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THE RESEARCH INSTITUTE FOR
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CONTENTS

JAPANESE EMIGRATION AND ITS EFFECT ON INTERNATIONAL PAYMENTS

Ginjiro SHIBATA

I Introduction

The problems of the balance of international payments in relation to migration may be classified in three phases: (1) international payments caused by sending out emigrants; (2) those arising from the settlers themselves; and (3) those arising indirectly from the fact that a number of settlers have lived long in a certain foreign country. (1) and (2) may be said to be payments in direct relation to emigration, wherein the former includes such items as passage fare, personal effects and money carried out by emigrants, etc.; while the latter are remittances to their mother countries, tourist expenses while visiting there, imports or exports, and investment to and from there on account of the emigrants, etc. (3) may be said to be payments in indirect relation to emigration, wherein is included an additional part of foreign trades, investments and other international transactions between both countries, the emigrated and immigrated, by the fact that a number of emigrants have lived long in the latter country. The items included in (1) and (2) can be calculated from statistical data, if available, while the items in (3) can not be easily estimated statistically since those amounts which are due to the settlers can not be distinguished from those which were born of other reasons, and so we can only hazily surmise that if such settlers had not been living in that foreign country, whether investments or other business transactions would have not risen and developed as they actually did.

Furthermore, the words "the balance of international payments" can be called into question. Since international currencies are based on the dollar and sterling and the control of foreign exchange is rigidly fixed, the words were under-

stood immediately as being a synonym for the balance of dollar and pound currencies retained by the Japanese Government. But their function as a currency will be generally the same as the national currency; that is, even though the absolute quantity of dollars retained remains unchanged, the frequency of its turnover may give impetus to an extreme increase in international trade, and besides in international transactions without any foreign exchange, so-called open-accounts, the national income may be well expected to increase considerably. Therefore, international transactions which have no direct effect on the national holdings of international currencies but on the national income shall be included in an account which ordinarily is called the balance of international payments; in other words, here we will interpret the balance of international payments in a broader sense.

When we argue on the balance of international payments, the treatment shall be done based on actual figures. Although in every country the figures relating to visible trades are available, the actual figures of invisible trade can not be easily obtained and are not so reliable even if obtainable, than those of visible trade which are readily available and their reliability high in general. As to the following research, some parts of the data can be expected to be relatively trustworthy, but others are not sufficiently definite or were not available by any means. Then, here we will estimate the figures analogically from other data in the case of lack of direct data, and moreover in order to equalize the diversity of the data the results of the estimation will be shown in round numbers in the final analysis.

II International Payments at the time of the Departure of Emigrants

A direct effect of emigration on international payments occurs at first from passage fares paid by emigrants to foreign ships, the money and articles they carry out, etc.

As to the shipping of freight goods, it is dealt with as invisible trade in the statistics of international payments only when the shipping is done on board Japanese ships. When the goods are imported by foreign ships, the shipping freight will be included in the value of the goods as visible trade in the CIF value, and the freight will not be included in general in the exports value, since it is shown as FOB value.

This treatment is merely a statistical technique which is intended to keep

world balance in the face of the balance sheet of the international payments of whole world. But as a matter of fact only the freights actually paid to foreign ships are concerned with the balance of international payments of each country and those paid to Japanese ships are not concerned with the international payments of Japan, even if the latter is paid in foreign currencies. This relation is the same as in the case of a passage fare.

Personal effects carried out by passengers which are generally made in Japan are ordinarily considered as things having no concern with international payments. But these have the same nature as exports without compensation or donations sent abroad, and shall essentially be included as one item of international payments. In the statistical table of foreign trades, they are entered either under the item "Travelers' Personal Effects", or as independent items if they are fairly high-priced, such as agricultural implements. Exports without compensation or donations abroad shall be added on the side of the loss account of the balance sheet of international payments; nevertheless, in fact they are registered as normal exports which mean international receipts on the balance sheet of international payments, whereat we find the sole misleading point from the point of view of international payments.

Money and personal effects which are carried out by the emigrants are generally procured from the consolidation of their own real estates and personal properties in Japan, or by debts. The consolidation of real estates and personal properties is a quite difficult matter, because the price is apt to be hammered down, advantage being taken of the emigrants' necessity. "International Migration", a periodical published by the International Migration Research Society reported two investigations, which were carried out by inquiries made to emigrants, in the January, 1959 edition. One was the result of an investigation which concerned a group of emigrants of 17 families for Bolivia on board the S. S. "Brazil Maru" in May, 1958. Their procurement of funds for emigration was ¥1,698,200 in total, that is, about ¥100,000 per family. The other was that concerned with an emigrants group of 126 families for the South American countries on board the "S. S. Argentina Maru" and "S. S. Africa Maru", which both sailed in June and July, 1958 respectively. Their consolidated properties amounted to ¥36,227,000 in total, that is ¥287,500 per family. In these cases, the actural disposed value and their expected procurable value are shown in Table 1.

According to the investigation of the above emigrant families the procured money was appropriated as follows: the money taken with them was 36.5%,

Table 1. Difference between Expected Procurable Value and Actual Disposed Value.

	No. of Items	Expected Value	Actual Disposed Value	%
Houses	75	18,218,000	11,810,000	64.8
Farms	68	35,442,000	22,310,000	62.9
Livestock	51	1,762,000	1,484,000	84.2
Farm Implements	20	428,000	330,000	78.5
Furnitures and others	15	548,000	293,000	53.5

the repayment of debts and reserve money for kinsfolk remaining at home, 34.8%, personal effects carried with them, 27.8% and unknown, 0.9%.

In order to leave one's own country and to emigrate, such a meagre amount of money as the above is so deficient that they generally ran into the debt of a certain company. The Japan Emigration Promoting Company (Nippon-Kaigai-Ijū Shinko Kaisha) made a loan to 56 families of emigrants for Paraguay, Bolivia and Dominica from 5 prefectures, Yamanashi, Kōchi, Fukuoka, Fukushima and Tokushima, up to ¥500,000 each per family and in total ¥23,909,000. This loan was almost entirely spent for farm implements which were to be used on their plantations in Latin America.

The results of the above investigations are not always applicable in all cases.

The Centro de Estudos Sulamericanos, Universidade de Kobe (Kobe-Daigaku Nanbei Kenkyukai) made a direct investigation concerning various items about 49 families (278 persons) who were embarking for Paraguay and Brazil and putting up at the Kobe Mediation Office for Emigration (Kobe Ijū Assenjo) under the guidance of Assistant Professor Hiroshi Saito. This result has been shown in detail in its organ "Estudos da America do Sul (Nanbei Kenkyu. 5th annual edition) and it shows that the amount paid differs greatly according to the kind of vocation they plan to take up in the countries to which they emigrate. That is, 10 families who were to emigrate to Brazil to work in sericulture procured a fund of ¥282,000 per family on the average, while the other 11 families who were to emigrate to Paraguay for colonization had to procure an amount of ¥887,000 per family. The personal effects bought by these funds were quite different in each emigrant group case. The Paulista sericulture emigrants did not pay for any farm implements but for housing materials, that is, bedding, various furnitures, sewing machines, watches, irons, boots, and shoes, cameras, sporting goods, amusement goods, gramophone records, books, medicines, buddhist altar fittings, etc. On the contrary, the colonist families for Paraguay

generally took with them farm implements besides their housing materials, that is, sprays, mowing machines, motors, threshing machines, milling machines, rice-cleaning machines, bicycles, sickles and other simple farm tools. But the above investigation did not refer to questions of whether within their net proceeds their passage fares, money carried with them and amount of repayment of old debts were included or not, or how much they got in loans besides the above procured fund. Therefore, according to this investigation, how much money was carried out in the form of personal effects and productive goods and how much was carried out with them in cash can scarcely be estimated by us. They procured real estate in Paraguay from the Japan Emigration Promoting Company who sold them in lots of 25 hectares per family for ¥133,000 in cash, or ¥144,000 in yearly instalments (¥72,000 in advance and the remainder payable within 3 years after 2 years unredeemed.). Besides, they must carry ¥300,000 in cash per family on demand by the Japanese Government. Thus, a sum from ¥372,000 to ¥433,000 had to be appropriated for buying real estates and as cash to be carried out. This may be the very reason why the emigrants for Paraguay received fairly higher proceeds than those of other emigrants. However, since money for real estates is paid to the Japanese company which had early invested on a large scale in land in Paraguay, that money was of no more concern in the balance of international payments.

The amount of the personally carried-out money is generally determined by the regulations of the immigrating countries, while emigrating countries also generally, or in each case, regulate the amount of carried-out money, based upon the regulations of immigrating countries. For example, in 1958 emigrants to Bolivia carried ¥180,000 per family, those to the Guama district of Brazil ¥100,000, those to the Fordlandia district in Brazil ¥120,000, those to Paraguay ¥300,000, those to Argentina ¥200,000 (fund for farming) and ¥350,000 (transportation in immigrating countries), etc. Therefore, generally speaking, the carrying-out money of emigrants to South America, excluding the investment fund, was from ¥100,000 to ¥300,000, that is, on the average about ¥200,000 per family.

Emigrants to South America numbered about 8,000 persons or 1,500 families in the yearly average since 1956 and we can roughly estimate from this fact that they carried out a total of about ¥300,000,000 in cash during a year.

Farm implements, furnitures, consumable goods and other personal effects which are considered as exports in substance are quite different in kind according

to the occupations and living circumstances in the immigrating countries. The farm implements that they took were once investigated in 1958 of the emigrants to Paraguay (46 families), Bolivia (8 families) and Dominica (2 families) by the members of the International Migration Research Society. According to this investigation, the emigrants to Paraguay carried farm implements in wider varieties and greater quantities than others, amounting to ¥446,113 per family on the average. On the contrary, the emigrants to Bolivia carried farm implements valued at about ¥258,780 on the average per family and those to Dominica averaged ¥276,880. We think the former example of emigrants to Paraguay rather exceptional and the latter two cases more typical, because the former included 36 automobiles, rear-cars and trailers, about 100 various farm machines and they appeared to have emigrated as an entire village. Thus, generally speaking, we can roughly estimate that one family carried farm implements and personal effects to the amount of about ¥300,000 in ordinary cases. As a result, about ¥450,000,000 of farm implements and personal effects were carried out by emigrants to South America in total, since the families were computed at about 1,500 per year since 1956.

The passage expenses of emigrants are usually met by loans from the foundation, "The United Associations of Japan for Emigration" (Nippon Kaigai-kyokai Rengokai). The foundation advances passage expenses from the port of departure to the port of arrival at the rate of 5.5% per annum, redeemable in 4 years and payable in 8 years in annual instalments. Passage fares are mostly fixed; ordinary 3rd class for an adult is $355 to Brazil, $380 to Argentina, $490 to Colombia (2nd class of cargo-boat), $600 to Chile (ditto.) and $580 to Peru (ditto.), and for juveniles it is one half of the above rates.

According to statistics of 1958, Japan sent out 7,492 emigrants abroad, of which 7,258 were to South America, 232 to Central America and 12 to North America, excluding those travelers who went at their own expenses. The age-classification of emigrants are somewhat different in each case; but according to the Brazillian Statistical Yearbook, about one quarter of immigrants were children; while Japanese emigrant statistics show that with in these last few years emigrants to Brazil under 12 years of age formed yearly from 25% to 27% of the total. The annual number of emigrants were estimated to be about 8,000 persons during these last three years as mentioned above. And the number embarking on foreign or domestic ships can be estimated based upon a report provided by the Foreign Section of the Ministry of Transportation, Japan. According to this

report, the number of planned emigrants sent out from 1952 to 1957 were 22,402 persons, of which 16,406 persons sailed on Japanese ships, 5,925 persons on foreign ships, and 44 persons went by air; that is, about 73% of them paid fares to Japanese ships and about 26% to foreign ships. Besides the planned emigrants, there were so-called "summoned emigrants" whose number was about 10% of all emigrants and almost all of them went by Japanese ships. So we may say that 75% of the emigrants were sent by Japanese ships and 25% of them by foreign ships; that is, about 6,000 emigrants paid their fares to Japanese ships, while 2,000 emigrants paid to foreign ships. And since for the most part the emigrants were those who went to Brazil, the passage fares mentioned above may be averaged as $360, and when adults are estimated as three-fourths and juveniles as one-fourth, the passage expenses paid to foreign ships in a year would total ¥259,000,000, or ¥260,000,000 in round numbers.

As almost all passage fares are paid by loans, they must be repaid some time or other and at that time the amount of fares which are paid to foreign ships must be added to the side of receipts in the balance of international payments and offset the amount paid in the past.

III International Payments arising after Emigrants settle down in Foreign Countries

A most important item which arises after emigrants permanently settle abroad is the remittances to their mother country. The remittance is sent with various intentions, that is, to help their relations at home, as contributions, donations, loans, repayment of debts or investments in their mother country. In Italy, Netherlands and China, remittances from their emigrants have always been one of the greatest items of their international revenue, but in Japan this item accounted for ¥50,000,000 (equivalent to above 20 billion yen at present), that is, formed only 10% of the invisible trades even before the War.

After the War this amount decreased extremely and according to a governmental report of 1956 personal remittances from abroad (including those from foreigners and non-emigrants) were only 3,400 Million yen, that is about 17% of the pre-war remittance.

The means of remittance to the mother country from the emigrants or their descendants is not only through banks but to ask friends who visit their mother countries to take it with them, or to include it in business expenses of trade companies or to remit through other routes which are not regular. Even

though they are remitted through the banks regularly, whether they are emigrants or not can not be ascertained by any of the public reports. Therefore, here we shall estimate it through other data. The United Associations of Japan for Emigration has investigated , by means of an enquête, this item from about 107 visitors to Japan in 1957. Among these 107 visitors, those who remitted to their homes in the previous year were 54 persons and the sum was ¥29,662,200. If we apply this sum of money to all the visitors of 5,514 settlers and their descendants in 1957, those who remitted to Japan would be 2,773 persons and the sum of money can be presumed to be ¥1,523,429,000. The population of settlers and their descendants who live abroad are said to be about eight hundred thousand. It would not be an overestimation, therefore, to say that the sum of remittance from them to be somewhere around twice or more the amount shown above. Then, the amount of ¥3,000,000,000 would not be, by any means, an overestimation, but it would be rather an underevaluation, as compared with the governmental report mentioned above.

Japanese residents abroad, most of whom are settlers and their descendants, always send various articles to their mother country as donations. The United Associations of Japan for Emigration has estimated this item according to the enquête of about 107 visitors, like the remittance shown above, and they found that 102 persons out of 107 persons brought a present with them, and that it was on the average about ¥119,670 per head. Since the visitors totaled 5514 in the same year, the articles they brought in amounted to about ¥629,408,180.

The United Associations made a further enquête about presents sent to anyone in Japan during the previous year. Those who sent a present to Japan were 23% (25 persons) and it amounted to ¥429,780, that is, ¥17,400 per head. We extended this amount to the total visitors during this year (5514 persons) and got ¥22,411,200 as the sum of presents sent from Japanese settlers.

In such fashion, the articles imported in to Japan in the form of presents and donations from the settlers and their descendants during the year 1957 were reckoned as ¥651,819,380; and from this we roughly estimated the total imports of a presents and donations from all emigrants abroad by doubling this amount, and got about ¥1,300,000,000 in round figures, in the same manner we estimated their remittance as stated above.

The next item which is related to the balance of international payments are passage fares paid to Japanese ships or air lines by the settlers who visit their mother country. All expenses paid while staying in Japan are also related to

the balance of international payments.

There was a total cessation of such visitors during and immediately after the war, but since then they have increased year after year, and in 1957 those who were admitted into Japan were counted as 125,294 of whom the settlers and their descendants were 5,514. Among the latter 2,586 were of Japanese descent but with foreign nationalities, and the remainder were original emigrants. Furthermore, out of the 5,514 persons those who landed in Yokohama Port were 2,995, at Haneda air port 2,243, and in Kobe Port 276; and from the United States there were 1,714, from Hawaii 2,705, from Brazil 741 and from other South American countries 101 who visited Japan (based on Judicial Statistics, Department of Justice, 1958).

2,252 of them used foreign ships, 2,243 came by foreign air lines; those who came by Japanese ships were 1,019 persons and by Japanese air lines were 1,155 persons. That is, the passage fares of 2,174 persons were related to the balance of international payments of Japan. Based on the passage tariff of Japanese shipping companies (O. S. K. Line and N. Y. K. Line) and classifying the passenger-classes, the United Associations of Japan for Emigration estimated the total one-way-passage fares Japanese ships received from them as being ¥128,585,000 ($351,181) and if we assume they returned by Japanese ships again, the receipts of Japanese ships would double, deducting those of permanent homecomers (142 ship-passengers and their fares as ¥22,563,000) from the latter, and it would amount to ¥234,607,000 in total.

The air fares paid to Japanese lines were estimated in like manner by the United Associations. Among 1,155 persons who came by Japanese air lines, via Los Angeles-Tokyo there were 580 persons (1st. class 174, Tourist class 406) and via Honolulu-Tokyo 575 persons (1st. Class 173, Tourist class 402) and the total of these one-way fares was estimated at ¥199,979,200. Since a return passage is usually discounted 10%, and in this case 25 persons remained in Japan permanently, the total fares they paid to Japanese air lines were ¥355,515,000, after deducting the above items.

The total fares paid to Japanese transportation, shipping and air, by the visitors in question can be estimated at ¥590,122,000.

The visitors must spend their money for living, touring the country, shopping and various amusements during their stay in the mother country. According to the United Associations' enquête about this item to the visitors they found that one visitor spend about ¥3,476.10 per day and the length of their visit was 164.29

days on the average. So one visitor spent ¥571,088.46 during his stay in Japan, and since the visitors were totaled as 5,514 persons during this year, the total consumption of the visitors this year amounted to ¥3,148,981,818.

According to another report, which was edited by the Tourist Bureau of the Department of Transportation in 1956, ordinary tourists to Japan spent daily $11 or ¥3,960 per head. In the results of the enquête, the daily amount of consumption of ¥3,476.10, does not seem to be so large an error in itself, because generally speaking a long term stay usually becomes cheaper relatively.

Besides the several items estimated above (that is, remittances, presents and donations, the transportation and consumption of visitors), the export of Japanese articles which emigrants settled down abroad want to directly consume shall be added. As the settlers, even those who emigrated a long ago, do not like to change radically their Japanese mode of living, and besides articles that they want are scarcely produced or cost very much in their settled country, they must import them from their mother country where they have acquaintances to correspond with. Therefore, the amount ought to be in proportion to the population of settlers in each settled country.

And the value of the export of special goods which are consumed or used by only Japanese settlers can be estimated to a certain extent, because these goods can be discriminated from other ordinary goods. But it is quite difficult to dicriminate the value of ordinary goods which are actually consumed or used by Japanese settlers from those of other exports, according to any available report published.

The special Japanese goods we call here are foodstuffs, condiments, textiles, amusements, kitchen utensils, and other goods which are of Japanese style or of Japanese taste. We picked out 102 items of those goods from the foreign trades statistics of 1956 and totaled their export value. The result is as follows.

The final item which is directly connected with international payments is the capital investment of the settlers in their mother country and those of the latter to the former. The capital investment made both ways in recent years comes to a pretty amount in fact, but the figures for this amount are not available or is very difficult to estimate, even roughly. Since this item is one of the most important items of international payments, an accurate report should be prepared by the government or some financial organization.

Table 2. Exports of Special Japanese Goods as compared with General Exports, 1956.
(in ¥1,000)

United States	6,334,153	Bolivia	19,655
	(161,721,720)		(428,040)
Hawaii	594,121	Chile	5,674
	(2,485,440)		(1,401,120)
Canada	168,442	Brazil	85,426
	(16,254,360)		(12,031,920)
Mexico	29,679	Argentina	40,002
	(2,643,720)		(28,484,640)
Cuba	128,714	Paraguay	4
	(1,747,440)		(190,440)
Colombia	49,132	Uruguay	17,359
	(2,555,640)		(741,600)
Peru	215,936	Venezuela	151,564
	(1,796,040)		(4,825,080)
Total	7,839,861		
	(237,307,200)		

Note: The figures in parentheses show the total exports from Japan in the same year.

