderung des gesamtbetrieblichen Beschäftigungsgrades immer unverändert od. parallel mit der Veränderung dieses Beschäftigungsgrades verändert werden, wird nur dann die eindeutige Gesamt-Kostenfunktion des ganzen Produktionsprozesses unmittelbar von den Verbrauchsfunktionen der Aggregate abgeleitet. Aber in der betrieblichen Praxis kann man solche Zustände nur selten finden.

Die Veränderung des Leistungsgrades in den einzelnen Betriebsteilen hat meistens keinen direkten Zusammenhang mit der Veränderung des gesamtbetrieblichen Beschäftigungsgrades. Dieser Leistungsgrad wird nämlich im Zusammenhang mit den technischen Bedingungen und relativen Kapazitätsgrößen der betrieblichen Teileinheiten nur indirekt von der Veränderung des gesamtbetrieblichen Beschäftigungsgrades beeinflußt. Beispielweise kann innerhalb seiner Kapazität ein Betriebsteil eine gleichbleibende Leistungsgradintensität, also die gleichbleibende Höhe der variablen Kosten pro Stück seiner Leistung erhalten, während der Leistungsgrad der relativen Engpaßteile sehr schnell erhöht wird. Auf der anderen Seite muß sogar innerhalb seiner Normalkapazität der Leistungsgrad eines Produktionsprozesses kontinuierlich verändert werden, wenn er wegen technischer Bedingung, z. B. zusammen mit dem Leistungsgrad (bzw. Produktionsgeschwindigkeit) der nachfolgenden Produktionsstufe verändert werden muß. Jedenfalls spiegeln sich die Verbrauchsfunktionen der Betriebsteile, je nach dem jeweiligen Leistungsgrade in Zusammenhang mit den technischen Bedingungen und relativen Kapazitätsgrößen unterschiedlich wider und die verschiedenen Kostenfunktionen der gesamtbetrieblichen Produktion ergeben sich aus dem Zusammenwirken vieler Betriebsteile mit eigentümlichen, technischen Bedingungen und Kapazitätsgrößen an der Gesamtproduktion.

Dabei ist es selbstverständlich unrealistisch, anzunehmen, daß die Kapazität des gesamtbetrieblichen Produktionsprozesses ein ungeteiltes Ganzes bildet, und zwar, daß die Stärke seiner Beanspruchung gleichmäßig mit der Beschäftigungsveränderung verändert wird. Wenn man auch unter solcher Annahme so eindeutige Kostenfunktion der gesamtbetrieblichen Produktion wie die Verbrauchsfunktion der Betriebsteileinheit finden könnte, ist die Aussage fast ungültig.

Um die verschiedenen Kostenfunktionen der gesamtbetrieblichen Produktion in der Praxis zu erklären, ist es vielmehr notwendig zu untersuchen, von welchem Standpunkt und auf welche Weise die einzelnen Anlagen, Maschinen und andere Produktionsfaktoren in der gesamtbetrieblichen Produktion eingesetzt und beansprucht werden. Und zwar wegen dieser Notwendigkeit soll meiner Meinung nach die Einführung des dispositiven Standpunktes ganz gerechtfertigt

werden, denn die Einsatz- bzw. Beanspruchungsformen jeder Produktionsfaktoren und damit auch die Leistungsgrade bzw. die Zahl der Arbeitstunden, innerhalb der jeweiligen, technischen Möglichkeiten und zwar unter dem jeweiligen, kosten- bzw. erfolgsoptimalen Ziel des Betriebes, dispositiv entschieden werden.

Somit können wir nicht nur sagen, daß die Betrachtungen der internen Abhängigkeiten zwischen Faktoreinsatzmengen und technischen Leistungen, in der Regel von der Einführung des dispositiven Standpunktes nicht beschädigt werden. Vielmehr sollen wir die dadurch gebrachten Möglichkeiten, die Gültigkeit der kostentheoretischen Erkenntnisse zu verbreiten und vertiefen, hochschätzen.

#### IV

Allerdings können wir selbstverständlich noch nicht sagen, daß die Problematik über den dispositiven Faktor in der modernen Kostentheorie ganz erklärt worden ist. Wir haben nur eine fundamentale Stellungnahme zu diesem Problem finden können. Um substanziellen Sinn dieser fundamentalen Stellungnahme klarzumachen, müssen außerdem die aus dieser Stellungnahme resultierenden Aussagen über die konkreten Erkenntnisse der verschiedenen Arten weiterentwickelt werden.

In diesem Sinne scheinen mir auch die Aussagen von Gutenberg nicht ohne weiteres gerechtfertigt zu sein.

Vor allem, wenn er jede beschäftigungstechnische Anpassungsform (quantitative-, zeitliche- und intensitätsmäßige Anpassung) nebeneinander getrennt betrachtet, kann man noch nicht die verschiedenen Kombinationen dieser Anpassungen in einer Unternehmung verstehen.

Auf die langfristige Sicht ist es zwar möglich zu sehen, daß sich ein Unternehmen entweder nur quantitativ-zeitlich oder nur intensitätsmäßig anpasst und man kann unter jeder Anpassungsform auch eine grobale Anpassungsmaßnahme des Unternehmens als Ganzes verstehen, denn es handelt sich dabei hauptsächlich um die absolute Größe der Gesamtkapazität und ihre allgemeine Benutzungszustände. Aber der Inhalt der Anpassungen kann nur einseitig ergriffen werden, wenn die kostentheoretische Betrachtung nur auf diesen Fall begrenzt wird. Wir müssen außerdem von der Erkenntnis ausgehen, daß der gesamtbetriebliche Produktionsprozeß aus den Teileinheiten mit den eigentümlichen, technischen Bedingungen und relativen Kapazitätsgrößen besteht, und dann außer der globalen Unternehmungsanpassung soll auch solcher Dispositionsprozeß in Erwägung gezogen werden, in welchem die verschiedenen Anpassungsformen der Teileinheiten, unter Berücksichtigung von jeweils gegebenen Faktorpreisen, Teilkapazitäten, Verkaufspreisen und Absatzmöglichkeiten der Erzeugnisse usw., miteinander



harmonisch zum kosten- bzw. erfolgsoptimalen Ziel des ganzen Betriebes verbunden werden.