IV Balance of International Payments arising directly from Emigration

The facts and estimations mentioned above are those with direct relation to emigration or emigrants from Japan. The annual totals of all amounts in those items are shown as follows, of which we have to note that these estimations are done in the rough, although we believe them as to be reasonable. Besides, the figures are in regard to only 1956, 1957 or 1958. Therefore, a further enquête needs be done in the near future and a new estimation at least should be done again. (All figures are shown in ¥1,000)

I Payments:—

1. Money carried out by emigrants	300,000
2. Articles carried out by emigrants	450,000
3. Passage fares paid to foreign companies by emigrants	260,000
Total payments at the time of departure	1,010,000

II Receipts:—

1. Remittances to Japan	3,000,000
2. Articles sent or carried as gift	1,300,000

3. Passage fares paid by visitors to Japanese transportation companies	590,000
4. Staying expenses of visitors	3,150,000
5. Exports of Japanized goods to the settlers	7,840,000
Total of international receipts	15,880,000
Balance of international payments	+14,870,000

The final result shows that the net receipt in the balance of international payments in regard to Japanese emigration was ¥14,870,000,000 annually in these years. This amount is thought of as rather a moderate estimation, and is believed to have greatly increased since then.

V Indirect relation between Emigration and the Balance of International Payments

When the number of settlers increases on the spot and their economic situation is raised, the international relation between Japan and the foreign countries will become more intimate, and foreign trade, capital investment and other economic relations between them will open up new developments. From a national point of view, this must be the final aim of emigration.

Of the indirect influence of emigration on international payments, the most remarkable facts are the advancement of foreign trades and investment. But to estimate the grade of that influence is quite difficult, as an advancement owing to the emigration proper can not be discriminated from that caused by other reasons. Foreign trade and capital investment will still rise and increase regardless of the existence of settlers in another country, but the fact that many settlers are working in all lines of business should be a power to encourage international transaction between both countries. The following table presents the relation of Japan's general imports and exports with South-American countries, and the population of Japanese settlers in those countries.

The following table represents the amount of trade with Brazil, Argentina and Peru as being much more than others. But they are not always consistently proportionate to the population of Japanese settlers in each country. For example, foreign trade with Brazil shows the highest figure and is surely influenced by the fact that there are a great number of Japanese settlers there, but the volume of trade seems somewhat less as compared with the other countries given above. Conversely, trade with other countries, especially with Venezuela, seems comparatively abundant in spite of the small number of Japanese settlers. The

sum of the matter is that settlers engaged in farming do not help much in increasing the amount of foreign trade, while the number of settlers who live in urban districts affect the amount of foreign trade more deeply, and besides, other economic conditions stimulate foreign trade between countries.

Table 3. Total Exports and Imports to and from South American Countries

Monetary Unit: ¥1,000,000

Countries	1956		1957		1958		3 years total		Population of Settled Japanese
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	
Argentina	14,016	12,963	2,973	6,793	9,417	9,643	26,406	29,399	10,555
Bolivia	958	787	737	756	778	255	2,473	1,799	1,500
Brazil	16,256	18,075	8,994	16,196	15,075	9,756	40,324	44,028	372,000
Chile	2,682	1,698	4,267	3,058	1,512	816	8,461	5,572	700
Colombia	2,662	608	1,840	353	2,020	627	6,522	1,589	500
Ecuador	438	99	519	123	563	830	1,519	1,052	—
Paraguay	184	224	526	265	832	220	1,541	709	2,000
Peru	3,010	9,243	4,277	14,121	2,078	5,319	9,365	28,683	40,000
Uruguay	1,754	1,301	624	447	54	281	2,432	2,029	163
Venezuela	5,756	721	8,394	1,384	8,296	1,197	22,446	3,301	133
Others	559	240	626	453	770	104	1,955	797	—
Total	48,273	45,960	33,777	43,951	41,394	29,047	123,443	118,958	

Source; Annual Report of Foreign Trades of Japan, Department of Finance.

The relation between emigration and capital investment is more delicate. Both relates indirectly and directly too. For example, in ancient times English settlers in North America demanded an abundant capital to exploit the new world and this exploitation demanded further many technicians and laborers. This tendency was reiterated for many years until the United States completed high productivity and stabilized their economic condition. Similar situations can be seen between all old advanced countries and their colonies. Japan has done, however, very little in such a direct investment since the War, while a fairly large investment has started in the countries of South America, especially in Brazil, owing to an abundant frozen fund as a result of a one-way trade, and this original investment is giving impetus to the export of factory-plants, such as textile, machinery, mining and others. But the actual figure connected with these investments are not yet available. These investments belong to investments which indirectly rose from the existence of Japanese settlers in those countries.

ONE-TO-ONE CORRESPONDENCE BETWEEN GOODS AND FACTOR PRICES

Hikoji KATANO

Holding to the International Factor-Price Equalization Theorem in the case of equal number of goods and production factor, a set of factor prices must be uniquely determined for a set of goods prices in each country. A. P. Lerner (4) has firstly explained that there may not necessarily be *the one-to-one correspondence*. Under what conditions can this correspondence be guaranteed? This problem has been studied by P. A. Samuelson (10, 11, 12), H. G. Johnson (2), I. F. Pearce (1, 7), S. F. James (1), J. E. Meade (5), R. Robinson (8), H. W. Kuhn (3) and others. Their common conclusion is that if the factor intensities do not become equal, or reverse themselves, there must be the one-to-one correspondence between goods and factor prices. This means that the correspondence is only effective under very restrictive conditions. We, in this paper, shall analyze what conditions make the restrictions inefficient.

1. In the case of two-goods and two-factors, the following assumption is needed for the existence of only one set of factor prices for a set of goods prices.

a. The production functions of each goods show constant returns to scale.

b. The law of diminishing marginal productivity holds.

c. The commodities differ in their factor intensities.

d. The commodities are always being produced with all kinds of factors.

Two-goods, X and Y, are being produced with two-factors, capital C and labor L. Goods X is being produced in x with c_x of capital and l_x of labor.

$$x=F(c_x, l_x), \qquad y=G(c_y, l_y) \tag{1}$$

According to Assumption (a), we have

$$(1^*)\qquad \begin{aligned} x&=l_x f\left(\frac{c_x}{l_x}\right)=l_x\cdot f(r_x)\\ y&=l_y\, g\left(\frac{c_y}{l_y}\right)=l_y\cdot g(r_y)\end{aligned}$$

Marginal physical productivity of each factor in each goods are

$$(2)\qquad \begin{aligned} \frac{\partial F}{\partial c_x}&=f'(r_x), \qquad \frac{\partial F}{\partial l_x}=f(r_x)-r_x f'(r_x)\\ \frac{\partial G}{\partial c_y}&=g'(r_y), \qquad \frac{\partial F}{\partial l_y}=g(r_y)-r_y g'(r_y)\end{aligned}$$

p_x and p_y stand for prices of both goods, and w_c and w_l for prices of capital and labor. Then we have optimum relations between goods and factor prices.

$$(3)\qquad \begin{aligned} w_c&=p_x\frac{\partial F}{\partial c_x}=p_y\frac{\partial G}{\partial c_y}\\ w_l&=p_x\frac{\partial F}{\partial l_x}=p_y\frac{\partial G}{\partial l_y}\end{aligned}$$

From (2) and (3), we have

$$(4)\qquad \begin{aligned} &pf'-g'=0\\ &p[f-r_x f']-[g-r_y g']=0\end{aligned}$$

where $p=p_x/p_y$. If goods prices are determined by the international demand-supply relationships, and are given in system (4), (4) becomes a system of implicit function equation with the unknown-variables r_x and r_y. This situation is solvent, but it is doubtful whether there can be a unique solution.

Our problems are (i) to assure the existence of some solutions in (4), and (ii) to look for the condition of uniqueness in solution. According to the Implicit Function Theorem, we know that two suitably continuous equations of (4), possessing a solution (r^*_x, r^*_y), cannot have any other solution provided

$$(5)\qquad \begin{aligned} \Delta&=\begin{vmatrix} pf'' & -g''\\ -pr_x f'' & r_y g''\end{vmatrix}\\ &=p\cdot f''\cdot g''\cdot(r_y-r_x)\neq 0\end{aligned}$$

For Assumption (b), f'' and g'' are negative, and the term in brackets cannot be equal to zero according to Assumption (c). This Jacobian, therefore, does not vanish. Is this a complete answer? No, it is not so. Economists, since Lerner, recognize why it is not so.

As anyone knows who understands the Implicit Function Theorem, the Theorem is only true *in the small*, in the neighbourhood of a point (r^*_x, r^*_y) sat-

isfying the two equations in (4). The soundness becomes thinner *in the large*, in the whole region of production about which region we have to analyze one part of economic problems. Giving the Theorem an economic consideration, P. A. Samuelson (10, 11, 12) and I. F. Pearce (1, 6) do expand the above-mentioned mathematically defined region. They tell us that the Implicit Function Theorem is economically true within the region in which the factor intensities do not become equal, or reverse themselves.

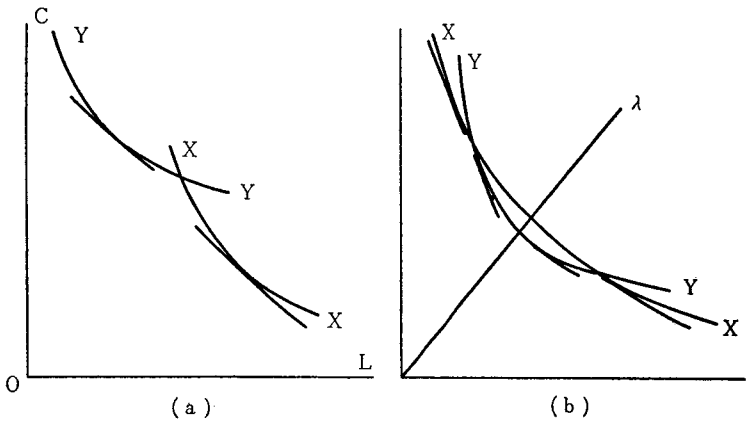

Figure 1.

In Figure 1, the above-mentioned situations are expressed in geometrical form. Labor L is measure on the horizontal axis and capital C on the vertical. XX and YY express two contours for both goods. These contours are convex to the origin for Assumption (b). As we have known, in (a), the factor intensities are constant within the C-L plane, production plane. While, in (b), the factor intensities are different between the upper and lower from $O\lambda$; the two tangents are equal or parallel at two points at which $O\lambda$ crosses XX and YY. Therefore, the difference between (a) and (b) is that there can be only one optimal capital-labor ratio in (a), while two ratios are possible in (b). This is a geometrical expression for the solution of (4) is unique within the region for which the sign of Jacobian (5) does not become equal to zero, or reverse itself. The sign of Jacobian (5) depends only on $(r_y - r_x)$. Therefore, in (a), the sign of Jacobian is constant according to the constancy of factor intensities, and there can be a unique solution. But, in (b), the sign of Jacobian is changed from the upper region to the lower of $O\lambda$, and there can be multiple solutions.

2. Economists have looked for the condition of uniqueness of solution by using the Implicit Function Theorem. They have attempted to economically amplify the meaning of the Theorem which is only true in the small. But their conclusion may be only a reconfirmation of the factor intensities assumption. By this conclusion, we cannot say that the problem of the uniqueness of solution is economically complete. For example, we have no such criterion in the situation of Figure 1-b.

About this situation, what do economists think? P. A. Samuelson (9, pp. 121 -122) says, after rereading Hechscher, Ohlin, Ellsworth and his 1948 paper,

> "In connection with the two-factor case, I have the impression that the phenomenon of goods that interchange their roles of being more labor intensive is much less important empirically than it is interesting theoretically."

Is this thinking correct? I cannot think so. In this connection, we have some special assumption about production functions, that is Assumptions (a) and (b). Satisfying these assumptions, the case in which XX and YY cross each other at only one point, is very specific; for example, this is the case in which both production functions are of the Cobb-Douglas type. As situation (a) is very specific, we have to make (b) a general situation. However, as we have seen, there can be two sets of factor prices for one set of goods price in this situation. How do we overcome this dilemma?

In the above-mentioned two-goods two-factor model, we have from (1), (2) and (3),

$$w=\varphi(r_x), \qquad w=\psi(r_y) \tag{6}$$

These express the relationships between the capital-labor ratio and the real price of labor (w_l/w_c) for each goods respectively.

In Figure 2, the real price of labor w is measured on the horizontal axis and the capital-labor ratio on the vertical. Therefore, two curves expressing the optimal capital-labor ratio are drawn on the $r-w$ plane for both goods, on which the marginal productivity of each factor is proportional to their prices for any factor price ratio. Both curves increase monotonously, because to substitute capital for labor is more profitable than to increase the real price of labor.

Endowments for capital and labor are given us. The relation between the factor endowment ratio and the cpaital-labor ratio in both industries is, under the assumption of full employment of two factors,

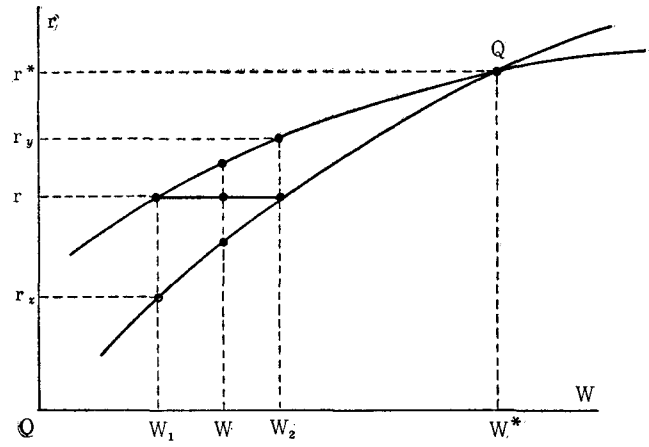

Figure 2.

(7) $\quad r=\alpha r_x+(1-\alpha)r_y\,; \quad 0\leqq\alpha\leqq 1$

This relation means that the level of technology used are really restricted for any level of the factor endowment ratio. In Figure 2, any real price of labor w is equal to w_1, when all amount of factors are put in to the production of goods Y. When w is lower than w_1, then there may be some excess of capital. As w increases from w_1 to w_2, the level of production of goods Y is reduced, while that of goods X expands. At $w=w_2$, all the amount of capital and labor is used up for the production of goods X. Finally, there may be unemployment for labor in $w>w_2$. Thus, as we have seen, if we have a given factor endowment ratio and the assumption of full employment of factors, we can restrict the level of technology, or the region of capital-labor ratio.

This situation has many other characteristics. As is shown in Figure 2, the region of capital-labor ratios for any given factor endowment ratio does not extend to the region for which factor intensities become equal or reverse themselves. For example, it is clear that, if any factor endowment ratio r is less than $r^*_x=r^*_y=r^*$, the upper-limit of capital-labor ratio for any factor endowment ratio is less than r^*. If r is larger than r^*, we find the complete inverse.

Let us apply these characteristics to the situation of Figure 1-b. There may be possible two sets of factor prices for a given goods price for the whole region of production. Therefore, we cannot find the one-to-one correspondence between goods prices and factor prices under Assumption (a)—(d). Let us substitute the further two assumptions for Assumption (c).

e. Supply of factors is given.

f. Production factors are fully employed.

Under Assumptions (a), (b), and (d)–(f), the above-mentioned one-to-one correspondence is possible. This is caused by the fact that only one kind of situation of factor intensities may be made for a given factor endowment ratio.

3. In short, under Assumptions (a)–(d), we generally think that the one-to-one correspondence between goods and factor prices can not be made for the whole region of production. However, substituting Assumptions (e) and (f) for (c), we can guarantee the one-to-one correspondence even in general situations.

It must be noted, however, that, if the one-to-one correspondence is held in each country, this does not necessarily mean they hold the International Factor Price Equalization Theorem. Even if the same production function is taken for the same goods in each country and the quality of factor is internationally homogeneous, large differences between both factor endowment ratios of some countries can make different sets of factor prices for one given set of international goods prices. In the case of the same set of factor prices, it may give rise to a special situation, complete specialization. We must study this situation in detail in another paper.

REFERENCES

(1) James, S. F. & Pearce, I. F., "The Factor Price Equalization Myth", Review of Economic Studies, 1951–52, Vol. XIX (2), no. 49.

(2) Johnson, H. G., "Factor Endowment, International Trade and Factor Prices," Manchester School of Economic and Social Studies, Sept., 1957.

(3) Kuhn, H. W., "Mathematical Appendix to A. H. Land's Factor Endowments and Factor Prices", Economica, May, 1959.

(4) Lerner, A. P., "Factor Prices and International Trade," Economica, Feb., 1952.

(5) Meade, J. E., "The Equalization of Factor Prices: the Two-Country Two-Factor Three-Product Case," Metroeconomica, II, Dec., 1950.

(6) Pearce, I. F., "A Further Note on Factor-Commodity Price Relationships," Economic Journal, Dec., 1959.

(7) Pearce, I. F., "A Note on Mr. Lerner's Paper," Economica, Feb., 1952.

(8) Robinson, R., "Factor Proportions and Comparative Advantage," Part I and II, Quatrary Journal of Economics, May and Aug., 1950.

(9) Samuelson, P. A., "International Trade and the Equalization of Factor Prices," Economic Journal, June, 1948.

(10) Samuelson, P. A., "International Factor Price Equalization Once Again,," Economic Journal, June, 1949.

(11) Samuelson, P. A., "A Comment on Factor Price Equalization," Review of Economic Studies, 1951–52, Vol. XIX (2), no. 49.

(12) Samuelson, P. A., "Prices of Factors and Goods in General Equilibrium," Review of Economic Studies, 1953–54, Vol. XXI (1), no. 54.

THE GOLD STANDARD AND BANKING CAPITAL IN JAPAN

Masahiro FUJITA

I

From some articles,[1] we have observed the history of money and banking in Japan from its start under the Meiji Government. Though, Japan's monetary standard system was introduced and established formally by the enforcement of the *New Coinage* Act (Shinka Jōrei),[2] it was not in its true form. That is the reason why the substantial monetary standard in Japan was directed by the fact of the establishment of the gold standard in 1871.

The Confusing issue of inconvertible notes in the early Meiji period disturbed the direction of the gold standard (this plan implied a legal monetary standard system), and was an extreme means of bringing in our monetary system.

The Meiji Government adopted a promotive producing and industrial policy for the sake of the rapid realization of capitalism in Japan. However, capital to accomplish the industrialization of this country was too insufficient, so to accumulate industrial capital they needed an enlarged accumulation of original capital. The Meiji Government then decided to pursue the following policies: first, to abolish the old or classical feudalistic land-ownership system which functioned as the focal point of the controlling class at that time: second, an artificial and strong creation toward a capitalistic production mode.

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(1) M. Fujita, The Banking System in the Middle Meiji Era (1870–1910), Kobe Economic and Busniess Review, 3. 1956.
M. Fujita, Fundamental Features of the Accumulation of capital in the Late Meiji Era, Kobe Economic and Business Review, 5. 1958.

(2) T. Okahashi, Price Standard under the New Coinage Act in Meiji 4 (1871), Kinyu Keizai (the Journal of Financial Economics.) No. 60. 1960.

First of all, in those days, the Meiji Government completed a compromise and threat policy as above-mentioned.

The land-ownership form which was separated from the old controlling class removed the semifeudalistic land possession form through the revision of the land tax in 1875. As a result, various incomes that came from agricultural production were absorbed in an acquired industrial capital.

The low productivity created by the old *Tokugawa Shognate System* could not help but result in a small accumulation of capital. On the other hand, the promotive and protective industrial policy by the Meiji Government attempted to establish a state-managed military industry and to promote the formation of *zaibatsu* organizations.

But, this remarkable promotive industrial policy required an enormous amount of original capital accumulation, so these vast expenses to supply official corporations and industrial enterprises, reclamation expenditures and exhibition expenditures needed more than 76 million yen — this total sum didn't contain subsidies for private industries and expenditures for semiofficial corporations. What was the main support-of this enormous governemntal expenditure?

Of course, there were the taxes and national bonds as in the accumulation of original capital.