Die Notwendigkeit solches Dispositionsprozesses ist besonders dann klar, wenn der gesamtbetriebliche Produktionsprozeß irgendwo die Engpässe hat. Dann werden nämlich wegen der Kapazitätsdisproportionierungen einige Betriebsteile überbeansprucht, während die Teilkapazität anderer Betriebsteile noch frei bleibt. Infogedessen ergibt sich auch die Kostenkurve der gesamtbetrieblichen Produktion aus verschiedenen Teilkostenfunktionen, die nicht nur von den technischen Bedingungen, sondern auch von relativen Teilkapazitätsgrößen abhängig sind. Außerdem erscheinen die Engpaßsituationen, je nach der marktlichen Bedingung (Verkaufpreise der Erzeugnisse, Absatzmöglichkeiten usw.) bzw. je nach der damit verbundenen Programmplanung, wechselseitig oder unter Umständen gleichzeitig in verschiedenen Betriebsteilen.

In Bezug darauf schreibt zwar auch Gutenberg, daß die Aufgabe, die Leistungsquerschnitte der Betriebseinheiten harmonisch zu proportionieren, in der betrieblichen Praxis nur unvollkommen gelöst werden kann. Aber er weist dabei nur auf die kompensatorischen Wirkungen hin.<sup>(9)</sup> Außerdem denkt er in einem anderen Aufsatz, daß in der betrieblichen Praxis die Anlagen nur ausnahmsweise über die Normalleistung beansprucht werden. Er schreibt nämlich dort,; „Werden z. B. im Zuge einer Beschäftigungszunahme, nachdem die kostengünstigste Ausbringung bereits überschritten ist, zusätzliche Maschinen in Betrieb genommen oder neue Arbeitsplätze geschaffen, dann ist es durchaus realistisch anzunehmen, daß die Neueinstellungen und Neuinvestierungen nicht erst vorgenommen werden, wenn die Menschen und maschinellen Apparate überlastet sind. Und, —sollten solche Überlastungen für kurze Zeit wirklich der Fall gewesen sein, dann wird dieser Zustand aller Wahrscheinlichkeit nach mit der Inbetriebnahme neuer Maschinen usw. beseitigt werden. Kostenmäßig ins Gewicht fallende Überbeanspruchungen von Mensch und Maschine im Betrieb können immer nur als Ausnahmefall angesehen werden. .... Das ist der Normalfall der Praxis, von dem wir auszugehen haben.“<sup>(10)</sup> Anders gesagt, denkt Gutenberg, daß z.B. bei der günstigen Aussicht der Zukunft die neue Kapazität ohne weiteres zusätzlich in den Engpässen eingeführt wird, und zwar, daß die Gesamtkostenkurve in der Regel wieder linear verläuft.

Man kann zwar, wie Gutenberg schreibt, sagen, daß in der betrieblichen Praxis die nicht immer von kurzfristiger Sicht gebundene Situation, und damit auch die lineare Gesamtkostenkurve als Tendenz herrschend ist. Aber die

(9) Gutenberg, E. a.a.O. S. 258 f.

(10) Gutenberg, E., Über den Verlauf von Kostenkurven und seine Begründung, ZfhF. Jg. 5, 1953, S. 23.

kostentheoretischen Aussagen sollen meiner Meinung nach nicht ausschließlich darauf gebildet werden, denn auch die Einführung der zusätzlichen Kapazität in den Engpässen kann wegen der technischen und wirtschaftlichen Gründen (Unteilbarkeit der Kapazität, unvollkommene Informationen über Zukunftszustände usw.) nicht ohne weiteres stattfinden, und die Entscheidung muß, wenn es auch möglich sein mag, im Vergleich mit der Kostensituation in den gegebenen, technischen und kapazitätsmäßigen Bedingungen ohne Einführung zusätzlicher Kapazität in den Engpässen bzw. mit ihren Einflüssen auf den Betriebserfolg getroffen werden. Anders gesagt, obgleich man als die allgemeine Tendenz in der betrieblichen Praxis auf die Herrschaft der nicht von kurzfristiger Sicht gebundenen Situation und damit auch auf die herrschende Linearität der Gesamtkostenkurve hinweisen muß, soll als die theoretischen Erkenntnis auch die Kostensituation, die von Beschäftigungsdispositionen innerhalb der gegebenen, technischen und kapazitätsmäßigen Bedingungen in der kurzen Zeit realisiert werden kann, nicht aufgehoben werden. Es ist z.B. bei den verschiedenen Betriebsplanungen, auch als eine Vergleichsbasis sehr wichtig, diese Kostensituation zu erkennen,<sup>(11)</sup> obgleich sie nicht effektiv erscheinen mag.

Und zwar unter dieser Kostensituation soll man die verschiedenen Kombinationen der dispositiven Anpassungsformen in den Betriebsteilen verstehen, denn die relativen Kapazitätsgrößen und die technischen Bedingungen von den einzelnen Aggregaten können dabei nicht verändert werden.

Wenn Gutenberg z.B. unter der quantitativen Anpassung nicht nur die Einstellung bzw. Wiederinbetriebnahme der Maschinen, sondern auch den Verkauf der eingestellten Maschinen bzw. die neue Beschaffung der Maschinen versteht, oder wenn er die Anpassungsformen nebeneinander getrennt betrachtet, behandelt er dann, meiner Meinung nach, nur eine Seite der theoretischen Erkenntnisse.

Somit sollen in diesem Punkte auch die Aussagen von Gutenberg ergänzt werden. Und, um die theoretischen Erkenntnisse der modernen Kostentheorie zu bereichern, muß man die Mannigfaltigkeit der betrieblichen Dispositionen richtig ergreifen und sie muß unter Berücksichtigung von technischen und wirtschaftlichen Bedingungen, mit den internen Abhängigkeiten zwischen Faktoreinsatzmengen und Leistungen systematisch verbunden werden.

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(11) Implizite kann man das in mehreren Versuchen, mit Produktionsplanung die kostentheoretischen Erkenntnisse zu verbinden, finden. Vgl. z.B. Albach, H. Produktionsplanung auf der Grundlage technischer Verbrauchsfunktion, in: Arbeitsgemeinschaft für Forschung des Landes Nordrhein-Westfalen 105. Sitzung, Köln u. Opladen 1962. S. 45ff. Jacob, H., Produktionsplanung und Kostentheorie, in: Zur Theorie der Unternehmung, Festschrift zum 65. Geburtstag von Erich Gutenberg, Wiesbaden 1962, S. 205ff.

# GRUNDPROBLEME DER PRIVATISIERUNG

Masaya OKADA

Hier sollen im wesentlichen die Grundprobleme der Privatisierung—Privatisierungs-argumente, -objekte, -wege und -definition—behandelt, für die andere aber auch einige Hinweise ausführlich gemacht werden.

## I

Untersucht man die zur Begrenzung der Privatisierungswünsche vorgebrachten Thesen, so lassen sich vier Gruppen unterscheiden: 1. die systempolitischen, 2. die wirtschaftspolitischen, 3. die betriebspolitischen und 4. die gesellschaftspolitischen.

Als systempolitisch wollen wir hier alle Argumente bezeichnen, die davon ausgehen, daß es dem heutigen Wirtschaftssystem der Bundesrepublik widerspräche, wenn der Staat als Wirtschaftler auftritt.<sup>(1)</sup>

Es ist eine der wichtigsten Aufgaben des auf einer freiheitlichen Gesellschaftsordnung beruhenden Staates, die Erhaltung des freien Wettbewerbs sicherstellen. Versagt der Staat auf diesem Felde, dann ist es auch bald um die "Soziale Marktwirtschaft" geschehen<sup>(2)</sup>. Und es kann nicht seine Aufgabe des Staates sein, den Wettbewerb zu zerstören, sondern es ist seine Pflicht, ihn mit Hilfe einer einheitlichen und marktkonformen Wirtschaftspolitik überall dort, wo es sich als notwendig erweist, zu fördern<sup>(3)</sup>. Also paßt es nicht in das Bild einer auf unternehmerischer Freizügigkeit beruhenden Wirtschaft, wenn sich der Staat selbst als Unternehmer betätigt<sup>(4)</sup>. Und die soziale Marktwirtschaft fordert die Privatisierung.

Bei den wirtschaftspolitischen Argumenten, die zur Begründung der Privatisierungsforderung vorgebracht werden, können im wesentlichen fünf unterschieden werden, die sich teils ergänzen, teils widersprechen. Es sind dies 1. das Machtargument, 2. das Monopolargument, 3. das Wettbewerbsargument,

(1) Hirche, Kurt: Die Komödie der Privatisierung, Der Kampf um die öffentliche Wirtschaft, 2. Aufl., 1959, S. 54.

(2) Erhard, Ludwig: Wohlstand für alle, 1957, S. 9.

(3) Breidbach, Hans-Josef: Privatisierung, Schriftenreihe des deutschen Industrieinstituts, Heft 8, 1960, S. 58.

(4) Erhard, Ludwig: a. a. O., S. 142. Noch siehe hierzu : Die Bundes-Konzerne, Schach dem Staatskapitalismus durch Privatisierung, Schriftenreihe des Bundes der Steuerzahler, Heft 10, S. 31.

#### 4. das Steuerargument und 5. eine Anzahl von Einzelargumenten.<sup>(5)</sup>

Das Machtargument ist u. a. von dem verstorbenen Präsidenten des Landesverbandes der Bayerischen Industrie, Dr. Otto Seeling, angesprochen worden<sup>(6)</sup>: "Die Zusammenballung wirtschaftlicher Macht in den Händen des Staates ist viel gefährlicher als wirtschaftlicher Macht in privaten Händen. Beim Staat gesellt sich zur wirtschaftlichen Macht die politische Macht. Dadurch wird eine Totalität geschaffen, die mit den Grundsätzen eines demokratischen Staates nicht vereinbar ist. Mit dem Staatskapitalismus<sup>(7)</sup> ist es wie mit der Planwirtschaft: beide streben zur Totalität."

Das Monopolargument hängt eng mit dem Macht- und Wettbewerbsargument zusammen. Es kommt in zwei Variation vor. Die eine besagt, Monopole in der Hand des Staates seien in jedem Fall bedenklich und müßten im Interesse des Wettbewerbs beseitigt werden, die andere bekämpft das öffentliche Monopol, weil es mißbraucht werden könnte.<sup>(8)</sup>

Das Wettbewerbsargument wird wohl am häufigsten im Munde geführt. Und das Steuerargument ist von dem Wettbewerbsargument kaum zu trennen. Dabei wird häufig ohne jede Einschränkung behauptet, die öffentliche Hand genieße gegenüber den privaten Unternehmen große Steuervorteile und sei daher im Wettbewerb bevorzugt. Tatsächlich sind im wesentlichen nur die Bundesbahn und -post, die Bundesbank und die Sparkassen von der Körperschafts- und Gewerbesteuer befreit. Alle öffentlichen Erwerbsunternehmen jedoch, die in der Form des Privatrechts betrieben werden, müssen, mit Ausnahme der Vermögenssteuer, dieselben Steuerlasten tragen wie die Privatbetriebe.<sup>(9)</sup>

Schließlich sind in den letzten Jahren noch eine Reihe von Einzelargumenten vorgebracht worden, um die Privatisierungsforderung zu begründen. So hat der Abgeordnete Dr. Atzenroth lange Zeit gefordert, aus den Privatisierungserlösen die Besitzer der früheren Reichsanleihen zu befriedigen. Andere wollten die Erlöse aus dem Verkauf der öffentlichen Unternehmen dazu benutzen, um den Privatunternehmern die Verluste zu ersetzen, die sie durch die Beschlagnahme deutschen Auslandsvermögens erlitten hatten. Wieder andere schlugen vor,

(5) Hirche, Kurt: a. a. O., S. 59.

(6) Seeling, Otto: Staatskapitalismus—eine neue Gefahr, Aktuelle Betriebsfragen 16, 1953, S. 10.

(7) Staatskapitalismus ist der Einsatz von staatlichen Mitteln oder von Steuergeldern zum Zwecke der Gründung oder des Erwerbs wirtschaftlicher Unternehmungen oder der Beteiligung an solchen. Unter den Begriff des Staatskapitalismus fallen somit nicht die Subventionen und Kredite, die der Staat entweder aus eigenen Mitteln oder unter seiner Bürgschaft wirtschaftlichen Unternehmungen gewährt. (Seeling, Otto: a. a. O., S. 6)

(8) Hirche, Kurt: a. a. O., S. 61.

(9) Hirche, Kurt: a. a. O., S. 64.

die Erlöse zur Steuersenkung zu verwenden. Alle diese und ähnliche Vorschläge lassen den besonderen Interessentenstandpunkt deutlich erkennen.<sup>(10)</sup>

Als betriebspolitisch werden hier die Argumente zusammengefaßt, die sich auf die Tätigkeit der einzelnen öffentlichen Betriebe beziehen und mit denen bewiesen werden soll, daß ein öffentliches Unternehmen unwirtschaftlicher, unrentabler, bürokratischer und schwerfälliger sei als ein privates<sup>(11)</sup>. Aber der Bund der Steuerzahler glaubt grundsätzlich nicht, daß es berechtigt ist, die Forderung nach Privatisierung unnötigen Staatseigentums an Erwerbsunternehmen etwa damit zu begründen, daß diese Unternehmen schlechter geführt würden als Unternehmen in privatem Aktienbesitz.<sup>(12)</sup>

Aber erst in den letzten Jahren ist ein anderer Sinn allmählich im Wort Privatisierung enthalten. Die Privatisierungsforderungen hat ein größeres Gewicht durch die These der Eigentumsstreuung erhalten, so daß die alte Privatisierung konnte die neue Privatisierung ersetzt werden.