In those days, inconvertible notes especially played an important function as well as national bonds, and the disorganized condition of the currency system caused by the confusing issue of inconvertible-notes, in other words, it was natural that a severe inflation arouse necessarily from this situation. In those days, various kinds of government-notes were issued and those issued held super-hegemony in the new infant Meiji Government and were to protect and promote our under-developed indurstries.

The fact that the Dajō-kan-satsu (government paper), the Minbushō-satsu (government note), the Finance Ministry convertible securities or Treasury bills and the Hokkaido Colonization Board Securities were issued thereafter may fully explain the above mentioned conditions.

For instance, the Dajō-kan satsu in 1867 (that was 48 million ryō) laid out. 17.89 million ryō for the development and promotive industrial policy, and the remainder for the punitive force expenditure. From this, we can point out the main elements of the early Meiji inflation.[3] Still-more, the Minbushō-satsu was

(3) K. Ōno, Inflation in the early Era of Meiji, Kobe University Economic Review, 2. 1956.

issued to supplement the Dajō-kan-satsu and Treasury convertible securities (Ohkurashō-Shōken) aimed to break the poverty of the national financial situation.

Meanwhile, on account of the adjustment of these various governmental notes which caused the early Meiji inflation the unification of the monetary system was put into effect.

It was often found that the reserve fund of new paper-notes was financed and diverted for the compensation of temporary revenue deficits (a floating debt) and loans for the Hokkaido Colonization Board and the disposition fund of the kawase-gaisha (exchange company) and the Seinan conflict expenditures. Though these expenditures might be said to have differed widely from the initial object of the issued governmental notes, such issued notes amounted to 62 million yen. Therefore, the use of new paper-notes were both an important aspect in establishment of the new government and the promotive credit policy (for our key-industry), so of the total quantity of reserve fund — 52 million yen in 1879, the protective fund for private enterprises and public enterprises showed 23 million yen.

Now, bank-notes which were based on the *National Bank Act* existed paralelling the governmental notes.

The early Meiji inflation was accompanied by a confusing monetary system and encouraged with a capital accumulation by enormous land-owners, banking capital, and big merchants.

The Finance Minister Masayoshi Matsukata began to adjust paper-notes as an anti-inflation policy which in detail was to utilize the revenue surplus and to establish a central bank, to issue its convertible bank-note.

In this form, the premise condition was finished by a complete monetary system which placed the Bank of Japan as the only monopolistic central bank.

Moreover, the contract financial policy[4] by Finance Minister Shigenobu Ohkuma declared a disposing policy of public and official enterprises (a substantial selling policy of state managed factories) in 1880. The main public corporations were a mining industry, shipbuilding industry, chemical industry, textile industry and silk-reeling industry. Above all, the mining, shipbuilding and chemical industries were sold at nearly gratis prices, creating the huge *zaibatsus* of the

(4) H. Shinjo, History of yen — Its Developments in the Japanese Economy (1), Kobe Economic and Business Review, 5. 1958.

future. By the end of 1885, our modern industries which were completed, and wholesale family industries which constituted the early industrial and economic structure in Japan were brought together in a remarkable combination. And, our textile industry (cotton spinning — cotton yarn — spinning) and silk-reeling industry were called the fibre-industries.

In Meiji 18 (1885), the original accumulation of capital in Japan was completely accomplished and the silver standard was started. Nevertheless our Meiji Government had determined the adoption of the silver standard in November of Meiji 3 (1870), although the vice-minister of Finance, Hirobumi Itō proposed to put off the start of the *New Coinage Act* (— though this implied formally the gold standard and showed a substantial gold and silver double standard at least).

However, because the international currency was similarly silver in these areas since the early Meiji Era many Far-Eastern countries had continuously used the silver standard. From this view-point of our foreign trade, our political authorities finally abandoned the double standard, corresponding to the monetary and trade situation in the Far-Eastern countries.

As a result, the confusing currency system since the early Meiji period was unified by the issue of convertible paper-notes which were based on silver, the ideal of the *New Coinage Act* was realized, and additionally true capitalism in Japan was rapidly established.

Table 1. Reserve ratio

	Treasury reserve gold (standard currency) (1)	The first class government note (2)	exchange issued government note (3)	bank note (4)	reserve ratio (%) $\frac{(1)}{(2)+(3)+(4)}$
1881	12,699	105,905	13,000	3,4396	8.3%
1882	16,730	105,369	4,000	3,4385	11.6
1883	25,876	97,999	0	3,4275	19.6
1884	33,569	93,380	0	3,1015	27.0
1885	42,265	88,345	0	3,0155	35.7

unit: thousand yen.

II

After 1886, our economy changed in that there was a remarkable promotion of economic development by the successful adjustment of paper-notes and es-

tablishment of the monetary system → the laxation of finance → the rate of interest and the price and value of silver fell → there was a favourable balance of trade → a realization of prosperity 1887–1889, in this case, the centre of such a tendency were the railway corporation, textile enterprise and mining industry.

However, the formation of various enterprises which depended upon excess accumulation of capital through over-loan measures of ordinary deposit banks, caused considerable confusion to arise sooner or later. Namely the increasing tendency of equipment investment of bank-loans → diminishing trend of capital or financial resources in banking → expansion in dependency on the Bank of Japan. The sudden rise of silver price in 1890 brought about the unfavourable balance of trade, raising of the official interest rate of the Bank of Japan. And this trend resulted the decreasing tendency of bank credit availability in the financial resources.

From this, the poverty in public enterprise fund arose at last. When the sudden occurance of the first capitalistic panic in Japan was brought about in 1890, the original accumulation of capital completely ended in the true sense.

Under such circumstances, concentration of capital continuously driver forward during a depression disposes of smaller enterprises. As an aftermath, the railway corporation, spinning industry and fertilizer industry were strong leader in the second prosperity from 1895 to 1899.

Though such a process, our merchant capital and usury capital was transformed into the industrial capital in the middle of the Meiji period. And in our spinning industry sector, the domestic production quantity exceeded the import quantity in 1890; the exports also surpassed the 1897 imports — our cotton spinning industry production in 1888 exceeded its import, the silk-reeling

Table 2. Production index

	1886	1889	1890	1893	1895	1897
raw silk	52.8	62.3	66.3	94.2	122.9	118.0
cotton yarn	5.3	22.9	35.9	73.4	125.4	174.8
textile fabric	22.6	55.4	46.3	82.1	134.8	171.6
shipbuilding	29.2	58.7	156.1	88.5	219.1	321.4
iron	70.8	103.2	108.1	87.5	132.7	144.0
copper	49.1	81.6	91.5	90.4	96.0	102.4
coal	43.7	65.0	69.5	114.7	134.2	187.1
total average	51.2	68.3	77.7	91.8	125.2	148.7

1891=100

manufacture in 1889, and silk spinning products exceeded cotton spinning industry products (in silk spinning section) during the same year.

In 1896, there was a matter worthy of special mention regarding capitalism in our country. It was the foundation of the Yahata Foundry. This had an important significance as a successful first step in the establishment of capitalism in Japan. The capitalistic production mode in Japan was established in this way, according to another expression, our industrial capital was started finally in this year.

And this establishment period of industrial capital or industrial capitalism in 1897 showed a clear change from the double standard to the gold standard in our monetary system (especially speaking of currency standard system).(5)

The worldly ratio between gold and silver before 1873 had been maintained about the 1 : 15.5 level. Owing to the sudden increase in silver production since 1872 and to the adoption of the gold standard in Germany in 1873 an emergency decline in silver price resulted for a great number of advanced countries had adopted the gold standard and suspended the minting of silver coins.

In order to check such as economic change, the United States as a big gold producing country enacted the Brand Act to buy silver (bullion) and to mint silver coins in 1878.

The United States abolished this Act in 1890 and enforced the new Sherman Act to prevent the downfall of silver prices and to enlarge the buying extent of silver bullion.

On account of these policies, the silver price was unconstant and acute. Still more, a tendency in price decline could not be prevented by any means.

In 1893, the India Government decided to suspend the free minting of silver coins and the next year there resulted an import tax on silver bullion. With these facts as a momentum, the silver price in Western countries and the United States declined on a large scale. So these severe changes in silver price generally extended over another parts of the world, and Japan was no exception to this trend. In short, it was easy to find a meeting point between the change in the silver price and economic fluctuation since 1887 because of the considerable change in economic structure affected by the silver price fluctuation after the formation of the silver standard.

(5) K. Niino, The Formation of Japanese Finance Capital and its characteristics, Kobe University Economic Review, 2. 1956.

On the other hand, it was true that it consisted of the silver price and elasticity of export and import commodity. The change in silver price which depended upon the worldly increase of silver production, the adoption of the gold standard in all countries, the suspending of minting silver coins, forced the silver standard to lose its proper function and significance as a standard. The causes lay in the following points: (i) Though our rate of foreign exchange was changed by economic fluctuation, such a fluctuation (in the rate of exchange which was regarded as the only standard) was nothing but a change in price standard. Of course, the fluctuation in silver price by the increase in silver production didn't merely make a difference in the change of price standard, but was also based on the change of value relation, so we have to clearly distinguish these changes, (ii) From the monetary side, it necessarily accompanied a nominal change in commodity prices, and it was natural that the ultimate cause of economic fluctuation and trade balance (with commodity export and import) existed in these points indeed.

However, we can certainly understand and regard real economic fluctuation as a complicated combination of such nominal commodity prices and value relations. In order to control the fluctuation of commodity prices by the price standard, it was an important method to establish industrial capitalism first of all.

That is the reason why the gold standard was adopted as a more stabilized standard from the monetary aspect.

Above all, Finance Minister Masayoshi Matsukata declared in detail these processes in his speech on the revised law of money in the House of Representative. And he especially enumerated the following advantages; (i) possibility of checking the price change, (ii) expansion of our export, (iii) decrease in the change of foreign exchange rates, (iv) expansion and strengthening of credit availability or finance-ability.

Moreover, a point to attract our attention was the fact that the real promoters of the gold standard in those days were not the industrial capitalists but the government authorities. On this point, we can find the elementary function and feature of the gold standard in the foundation period of capitalism in Japan. Further-more, the power of the Meiji Government as promoter of capitalism in Japan an enormous and absolute basis.[6]

(6) K. Kajinishi, Nippon Shihonshugi Hattatsu Shi, (History of development of Japanese Capitalism), 1958.

Table 3. Comparison between gold and silver

	production index of silver	ratio between gold and silver
1868	100	15.59
1871	147	15.57
1873	144	15.92
1876	157	17.88
1878	170	17.94
1881	183	18.16
1885	213	19.41
1887	223	21.13
1888	252	21.99
1889	279	22.10
1890	292	19.76
1891	318	20.92
1892	355	23.72
1893	384	26.47
1894	382	32.56
1895	388	31.61
1896	383	30.65

Besides, the Meiji Government introduced the gold standard to stabilize price fluctuations (general price level) $\rightarrow$ as a more flexible standard in order to realize importing and borrowing of foreign capital attempt of intensifying the low accumulation of our capital situation and financing and supplying the expansion of armaments expenditure.

However, concerning the adoption of the gold standard, these were very violent disputes between the Meiji Government and the Opposition party and all classes of people in the entire country.

III

As above-mentioned, after 1878 Japan was substantially a silver standard country with the Bank of Japan's note as the only central bank-note to the converted into silver.

Since 1876, the silver price fell although during two hundred years its ratio to gold was maintained at a 1 : 14$\sim$15 parity and this falling trend was a annually acceralated.

Though the silver price was temporarily raised by the silver policy of the United States in 1890, after 1891 it began its severe decline. Such a fall in

silver price promoted our export and brought about a prosperity in our economy, but, on the other hand, a sudden fluctuation in silver price disturbed conversely our trade.

In view of these economic circumstances at that time, the Meiji Government formed an investigation committee for the monetary system which attempted to investigate the decline in silver price, its affect on Japanese economy and revision possibilities or modifications in the monetary system in 1893.

The Meiji Government expected useful recommendatory reports from this advisory body.

The Meiji Government questioned this committee on the following three points: — (i) the falling cause and general result of recent price fluctuations in gold and silver price, (ii) the extent of the affect exerted on our economic circles by the late changes in gold and silver prices, (iii) the necessity of revising the monetary system of this country due to these fluctuations and if revision was necessary which system and what measures should be taken. (— recent fluctuations in gold and silver price).

As a result of violent discussion among the committee of monetary experts, the opinion of this committee was divided into 8 supporters of an amendment to the present system and 7 supporters of keeping the present system.

Let us observe the situations faced by the investigation committee of the monetary system in our country in detail. In 1893, a committee was organized to investigate the monetary system of Japan. In the first meeting, the Minister of Finance spoke as follows,[7] "Today in our country only silver coins circulate. The effect of the change of gold and silver prices upon economy and finance is very strong, and since the crashing of silver prices due to the Indian currency reform the prospects for the future of economy are in confusion and those engaged in trade and industry are doubtful as to how to control themselves".

At-that, the Chief of this committee general Tateki Tani named a special group, and entrusted them to further investigate and discuss our monetary standard system.

Next, Mr. Kōkichi Sonoda whose name headed the list of this special committee was followed by Yoshiro Sakatani, En Kanai, Juichi Soeda, Ukichi Taguchi who together formed a five-member committee.

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(7) The Report of the Investigation Committee of the Monetary System in Japan, (" The Investigation Bureau of the Bank of Japan. The dates of History of Money and Banking in Japan,.") Vol. 16. 1957.

The five member had 37 meeting which lasted 18 months beginning on November 14, 1893 (the.first council of this special committee). The committee announced the results of this investigation on March 27, 1895. But by then, to this committee were added two more members, Kōki Watanabe and Takashi Masuda. Thus, the reorganized committee assembled for the first time on April 10, 1895 decided on a new chief, and finished their secondary report on May 15, 1895.

The first report was separated into two parts, one opinion believed that an endless fall of silver price in the future was not possible, and comparing the effects of the changes of the gold-silver ratio upon the country with those of the gold standard country they judged its advantage to be great, and its disadvantage for smaller than that of gold standard countries; others asserted an opposite view.

The former opinion was supported by E. Kanai, K. Sonoda, U. Taguchi, the latter by Y. Sakatani, and J. Soeda.

The secondary report only arranged and summarized all the member's opinions.—Y. Sakatani; asserted the necessity of the gold standard and how to go about adoption preparations. J. Soeda; showed premise conditions in adopting the gold standard in the future, but, at the time didn't regard it as a good chance to revise the monetary system. E. Kanai; thought of membership in *International Double Standard League* in the future. K. Watanabe; affirmed the accumulation of gold for adoption of the gold standard in the future. K. Sonoda; supported the present monetary system (— he was a powerful asserter). T. Masuda: advocated making correspond to the establishment of a monetary system as in those of advanced western countries. U. Taguchi; promoted the *International Double Standard League* as among western countries. After that, general meetings were often opened, the third general meeting on May 15, 1895, the 4th assembly on May 29, 1895, the 5th on June 5, 1895, the 6th on June 12, 1895, and the 7th on July 3, 1895. The Report of the 7th general meeting was called the investigation committee report of the monetary system in Japan.

As a result of the discussion in the 6th general meeting the conclusion of the special committee was as follows: — Supporters: Kenzō Wadagaki, En Kanai, Masakazu Hotta, Kōki Watanabe, Eiichi Shibuzawa, Kōkichi Sonoda, Tokujiro Obata, Sanae Takada, Heigoro Shōda, Ukichi Taguchi. Opposers: Yoshiro Sakatani, Juichi Soeda, Jun Kawashima, Ryoichi Kurihara, Takashi Masuda.

Next, these opinions were more deeply divided with regard to maintaining the present system, 8 out of 15 members[8] were for revising (Y. Sakatani, J.

Soeda, U. Watanabe, J. Kawashima, R. Kurihara, T. Masuda, H. Shōda, U. Taguchi), the remaining 7 (K. Wadagaki, E. Kanai, M. Hotta, E. Shibuzawa, U. Sonoda. T. Obata, S. Takada) supported the present silver standard (starting full member of this committee were 22 experts).

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(8) The appointed member of an investigation committee for the monetary system were 22 experts as follows (Feb. 20, 1893)

Tateki Tani: President of this committee. Viscount.
Lieutenant-general. Former Minister of Agriculture and Commerce. A member of the House of Peers.

Inejiro Tajiri: Vice-President of this committee.
Doctor of Law. Vice-Minister of Finance.

Masane Wakamiya: Director of Commerce Bureau of the Agriculture and Commerce Ministry.

Kei Hara: Director of Commerce Bureau of Foreign Ministry.

Kenzō Wadagaki: Doctor of Law. Professor of Tokyo Imperial University.

Yoshiro Sakatani: Director of Accountant Bureau of Finance Ministry.

Juichi Soeda: Director of supervision Bureau of Finance Ministry. Governor of Japan Industrial Bank in future. (in 1902)

En Kanai: Doctor of Law. Professor of Tokyo Imperial University.

Kōichiro Kawada: Governor of the Bank of Japan.

Jun Kawashima: Governor of Japan Hypothec Bank.

Kōki Watanabe: The Junior Grade of the 3rd Court rank.

Masakazu Hotta: Viscount. A member of the House of Peers.
President of Toyko Prefectural Assembly.

Eiichi Shibuzawa: President of Daiichi Bank.
President of Tokyo Chamber of Commerce.

Kōkichi Sonoda: Director of Yokohama Specie Bank. Director of Nippon Yusen Co., Ltd.
President of Jūgo (15th) Bank.

Tokujiro Obata: A member of the House of Peers. A member of Tokyo Imperial Academy.
President of Keiō University.

Jinkichi Watanabe: A member of the House of Peers.
President of Jūroku (16th) Bank.
President of Gifu Chochiku (Saving) Bank.
Director of Hokkaido Tanko Tetsudo (Coal-mine Railway) Co., Ltd.

Ryoichi Kurihara: A member of the House of Representatives.
Chief Editor of Tōun Shimbun.
A confidential secretary of Itagaki Home Minister.

Bokushin Maki: Secretary of the Privy Council former councillor of the Bureau of Legislation.

Sanae Takada: Professor of Waseda University.

Takashi Masuda: Managing Director of Mitsui Bussan Co., Ltd.
Chief Manager of Mitsui Conzern (*Zaibatsu*).

Heigoro Shōda: Director of Meiji Fire Insurance Co., Ltd.
Director of Tokyo Kaijō-Kasai. Manager of Mitsubishi Conzern (*Zaibatsu*).
Director of Nippon Yusen Co., Ltd.

Ukichi Taguchi: A member of the House of Representatives.
Chief-Editor of "Keizai Zasshi Sha (Economic Journal)".

The career of member of this committee was as abovementioned — refered to "Shimbun Shūsei, Meiji-Hen-Nen-Shi (History of collecture Editorial Newspaper in Japan — Meiji Series) 1890–1895. Kei Hara, The Diary Memorandum of Hara Kei, 1958.

So, as for the revision of the present monetary system, out of which, 6 votes (Yoshiro Sakatani, Juichi Soeda, Kōki Watanabe, Jun Kawashima, Ryoichi Kurihara, Takashi Masuda) were for the gold standard, the other two members (Heigoro Shōda, Ukichi Taguchi) were for the double standard. More minutely speaking, in the report of the 7th general meeting (July 3. 1895) it was decided by a bare majority for the gold standard, while the direction of the monetary reform was unanimously acknowledged at the same time.

(1) As for the fluctuation of gold and silver prices the following analysis can be made: (i) the advantage to Japan's economy according to the fluctuations of gold and silver prices are merely a small part and of a temporary function, so, without over-valuing these advantages, it is most important to adapt for themselves a corresponding policy as taken by the powerful and advanced western countries which adopted the gold standard — Y. Sakatani, J. Soeda, J. Kawashima, R. Kurihara, T. Masuda (ii) Though the remarkable effect on Japan's economy of the fluctuations of gold and silver prices was understood, the rivison of the monetary system had to discover the best opportunity to correspond to the changing process of the monetary system in the advanced countries — K. Watanabe, (iii) Besides the advantage of the price fluctuation, the new monetary system to be adopted should be prevented for reactions that would be disadvantageous — Heigoro Shōda, (iv) as economic confusion due to sharp price raising because of price fluctuations in gold and silver is severe, a fixed standard system would be desirable for Japan.

(2) And the new monetary standard to be adopt should be (i) the gold standard, (ii) the double standard. In the case of the gold standard, J. Soeda, K. Watanabe, J. Kawashima, R. Kurihara, T. Masuda believed that it didn't permit free circulation of silver coins. On the contrary, Y. Sakatani asserted that the present *1* yen silver coin permitted of free circulation within a given ratio with gold coins (but free minting wasn't granted). In the case of the double standard, U. Taguchi considered forming an *International Double Standard League*, but H. Shōda opposed the above opinion.

(3) Then, these experts considered the time and method of enforcing as follows: — (i) to begin preparative for enforcement at once — Y. Sakatani, U. Taguchi, H. Shōda, (ii) to begin only preparations, — J. Soeda, K. Watanabe, J. Kawashima, R. Kurihara, (iii) to wait a good chance for enforcement — T. Masuda. The supporters of the present monetary system asserted as follows:— (i) As Japan's advantage depended upon the fluctuation of silver and gold prices

and were enormous, it was better to retain the silver standard even in the future — K. Sonoda, K. Hara, (ii) In view of the above-mentioned advantage, it was a wise policy to prepare for the realization of an *International Double Standard League* — K. Watanabe, E. Kanai, E. Shibuzawa, T. Obata, S. Takada, M. Wakamiya, (iii) Considering Japan's advantage, it was necessary to examine far-sightedly the new standard to be adopted in the future. The opinion of this committee was decided by the majority, but the difference between supporter and opposer was only one member — total members consisted of 15 persons. Among the supported of a new standard system 6 members supported the gold standard and the remainder 2 members the double standard. Thus, it was found to be difficult to find a meeting point of all members.

The bureaucracy of the Finance Ministry, Y. Sakatani and J. Soeda were supporters of the gold standard. They pleaded for the adoption of a new standard from the view-point that encouragement of trade based on fulling silver prices was a temporary phenomenon and this fact forced the raise in price of military goods and capital goods. Still, another point of argument was the emergency of importing and borrowing foreign capital.

On the contrary, the private industrialists K. Sonoda, E. Shibuzawa,[9] and K. Ohkura,[10] U. Taguchi[11] opposed the adoption of the gold standard and supported the maintenance of the silver standard or the double standard. Their

(9) E. Shibuzawa said; — According to the heavy fluctuation of price comparison of gold and silver in western Europe and the United States, the gold standard countries have fallen into a very difficult situation, but Japan gained enormous profits.

Therefore, today we cannot find a sudden necessity to amend the present monetary system. The advanced European countries and the United States will undoubtedly learn by today's terrible experience with the gold standard, that it is impossible to stick to the gold standard and at last the double standard must be adopted. It is too late to revise our present monetary system by entiring into the same monetary system as these countries. But, Later, He amended his past opinion as follows:—

After due consideration I find it is very impatient to claim the checking of the gold standard. We had great admiration for Prince Matsukata's far-sighted determination to revise our monearty system, removing fierce opposition at that time.

(10) Next, K. Ohkura siad; — We don't understand the reason why it is necessary to adopt suddenly the gold standard by throwing away just and due profit at present time. The most suitable period to debate about the gold standard is not always today.

(11) U. Taguchi said;— We claim strongly that our government shoudn't change the present monetary system at all. First of all, today our monetary policies to promote the double standard system of the advanced European countries and the United States.

He had been enraptured by the vast advantage and profit by the favourable trade balance which was based on the falling in silver price. And Still-more, he passed over the fact that our silver standard system had lost its function and significance by an over-seeking after private profit immediately.

opinions were as follows: — (i) the falling of the silver price was an advantage in Japan's export and prevented imports from a gold standard country, (ii) to ensure export markets in China and other Far-Eastern countries. This advocacy represented the concern of the textile industry as a leading industry at that time, and stood for the industrial capitalist's claim.

In those days, many private industrialists supported and promoted the above opinion. At the start of this committee, the opinion supporting the gold standard was a minority view. With the change of economic circumstances after the Sino-Japanese War, it became generally influential to claim the gold standard.

During the rising enterprise period in postwar period (the Sino-Japanese War), it was seen to raise the general price level and wages and to adverse our trade balance very much.

The very cause of this price and wage rising wasn't only the silver price decline, but credit expansion due to post-war prosperity. If the standard money depriciates in value, it may be accompanied by a semi-inflationary phenomenon.

From these view points, we cannot disregard a reasonable effect because of the silver price fall. The unfavourable trade balance was based on the remarkable increased import of military goods for the next War and of extending capital equipment by our industrial capital, for it was shown clearly that the import of the steel products and machinery increased yearly at that time. Japan was forced to import from the advanced European countries and the United States who were under the gold standard and export countries of capital goods.(12)

When the silver price declined under the silver standard, these imported prices and their vast value rose.

Therefore, industrial capital of which the greater part was the textile industry didn't always stick to the silver standard — our spinning industry adhered to the export of cotton yarn, for most Far-Eastern countries were their customers and were silver standard countries. But, it was forced to part from the silver standard because of the emergent modernization and advanced production equipment in the spinning industry. The country from which cotton was imported as raw material changed from China to India and the United States which countries already had turned to the gold standard.

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(12) In view of capital import from foreign countries the adoption of the gold standard had been supported by many powerful industrialists and there were many supporters in our Congress from this side. (N. Takizawa, Kōhon Nihon Kinyū-shi Ron: Tract on the history of money and banking in Japan —,1)

India stopped the free minting of silver coins in 1873, gold standard countries generally increased on a universal scale, so it was natural that our country followed this general tendency. In this case, it was an extraordinarily important factor that our key-industry requested eagerly the importing and borrowing of foreign capital. Further-more, it was very fortunate for Japan that in adopting the gold standard she had gained a reserve fund amounting to 230 million ryō — as reparations from China by her victory in the Sino-Japanese War.

The gold reserve problem promoted the gold standard thus solving and realizing successfully the path toward the gold standard. After the gold standard in Japan was prepared by Masayoshi Matsukata as the most eager promoter and supporter of the gold standard for long years the Meiji Government finally proclaimed the new *Currency Act* in March, 1897 and this system was carried out in October the same year. After such a difficult process, the gold standard system in our country started nominally and substantially as a member of universal capitalism. In other words, Japan began to compete with advanced and powerful countries in the world market at last.

IV

As above mentioned, it was rather the bureacracy force (or bureauctratic capital, in other words) than the industrialists (industrial capital) who established the gold standard in Japan. However, the industrial capital or industrialists were clearly backed by the banking capital (bank and other financial facilities).

In the course of modification in the *National Bank Regulation* of May, 1883, the national bank was ordered to either alter to become a deposit bank by collecting issued bank-notes after starting its business or close shop. The law of disposed national banks which expired was promulgated in March, 1896, so many national banks began to turn into ordinary banks after 1897 when 122 of the 153 national banks throughout the country were transformed into ordinary banks.

In addition to these banks, there were many usury banks on a small scale which started as ordinary banks from their establishment.

Though the Mitsui Bank and the Yasuda Bank similarly opened business as ordinary banks, these developed into *zaibatsu* banks which had a special *organishe bank*[13] (Kikan ginko) function for the growth of capitalism in Japan.

(13) Organic bank was quoted from "*Organishe bank*" (R. Hilferding, Das Finazkapital, Eine studie über die jungste Entwicklung des Kapitalismus. 1910.)

In order to check such banking circumstances, the Meiji Government limited and controlled bank credit by the *Bank Regulation* of August, 1890. Thus, the development of ordinary banks increased their number 3.5 times during 1893–1901 and the paid-up capital grew more than 8 times, while their deposits were over 11 times. Especially, after 1895 the ordinary bank developed rapidly. This drift was brought about by the remarkable increase and rise in fundamental industrial enterprises since the Sino-Japanese War boom and the establishment of many *organishe* banks in response to immediate increased fund demands. In those days, the annual overloan tendency in the financial world was very strong, the deposits occupying merely about 70% of the 1900～1901 advance or credit level.

As the growth of our modern capitalism increased there was a sudden harmonized fund demand for long term, and a huge or enormous amount resulted. According to this request, the various special and long time banks were arranged by government official policies.

The continuous establishement of Japan Industrial Bank (Nippon Kogyo Ginko established in April, 1902), Japan Hypothetic Bank (Nippon Kangyo Ginko, August 1897), Hokkaido Colonial Bank (Hokkaido Takushoku Ginko, April 1900), Agriculture and Industry Bank in all prefectures (Nō-kō-Ginko, 1898～1900) was the answer to the governmental counter-measures of promoting industrialization.

After the panic of the post-Sino-Japanese War period was forced the limitation of the establishment of small scale banks and the dissolving and mergering of small scale banks were promoted. In this way, the concentration of banking capital arouse after 1900. From a peak in 1901, the number of banks decreased generally to 1618 banks in 1910, but the paid-up capital and reserve fund and deposits increased reversely after the Russo-Japanese War.

The constitution of the ordinary bank fund (or capital) in 1890 was divided into the following status:—

Table 4. Banking capital

	self fund (capital)	internal or imported fund (deposit etc.)
1890	40～50%	50～60%
1901	39%	61%
1906	24%	76%

After 1906, the above-mentioned ratio kept averagely a 70% level and this implied a turnning from the usury feature in Japan's ordinary banks. The remarkable change of the number of banks in this period was as follows: — 44 banks were merged, 291 banks were dissolved and total balance was 315 banks. On the contrary, the number of banks decreased no more than 249 (from 1867 to 1898), so that 80 new banks were founded during those years.

On the other hand, the government aggressively promoted a large scaling and merger banks by the enaction the of *Bank Merger Law* in 1896, and decided the lowest limit of bank capital (500 thousand yen for incorporated banks and 250 thousand yen for individually managed banks in 1901). Under these conditions, the five big modern banks as Daiichi, Mitsui, Mitsubishi, Sumitomo, Yasuda Banks ensured controlled and monopolistic positions over the whole country. Nevertheless, their real ability was represented by the overwhelming status in their deposits and loans; their deposit ratio for the total ordinary bank accounts in the whole country was 21.3%, while their loan ratio was 16.3%.

Table 5. Loan ratio

	number of bank	paid-up capital	deposit (A)	loan (B)	$\frac{(B)}{(A)}$ (%)
1893	545	30,583	38,426	49,083	127.7
1894	700	37,380	49,196	59,178	120.2
1895	792	49,807	84,252	89,165	105.8
1896	1,005	87,899	141,937	157,200	110.8
1897	1,223	147,812	207,741	241,900	116.4
1898	1,444	189,439	287,045	438,100	152.6
1899	1,561	209,973	392,256	581,036	148.1
1900	1,802	239,364	436,779	661,974	151.4
1901	1,867	251,700	450,186	635,107	141.1
1902	1,841	258,111	536,702	697,552	120.9
1903	1,754	253,003	566,227	725,355	128.1
1904	1,708	248,776	605,316	733,145	121.1
1905	1,697	252,697	692,520	796,432	113.6
1906	1,670	256,523	1,033,762	1,111,765	107.5
1907	1,658	286,314	944,295	1,113,162	117.8
1908	1,635	295,549	938,072	1,098,149	117.1
1909	1,617	311,354	1,054,413	1,123,377	106.5
1910	1,618	315,313	1,185,647	1,249,953	105.4

WORLD TRADE AND ECONOMIC GROWTH

— ON PROFESSOR NURKSE'S VIEW —

Fukuo KAWATA

I

According to the late Professor Nurkse,[1] international trade was the "engine of growth" in the nineteenth century. International trade was the means by which the process of economic growth in the center was transmitted to the periphery of the world. It was not only the means by which better allocation of resources was effected, but it also was the means by which economic growth was transmitted. This transmission of growth was an important function of international trade, although this function was relatively neglected.

In the nineteenth century (that is meant by Nurkse, from 1815 to 1914), Great Britain was the center of the economic growth of the world. The British population increased threefold, her national income tenfold, and the volume of her import twenty-fold during this period.

The ratio of import to national income was 10% in the early part of the period, but it rose to about 30% in the latter part. The Industrial Revolution, which originated in Britain, a small island with limited natural resources, spread the wave of economic expansion to outlying areas through the rapid increase of the demand for raw materials on the part of British manufacturing industries. Factors of production in the under-developed areas were mainly absorbed in the expansion of profitable production of primary products for export. Moreover, the increasing demand in the center for foodstuffs and raw materials stimulated

(1) R. Nurkse, Patterns of Trade and Development, (Wicksell Lectures, 1959) Stockholm, 1959. Professor Nurkse died on May 6, 1959 in Switzerland, shortly after his lectures at Stockholm on April, 7 and 10, 1959.

the movement of capital and labor from the center to the periphery, in order to expand the production of primary goods which were in large demand. Thus, through trade, economic growth in the center was transmitted to the outlying areas.

Such a pattern of growth, that is "growth through trade" was most clearly shown in the case of newly developed countries, (or the regions of recent settlement[2]— to use the word of Folke Hilgerdt) in the temperate region, such as Canada, Argentine, Uruguay, South Africa, Australia, New Zealand, and the United States. (Hilgerdt did not include the United States in the "regions of recent settlement", but Nurkse does.)

The essential characteristics of these "regions of recent settlement" is that they were sparsely populated, and were highly dependent upon the export of primary products. The production of these primary commodities were chiefly carried on with foreign private capital, direct as well as indirect, and with the labor of immigrants from the center.

The increase of import into Britain of primary products induced the export of capital to primary producing countries. International trade and foreign investment were closely related. Foreign investment was supported by the long-run prospect of the increasing demand for raw materials in the industrial center.

The cumulative process of economic development was created by the export demand and foreign investment. The regions which were endowed with such natural resources as were in increasing demand in the center were supplied with capital to develop those natural resources. Thus, the increase of export demand, and the inflow of foreign capital (as well as immigrants' skilled labor) propelled the cumulative process of economic development in those regions of recent settlements.[3]

Among the outlying countries, China, India, tropical Africa, and Central America were relatively little affected by the expansion of export demand and inflow of foreign capital. In South-east Asia, where trade and inflow of capital were especially active, a "dual economy" was created (e.g. in Indonesia.). By "dual economy" is meant the economy in which a well-developed export sector and a primitive, native economy exist side by side and are not integrated into a united whole. This means that the function of trade and investment as "the

(2) These countries are classified as "new capitalist countries" (neukapitalistische Länder) by E. Wagemann. (E. Wagemann, Struktur u. Rhythmus der Weltwirtschaft, 1931)

engine of growth" has its limitations, if other conditions for economic progress fail to exist.

In general, as Nurkse stated, in the nineteenth century trade was the "engine of growth" and the economic growth in the center was transmitted through trade to the periphery (especially to regions of recent settlements), thus bringing about a world-wide economic expansion.

Nurkse did not touch upon the important rôle played by the European immigrants into the regions of recent settlement in his lecture, although he dwelt on it in other publications; e. g. in "International Investment To-day in the Light of 19th Century Experience." (The Economic Journal, December 1954.) The rapid economic growth of these regions was due not only to the inflow of European capital, but also to the inflow of European immigrants, whose skilled labor and technical knowledge contributed much towards the development of these regions.

(3) Percentage Distribution of British Imports by Countries of Origin

Country	1857–59	1911–13
United States	19	19
Other "New" countries (a)	8	18
Industrial Europe (b)	21	23
All other areas	52	40
Total	100	100

(a) Canada, Argentine, South Africa, Australia, New Zealand.
(b) Germany, France, Italy, Belgium, Netherlands.
(Nurkse, ibid., p. 16)

Percentage Distribution of British Capital Overseas by regions.

Country	1870	1913
United States	20	20
Other "New" countries	10	45
Europe	50	5
All other area	20	30
Total	100	100

The total amount of British Capital Overseas increased from about £1,000 million in 1870 to about 4,000 million in 1913.
(Nurkse, ibid., p. 17)

Imlah estimates the total amount of British capital abroad at £692.3 million in 1870 and at £3989.6 million in 1913.
[A. H. Imlah, Economic Elements in the Pax Britanica, (p. 72–75)]

As stated by Prof. Haberler, "the rapidly — developing countries in the nineteenth century were the countries of recent settlement, which received capital and skilled labor in large quantities from the Old World." (G. Haberler, Nurkse on Patterns of Trade and Development, Review of Economics and Statistics, February 1960.)

According to the research of J. Isaac, of about 60 million European emigrants from 1846 to 1937, roughly 60 per cent went to the U. S. A., Argentina accounts for 11 per cent, Canada for 8.7 per cent, Brazil for 7.4 per cent, Australia received roughly 5 per cent, New Zealand 1 per cent, and South Africa about 1.3 per cent. [J. Isaac. Economics of Migration, p. 62]

The number of immigrants grew larger since the 1880's until it reached the highest level in 1906–1910 and 1911–1915. After the First World War, the number declined heavily. [See Table 1]

Table 1. Intercontinental Emigration from Europe, 1846–1937 (Estimates)
Annual averages (thousand)

Year	Number	Year	Number
1846–1850	260	1896–1900	600
1851–1855	340	1901–1905	1,050
1856–1860	200	1906–1910	1,390
1864–1865	220	1911–1915	1,350
1866–1870	350	1916–1920	430
1871–1875	370	1921–1924	770
1876–1880	280	1925–1928	580
1881–1885	690	1929–1932	290
1866–1890	780	1933–1937	150
1891–1895	730		

Source: J. Isaac, Economics of Migration, 1947, p. 60.

In contrast to these regions, India, China and other Asian countries with dense populations and ancient civilizations quite different from Europe received few European immigrants.

Tropical regions of Latin America and Africa also had a small number of European immigrants, owing chiefly to climatic conditions.

As Haberler pointed out in the above article, "To-day's under-developed countries can not expect (or do not want) large immigration to speed their development. There are, however, a few exceptions. Some countries in Latin America had a chance immediately after World War II to get large numbers of European immigrants. But nationalistic policies prevented them from mak-

ing use of this unique opportunity to accelerate their rate of growth."

II

In the twentieth century, things changed completely. The paces of expansion of world trade (excluding Soviet Area) in about a thirty-years' period were 270% in 1850–1880, 170% in 1880–1913, and only 57% in the 1928–58 period respectively. In spite of the rapid growth of world production, the growth of trade has been stagnant in the twentieth century. Especially the expansion of the export of under-developed countries has been very slow, although their import increased at a more rapid pace than the expansion of world import at large.

The sluggish increase of export of primary products (except petroleum) in the twentieth century is attributed to the following six reasons by Nurkse (Nurkse, ibid., p. 23):

(1) "The composition of industrial production in the advanced economies is shifting away from 'light' industries in favor of heavy" industries (such as engineering and chemicals), that is, from industries where the raw material content of finished output is high to those where it is low.

(2) "As a special case, the rising share of services in the total output of advanced industrial countries tends to cause their raw-material demand to lag behind the rise in their national product."

(3) "The income elasticity of consumer demand for many agricultural commodities tends to be low."

(4) "Agricultural protectionism has adversely affected imports of primary products from non-industrial to industrial countries, though this point should not be exaggerated."

(5) "Substantial economies have been achieved in industrial uses of natural materials."

(6) "Last but not least, the leading industrial centers have tended more and more to displace natural raw materials by synthetic and other man-made substitutes produced from a few basic elements of mostly local origin."

Professor Kojima adds to the above six reasons the following ones;

(1) On the side of advanced countries, the national defense consideration and full employment policy have brought about agricultural protectionism, and progress of synthetic industries, and (2) On the side of under-developed countries the stage of development passed from a period of increasing returns

in the sparsely populated regions to a period of decreasing returns in the densely populated areas. (K. Kojima, Future of World Trade, The Hitotsubashi Review, July 1960.)

Under these circumstances, it has become difficult for primary producing countries (except oil producing countries) to attain a high rate of growth through the expansion of the export of their products.

The stagnation of demand for primary products on the part of advanced countries has retarded their investment in the under-developed countries, (except oil-producing countries). The cumulative process of economic growth by means of the expansion of trade and investment has ceased to operate to-day in under-developed countries (excluding oil-producing countries).

The expansion of world trade now depends chiefly upon the increase of trade between industrial nations, and the relative importance of trade between industrial to non-industrial nations has decreased.

The practical measures for economic growth on the part of under-developed countries, is "industrialization."