Das gesellschaftspolitische Argument ist das, das nicht schon in den Privatisierungsbestrebungen der zwanziger Jahre, sondern erstmals 1957 im Zusammenhang mit dem Gesetzentwurf über die Privatisierung des Volkswagenwerkes aufgetaucht ist. Danach soll die Privatisierung eine breite Eigentumsstreuung ermöglichen oder mindestens einleiten. Sie soll dazu beitragen, die heutigen großen Spannungen in der Eigentumsverteilung zu mildern und—indem sie breitere Schichten an das Produktionsmitteleigentum heranbringt—allmählich die heutige Gesellschaftsstruktur verändern.

Von amtlicher Seite hat Bundesschatzminister Lindrath im Bundestag hierzu ausgeführt: "Es ist ..... das immer wieder erklärte Ziel der Regierungsparteien, die wirtschaftlichen Unternehmen des Bundes, wo immer möglich, Schritt um Schritt in private Hände zu überführen. Mit dieser wirtschaftspolitischen Ziel verbindet sich das in der Regierungserklärung vom 29. Oktober 1957 zum Ausdruck gebrachte Bestreben, allmählich zu einer breiteren Streuung des Eigentums an den Produktionsmitteln zu gelangen ..... Zu diesem besonderen Anliegen der gesamten Wirtschaftspolitik, eine soziale Eigentumsbildung zu fördern, kann die Privatisierung des Bundesvermögens einen Beitrag leisten."

Der Abgeordnete Katzer, führendes Mitglied der CDU-Sozialausschüsse, formulierte hingegen: "Unser gesellschaftspolitisches Ziel heißt nicht: Privatisierung des Bundesvermögens, sondern es heißt: Eigentum für jeden. Die

(10) Hirche, Kurt: a. a. O., SS. 64-65.

(11) Hirche, Kurt: a. a. O., S. 65.

(12) Die Bundes-Konzerne, Schach dem Staatskapitalismus durch Privatisierung, SS. 170-171.

Privatisierung des Bundesvermögens ist dabei für uns ..... ein erster, aber sehr sinnvoller Anfang."

Für die Bundesregierung liegt also nach dieser Erklärung der Hauptnachdruck auf der Privatisierung, während Katzer diese Privatisierung als ein Mittel ansieht, zu einer breiten Eigentumsstreuung zu gelangen<sup>(13)</sup>. Aber alle öffentlichen Unternehmen, die bis zum Frühjahr 1959 privatisiert wurden, sind an wenige Einzelkäufer oder Privatunternehmen verkauft worden. Zum ersten Male ist dann Ende März 1959 bei der Privatisierung der Preußag<sup>(14)</sup> der Versuch gemacht worden, durch die Ausgabe von Volksaktien eine breite Eigentumsstreuung zu erreichen<sup>(15)</sup>.

## II

Was soll privatisiert werden? Es ist nicht möglich, hier einen Gesamtüberblick über das öffentliche Vermögen, seine finanziellen Größenordnungen und Verästelungen zu geben. Für unseren Zweck genügt es, fünf große Gruppen zu betrachten, zwischen denen die Grenzen natürlich fließend sind.

Die umfangreichste und wertmäßig größte Gruppe umfaßt das Hoheits- und Verwaltungsvermögen. Diese Gruppe des öffentlichen Vermögens stellt kein Privatisierungsobjekt dar. Eine zweite große Gruppe des öffentlichen Vermögens stellen die Sondervermögen dar, bei denen es sich im wesentlichen um solche des Bundes handelt. Eine dritte Gruppe betrifft das Kreditvermögen, vor allem die Darlehen für den sozialen Wohnungsbau. Es wäre anzunehmen, daß auch bei dieser Vermögensgruppe von einer Privatisierung nicht die Rede sein kann. Als eine vierte Gruppe kann das Liegenschaftsvermögen angesehen werden.

Die fünfte Gruppe des öffentlichen Eigentums umfaßt schließlich das Erwerbsvermögen. Zu ihm gehören all die Unternehmen, die entweder in öffentlich-rechtlicher Form als Regie- und Eigenbetriebe geführt oder privatrechtlich als in vollem öffentlichem Besitz befindliche Aktiengesellschaft, GmbH usw. oder als gemischtwirtschaftliches Unternehmen betrieben werden und sich auf den verschiedensten Gebieten der Wirtschaft betätigen. Um sie handelt es sich in erster Linie, wenn die Privatisierung der öffentlichen Hand gefordert wird.<sup>(16)</sup>

Von Hinchen verbleiben als umstrittene Gebiete im wesentlichen die drei

(13) Hirche, Kurt: a. a. O., S. 68.

(14) Preußische Bergwerks- und Hütten AG.

(15) Hirche, Kurt: a. a. O., S. 69.

(16) Hirche, Kurt: a. a. O., SS. 72-74.

großen Bundeskonzerne Viag, Veba und AG für Berg- und Hüttenbetriebe mit ihren mehreren hundert Beteiligungsunternehmen, drei kleinere Konzerne (Industrie-Verwaltungs-GmbH, Bank für deutsche Luftfahrt i. L. und AG für Binnenschifffahrt), eine Anzahl unmittelbar verwalteter Unternehmen sowie das Volkswagenwerk. Dazu kommen noch weitere verkehrswirtschaftliche Unternehmen und 42 ruhende oder sich in Liquidation befindliche Gesellschaften.<sup>(17)</sup>

Und an einer Privatisierungsliste waren unter anderem folgende Firmen verzeichnet:

Luitpoldhütte AG, Amberg  
 Metallwerke Unterweser AG, Nordenham  
 Oberbayerische Aktiengesellschaft für Kohlenbergbau, München  
 Fahrzeug- und Maschinenbau Watenstedt GmbH, Salzgitter  
 Kanal-Verkehrs AG, Duisburg-Ruhrroht  
 Deutsche Bergwerks- und Hüttenbau GmbH, Salzgitter-Drütte  
 Viag-Anteil an Ilseder Hütte in Peine  
 Alkett, Berlin  
 Vereinigte Tanklager- und Transportmittel GmbH, Hamburg  
 Schichau AG, Bremerhaven  
 Deutsche Industrierwerke AG bzw. GmbH, Berlin-Spandau  
 Norddeutsche Chemische Werke GmbH, Lüneburg  
 Beteiligung an der Rheinmetall-Borsig AG, Berlin  
 Mitteldeutsche Spinnhütte GmbH, Celle  
 Holzverzuckerungs GmbH, Holzminden  
 Volkswagenwerk GmbH  
 Ufa  
 Afifa  
 Bavaria  
 Howaldtswerke Hamburg AG, Hamburg