There are, as is stated by Nurkse, two types of industrialization; one is the production of manufactures for export and the other is the production of manufactures for domestic market.

"Industrialization for export" is supported by such an expert as A. W. Lewis. But according to Nurkse, this method is not suitable for under-developed nations. Because (1) on the supply side, skilled workers are few and dear, and to obtain capable workers a large amount of social overhead capital is needed for the improvement of conditions regarding education and health; (2) on the demand side, the export of crude consumer goods, which are produced with comparative advantage by under-developed nations may be subject to various import restrictions by advanced countries. For instance, the textile goods exported to Britain by India, Pakistan and Hong Kong are subject to "voluntary restrictions". Therefore, the prospect for the "industrialization for export" is not bright. The alternative which under-developed countries should take is the "industrialization for home market". It is this type of industrialization that Nurkse dwells on with emphasis.

According to the theory of Nurkse (Nurkse, ibid., p. 42), "industrial development for domestic markets requires a complementary advance on the farm front, a rise in agricultural productivity." In other words, an innovation in agriculture is required first of all, in order to expand the narrow domestic market

of under-developed countries.

It is necessary to promote "increases in output that are diversified in accordance with domestic income elasticities of demand so as to provide market for each other locally." (Nurkse, ibid., p. 44)

Nurkse's theory stands on the basis of balanced growth, in contrast to the theory of unbalanced growth advocated for example, by A. O. Hirschman. (A. O. Hirschman, "Strategy of Economic Development", 1958)

Nurkse maintains that "while it is true that the active sectors will tend to pull the passive ones forward, it is equally true that the passive sectors will tend to hold the active ones back. Would it not be better if every sector were in some measure active in the sense of advancing spontaneously, imbued with some expansive élan of its own instead of waiting for singnals from others?" (Nurkse, ibid., p. 43)

It is usually believed that balanced growth can effectively be attanied only through centralized-governmental direction or co-ordination. But Nurkse "does not say that the theory of balanced growth calls for central planning in order to assure progress." (Haberler, ibid.) This may be one of the characteristics of Nurkse's theory of balanced growth.

III

Nurkse mentions three patterns of advance in less developed countries; (1) growth through exports of primary products; (2) growth through exports of manufactured consumer goods; and (3) expansion of output for domestic markets.

In the real world a single pattern is seldom found in isolation, but usually a mixture of two or more is found and three main patterns can easily be combined.

In the nineteenth century, pattern I provided the principal opening for economic growth in outlying areas of the world economy, but it now seems to offer relatively limited opportunities to the majority of primary producing countries, except petroleum countries.

Pattern II is being tried to some extent and in some places with success, but it can hardly be described as a major factor at present.

To-day, as Nurkse stated, more is happening along the lines of pattern III, the pattern of home market expansion. "Industrialization for home markets is undoubtedly spreading."

We might make additional remarks to the above statement of Nurkse.

1) When industrialization for home market is advanced, it may be possible for under-developed countries to organize a common market or free trade area with neighbouring nations, by providing markets for each other regionally. The formation of a "common market" or a "free trade area" among less developed countries through their regional economic co-operation indicates a new type of economic growth. This pattern of economic growth, that is to say, "growth through regional co-operation" may well be called pattern IV of economic growth of under-deveploed countries.

2) Nurkse did not refer to markets in the Soviet area. But in recent years, trade of under-developed countries with the Soviet area has been increasing gradually.(1) Under-developed countries export their primary products in exchange for manufactured goods, especially capital goods from Soviet areas. Pattern I is still now important in the trade with the Soviet area.

3) Since the end of the Second World War, the balance of payments of under-developed countries has deteriorated. It has become difficult for them to obtain their necessary imports, (especially capital goods) through their exports. Consequently, a large sum of financial aid has been given by advanced countries and by the Soviet area as well.

It is thanks to these aids that many under-developed countries are making progress in their economic development. Some countries, for instance, India in her third Five-year Plan (draft), drew up their economic development program in anticipation of foreign aid. Such a tendency to attain development through foreign aid may indicate another type of growth, that is to say, "a growth through aid". This type of growth appears to have become prevalent among newly rising countries at present.

(1) Import of Soviet Area from Under-developed Countries.

(million U. S. dollars)

Regions	1938	1956
Asia	440	306
Latin America	22	107
Near East & Africa	36	194
Oceania	17	58
Total	515	665

Source: United Nations, Economic Survery of Asia and the Far East, 1959.

SINGULARITY IN THE STRUCTURE OF THE SEAMEN'S UNION OF JAPAN

— IN COMPARISON WITH ENTERPRISE UNION —

Hiromasa YAMAMOTO

1. Features of the structure of trade unions in Japan

The structure of trade unions in a country is strongly influenced by the economic structure of the country, which leaves a peculiar stamp on the structure of trade unions due to its singularities. It is a structural features of trade unions of Japan that members of a union are composed of all employees of a single enterprise, including labours and white collar workers, without consideration of their jobs and skills, though of course those in posts of management control are excepted. We may call such unions "enterprise unions". The structure of industrial unions of Japan are in many cases only a federation of unit unions — enterprise unions, therefore labor organizations which are often called industrial unions in Japan include those quite different from "industrial union" in its correct usage. However, the All Japan Seamen's Union (J. S. U.) is the only typical industrial union, the structure of which is the same as those in European countries and the United States. In this article the reason why only the seamen's union of Japan was able to adopt and succeed in maintaining the structure of a typical industrial union will be considered, in comparison with the reason why the peculiar type of union, the enterprise union, has developed in postwar Japan.

To clarify the points to be considered, it is convenient to incorporate the main types of industry-wide labor organizations, so-called industrial unions, in Japan. Those organizations may be classified into three types according to their

structural characteristics.[1]

(i) A unit union, which is composed of the employees of a factory or an enterprise including several factories joins together to form a national federation of trade unions of the same industries. In this type of labor organization is included most of the important industry-wide labor organizations, such as the Japan Federation of Coal Miners' Unions, the Japan General Confederation of Private Railway Workers' Unions, the Federation of Synthetic Chemical Industry Workers' Unions and so on. For the most part labor organizations of private industries are included in this category. The unit member of those organizations is not, of course, the individual worker but the enterprise union. Unit unions constitute local organizations which are under the control of the headquarter of the federation, while unit unions also organize respectively federations of unions which are composed of employees of the same enterprises.

(ii) The second type is the single industrial union which is organized by the employees of a single undertaking of a national-wide scale, which has a monopolistic influence in its respective field. In this type the following are included; the unions which are composed of the employees of government-owned undertakings, such as the Japan National Railway Workers' Union, the All Communications Employees' Union and so on, and government office workers' organization, such as the All Agriculture and Forestry Ministry Employees' Union.

(iii) The third type is the All Japan Seamen's Union (J. S. U.) which is the only typical industrial union in Japan. This union adopts the principle that the union members should be formed by the seamen who want to join. The constitution of the J. S. U. prescribes this point clearly in article 5. Every union member has to register at the union branch at the place where the main office of the shipping company to which he belongs is situated. There are eleven union branches, under which local divisions are established in all main ports. As for craft organizations, the union has four committees including steamship, fishing vessels, wooden vessels, and port departments. Thus the J. S. U. is the only union in Japan which does not have the character of a federation of enterprise unions organized in respective enterprises of the same industry, and has the same structure as those of industrial unions in European countries and the United States.[2]

(1) Ujihara, Fujita and Funahashi, The Japan Type of Trade Union and the Seniority Rule, 1960, pp. 100–102.

(2) If we interpret the meaning of industrial union strictly, the J. S. U. is not necessarily a typical industrial union, because it does not include as its members the workers of shipping companies who work on land.

2. Enterprise unions and the reason for their emergence

When trade unions were organized in Japan after World War II, why did most unions take the structure of enterprise unions which were established inside a single factory or single enterprise including several factories, and members of which were composed of all employees of the factory or enterprise with no connection to other laborers employed by other enterprises. To explain this question, it is necessary to clarify the labor movement situation for several years immediately after the war when workers began to organize trade unions rapidly and as a result many enterprise unions were formed; and as the next step we should pay attention to the condition of labor markets which made it difficult to organize industrial unions in spite of the efforts of union leaders who recognized the defects of enterprise unions and endeavored to reorganize them.

2. 1. Formation of trade unions in the postwar period

Before World War II the labor movement was severely suppressed in Japan, therefore trade unionism showed little development during that period. Moreover, at the beginning of the war trade unions which could maintain their activities under the severe circumstances had to be changed into organizations of labor-management co-operation so as to increase wartime production. Consequently, there were no trade unions in Japan during the war.

But the end of the war brought into Japan a democratic policy toward labor movement, and as a result trade unionism developed with a swiftness that could scarcely be seen in other countries. From August, 1945, the defeat of Japan, to October, 1948 when the union-organizing movement reached its peak, the unions established amounted to over thirty thousand with over six million laborers.(3) There was a close connection between the swift development of trade unions and the fact that most of the unions thus established adopted the structure of an enterprise union.

The economy of Japan in the immediate postwar period was in an exhausted condition. Factories and other production facilities were destroyed by air-raids, and food and materials for production were very scarce. Laborers had to endure poor living conditions due to the developing inflation and the scarcity of food, accompanied by feelings of insecurity of losing their jobs. The uncertainty of their living condition, combined with their dissatisfaction which accumulated during the war, created the motives which naturally led to the organization of

(3) K. Okawachi, Restart of Trade Unionism — Inside and Outside of Enterprise Unions, 1956, pp. 39–40.

trade unions in order to secure stable and better economic conditions. The unionizing movement began necessarily among the laborers of respective enterprises and factories, because their living conditions were extremely poor and their desire to conquer the difficulties of living was so keen. Moreover, in order to check the inclination on the part of management to stop production so as to avoid risks due to the rampant inflation, the organization of laborers established within the enterprise was quite effective in combating management. At that time there was no alternative but that the unions should take the structure of an enterprise union, for the orthodox unionizing method of asking each laborer to join by consenting to the aims of the union necessarily needed so much time that it could not meet the pressing demands of the laborers.(4)

The swift development of unionizing in that period was also due to another reason which was political. Based on the article in the Potsdam Declaration demanding that the government of Japan remove all obstacles against the revival and strengthening of the tendency toward democracy by the Japanese people, several measures were enforced to secure the smooth development of trade unionism. And the fact that the freedom to organize was not acquired by the efforts of the laborers, but given them by outside political power resulted in the fact that the motives of unionizing included not only active and spontaneous organizing but also followed the general trend. In the latter case the structure of the unions was naturally that of the enterprise union, following the general pattern.

Thus, during the three years immediately following the war, the organizing movement included two heterogeneous factors; that is, on the one hand, it emerged from the active and spontaneous demands of workers; and on the other hand, it was accelerated by the formation of unions by opportunists. Both factors, from different reasons, equally introduced the structure of an enterprise union.

2. 2. Detection of the defects of enterprise unions

In the process of the swift development of trade unionism, the efforts to strengthen the co-operation of laborers in different enterprises and industries emerged together with the swift increase of enterprise unions. Under the leadership of the two competing labor organizations, the Congress of Industrial Unions and the General Federation of Trade Unions, industry-wide organizations of laborers were established during the earlier period of the postwar labor move-

(4) cf. H. Funahashi, the Singularity of the Structure of Trade Union, in Trade Unions of Japan, compiled by Okawachi, 1954, pp. 18–20.

ment. However, those industry-wide organizations which were organized within a short time had, without exceptions, the structural characteristics of being divided into a headquarter, branches, and locals. The branches were composed of enterprise unions of the respective industries. The development of the labor movement made union leaders conscious of the defects of the organizations. The industry-wide labor organizations, which were composed of enterprise unions as the basic unit had common defects; that is, in many cases the enterprise union retained, more or less, autonomy regarding collective bargaining, conclusion of trade agreement, and the direction of strikes. In this sense those industry-wide labor organizations were merely a confederation of enterprise unions, and their structural features were fateful defects for industry-wide collective bargaining, because when the organization was bargaining with the association of the management for the purpose of improving the working conditions of laborers on an industry-wide scale, some enterprise unions, that were members of the federation, which found a chance of getting more favorite terms, often dropped off from the line of industry-wide collective bargaining to make certain a gain for its own members, and as a result the efforts for industry-wide improvement were in vain. This egoism of the enterprise union was the bottle-neck of the activities of industry-wide labor organizations. Through many experiences of failure leaders of labor unions have recognized that it is necessary to reorganize the present industry-wide organization, with its loose federation of enterperise unions, into Western type industrial unions if they wish to succeed in industry-wide collective bargaining and to improve the labor conditions of all workers in the industry. However, it seems that enterprise unions will retain a stable position in Japanese trade unionism, though industrial unions are regarded as essential for the healthy development of labor movement and many efforts have been made to realize it.(5)

The brief sketch of trade unionism in Japan shows us that the structural features of Japanese trade unionism are the enterprise unions, or in other words, the absence of industried unions. Why has enterprise unions been able to maintain their strong influence against efforts made to destroy them?

Of course an enterprise union has the possibility in its structure to turn into a comany union influenced by management, and some of the enterprise unions may have turned this possibility into reality. However the above explanation

(5) All labor organizations include in their principle of labor movement the intention to organize an industrial union and conquer the defects of enterprise union. Refer to following, Japan Labor Association, Laborers, 1959.

can clarify only a part of the whole problem. A more correct and essential explanation of the problem must be sought in the features of our economic structure, especially those of the labor market in Japan. The capitalistic development of Japan was not accompanied by the exhaustive breaking up of rural economy; consequently, the labor market of Japan includes many of those who work in factories not as their principal occupation but as a side job with the intention of easing the living of their families who are small farmers. Typical types are seasonal workers who work during the farmers' slack season. Even in the case of those who work in enterprises in the cities, when they lose their jobs because of depression or other reasons, they do not remain in cities as job-seekers, but are absorbed in their homes in the country as farmers, that is, they become potential unemployed persons. In other words they do not have a stable character as laborers but have mobility between farms and workshops. Western type wage earners whose sole jobs are found in factories naturally stay in industrial areas, and then a stable labor market can be established where the same wage and working conditions are prevalent regarding the same jobs and occupations. On the contrary, in Japan many laborers do not necessarily lose their relation with agriculture, and consequently the labor market is unstable where each factory recruits and combines with each laborer who comes from certain rural districts. In short there is no labor market of the Western type, and wages and labor conditions differ largely within the same job in different enterprises and in different areas. Therefore equalization of wage and labor conditions of laborers in the same job and the unification of enterprise unions are quite difficult. The difficulty of organizing industrial unions in Japan and the existence of enterprise unions are due to the above conditions.(6)

3. The uniqueness of the labor organization of the seamen of Japan(7)

The reason why only seamen could organize and maintain an industrial union in Japan shall be considered in contrast to the reason why enterprise unions are prominent in Japanese trade unionism.

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(6) Prof. Okawachi is the first person who pointed out this problem. cf. K. Okawachi, Restart of Trade Unionism — Inside and Outside of Enterprise Unions, 1956.

(7) Regarding the peculiarity of the seamen's union, the following article includes many suggestive explanations. H. Sasaki, The Singularity of Seamen's Union and the Grounds of its Singularity, in Trade Unions of postwar Japan, 1956. Regarding the process of establishment of J. S. U., see, H. Sasaki, Maritime Labor Movement in postwar Japan, (Journal of the Univ. of Marine, No. 3, Ser. B, Feb. 1953)
Also see, the Ministry of Transportation, Ten Years' History of Maritime Labor, 1957.

3. 1. Circumstances under which the seamen's union was organized

When the seamen's union was organized in 1945, the shipping industry was under government control and seamen were also under government employment control which had started from the beginning of the war. From the wartime necessity of controlling shipping so as to carry out military transport without hindrance, the Shipping Corporation was established and by means of this organization vessels and seamen were administrated under government control. Therefore, though seamen kept their formal relation with shipping firms through a hiring contract, they were practically employed by the government, and their wages and working conditions were regulated by the government. The Shipping Corporation maintained its operation until shipping firms were allowed to reopen their activities in 1950. The fact that all of the seamen were employed by the Shipping Corporation when the organizing began in 1945 was helpful for them in organizing a single industrial union, through the equalization of working conditions and wages and the strengthening of their consciousness of solidarity.

Another fact was also helpful in the formation of the single industrial union of seamen. The organizing movement was carried out by the leaders of prewar labor organizations of seamen, differing from the general conditions of postwar trade unionism that were essentially spontaneous organizing movements of laborers, having no relation with prewar labor movements both regarding union structure and leaders. Before World War II unlicensed personnel and licensed personnel had their respective industrial unions. The former were organized into the All Japan Seamen's Union and the latter into the Association of Seamen. The two organizations were not only co-operative but were strong enough to include the majority of seamen as members. When labor unions were forcefully dissolved and changed into absolutely different organizations, the Industrial Council for Labor-Management Co-operation in 1937, the leaders of the two labor organization found their posts on land in the newly established organization or Shipping Corporation and few of them went to sea again. Consequently the prewar leaders of seamen's unions could easily start the reorganizing work of the seamen's union in close contact with their prewar colleagues when defeat brought to Japan a democratic atmosphere and a boom in organizing trade unions. On the contrary, for the mass of seamen it was generally quite difficult to touch on unionizing work because of the peculiarities of their working conditions, that is, the vessels where their work was done was isolated and they had to travell from one port to another. Thus there could be found only a few cases where

the rank and file of seamen began spontaneous organizing movements, though they had also the same uneasiness concerning their living and unemployment and the same desire for improvement as did the laborers on land. The difficulty of spontaneously organizing by the rank and file, and the general trust of prewar leaders by seamen were very helpful in the smooth promotion of unionizing by leaders, though they had very little contact with the rank and file. Thus we may conclude that the establishment of the single industrial union in the shipping industry was due to the condition that all seamen were under governmental control, together with the strong influence of prewar union leaders.

However, we know that the seamen had strong industrial unions in the prewar period. Then, if we conclude that the extraordinary conditions immediately after the war were the sole causes that only seamen could establish a single industrial union, we are led to an incorrect conclusion. Henceforth, we will examine the conditions of seamen's unions of the prewar period.(8) Our research will make clear the relation between the unique character of the seamen's labor market and the structure of the unions, and it is useful to consider the effects of the changing condition of employment upon the system of the seamen's union.

3. 2. Seamen's union in the prewar period and labor market of seamen

In the prewar period we could find various kinds of trade union structures in Japan, including craft unions, industrial unions and general unions, and also company unions. But trade unionism in that period did not show much development due to the radicalism of union leaders, who put much stress on political movement rather than on improving working conditions of their members, and the suppression of labor movements by the government and management. According to the research of 1931 when trade unionism was most prosperous in the prewar period, there were 818 trade unions including less than 370 thousand union members. Organized laborers were less than 8 per cent of industrial workers.(9) Under such hard conditions of trade-unionism, the Japan Seamen's Union including 92 thousand members and the Association of Seamen including 12.6 thousand members were successful in organizing the greater part of unlicensed personnel and licensed personnel respectively. The former was the largest trade union in Japan. The superior position of seamen's unions was

(8) Regarding the seamen's unions in the prewar period, see, T. Nishimaki, History of Maritime Labor of Japan, 1952.

(9) I. Suehiro, History of Trade Unionism of Japan, 1950. p. 80 ff.

mainly due to the unique conditions of the seamen's labor market.

Nearly all shipping jobs require certain experience and or license in order to secure the safety of life and property at sea. For example, to be engineers or deck officers it is necessary to pass a national examination after graduating from a maritime academy, and even for unlicensed personnel it is necessary to finish a course of training of at least half a year. Severe requirements regarding license and experience naturally tend to bring about similarity of skills among the laborers engaging in the same kind of job. Moreover, the system of employment in the shipping industry was quite different from those of other industries. A seamen signed a hiring contract when he joined a ship, and after several voyages over a certain period determined by the contract he was discharged, and as a result the employment relation ended. Then he had to look for another ship to join. Therefore the employment of seamen was always intermittent. Seamen sometimes worked on a vessel of one company, and then again on a vessel of another company. The wages and labor conditions were more or less similar on the vessels of different companies based on the similarities of skills among the seamen. The system of employment naturally led seamen to be job-conscious, without enterprise-consciousness. The conditions of seamen were quite different from other industries which we have already seen. In Japan, only in the shipping industry was a labor market of the Western type established. The fundamental reason why only seamen could organize a single indsutrial union, not only in the prewar period but also in the postwar period, may be found in these conditions.

At the same time we should also keep in mind that the unique system of employment in the shipping industry influenced deeply to development of seamen's unions in the prewar preiod. The intermittent character of seamen's employment caused instability in seamen's employment and living conditions. Before the establishment of the seamen's union, unlicensed personnel were controlled by boardinghouse keepers who also engaged in recruiting the crew, as was often seen in European countries of the nineteenth century. But the seamen's union tried to work on a job exchange service from its establishment, and in 1925 the unions succeeded in securing a job exchange service of seamen exclusively through the Maritime Joint Committee[10], and it provided the unions with an adequate basis for the development of union members.

The seamen's unions also succeeded in concluding trade agreements including minimum wage agreements. The unions were co-operative with manage-

ment and gained more or less improvements in wages and working conditions for their members. They adopted the principle of typical business unionism while most other trade unions in the prewar period were eagerly engaged in political movements. The conservative and co-operative attitude of union leaders on the one hand, and the control of the members through the job exchange service on the other hand were very important factors in making it possible for seamen's unions to include most of the seamen as union members and maintain their activities in the prewar period atmosphere disadvantageous to trade unionism.

4. Factors affecting the structure of the seamen's union

That the seamen's union has been able to form and maintain the structure of an industrial union in the postwar period is, as we have already shown, basically due to the features of the labor market of seamen. However, we recognize that there were several other causes which had possibilities of influencing the structure of the union, after the seamen's union was rebuilt. The first was that government control regarding vessels and seamen was abolished and shipping companies began their business in 1950. Since then seamen were employed by respective shipping companies apart from the employment control of the Shipping Corporation, and this fact meant the return to peace-time employment relations in the shipping industry. But the postwar system of employment by shipping companies was quite different from that of the prewar period. In the prewar period seamen were employed by the system common in European countries as we have already pointed out. The employment of seamen was always intermittent. On the contrary, Japanese shipping companies in the postwar period succeeded in the system of employment enforced by the Shipping Corporation. From the necessity of maintaining enough members to operate all vessels without delay, the Corporation made a labor pool of seamen on land, and when seamen got off a vessel after a certain number of voyages, they were formed into a labor pool of seamen with pay, from which seamen waiting for jobs on land went to sea. In other words from wartime the employment of seamen lost its intermittent character, and seamen have always been with employment with pay,

(10) The Maritime Joint Committee was organized by the Japan Shipowners' Association, the Japan Seamen's Union and the Association of Seamen, in order to handle job exchange service of seamen, to determine the working conditions of seamen, to prevent and mediate disputes. cf. the Maritime Joint Committee, Regarding to the Maritime Joint Committee, 1930.

irrespective of whether they were working at sea or on land. Seamen entered into the same employment relations as those generally seen among laborers on land. Therefore when this employment system was adopted by shipping companies, seamen became enterprise conscious since they were to belong to the same enterprise and could receive wages even on land so long as they did not try to find jobs in others places. As a result several attempts were made among seamen employed by leading shipping companies to set up an enterprise union, when shipping business was regained by private companies from government control.(11) But the attempts disappeared without bearing fruit, for at that time there were no differences in wages and working conditions of seamen among the shipping companies. The seamen's union could conclude a uniform trade agreement with the Japan Shipowners' Association, instead of the Shipping Corporation. The difference of earning power did not become apparent immediately after the reopening of shipping operation by private hands.

However, the difference in revenue among the shipping companies have gradually become apparent. The business conditions were especially different between the large shipping companies which operated foreign trade routes and intermediate and small shipping companies which operated mainly coastal routes. The former could find funds to improve seamen's wages though they had to face severe international competition, while the latter had to suffer from the severe competition of railroad and trucks. Under those circumstances the seamen's union had difficulty in acquiring improved wages uniformly for all seamen employed by different shipping companies. In addition, because the postwar system of employment of seamen had a continuous character, the interest of seamen employed by large shipping companies with regard to the wage issue clashed with that of those employed by small shipping companies. Reflecting on those conditions, in 1955 the seamen's union failed to maintain uniform collective bargaining and to conclude a uniform trade agreement with the Shipowners' Association. The union had to bargain and conclude respective trade agreements with five groups of shipownesr separately.(12) This newly introduced system of collective bargaining, combined with the postwar employment system of seamen includes the possibility of enlarging the difference of the wage and working conditions of union members in spite of the similarity of their job skill, and of strengthening the enterprise-consciousness of seamen which may

(11) H. Sasaki, The Singularity of Seamen's Union and the Grounds of its Singularity, p. 96.
(12) The Ministry of Transportation, op. cit. p. 350 ff.

result in breaking a single industrial union of seamen.

Of course the seamen's union has tried to strengthen the solidarity of its members and to maintain its union lest the possibility of its destruction become a reality. For this purpose several measures have been planned and some of them have been practically enforced. The union succeeded in adopting the union shop system in October 1945.[13] The union is also preparing to enforce a pension plan and a plan to organize a general employment pool of seamen. Though these plans are now still at a desk plan stage, if they are to be enforced, they seem to be powerful means for maintaining the present single union structure.

(13) The Ministry of Transportation, op. cit. pp. 317–325.

SOME REFLECTIONS ON INTER-COMPARABILITY OF SOCIAL ACCOUNTING

Nobuko Nosé

I
Introduction

As a result of the rapid development of social accounting after the war, national income analysis is getting a new weapon, but it seems that the basic definitions in the social accounting system are not so satisfactory, because the difference of social welfare from productive power as the basis of national income, and of useful labor from productive labor have become retarded.(1)

The social accountants, focusing on the accounting matrix only, have tried to design a standard accounting system to represent the national aggregates and recently endeavored to compare national economies in standardized accounts.

It is interesting that criticisms of social accounting occur not in the stage of formal but in the practical stage i. e. international comparison. For, the nations to be compared are of so many types, as mature economy, pseudo-mature economy and under-developed, that the social accounting figurs in these countries fail to represent the economic progress on an objective, comparable basis. Then, the definitional problem of national income as a standard, must be reexamined in order to solve the comparison problem.

It is natural that this problem be seriously considered in the case of comparisons of under-developed economies. The criticisms being represented here, point out the infeasibilities of intercomparison with under-developed economies by the Anglo-American standard system. There are many writers, such as Mr. Frankel, who points out the varied value systems in varied economic systems,(3) such as Mr. Kuznets, who points out the varied institutions in varied national economies,(4) and such as Mr. Barna, who points out the difference of economic

structure in the economies on the varied historical stages,[5] and as Mr. Creamer, who points out the varied degree of statistical exactness in varied nations.[6]

By the reasons we show later, we take the stand that those points, except the last one, are rooted in the classical problem of the national income theory, and have to be examined by a formal analysis of social accounting despite its appearances which is at the practical stages of comparison. Then we shall examine how to contribute to these criticisms in solving the definitional age-old problem in the following sections and how national income accounting should be oriented.

Note:

(1) T. Barna, 'International Comparison of National Accounts in Economic Analysis', 'Income & Wealth', series III, pp. 142–3.

(2) Standardized systems for international comparison already published are 'A standardized System of National Accounts' by OEEC, 'A System of National Accounts and Supporting Tables' by UN and 'A National Accounting System for Use by ECAFE Countries' by UN.

(3) S. H. Frankel, 'Concepts of Income and Welfare — in Advanced and Underdeveloped Societies with Special Reference to the Inter-Comparability of National Aggregates', in 'Income & Wealth', series III. pp. 156–168.

(4) S. Kuznets, 'National Income and Industrial Structure', Econometrica, Vol. 17, Supplement — Jul. 1949, pp. 205–241.

(5) Barna, ibid.

(6) D. Creamer, 'Uses of National Income Estimates in Under-developed Areas', in 'Income & Wealth', series III. pp. 211–223.

§2 The Characteristics of the Standardized System.

When comparing with the accounting units, two things are necessary; i, a standard of comparison, and ii, a method to measure this standard as given. This is necessary not only for comparison of individuals but for comparison of national economies. As we know, these conditions raise disputable points in many cases.

Then, in social accounting, these points are treated as follows.

On the first point, social accountants recognize the nations' economic progress by the income circuit i. e. national income, consumption, saving and investment in all economies. Behind this, we can understand the Keynesian income approach as a standard.

On the second point, they set the standardized accounting systems to be applicable to all nations, that is, the standard of classification and valuation of transactions and the unified system of accounts, grounded on the standardized definition of economic aggregates to be applicable to the income statistics of

all nations. The relation between i and ii corresponds to the relation between the *Keynesian Tableau* as an abstract schema and its concrete measurement. We shall examine the matter closely from the side of measurement.

The standardization, for making a unified system for intercomparison, means that i, the standardization of accounting design i. e. design of national accounts and the items in accounts and ii, the standardization of the method of valuation i. e. the valuation principle of depreciation. As to the former, standardized accounts involve the standardized sector accounts which consist of production accounts, revenue-expenditure accounts, capital accounts, and the rest of the world accounts to be set respectively in the business sector, household sector, and government sector and national consolidation accounts consolidating the above sector accounts. The principle of classifying the economy into sectors is an institutional character, and basis of designing the accounts is economic activity, i. e. production, appropriation, capital transaction and transaction with the rest of the world.

Now, these bases involve disputable points. As to the sectoring principle, there are technical treatments of the accounting unit of the borderline i. e. farmers and theoretical problems to justify such institutional and non-economical divisions. As to the former, it has been settled in the social accounting convention to divine such accounting units,(1) but as to the latter, it is pending.(2) Next, as the basis of accounting design, the definition of economic activity is a disputable one. As the standardized system shows, the limit to record a transaction is an economic activity which is distinguished from a living activity. This economic activity is not so sharply defined as productive labor, but is analogous to useful labor. The standardized system defines the principle to divine useful labor in general into economic activity and living which is only on the possibility of exchange. So, production as an economic activity involves the goods production, production of self-consumption goods i. e. farmers' products, the service of the owner-occupied house and the services of the servants in government sector and household sector, but excludes the services by house-wives in households.

Moreover, the standardized system provides that these activities be measured in terms of money, on the production basis, and on the basis of a real postulate, and that the figures estimated by such basis be converted into standardized currency, i. e. dollars.(3) In this last stage, the infeasibilities of intercomparison are strengthened by the problems accompaning exchange rates.

Note:

(1) R. Stone, 'Definitions and Related Totals of National Income', as appendix of 'Measurement of National Income and the Construction of Social Account', pp. 21–114. and idem. 'Functions and Criteria of A System of Social Accounting', in 'Income and Wealth', series I, pp. 1–74.

(2) J. Margoris, 'National Economic Accounting, Reorientation Needed', The Review of Economics and Statistics, vol. XXXIV, No. 4, 1952.

(3) On this point, see R. Stone and K. Hansen, 'Inter-Country Comparisons of National Accounts and the Work of the National Accounts', in Income and Wealth', series III, pp. 125–36.

§3. Critics of Intercomparison in Social Accounting

Concerning the intercomparison of economics, there are some criticisms published in the series of 'Income and Wealth', etc.

First, we shall take Mr. Frankel's criticisms based on multi-welfare patterns.(1)

He points out that all nations have their specific 'value systems'. The value system means 'the nation's idea, object or value structure' which motivate the people's economic activity. He says that the value system has different characters by nature, hence, the standardized system as a common measure is of no use in comparison in plural economies where there are different propensities i. e. desire of goods and services, choice between labor and leisure and the attitude to money are present.

We find the same opinion in Miss. Dean's work.(2) She says that in central Africa money is treated as a luxury rather than as a medium of exchange and it is ruled by the value system much distinguished from western European rational behavior.

Thus, they conclude that standardized national accounts are the accounting symbols which only fit developed economies and is a foreign symbol to underdeveloped economies and that a strict comparison of the two types of economies is impossible.

Second, we shall summarize Mr. Kuznets's critisisms.(3) He points out that every nation has a different institutional structure, for example, in underdeveloped economies the distance between the producer and final consumer is much shorter than in developed economies. Firstly, activity in the household sector in the former includes a considerable amount of domestic production which is not oriented to the market. Secondly, the intermediate process, i. e. distribution, transportation and government activity in the former is not so long as these in the latter. Lastly, investment in the former takes place in the household sector to a considerable measure. Then, he concludes that to compare a developed

economy with an under-developed one is very difficult. We find that Prof. Hicks[4] holds the same opinion.

Third, Mr. Barna criticized intercomparison from the view-point of the economic development in the nations.[5] He points out that in industrial economies like the Anglo-American type, even in the third sector business is undertaken in capitalistic manner and the nation's resources in each industry is nearly in equilibrium and the factor income in each sector is almost equal, while in a non-industrial economy business in the third sector is undertaken by a pre-capitalistic mode and its income is low, and the price structures in the two types of economies are retrogressive respectively, acompanied by different items of public finance. So he suggests that intercomparison is infeasible. He adds that the Keynesian approach is more applicable to rich countries where there is excess capacity rather than to poor countries where the physical resources are generally scarce. By his opinion, in the latter, physical analysis should be given priority instead of the Keynesian approach. From the above points, Barna concludes that intercomparison by the Anglo-American standardized system is difficult and all countries should endeavor to study their own accounting symbols.

Note:
(1) Frankel, ibid.
(2) P. Dean, 'Colonial Social Accounting', p. 228.
(3) Kuznets, ibid.
(4) J. R. Hicks, 'The Social Framework', pp. 209–10. and see Barna, ibid. pp. 148–50.
(5) Barna, ibid.

§4 Comments on the Critics described in §3.

Now we shall examine the above critics. Considering the writers' viewpoints, we may classify these critics into three categories as i 'subjective value' type, ii 'measurable national income' type and iii 'national productive power' type.

(1) Criticisms using the subjective value theory.

Frankel and Dean advocate that intercomparison by social accounting is hardly possible on account of the subjective value base which determines the character of the social welfare pattern in each country. From this point of view, we understand that rice in Japan is not given the same preference order as it is in America and that marginal dis-utility in African is not the same as it is in western Europe, etc. Then we can neither commensurate the value systems into common denominators nor intercompare them directly, as in the case of comparison of individuals with multi-value standards. Standing on this subjective theory, we

are led to conclusion that intercomparison in the media of social accounting is not feasible.

These criticisms are offered against the most fundamental stage in intercomparison. But we must remark that usually in social accounting, and in national income analysis as its prototype, they do not take into account a comparison of the subjective value standard directly, but a comparison of the national income is taken as an objective counterpart of it.(1) Then, the problem is viewed from another side.

(2) Criticisms using measurable national income as an index of social welfare.

Kuznets and Hicks take the matter from the point of view of measurable and materialized social welfare, that is, a more concrete stage than a subjective value.

Kuznets's criticism, as described in the preceeding section, points out that the institutional difference of the productive performance in each country has three stages — consumer goods, intermediate goods and investment. Concerning it, in social accounting the production is prescribed as an activity which is exchangeable and measurable and includes the production of all goods and services. Referring to the application of this social accounting convention, Mr. Copeland criticizes that to apply a progressive country's hypothesis to a borderline case between the productive activity and living one, i. e. the convention that prescribes farmers' housewives' services as a living activity, to underdeveloped countries makes us underestimate the latter's national income, as an index of the latter's social welfare.(2) As to Kuznets's first point referring to the final consumer in each country, according to our understanding, it relates to the technique of imputing production performance in the household sector. So, this point may be solved by the improvement of the current imputation technique that now omits the productive activity performed in household sector. If this is achieved, all products enjoyed by final consumers will be estimated and the national income will be a better index of social welfare.

Next, we shall take up his second point concerned with intermediate goods. His dissent to the comparison of national income, based on the national income of the developed country from which arises a high social over-head cost cannot reflect such a level of social welfare, in some sense, is reasonable. For, doubtless, a comparison with the national income in a militaristic economy and an unmilitaristic one is of no use in a comparison of social welfare in the two countries. Of course, the intermediate products, as Kuznets says, include not only military

service but communication, distribution, governmental services other than military service. And usually social accountants have treated such services without classifying them into final products or intermediate. Concerning with this, the most debatable one is the criterion to classify these government products.[3] As we know, Mr. Kuznets, bases his definition as a contribution to the final consumer = the increment of social welfare = net output, insists that governmental services concerning the maintenance and modification of the social framework[4] cannot constitute final products, while the productions of a government concerning contributions to individuals are entered into final products. So, his criterion to classify intermediate products and final ones is set on the final consumer's ability and / or social welfare. If this criterion were acceptable, the improvement of the imputation technique to the immediate goods among some products, i. e. government's products along with such a criterion, would bring a more precise figure of national products and of social welfare. Then, this second point might be solved as his first point. Similarly, we may estimate investment in household sector by improvement of the imputation technique to investment.

But when we examine the matter more closely, we can notice that this problem has more roots and relates to the problem of the subjective value standard touched upon before. Kuznets defines that national income is the measure of net output, and that net is an approximate value of social welfare. Then, the amount of the net output, equivalent to the national gross output minus the amount of intermediate goods, is estimated on the basis of social welfare. Then, welfare economists, including Kuznets, taking national income as the net output — net addition to social welfare, usually define national income as including not only physical goods but all services — as useful labor in so far as they are applicable to final consumers' subjective needs.[5] But, from the standpoint of the consumer, the motive to decide what and how useful it is to his needs being considerable liquid even in one country, it cannot be saved from a subjective, psychologic character. Still less, in multi-nations the value standards which form the people's preference orders must not be the same objective ones. Then, we see that Mr. Kuznets's standpoint emphasizing the different institutional environment in which the production of national income as the counterpart of social welfare is performed, implicitly presupposes an identity and consistency among the many value systems. So, we may understand that his critique based on the intercomparison of social welfare, though standing on a different dimension

from Mr. Frankel, cannot help concluding the impossibility of intercomparison as does Frankel. In other words, his approach to intercompare in terms of materialized social welfare, includes both the basic problem on social welfare and its measuring technique required by different institutional environments, and if the former problem is unsolved, the latter's solution would be meaningless. The reason why such a conclusion is deduced is based on the welfare economists' (as Kuznets) definition of the national income from the view point of the liquid, subjective consumer, that is, from social welfare.

(3) Critics using national productivity.

Now we shall examine Mr. Barna's theorem. As described in the preceeding section, Barna explains the infeasibility not from the materialized social welfare as Kuznets did but from the industrial structure depending on historical development. Then his scheme of development is similar to the well-known scheme of C. Clark's economic progress. On the other hand, the national income in social accounting, is the net amount yielded in the so-called three sectors and consists of goods and services as we showed. As we know theoretically and empirically, the contents of national income and the industrial structure in which national income is produced are not the same as in multi-economies according to the degree of development, for example, in one case agriculture occupies a considerable gravity and in another case the financial intermediary is over-expanded. Then, an intercomparison of national incomes as an aggregate is inconparable of intercomparison of the nation's productive structure or of the economic progress because of it is in net figurs. So, we may agree with his opinion in so far as doubting the intercomparison of such aggregate figures recorded on standardized accounts. But infeasibility is not conclusively proved by Barna's proposition or by Clark's hypothesis. The well-known Clark's schema, using Pettey's law in the 17th Century as 'a horizontal analysis between a number of countries at the same time'[7] shows the movement of a working population and of an equalization level of real income from the first sector to the second sector and from the second sector to the third sector. Standing on this Clarkian hypothesis, modern economists not only Barna, examine the constituent ratio of the three sectors as a measure of the national productive power, that is, economic progress.[8] Clark explained such rearrangement of the industrial structure according to economic progress by the relative change in consumers' demands to goods and services and by the increment in output per head in the first sector which is more rapid than the second sectors and much more than the third sectors.[9] But

we cannot agree with such an explanation as a general law of economic development.[10] For, in our understanding, his hypothesis has not generality and objectivity. A typical case which upsets this hypothesis is our Japanese economy wherein co-exists stagnation and a low level of real income in agriculture and of excess expansion in commerce. Also we find that in an under-developed economy when the income of the first sector and of the second sector is fairly low, while the income of the third sector is relatively high because of governmental products, i. e. military service taking up a considerable part. Therefore, to define economic progress only by the relative changes in sectors is not yet so conclusive.