Einige der genannten Unternehmen sind inzwischen verkauft worden, bei anderen zerschlugen sich die Verkaufsverhandlungen, oder es fanden sich keine Interessenten.<sup>(18)</sup>

Dem Bundestag hat die Regierung erstmals im Sommer 1958 über den Stand der Privatisierung berichtet. Danach sind seit dem Jahre 1949 von 429 gesellschaften, an denen der Bund beteiligt war, insgesamt 32 veräußert worden, unter denen sich sieben unmittelbare und 25 mittelbare Beteiligungen befanden. Der Veräußerungserlös hat hierfür mehr als 85 Millionen DM betragen<sup>(19)</sup>.

(17) Hirche, Kurt: a. a. O., S. 80.

(18) Hirche, Kurt: a. a. O., S. 33.

(19) Hirche, Kurt: a. a. O., S. 106.

Nach der im Bundestag erfolgten Angabe sind folgende Beteiligungen bis zum Sommer 1958 verkauft worden:

I. Unmittelbare Beteiligungen

1. \*Reichskraftsprit GmbH, Berlin
2. \*Weichsel-Dampfschiffahrt AG, Kiel
3. Karlsruher Flughafengesellschaft mbH, Karlsruhe
4. Reinickendorfer Industriebahn GmbH, Berlin
5. Kieler Verkehrs-Aktiengesellschaft, Kiel
6. Deutsch-Ostafrikanische Gesellschaft, Berlin
7. F. Schichau AG, Bremerhaven

II. Mittelbare Beteiligungen

- a) aus dem Bereich der Bank der Deutschen Luftfahrt AG:
  1. Rheinmetall Borsig AG, Berlin
  2. Continentale Metall AG, Bad Homburg v.d. H.
  3. Gerhard Fieseler Werke GmbH, Kassel
  4. \*Alumetall GmbH, Nürnberg
  5. Junkers Flugzeug- und Motorenwerke AG, Dessau
  6. Junkers Flugzeug- und Motorenwerke GmbH, Lohfelden (Kassel)
  7. Gemeinnützige Wohnungsbaugesellschaft Nordhessen GmbH, Kassel
- b) aus dem Besitz der ehemaligen Deutschen Werke Kiel AG, Kiel:
  - 1.\* M. Achgelis Söhne AG, Bremerhaven
  - 2.\* Holmag Holsteinische Maschinenbau AG, Kiel
  - 3.\* Tilly-Strumpffabrik GmbH, Kiel
- c) aus dem Bereich der AG für Binnenschiffahrt:
  1. Deutsche Tank-Reederei GmbH, Hamburg
  2. Norddeutsche Schiffsahrts AG, Hamburg
  3. Transport AG (vormals J. Hevecke), Hamburg
  4. Westfälische Transport AG, Dortmund
- d) aus dem ehemaligen reichseigenen Filmvermögen:
  1. Bavaria Filmkunst AG, München
  2. Ufa-Anlagen Aktiengesellschaft (jetzt Universum Film AG, Berlin)
  3. Ufa-Theater-Aktiengesellschaft, Düsseldorf
  4. Degeto-Film GmbH, Berlin
  5. Betoton-Verlag GmbH, Berlin—Hamburg
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  4. Brennstofftechnik GmbH, Essen
  - 5.\* Famo Vertriebs GmbH, München



#### 6.\* Kontinentale Öl-Transport AG, Hamburg

Von diesen Verkäufen sind neun schon bis Ende 1954 erfolgt, die wir oben mit einem Stern gekennzeichnet haben. Von den 429 Gesellschaften, die der Bund bis 1955 in seine Verwaltung genommen hatte, wären danach bis Mitte 1958 nur 8% und von dem Nominalkapital dieser Beteiligungen nur 5 %, vom wirklichen Gesamtwert noch erheblich wenigen, privatisiert worden.<sup>(20)</sup>

### III

Die zur Verwirklichung der angestrebten Privatisierung einzuschlagenden Wege hängen davon ab, welches Privatisierungsziel angesteuert wird. Sie können bei Verfolgung des wirtschaftspolitischen Ziels der Eindämmung andere sein als bei der gesellschaftspolitisch gewünschten Eigentumsstreuung. Wer privatisieren will, kann die öffentlichen Unternehmen 1. liquidieren, 2. verpachten oder vermieten, 3. verteilen, 4. verkaufen, 5. Volksaktien ausgeben und 6. teilprivatisieren. Bei jedem dieser Wege sind verschiedene Durchführungsmöglichkeiten gegeben.<sup>(21)</sup>

Beginnen wir zunächst mit dem ersten Weg, der Liquidation (Stillegung) von öffentlichen Unternehmen. Wenn unter Privatisierung nur die Überführung von öffentlichem in privates Eigentum verstanden würde, könnte die Liquidation nicht als Privatisierung angesehen werden, da zwar einzelne Vermögensteile des betreffenden Unternehmens in private Hände übergehen mögen, das Unternehmen als wirtschaftliche Einheit aber aufgelöst wird. Im Sinne des oben dargelegten wirtschaftspolitischen Ziels der Privatisierung, den Einfluß der öffentlichen Wirtschaft einzuschränken, stellt die Liquidation einen naheliegenden Weg dar.

Der zweite Weg, die Privatisierung durch Einschränkung der Erwerbstätigkeit des Staates voranzutreiben, bestünde darin, öffentliche Unternehmen zu verpachten oder zu vermieten. Im Unterschied zu den üblichen Verträgen dieser Art, wie sie bei Grundstücken und Gebäuden angewendet werden, bietet sich hier das Institut des Betriebsnutzungsvertrages an. In diesem Falle kann der Betrieb so geführt werden, als ob er sich im Eigentum des privaten Betriebsnutzers befände. Zwar bleibt hierbei das juristische Eigentum beim Staat; aber die Privatisierer haben ja in den meisten Fällen nicht das staatliche Eigentum, sondern die staatliche Wirtschaftstätigkeit kritisiert, die dem Bürger Konkurrenz mache. Nun: in dem Maße, in dem Betriebsnutzungsverträge mit privaten Interessenten abgeschlossen werden, würde die staatliche Konkurrenz verschwinden. Es ist merkwürdig, daß dieser Privatisierungsweg bisher noch nicht

(20) Hirche, Kurt: a. a. O., SS. 107-108.