Of course, Barna's criticisms are interesting in so far as taking the matter from the contents and structure of national income without touching the definitional problem of national income as social welfare, and still more involves many suggestive points. We must take, 1, intercomparison of the countries on different degrees of productivity and 2, the problem of the comparison between industrial structures from his suggestion. The former point leads us toward an analysis of international value and the latter leads us toward an investigation of the structurs of interrelationship among multi-countries.

Even with these merits, we are still discontented with Mr. Barna. We know that Barna's approach is based on the preceeding two points (subjective value, and national income as the counterpart of social welfare) in so far as comparing national products and/or industrial sector in terms of monetary national income. For, Barna and Clark's view based on national productive power, they never abandon the basic category of monetary national income itself, as shown by their definition on national income elswhere.[11] So, adding more complexities by their viewpoints, the problem itself would not be solved but would be more confusing. As we previously pointed out the 'materialized social welfare' view without solving the problem of the 'subjective value system' brings more trouble, and it seems that 'the national productive power' view by Barna brings more unsoluable problems which already have piled up by the other writers' different stages of thinking.

We shall examine Barna's other point that insists for premature economy the analysis of the physical structure as more applicable than the monetary approach. This idea corresponds to the phrase as 'Keynesian for progressive economy and classics for under-developed', being advocated by modern economists. This view means that in an under-developed economy which is a typical case of capital

shortage physical (supply) structural analysis should take priority over monetary (demand) analysis and the standardized system based on the *Keynesian Tableau* is of no use in such an economy. But it is apparent that the physical approach needed by a premature economy is not always unnecessary to a mature economy and similarly is not unnecessary to a premature economy. The physical structural approach as advocated by Barna, classifies the monetary national income into consumption goods, intermediate goods, and final goods, as Hayek did.(12) But we must notice that even in this approach, the category of monetary national income is not given up. Then we might understand that this point has same defects as did his previous point based on Clark's theorem.

Note:

(1) R. Stone & K. Hansen, ibid.

(2) M. A. Copeland, 'The Feasibility of A Standard Comprehensive System of Social Accounts', in Studies in Income & Wealth', vol. 12, p. 22, pp. 33–7.

(3) The review about this in Japan are S. Tsuru, Ch. 3 of 'Kokuminshotoku to Saiseisan', and T. Nosé, 'Kokuminshotoku-ron niokeru Seifu no Ichi', in The Review of Kobe Commercial College.

(4) Kuznets, 'Government Product and National Income', 'Conference on Research in Income & Wealth', series I. pp. 178–244.

(5) Kuznets, 'National Income', ibid.

(6) Pettey's law is as follows. 'There is much more to be gained by Manufacture than Husbandry; and by Merchandise than Manufacture... Now here we may take notice that as Trades and Curious Arts increase; so the Trade of Husbandry will decrease, or else the wages of Husbandman must rise and consequently the Rents of Lands must fall'. It is quorted by C. Clark, The Conditions of Economic Progress', p. 395.

(7) Clark. ibid. p 397.

(8) By aid of this principle, for example, Mr. Stone classifies the economy into three sectors. R. Stone and J. E. G. Utting, 'The Relationship between Input-output Analysis and National Accounting', in 'Input-Output Relations', pp. 193–224.

(9) C. Clark, ibid. p. 431.

(10) Y. Hayashi, 'Kokuminshotoku-ron no Mondai-ten (Some Problems in National Income Theory)', Keizai Hyoron (Economic Journal), vol. 5, no. 5.

(11) Barna names it as Anglo-American definition of National Income. idem. ibid. Ch. II. C. Clark, 'The Concepts of National Income', The Economic Review, vol. 49, Dec., 1939.

(12) F. A. v. Hayek, 'Prices and Production', pp. 36–62.

§5. Conclusions and Proposals

Examining the criticisms on intercomparison, we can understand that, i, in so far as tracing national income from the final consumers' standpoint as social welfare, we cannot get rid of a liquid, biased, subjective character implied in wants and consequently such character in the category of national income, ii, to use such a category but to take its constituent ratio in the three sectors as the measure of economic progress only adds complexities as productive power to i.

Then, we may deduce that intercomparison by a standardized system, even by taking into account social welfare (Kuznets's point of view) and national productive power (Barna's point of view) besides value standard (Frankel's point of view), in a strict sence, would be hardly possible. This implies that comparison by the present standardized system is difficult because of its rigid insistence on the final consumers' view, that is, coming from the subjective criterion on which both social accountants and their critics stand.

Then, what is the objective criterion, which is unchangeable with subjective factors and the feature of utilization stages such as we seek? Jumping to a conclusion, this criterion for intercomparison is the net value produced in countries in certain periods. The reason is as follows: — first of all, the most necessary activity to maintain human societies, in all institutions and all stages of economic development, is the activity for physical reproduction.(1) Human labor to reform and reallocate natural resources and to make the physical commodities (productive means and consumption goods), in short, productive labor is a necessary activity which exists and should exist at all times and space as an objective thing. Physical products, made only by productive labor, sharply distinguished from all non-physical services made by unproductive labor that is assured of its supply only by the continuance of the production of physical products. Services being furnished as useful do not necessarily exist at all times and space and is not an objective thing in the sense that its usefulness is changed at times and infuenced by subjective elements as taste, habit and other psycologic factors and by non-economic conditions, i. e. climate and natural features, and still more, service production is secured under a condition of certain physical foundations. Then in the value product, the net amount of the physical products in a country during a year (social products minus physical replacement $= C + V + M - C$ in Marxian simbol), which represents the net value of the material foundation in all societies and institutions and indicates the reproduction-scale as an index of productive power in a society by its absolute level and its constituent structure, is the true objective criterion for the comparison of multi-nations.(2)

On the other hand, production, being characterized by special social circumstances, in a capitalistic society where it performs in a capitalistic manner, its products is represented as products made by laborers who make surplus value for employers, that comose surplus value and value of labor power and is measured in terms of money as the monetary expression of value. This is another side of production, called, the socialistic value character. On the contrary,

services are neither products nor the value.

Thus, the definition of national income is founded on the physical, objective, and capitalistic (social) criterion. When we compare two or more countries through the media of such a definition of national income, we must note another remarkable point which comes from the fact that different quantities of products (value in use) are created by the same labor unit in two countries where the productivity of labor in each country is not equivalent. Then, the quantity of value in equal amount of products being unequal by nations, for example, the value of a machine in a progressive country being less than that in an underdeveloped one, the labor in a progressive economy is higher than that in an underdeveloped one. So, in comparing the two, if we commensurate their national income only by the exchange rate from the above point, we cannot analyze the economic relationship of two countries and intercompare them in a strict sense.

Adding the difference between industrial structures to the above basic standard, the degree of international unbalanced growth, i. e. distance of developed economy and underdeveloped is clearly recognizable in the scale of productive power, its content, and all economic relationships. Thus, social accounts constructed on such value products based on the objective criterion, is useful not only to intercountry comparison but to intertemporal comparison in one country as a just, ultimate, objective standard. This can be achieved only by a criticism on the view of basic stages of the matter and complete rearrangement of the present standardized system based on the criticisms.

Lastly, we must restate in conclusion the defect implied in critics in the above section.

(1) First, the critics based on the subjective value theory, in so far as taking the definition which prescribes useful things as national products, cannot help bringing the incomparable, subjective standard. But in our understanding, products have usefulness as one of its attributes.

(2) The theory which defines useful things in so far as they are finally dispersed to individuals as national income, being unable to distinguish the stage of production from the stage of disposition, is based on the definition derived from above (1) and is no more than appears with a little objective sense.

(3) The theory which aims to compare in the media of national productivity, marks the different degrees of industrialization in each country. But they cannot show an absolute criterion of productive power in intercomparison.

(4) Aiding the viewpoint of classical physical analysis, they aim to establish

a standard, but it is still difficult to compare in so for as they insist on the money national income as a subjective standard.

(5) Finally we must say that the discussion about intercomparison in social accounting should be done through investigation of 'age-old questions' in national income analysis.

Note:

(1) K. Marx, „Das Kapital", Besorgt vom M. E. L. Instituts. 1932. Bd. II, S. 50–51, 121–24, 133, 139, 141–45, Bd. III, S. 312, 330.

(2) More strictly speaking, the constituent ratio of the value product plus physical replacement (c+v+m) shows the volume of the re-production scale in a society and the value product shows the consumable maximum of the social products. K. Marx, a. a. O. Bd. II Abs. III.

(3) Conerning to this problem, see my article, 'Shakaikaikei no Hoho nitsuite (On the Method of Social Accounting)', *Kokuminkeizai-Zasshi*. vol. 93, No. 3.

THE MEANING OF INVENTORIES

Susumu WATANABE

I

There is no doubt that merchandise, finished goods, goods in process, materials and parts are inventories, but there are some other assets questionable as to whether they can be included in the category of inventories. Thus there is no consensus of opinion as to the composition of inventories due perhaps to the absence of a unified opinion as to the concept of inventories.

The American Institute of Certified Public Accountants states in its Accounting Research Bulletin No. 43 these words:

> "The term *inventory* is used herein to designate the aggregate of those items of tangible personal property which (1) are held for sale in the ordinary course of business, (2) are in process of production for such sale, or (3) are to be currently consumed in the production of goods or services to be available for sale."

By way of illustration the Bulletin cites the merchandise of a trading concern and the finished goods of a manufacturer under (1), work in process under (2) and raw materials and supplies to be consumed directly or indirectly in production under (3). It further states as follows:

(1) "This definition of inventories excludes long-term assets subject to depreciation accounting, or goods which, when put into use, will be so classified."

(2) "The fact that a depreciable asset is retired from regular use and held for sale does not indicate that the item should be classified as part of the inventory."

(3) "Raw materials and supplies purchased for production may be

used or consumed for the construction of long-term assets or other purposes not related to production, but the fact that inventory items representing a small portion of the total may not be absorbed ultimately in the production process does not require separate classification."

(4) "By trade practice, operating materials and supplies of certain types of companies such as oil producers are usually treated as inventory."[1]

This definition makes it clear that long-term assets or goods which, when put into use, will be so classified, and a depreciable asset retired from regular use are not inventories, but it does not give any concrete idea of those items of tangible personal property which are to be currently consumed in the production of goods or services to be available for sale.

The term *inventory* is used either in the narrow or in the broad sense. Questions generally arise chiefly as to supplies or stores.

A. W. Holmes and others, for instance, classify factory supplies (manufacturing supplies) into (1) items used directly in the manufacture of the products and (2) items of a general service nature that do not enter into the products being manufactured. They say that the latter — for example, fuel, lubricants, or maintenance materials — preferably should be classified with prepayments as current assets. They are of the opinion that office and store supplies, such as stationery, typewriter ribbons, and janitor supplies, should not be classified as inventory, but as prepaid expenses and supplies in the current asset section of the balance sheet, because none of them will become a part of the finished product or the merchandise inventory.[2] In American tax regulations as well, supplies which will be consumed in operations but which will not physically become a part of the finished product should be treated as deferred expenses to be charged off as used or consumed.[3] Both of them employ the term *inventory* in the narrow sense to denote only goods to be consumed directly in production or those which will become a part of the finished product.

H. A. Finney and H. E. Miller include, within manufacturing supplies as inventories, those which, like lubricants, are used indirectly in the process of manufacture, and do not become a part of the finished product, in addition to those which become a part of the finished product, such as paint and nails. But they state that shipping supplies and office supplies which are charged to

(1) Accounting Research Bulletin No. 43, pp. 27–8.
(2) Holmes, Maynard, Edwards and Meier, Intermediate Accounting (1958), p. 195.
(3) Montgomery's Federal Taxes (37th ed., 1958), pp. 2.12–13.

selling and general expenses should be more appropriately classified as prepaid expenses.(4) W. E. Karrenbrock and H. Simons also classify factory supplies (for example, oils, greases, and fuels) as inventory in view of their ultimate consumption in the productive process.(5)

W. A. Paton and W. A. Paton, Jr. use the term *inventory* in a still wider sense to signify all types of merchandise, materials, work in process, finished products, and supplies, such as factory supplies, packing and delivery supplies and office supplies.(6) So also in the Accountants' Handbook the term is used in the broad sense to comprise merchandise, materials, supplies (office supplies, packing and shipping supplies and indirect factory materials), work in process and finished goods. The same Handbook treats as inventories maintenance supplies to the extent that they are intended for use in normal repetitive maintenance, but neither those held for replacement of portions of plant or equipment, which should be properly considered as fixed assets, nor materials and supplies awaiting use on construction projects, which could be properly classified as separate type of fixed asset, though they are occasionally reported as inventories by the firm for whom the construction is undertaken.(7)

In the Japanese tax law the term *inventory* includes by-products, defective work, waste, maintenance materials (not including replacement materials with regard to corporations adopting the replacement method), packing and shipping supplies, supplies (such as oil, nails, paint, books, stationery) as well as merchandise, materials, finished goods, partly finished goods and work in process. The extent of inventories in the Japanese tax law is akin to that of the above Accountants' Handbook.

II

The concrete composition of inventories thus shows a range of variation. It is attributable to a split of opinion as to the concept of inventories.

Inventories are often misunderstood as assets whose cost is to be allocated between part to be charged to the revenue of the period and part to be deferred to succeeding periods by the procedure of 'inventory'. It is a matter of course that inventories are assets capable of cost allocation by inventory procedure, but

(4) Finney and Miller, Principles of Accounting, Intermediate (5th ed., 1958), p. 224.
(5) Karrenbrock and Simons, Intermediate Accounting (1949), p. 141.
(6) Paton and Paton, Jr., Asset Accounting (1952), pp. 28–29.
(7) R. Wixon (ed.), Accountants' Handbook (4th ed., 1956), pp. 12.1–2.

it is to be noted that not all assets capable of cost allocation by inventory procedure are inventories. Even at this moment the cost of assets such as tools, furniture and fixtures are often allocated by inventory procedure to expired cost for the period and deferred cost for succeeding periods. The expired cost for the period is calculated by deducting the amount of ending inventories from the total amount of beginning inventories and inventories received during the period. But these assets, serving as they do as instruments for production, are in their accounting nature fixed assets, not inventories. In this case, the 'inventory' procedure of cost allocation has simply been applied to fixed assets, so that not all assets to which that procedure is applied are inventories.

We should, therefore, define inventories from an entirely different point of view. I believe that the characteristics of inventories can be illuminated by a contrast with fixed assets. Inventories are assets held for sale in the ordinary course of business and assets consumed in the production of such assets for sale. In this respect inventories are distinguished from fixed assets which serve as equipment for production. Fixed assets are equipment that makes production possible by its service, while, on the other hand, inventories are materials which are put into the production equipment and processed, thereby participating in the flow of salable finished goods. Inventories, issued on the basis of physical units for use or consumption, are absorbed into the production process. For instance, materials are thrown into the production process by the piece, pound, kilogram and so on, and the stock of such materials is reduced to the extent of utilization. On the other hand, production machines as fixed assets work upon materials as a whole (incapable of division), and are not quantitatively reduced, as inventories, while offering their services. Fixed assets contribute to production in their entirety throughout their useful lives without any quantitative reduction, while inventories are assets for sale in themselves or assets to be utilized in the production of salable goods. Inventories are strongly characterized by physical decrease at the time of sale or utilization for production. This leads to the conclusion that, so long as production on a certain scale is to be continued, inventories sold or consumed must be replenished and that inventories are in a constant process of replacement even where the enterprise maintains a certain level of stock of inventories.

Thus inventories are essentially assets to be sold or assets to be utilized in production to become salable goods. Inventories are realized into cash in a relatively short period, because they are essentially salable goods. It is generally

permitted to apply the 'cost or market' method to inventories; and it is because they are assets of such a nature.

III

From this point of view it is my opinion that as a matter of accounting theory inventories can be defined in concrete terms as follows:

(1) Materials and supplies to be used for the construction of fixed assets are not inventories, because, when issued and used for the purpose, they constitute the cost of fixed assets that should be allocated by depreciation procedure. Materials and supplies awaiting use for construction should be properly classified as prepayments (belonging to the fixed assets section of the balance sheet). But sometimes a small portion of production materials are used for construction; in such a case it does not require separate classification for practical purposes.

(2) Fixed assets retired from regular use and held for sale are not inventories, for they are not assets for sale in the proper sense of the term; they are merely retired from regular use.

(3) Tax law allows fixed assets to be treated as expenses for the period, not as fixed assets, where their useful life is below one year or where their acquisition or production cost is under ten thousand yen (with the exception of fixed assets, whose useful life is one year or more, acquired for the beginning or expanding of business). This rule being applicable to fixed assets in use for business purposes, it is not allowed to treat them as expenses while they are stored instead of being used for operations. These assets, being not of the nature of expenses during their storage, must be reported on the balance sheet, but not as fixed assets. (And, therefore, they are not susceptible to depreciation.) But they are not inventories because they are not fixed assets. These stored assets should be properly classified as prepayments (belonging to the fixed assets section of the balance sheet). When used for business purposes, these assets should be properly treated as fixed assets. Tax law treatment as expenses is simply a matter of expediency based on the principle of materiality

(4) Scaffolding logs, sheets and the like used by civil engineering and building contractors, if capable of repeated use, should be treated as quasi-fixed assets. (If, however, used for some particular construction and incapable of future utilization, their costs are to be treated as the cost of that particular construction.) It is allowed, however, to compute the expired cost of such quasi-

fixed assets by the replacement method or inventory method instead of through depreciation.

(5) Auxiliary materials and supplies which become a part of finished goods are unquestionably inventories. Assets for sale and assets which become a part of finished goods are inventories even in the narrowest sense of the word. In addition to these, assets currently consumed in the production of finished goods for sale are generally included within the category of inventories. Materials which do not become a part of finished goods but render services indispensable for production or facilitate production (such as fuel, oil, chemicals, and others) and consume themselves through utilization may be appropriately added to the category. It is because these elements are indispensable for production and their services constitute an integral part of the bundle of services that make up finished products. They may well be called factors currently consumed in production and participating in the flow of production. The concepts of 'flow of production' and 'currently consumed' may be expanded to include also maintenance supplies used for normal and repetitive maintenance and repairs in the inventory category. But those maintenance supplies whose use means replacement of portions of plant or equipment that goes beyond the ordinary notion of repairs should not be considered as inventories. Such maintenance supplies should be appropriately treated as prepayments (belonging to the fixed assets section of the balance sheet).

This remark may apply as well to 'deteriorating assets' such as quick silver (used in the production of sodium hydroxide), solvents and electrolytes. By the term 'deteriorating assets' we understand assets which are used repetitively together with the main body of production facilities without constituting a part of it and quantitatively deplete or qualitatively deteriorate. It is proper to treat as quasi-inventories deteriorating assets which can be considered as participating in the flow of production, by physically or chemically becoming part of intermediate products, and to treat all other kinds of deteriorating assets as analogous to fixed assets or prepayments.

Office supplies such as books, stationery, etc. are not inventories in the strict sense of the term. Although subjected to cost allocation by 'inventory' procedure, they cannot be considered as constituting elements of the flow of products. Office supplies in store, therefore, should be treated as prepayments (belonging to the current assets section of the balance sheet).

Packing and shipping supplies (excluding containers as inventories to be

referred to in the succeeding paragraph) do not correctly fit into the concept of inventories. Although, like office supplies, they lend themselves to cost allocation by means of 'inventory', they are not in themselves assets for sale, but are of the nature of selling expenses necessary for sale. Packing and shipping supplies in store, therefore, are prepayments (belonging to the current assets section of the balance sheet).

(6) Bottles, cases, barrels, cans and other kinds of containers may be classified as inventories where the title to them passes to the purchaser. When part of them are recovered, the transaction should be treated as a reacquisition of containers.

Containers to which the title is reserved by the seller and which can be put to repetitive use are fixed assets as a rule. But the principle of materiality allows containers whose useful life is below one year or whose cost is below a certain amount to be treated as expenses for the period when they are put to use. The cost of containers as fixed assets is allocated by the depreciation, replacement or inventory method. It may be added that it would be necessary to provide for portions of containers as fixed assets unrecoverable through breakage, loss, etc.