(21) Hirche, Kurt: a. a. O., S. 87.

beschritten. Allerdings muß hinzugefügt werden, daß sich die Betriebsnutzungsverträge nicht für jedes öffentliche Unternehmen eignen würden. Sie kämen im wesentlichen nur für kleinere und mittlere Betriebe und gegebenenfalls als Übergangslösung bis zum endgültigen Verkauf in Frage, soweit an ihnen kein besonderes öffentliches Interesse besteht.

Der dritte Privatisierungsweg bestünde darin, öffentliches Erwerbseigentum kostenlos zu verteilen. Wer nicht vom Abbau des Wirtschaftsstaats, sondern von der zu fördernden Eigentumsstreuung ausgeht, müßte den Gedanken der Umverteilung des öffentlichen Erwerbseigentums besonders eingehend untersuchen. Schließlich stellen "Sozialrabatt" und "Sozialkurs" der Volksaktie ebenfalls Umverteilung von öffentlichem Vermögen dar.

Der vierte Weg der Privatisierung betrifft den Verkauf öffentlicher Erwerbsbetriebe. Es ist der Weg, der bisher fast ausschließlich bestritten wurde.<sup>(22)</sup>

Der fünfte Privatisierungsweg kann zwar auch als eine der Möglichkeiten des vierten Weges (Verkauf) angesehen werden, stellt aber etwas Besonderes dar. Dieses Besondere ist nicht nur darin zu erblicken, daß die Volksaktie seit Frühjahr 1959 als das wichtigste Privatisierungsmittel angesehen werden muß, sondern rührt auch daher, daß sie vielseitiger Ausstattung fähig ist und mit dem ersten und sechsten Weg kombiniert werden kann. Wir haben die Volksaktien kennengelernt als Beteiligungspapiere, die durch kleine Nennwerte und durch Stimmrechtsbeschränkungen gekennzeichnet sind. Ihr besonderer Charakter kommt in der ihnen eigentümlichen Zielsetzung und in den sozial-orientierten Ausgabebedingungen zum Ausdruck.<sup>(23)</sup>

Auch der sechste Privatisierungsweg (Teilprivatisierung) kann mit anderen der vorher behandelten Weg kombiniert werden. Während es aber bei diesen jeweils um die Vollprivatisierung ging, ist hier der Übergang eines mehr oder minder großen Teils eines öffentlichen Unternehmens in Privathand gemeint. In diesem Falle taucht hier die volle Problematik des gemischtwirtschaftlichen Betriebes auf.<sup>(24)</sup>

#### IV

Bis zum Frühjahr 1959 ist von der Bundesregierung nur das wirtschaftspolitische Ziel der Privatisierung praktiziert worden. Mit der Preußag-Aktion wurde auch das gesellschaftspolitische erstmals in die Tat umzusetzen versucht.

(22) Siehe hierzu diese Abhandlung SS. 131-133.

(23) Hammerschmidt, Rolf: Betriebswirtschaftliche Probleme der Volksaktie, Inaugural-Dissertation zur Erlangung der Doktorwürde einer Hohen Staatswirtschaftlichen Fakultät der Ludwig-Maximilians Universität zu München, 1959, S. 135.

(24) Hirche, Kurt: a. a. O., SS. 87-94.

Es darf unterstellt werden, daß künftig beide nebeneinander verfolgt werden, wobei—wenigstens nach den amtlichen Erklärungen—das Schwergewicht bei den eigentumsstreuenden Maßnahmen liegen soll. Fassen wir das bisher Gesagte zusammen, so ergibt sich folgende Definition: Privatisierung ist die Überführung von Erwerbsvermögen der öffentlichen Hand in private Hand, um die öffentliche Wirtschaftstätigkeit einzuschränken oder eine breite Eigentumsstreuung zu erreichen oder um beide Ziele gleichzeitig zu verfolgen.

In dieser Formel haben wir bisher noch nicht den Begriff "private Hand" näher betrachtet. Offenbar hängt aber die Art und Weise und damit auch die Beurteilung der Privatisierung wesentlich davon ab, was unter privater Hand im Unterschied zur öffentlichen Hand zu verstehen ist<sup>(25)</sup>. Die soziale Privatisierung verfolgt eine breite Eigentumsstreuung. Private Hand betrifft dabei kleinere und mittlere Einkommensempfänger.

1964. 12. 21.

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

# KOBE ECONOMIC & BUSINESS REVIEW

## CONTENTS

### NO. 1 (1953)

- Present Day Significance of Free Ports ..... *Ginjiro Shibata*  
Development of Devaluation-Problem in Post-War Japan ..... *Kiyozo Miyata*  
Japan's Trade with South and South-East Asian Countries ..... *Fukuo Kawata*  
The Exchange Control Policy in Post-War Japan ..... *Masahiro Fujita*  
On the Official Statistics of Foreign Trade in the Post-War Japan ..... *Hikoji Katano*  
On Business History ..... *Tadakatsu Inoue*  
Problems of Regional Industrialization in Japan ..... *Minoru Beika*  
A Research of Wage Income in Post-War Japan ..... *Nobuko Nosé*  
Revaluation in Japan ..... *Susumu Watanabe*  
Last-In, First-Out Inventory Method under the Japanese Tax Law .. *Munehiro Masuzaki*

### NO. 2 (1954)

- Movements for the Establishment of Free Ports in Japan ..... *Ginjiro Shibata*  
Japan's Trade with Latin America in the Post-War Years ..... *Fukuo Kawata*  
The Maritime Competitions in the Early Meiji Era ..... *Seiji Sasaki*  
Two Deflations in the Showa Era ..... *Masahiro Fujita*  
Estimation of the Effectiveness of Devaluation on  
    Balance of Payment Deficit in Japan ..... *Hikoji Katano*  
The Recovery Method of the Japanese Shipping Industry  
    in Post-War Period ..... *Hiromasa Yamamoto*  
Business Accounting and Tax Accounting ..... *Susumu Watanabe*  
Spatial Characteristics of Industries Relative to Their  
    Business Features ..... *Minoru Beika*  
Stages in Factory Organization ..... *Tadakatsu Inoue*  
Accounting for Fixed Assets Revaluation; Recent Views in Japan .... *Munehiro Masuzaki*  
On the Structure of the National Income Distribution in Japan ..... *Nobuko Nosé*

### NO. 3 (1956)

- Industrialization and International Trade ..... *Fukuo Kawata*  
Econometric Determination of Foreign Exchange Rate of Japan  
    for 1926-1953 ..... *Hikoji Katano*  
Present Status of Japan's Shipping ..... *Ginjiro Shibata*  
The Distinction between "Shasen" and "Shagaisen" as Historical  
    Concepts in Japanese Shipping ..... *Seiji Sasaki*  
The Banking System in the Middle Meiji Era (1870-1910) ..... *Masahiro Fujita*  
Disposition of Cost Variances in Japanese Tax Law ..... *Susumu Watanabe*  
Structure of Industrial Districts in Japan ..... *Minoru Beika*  
Note on the ZAIBATSU Combines ..... *Tadakatsu Inoue*  
On the Model-Building for Social Accounting Design ..... *Nobuko Nosé*

### NO. 4 (1957)

- The Impact of Exchange Policy on the International Economy  
    of Japan during the Period 1930-1940 ..... *Laurence P. Dowd*

A Note on the Recent Trends of Japan's Foreign Trade .....	<i>Fukuo Kawata</i>
The Development of Overseas Banking System in Japan in the Meiji Era .....	<i>Masahiro Fujita</i>
More on the Structure of National Income Distribution in Japan ....	<i>Nobuko Nosé</i>
Reconstruction of the Theory of Purchasing Power Parity .....	<i>Hikoji Katano</i>
Tramp Shipping Freights and International Trade .....	<i>Ginjiro Shibata</i>
A Little Study on the Transition from the Sailing Vessel to Steamer in Japan .....	<i>Seiji Sasaki</i>
On the Regulating Policy of Japan Against the Shipping Conference—Especially in Relation to the Refusal of the Entry to New Comers .....	<i>Hiromasa Yamamoto</i>
The Price Fluctuation Reserve System in Japan .....	<i>Susumu Watanabe</i>
Locational Problem in the New Major Branches of Japanese Industries from 1954 to 1956 .....	<i>Minoru Beika</i>
Business Problems in an International Situation .....	<i>Tadakatsu Inoue</i>

#### NO. 5 (1958)

History of Yen—Its Developments in the Japanese Economy (1) ....	<i>Hiroshi Shinjo</i>
Fundamental Features of the Accumulation of Capital in the Late Meiji Era .....	<i>Masahiro Fujita</i>
Some Aspects of Japan's Trade with South and South-East Asia, 1950-1957.....	<i>Fukuo Kawata</i>
Curves of Diminishing Values of Japanese Merchant Ships in Proportion to Their Age .....	<i>Ginjiro Shibata</i>
The Modernization of Japanese Shipping Based on the Transportation of Hokkaido Marine Products .....	<i>Seiji Sasaki</i>
Development of the Marine Insurance Industry in Japan in the Meiji Period .....	<i>Hiromasa Yamamoto</i>
A Assimilação do Imigrante Japonês no Brasil .....	<i>Hiroshi Saito</i>
Rate of Profit and International Specialization of Production .....	<i>Hikoji Katano</i>
Replacement Cost and Lifo Cost .....	<i>Susumu Watanabe</i>
Spatial Problems of Business Activities .....	<i>Minoru Beika</i>
The Nature of the Morgan Control .....	<i>Tadakatsu Inoue</i>
On the Effect of Accelerated Amortization for Tax Purposes .....	<i>Nobuko Nosé</i>

#### NO. 6 (1959)

History of Yen—Its Developments in the Japanese Economy (2) .....	<i>Hiroshi Shinjo</i>
The Central Banking Policy in the Meiji Era .....	<i>Masahiro Fujita</i>
Economic Growth, Balance of Payment and Capital Movement .....	<i>Hikoji Katano</i>
World Trade and Japan's Export—1953-1957— .....	<i>Fukuo Kawata</i>
Alguns Aspectos da Mobilidade de Japoneses no Brasil .....	<i>Hiroshi Saito</i>
Problems of Emigrant-Transportation in Japan .....	<i>Hiromasa Yamamoto</i>
Port Labor Conditions in Japan .....	<i>Ginjiro Shibata</i>
The Development of the Concept "Operator" in Japan .....	<i>Seiji Sasaki</i>
Single Industry Towns in Japan .....	<i>Minoru Beika</i>
On the Application of the Social Accounting Principle to Business Accounting .....	<i>Nobuko Nosé</i>
Valuation of Work in Process .....	<i>Susumu Watanabe</i>
Developmental Stages Relating to Theories of Stock-Equity Accounting .....	<i>Ryuji Takeda</i>
On the Rate of Interest in Business Administration .....	<i>Jiro Ono</i>

Various Classes of Data Processing by Means of Electronic  
Computer ..... *Hideo Kitani*  
Company Histories in Japan ..... *Tadakatsu Inoue and Yoshiro Ikushima*

NO. 7 (1960)

Japanese Emigration and Its Effect on International Payments ..... *Ginjiro Shibata*  
One-to-One Correspondence Between Goods and Factor Prices ..... *Hikoji Katano*  
The Gold Standard and Banking Capital in Japan ..... *Masahiro Fujita*  
World Trade and Economic Growth ..... *Fukuo Kawata*  
Singularity in the Structure of the Seamen's Union of Japan ..... *Hiromasa Yamamoto*  
Some Reflections on Inter-Comparability of Social Accounting ..... *Nobuko Nosé*  
The Meaning of Inventories ..... *Susumu Watanabe*  
Structure of Income Determination on the Balance Sheet ..... *Ryuji Takeda*  
On the Value of Stock Rights and Its Significance  
in Corporate Finance ..... *Jiro Ono*  
Business Features and Management Policies of Industrial  
Enterprises in Local Districts of Japan ..... *Minoru Beika*

NO. 8 (1961)

The Industrial System and Industrial Education in Southeast Asia  
Now on the Threshold of Reform; and Japan's Position therein  
..... *Kiyozo Miyata*  
Industrial Structure and Educational System in India ..... *Tadao Miyashita*  
Industrial Education in India ..... *Tadao Miyashita*  
Technical Education in India ..... *Tadao Miyashita*  
Industrial Structure and Vocational Education in Thailand ..... *Fukuo Kawata*  
The Industrial Structure and Industrial Education  
in the Philippines ..... *Tei-ichi Yamasaki*  
Industrial Structure and Vocational Education in Indonesia ..... *Hiromasa Yamamoto*

NO. 9 (1962)

Problems in Port Administration and Finance in Japan ..... *Ginjiro Shibata*  
Types of Early Modern Japanese Shipowners ..... *Seiji Sasaki*  
On the Employment System of Seamen in Japan ..... *Hiromasa Yamamoto*  
A Study on Japan's Invisible Trade ..... *Fukuo Kawata*  
Problems of Industrial Location relating to Regional Development in  
Japan ..... *Minoru Beika*  
The System of Inside Contracting ..... *Tadakatsu Inoue*  
A Critique on Professor Mahalanobis Model of Economic  
Planning in India ..... *Hikoji Katano*  
National Income Concepts: Reconsidered ..... *Nobuko Nosé*  
Some Problems of the Installment Basis ..... *Susumu Watanabe*  
On the Purposes of a Going-Concern Valuation and its Natures ..... *Jiro Ono*  
Die Betrachtungsweise der neueren betriebswirtschaftlichen..  
Kostentheorie ..... *Tetsuo Kobayashi*

NO. 10 (1963)

Revised Accounting Provisions of the Commercial Code of Japan

—with Special Reference to the Corporation Income Tax Law— .....	<i>Susumu Watanabe</i>
Social Accounting as an Instrument of Policy .....	<i>Nobuko Nosé</i>
Industrial Estates for Small Businesses in Japan .....	<i>Minoru Beika</i>
Rise of the Mutual Financing Business in Japan .....	<i>Tadakatsu Inoue</i>
The Introduction of European-Style Vessels in Japan:	
A Historical Survey .....	<i>Seiji Sasaki</i>
On Industrial Relations in Japan's Shipping Industry	
—with Special Concern on Personnel Management— ....	<i>Hiromasa Yamamoto</i>
Regional Disparities in the Brazilian Economy:	
A Case Study on the Brazilian Northeast .....	<i>Yoshiaki Nishimukai</i>
The Basic Concepts of Going-Concern Valuation .....	<i>Jiro Ono</i>
A Study on the Current Cost Theory of Fritz Schmidt .....	<i>Isao Nakano</i>
Die Kostenbegriffe für die betriebliche Planung .....	<i>Tetsuo Kobayashi</i>
Introducing Prof. Shinjo's "History of the Yen" .....	<i>Zentarō Matsumura</i>

#### NO. 11 (1964)

Accounting Profit and Taxable Income .....	<i>Susumu Watanabe</i>
On Integration in Economic Accounting .....	<i>Nobuko Nosé</i>
Über,, Cost Accounting Standards“ in Japan .....	<i>Tetsuo Kobayashi</i>
A Note on the Lohmann-Ruchti Effect .....	<i>Isao Nakano</i>
Management Approach to Regional Development Problems in Japan	
.....	<i>Minoru Beika</i>
A Research Report on Office Automation of Middle-Scale Cities in Japan	
.....	<i>Jiro Ono</i>
Die Geschichte der Privatisierung .....	<i>Masaya Okada</i>
Recent Trends in the Balance of Payments of Japan .....	<i>Fukuo Kawata</i>
Long-Term Finance in Post-War Japan (1) .....	<i>Masahiro Fujita</i>
A Chronological Table of Modern Japanese Shipping—No. 1; 1600~1799	
.....	<i>Seiji Sasaki</i>
The Continuous Employment of Seamen in American Shipping Industry	
.....	<i>Hiromasa Yamamoto</i>
Some Problems of the Brazilian Economic Development Plan	
(1963-1965) .....	<i>Yoshiaki Nishimukai</i>

## KOBE UNIVERSITY ECONOMIC REVIEW 1964

Edited by Faculty of Economics,  
Kobe University, Kobe, Japan

### CONTENTS

"Subjectivism" in the History of Economic "Thought" .....	<i>Jūichi Hayashi</i>
A Note on Ricardo's Theory of Value .....	<i>Kanichi Minakata</i>
A Comment on Mr. Kaldor's Model .....	<i>Nobuo Okishio</i>
Energy Supplies and the Economic Growth in Japan, 1875-1962 .....	<i>Toru Ishimitsu</i>
The Business Cycle and Balance of Payments .....	<i>Kiyoshi Ikemoto</i>

---

## THE ANNALS OF THE SCHOOL OF BUSINESS ADMINISTRATION KOBE UNIVERSITY 1964

Edited by The School of Business Administration,  
Kobe University, Kobe, Japan

### CONTENTS

Die Rechnungslegungsvorschriften des Japanischen Handelsgesetzes zur Sicherung des Reinvermögens ....	<i>Katsuji Yamashita</i>
The Basic Structure of the Cost Accounting Standards in Japan .....	<i>Otojiro Kubota</i>
Necessary Conditions for the Existence of Medium and Small Enterprises in Industry .....	<i>Noboru Inaba</i>
Security Credit in Japan Today .....	<i>Saichiro Suminoe</i>
The Consolidation of Japanese Shipping Companies and Its Background .....	<i>Tadanori Takamura</i>
On the Theory of Optimum Foreign Investment .....	<i>Akihiro Amano</i>

---

## KOBE UNIVERSITY LAW REVIEW International Edition 1964

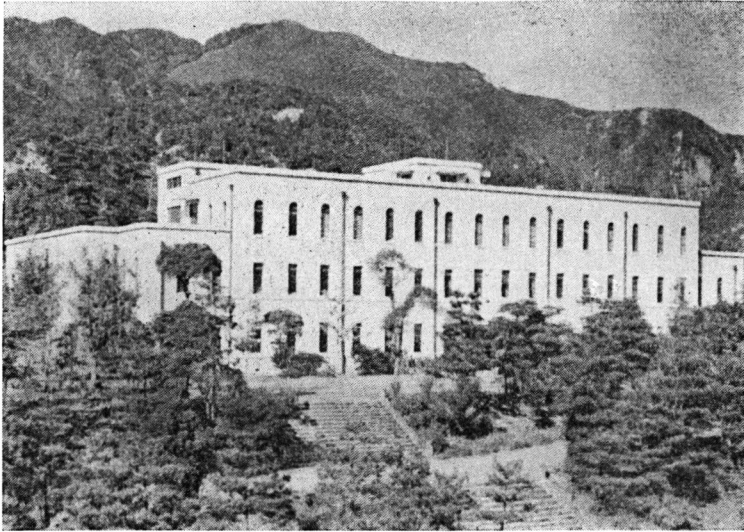
Edited by Faculty of Law,  
Kobe University, Kobe, Japan

### CONTENTS

Some Factors in the Communist View of Neutrality .....	<i>Masao Onoe</i>
Das gerichtliche Verfahren in der EDO-Zeit in Japan .....	<i>Hideo Ohtake</i>



## 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 eighteen 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 Asian Economy Committee, Latin-America Committee, and Accounting 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.

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