(7) Inventories to which the corporation holds title, wherever they may be, should be reported on the balance sheet as its inventories. Such inventories include those in the hands of agents and salesmen, to say nothing of those held in branch offices. Consignments-out that remain unsold as yet sould be included in the consignor's inventories. (Conversely, consignments-in in the hands of the consignee should not be included in his inventories.) Assets acquired through a trading company under an indent contract are assets of the principal.

Goods in transit that have not arrived at the balance sheet date should be included in the purchaser's inventories where the title to them has passed to him. It sometimes happens that the completion of the inventory tabulation is postponed until the merchandise has been received and checked, in cases where the receipt is expected within a short time. But where it is fairly long before its arrival and checking, as in the case of imported materials, it is proper to report it on the balance sheet as "goods in transit". In this case, I believe, it is appropriate to treat goods in transit as a separate type of inventories even where the same kind of goods are already in stock.

IV

The Special Tax Treatment Act allows a price fluctuation reserve to be set

aside to provide for probable loss owing to a price decline of inventories and securities (which latter is outside the scope of this article). Since such reserve is meant to provide for possible loss due to a future price decline, no such concession is granted with regard to goods free from any price decline (goods which are produced or purchased by order of customers to be sold at a price pre-determined by contract and which are specified by law). Since, conversely, those specified by the notification of the National Tax Bureau as objects of price fluctuation reserve may be considered as equivalent to inventories for purposes of the tax law, let us now consider what are included inventories for tax purposes in addition to inventories in general as mentioned above:

(1) Cattle, poultry, fishes and shellfishes and suchlike assets which livestock raising, fish and shellfish raising and suchlike corporations hold for sale and which they treat as inventories in their accounting.

Young pearl-oysters, matrices, and operated shells which pearl raising corporations hold for pearl culture and which they treat as inventories in their accounting.

Buildings which are purchased for re-sale or built by realty corporations without orders of customers like ready-made houses which they treat in their accounting as assets for sale in distinction from assets for their own use (including those under construction, but excluding those under lease at the close of the accounting period).

All these items are objects of price fluctuation reserve. They properly fall under the category of inventories, because they are themselves assets for sale or are in the process of becoming assets for sale.

(2) Expenditures which have been made to convert or repair others' assets for sale and which have been treated as assets may become objects of price fluctuation reserve as inventories. This does not, however, apply to expenditures which have been made to improve or repair others' fixed assets and which have been treated as assets.

The cost of conversion or repair in these cases is not inventory in the ordinary sense of the term, but may be so considered in the accounting sense, since conversion or repair is production from the viewpoint of converters and repairers and since cost factors constitute the flow of production. Therefore, the tax law is right in treating as inventory the cost of conversion or repair, but is not right in excluding the cost of improving and repairing others' fixed assets, for, whether directed to others' assets for sale or others' fixed assets, the reason for treating

the cost of conversion and repair as inventory is one and the same. It is more reasonable to extend the concession in the case of improving or repairing others' fixed assets or to deny it in both cases on the ground that in such contracts the price to be received is usually pre-determined and is not subject to any fluctuation.

(3) The said notification excludes following items from the list of eligible assets:

a. Assets acquired for use as fixed assets and held in store (including materials obviously acquired for the construction of fixed assets for use).

b. Assets which used to be fixed assets and are now held in store (excluding those which have been scrapped and have been transferred to the materials account for use as materials).

c. Civil engineering and building contractors' scaffolding logs, sheets and such materials necessary for construction.

d. Food producers' bottles or barrels, oil refiners' drum cans, and other containers which are loaned out under *mutuum* contracts.

These items are made ineligible for price fluctuation reserve persumably because they are not essentially inventories.

STRUCTURE OF INCOME DETERMINATION ON THE BALANCE SHEET

(DIE STRUKTUR DER BILANZMÄßIGEN ERFOLGSRECHNUNG VON ERICH KOSIOL)

Ryuji TAKEDA

I. Relative Position of Income Determination on the Balance Sheet Relating to Dynamic Accounting

As the dynamic accounting theory in Germany has mainly treated of the character and function of the balance sheet in income determination, it is a prevailing opinion in accounting fields that dynamic accounting is merely a theory relating to the balance sheet. But this interpretation is not always proper. It seems to me that the dynamic accounting theory should be treated as an unified view which contains an entire body on calculating income with a balance sheet and an income statement.

It depends upon the following reason that the German dynamic accounting has primarily hitherto focused on an analysis for income determination with the balance sheet.

When we intend to determine an income, it is a self-evident truth that the revenues and costs (or expenses) are summarized on the income account. But the balance sheet which discloses the results of closing of the books in pairs of the income accounts, appears in the form of a summarizing sheet for the various kinds of pending items. Consequently, how shall we interpret the balance sheet from the standpoint of the income determination forms our interesting centre. This is the natural course of events. It stands to reason here that the dynamic accounting theory has mainly taken up the character and structure of income determination on the balance sheet under the name of "dynamische Bilanzlehre"

in Germany. At the same time, we must especially take notice of the fact that the dynamic theory has endeavoured to make the whole structure of accounting to unifically interpret with the sole object of income determination (Erfolgsrechnung).

II. Structure of the "pagatorische" Balance Sheet*

In order to determine an income for a business, we can directly start from the production processes of goods. Therefore, because of matching costs and revenues, we must confirm the real consumptions of goods and the real formations of goods and estimate them.

Accounting does not take such a method, but links the cash receipts and expenditures (die Zahlungsvorgänge) into closer relations for bookkeeping. This approach is possible for us, because in modern economy all transferences of real goods are accompanied by nominal money flow. The economic flows of money and goods run the reverse courses side by side, so in a business the entering of the goods and the leaving of the money or the leaving of the goods and the entering of the goods always flow parallel. Accordingly, the real flow of goods can also in accounting be presented by the money flow which stands usually parallel. Instead of the real consumption of goods and the real formation of goods, we make it a rule to use the expense expenditures (die Aufwandsausgaben) and the revenue receipts (die Ertragseinnahmen).

The central problem for an income determination is a periodical allocation (eine Periodenabgrenzung) of revenues and expenses. It must be conceived that not only the receipts and expenditures be allocated over the periods, but also through summarizing of their amounts allocated for a period, a period income is determined as a difference between receipts and expenditures. But, there are difficult problems in the fact that current receipts and expenditures do not always coincide with current expenses and revenues.

As causes that the receipts and expenditures do not coincide periodically with the expenses and revenues, there are two money flows of different characters.

The first cause rises through the neutral money flow (neutrale, d. h. erfolgsunwirksame Zahlungsvorgänge). For example, the payment of loans does not represent the revenue receipts (Ertragseinnahmen), and also the withdrawal

* "Pagatorische Bilanztheorie" is represented by Erich Kosiol (Bilanzreform und Einheitsbilanz, Berlin-Stuttgart, 1949)

of capital by the owners does not represent the expense expenditures (Aufwandsausgaben). All such kinds as pure financial movements, which do not parallel the real goods flow, will not influence an income for a business.

The second cause rises by the periodic crossings of the receipts and expenditures which influence an income. For example, when the house-rent outlay conforms to the periodic expenses, that belongs to the current period. It is possible that the cash outlay is done either before the current period (expenditure early, expense later) or after the period (expense early, expenditure later) in fact.

In order to settle these problems of the periodical allocation, accounting will usually apply a series of technically fictitious actions. Through such actions, the receipts and expenditures must be adjusted by the end of a year, at latest, so as to determine the correct periodic income. Consequently, the income calculation (die Erfolgsrechnung) appears as a modified receipts-and-expenditures-calculation (modifizierte Einnahmen- und Ausgabenrechnung), so an income is constituted as a monetary surplus (geldmäßiger Überschuß), as if the receipts and expenditures are correctly allocated for the current period under the point of view in the income determination.

From the above standpoints, we should expand the concepts on receipts and expenditures for a correct determination of business income. These expansions will be required under accrual accounting, and we can expand it in two lines. On the one hand we must expand these concepts on the ground of making the current and future cash receipts and expenditures to be contained in the concepts of receipts and expenditures, and on the other hand we must do the expansions which will result from a periodical allocation of income.

Accounting first requires similar expansions of receipts and expenditures as that which was ever done by Ernst Walb.* The concepts of receipts and expenditures contain the future as well as the current cash receipts and expenditures. The accounts receivable means the future cash or credit receipts, and the accounts payable include also the future cash or credit expenditure. They are immediately recorded at the time they occurred.

The concepts of the credit expenditure are not only applied to the creditors' equity but also expanded in a broad sense to the stockholder's equity.

Payments of accounts receivable and accounts payable should also consis-

* Ernst Walb, Die Erfolgsrechnung privater und öffentlicher Betriebe, 1926.

tently be trated as an appearance of receipts and expenditures. Therefore, the disappearance of credit receipts (Forderungseinnahmen) is recorded on the books as a settlement-expenditure (Forderungsausgaben) and the disappearance of credit expenditures (Schuldausgabe) is done as a settlement-receipt (Schuldeinnahme). By the first expansions two kinds of effects are achieved. As a first effect, the pure money flows are mutually offset and stand still neutrally for income determinations. Each receipt is opposed to the same amount of expenditure. Because such receipts and expenditures as "Forderungseinnahmen und ausgaben" as welll as "Schuldausgaben und einnahmen" always appear at the same time and amount, these will be known by the name of "zweiseitige oder wechselbezügliche Einnahmen und Ausgaben".

Such "wechselbezügliche Einnahmen und Ausgaben" are mutually offset in each accounting period. In opposition to these receipts and expenditures, both accounts receivable (Forderungseinnahmen) and accounts payable (Schuldausgaben) which accrue in accordance with the selling or buying of goods, will be after all paid in or out once, at least, so they will be completely offset within the total income determination (Totalerfolgsrechnung).

As a second effect, the revenues and expenses are always parallel to receipts and expenditures, so they can be grasped as receipts and expenditures.

As above-mentioned, we can not correctly determine the periodic income only by expanding the concepts of receipt and expenditure to contain cash and credit receipts and expenditures, so we shall need other expansions.

A second expansion of receipts and expenditures is required to absorb the revenues and expenses into a period which are not grasped by the cash or credit receipts and expenditures. The expansions are achieved beyond the legal sphere of debts and credits.

The periodical crosses which appear from the periodic interlocking of the receipts and revenues as well as expenditures and expenses are adjusted by the following series of technical processes:

1) the before- and against-calculation (Vor- und Gegenverrechnung)
2) the back- and after-calculation (Rück- und Nachverrechnung)

"The before-calculations" (=Vorverrechnung) are the technical and intentional steps which make the revenues (or revenue-receipts) and expenses (or expense-expenditures) displace an *earlier* period than the period in which the actual receipts and expenditures occurred. When cash or credits are not yet received or delivered, but the accrued revenues or expenses are entered in

a period, we shall find the before-calculation here. Therefore, the accrued revenues (that is, the before-receipts = Voreinnahmen) are recorded corresponding to the revenue records on the books, and also the accrued expenses (that is, the before-expenditures = Vorausgaben) are done corresponding to the expense records. When the actual receipts (that is, Ausgleichseinnahmen) occur, the against-expenditures (that is, Gegenausgaben) appear corresponding to the actual receipts so as to offset the before-receipts. When the actual expenditures (that is, Ausgleichsausgaben) occur, the against-receipts (that is, Gegeneinnahmen) also appear corresponding to the actual expenditures so as to offset the before-expenditures. Consequently, the before-receipts and the against-expenditures as well as the before-expenditures and the against-receipts shall be presented on a balance sheet with the gross amounts accrued.

"The after-calculation" (= Nachverrechnung) are the technical and intentional steps which make the revenues (or revenue-receipts) and expenses (or expense-expenditures) displace a *later* period than the period in which the actual receipts occurred. The deferred interest income and so on (that is, Reservateinnahmen) as well as the actual expenditures for the goods (that is, Vorratsausgaben) are offset by the back-expenditures and the back-receipts of the same amount. And in order to record the amount which belongs to the current period, the after-expenditures should correspond always to the expense-records by the after-calculation. Accordingly, the back-receipts and the after-expenditures as well as the back-expenditures and the after-receipts should be presented on the balance sheet with the amount accrued.

As a result relating to the above mentioned expansions, the following form of balance sheet is revealed by Erich Kosiol.*

A. Einnahmen

I.	Tatsächliche Einnahmen		
	a) Bareinnahmen		DM 146,240
	b) Krediteinnahmen		
	1. Forderungseinnahmen (Entstehung)	DM 150,000	
	2. Schuldeinnahmen (Tilgungen)	„ 71,000	„ 221,000
II.	Verrechnungseinnahmen		
	a) antizipative Einnahmen: Voreinnahmen	DM 3,500	
	b) transitorische Einnahmen: Nacheinnahmen	„ 150	

* Erich Kosiol, Bilanzreform und Einheitsbilanz, S. 53.

c) kompensatorische Einnahmen			
1. Rückeinnahmen	DM 30,870		
2. Gegeneinnahmen	„ 700	DM	35,220
		DM	402,460

B. Ausgaben

I. Tatsächliche Ausgaben			
a) Barausgaben		DM	122,400
b) Kreditausgaben			
1. Schuldausgaben (Entstehung)	DM 133,500		
2. Forderungsausgaben (Tilgungen)	„ 80,000	„	213,500
II. Verrechnungsausgaben			
a) antizipative Ausgaben: Vorausgaben	DM 350		
b) transitorische Ausgaben: Nachausgaben	„ 22,000		
c) kompensatorische Ausgaben			
1. Rückausgaben	„ 170		
2. Gegenausgaben	„ 380	„	22,900
		DM	358,800
Saldo = Periodenerfolg (Gewinn)		„	43,660
		DM	402,460

This balance sheet is translated into English as follows:

Balance Sheet in a kineticform

A. Receipts			B. Expenditures		
I. Actual Receipts			I. Actual Expenditures		
a) cash receipts		146,240	a) cash expenditures		122,400
b) credit receipts			b) credit expenditures		
1. obligators' receipts (occurrence)	150,000		1. creditors' expenditures (occurrence)	133,500	
2. creditors' receipts (payment out)	71,000	221,000	2. obligators' expenditures (payment in)	80,000	213,500
II. Calculative Receipts			II. Calculative Expenditures		
a) anticipatory receipts (before-receipts)	3,500		a) anticipatory expenditures (before-expenditures)	350	
b) transitory receipts (after-receipts)	150		b) transitory expenditures (after-expenditures)	22,000	
c) offset receipts			c) offset expenditures		
1. back-receipts	30,870		1. back-expenditures	170	
2. against-receipts	700	35,220	2. against-expenditures	380	22,900
			balance = periodic income		43,660
		402,460			402,460

On the basis of the following contents of accounts, we can prepare the above balance sheet in a kinetic form.

cash and deposit

the beginning balance	2,450	cash expenditures	122,400
cash receipts	146,240	the closing balance	26,290
	148,690		148,690

obligator

the beginning balance	102,000	obligators' expenditures (payment in)	80,000
obligators' receipts (occurrence)	150,000	the closing balance	172,000
	252,000		252,000

goods

the beginning balance	25,000	after expenditures	22,000
back receipts	30,870	the closing balance	33,870
	55,870		55,870

accrued revenue

the beginning balance	400	against expenditures	380
before receipts	3,500	the closing balance	3,520
	3,900		3,900

creditors' and stockholders' equity

creditors' receipts (payment out)	71,000	the beginning balance	128,830
the closing balance	191,330	creditors' expenditures (occurrence)	133,500
	262,330		262,330

deferred revenue

after receipts	150	the beginning balance	320
the closing balance	340	back expenditures	170
	490		490

accrued expense

against receipts	700	the beginning balance	700
the closing balance	350	before expenditures	350
	1,050		1,050

A distinctive feature of Kosiol's accounting theory is the following point: Kosiol lays hold of a kinetic form of balance sheet as the original form. Separating between the balance sheet which rests on the basis of pure kinetic amounts (dy-

namic concepts of receipts and expenditures) —— Bewegungsbilanz and that which is grounded upon the pure stock amounts (static concepts) — Bestände-bilanz, the concepts of receipts and expenditures are purified by him. The dynamic concepts of receipts and expenditures mean the receipt and expenditure amounts as periodic kinetic amounts, and the static concepts mean the receipt balances and the expenditure balances as static amounts which result from balancing the kinetic amounts.

III Structure of Income Determination on the "pagatorische" balance sheet

In the pagatorische balance sheet, on the one hand the revenue receipts (Ertragseinnahmen) which belong to a period are calculated resting on the actual receipts of a period, while on the other hand the expense expenditures (Aufwandsausgaben) are done resting on the actual expenditures of a period, so the income determination with the pagatorische balance sheet consists of the above two accunting processes by which a periodic income is determined. This relationship of calculations is just the same as the Schmalenbachs theory and Walbs theory.*

Now, if we modify and reconstruct the kinetic balance sheet of Kosiol, we shall be able to prepare the following balance sheet.

The kinetic Balance Sheet after Modifying

Receipts	Expenditures
I. Actual Receipts	III. Actual Expenditures
1. cash receipts	1. cash expenditures
a) neutral-cash receipts	a) neutral-cash expenditures
b) revenue-cash receipts	b) expense-cash expenditures
2. credit receipts	2. credit expenditures
a) neutral-credit receipts	a) neutral-credit expenditures
b) revenue-credit receipts	b) expense-credit expenditures
II. Calculative Receipts	IV. Calculative Expenditures
1. calculative-neutral receipts	1. calculative-neutral expenditures
a) against receipts	a) against expenditures
b) back receipts	b) back expenditures
2. calculative-revenue receipts	2. calculative-expense expenditures
a) after receipts	a) after expenditures
b) before receipts	b) before expenditures

* cf., Erich Kosiol, Formalaufbau und Sachinhalt der Bilanz. In: Wirtschaftslenkung und Betriebswirtschaftlehre (Artikel in der Festschrift zum 60. Geburtstag von Ernst Walb) Leipzig 1940, p. 103–132.

Because the above shown balance sheet has a character as "eine pagatorische orientirete Erfolgsrechunng",* the revenue-receipts and the expense-expenditures are over-all determined and a periodic income is calculated as a balance of two factors.

Therefore, we shall be able to show the structural formula of the kinetic balance sheet as follows:

$$\{\overbrace{(\overbrace{I_{1a}+I_{1b}}^{\text{cash receipts}}+\overbrace{I_{2a}+I_{2b}}^{\text{credit receipts}})}^{\text{actual receipts}}+\overbrace{(\overbrace{II_{1a}+II_{1b}}^{\text{calculative neutral receipts}}+\overbrace{II_{2a}+II_{2b}}^{\text{calculative revenue receipts}})}^{\text{calculative receipts}}\}$$
$$-\{(\underbrace{III_{1a}+III_{1b}}_{\text{cash expenditures}}+\underbrace{III_{2a}+III_{2b}}_{\text{credit expenditures}})_{\text{actual expenditures}}+(\underbrace{IV_{1a}+IV_{1b}}_{\text{calculative neutral expenditures}}+\underbrace{IV_{2a}+IV_{2b}}_{\text{calculative expense expenditures}})_{\text{calculative expenditures}}\}=G \quad \ldots\ldots\ldots (1)$$

or,

$$(I_{1a}+I_{1b}+I_{2a}+I_{2b})+(II_{1a}+II_{1b}+II_{2a}+II_{2b})$$
$$=(III_{1a}+III_{1b}+III_{2a}+III_{2b})+(IV_{1a}+IV_{1b}+IV_{2a}+IV_{2b})+G \quad \ldots\ldots\ldots (2)$$

There remains the question of how an income is computed in such a structural formula as the above kinetic balance sheet.

According to the nature of receipts and expenditures for the income determination, the concepts of receipts and expenditures shall be distingushed into two kinds of categories: the neutral receipts and expneditures which do not affect an income and the revenue receipts and expense expenditures which affect an income. As already written, the neutral receipts and expenditures are called "zweiseitige oder wechselbezügliche Einnahmen und Ausgaben". The against receipts correspond always to the neutral-cash expenditures and the against expenditures do to the neutral-cash receipts, so the following formula comes into existence:

$$\{\overbrace{(\underbrace{I_{1a}+I_{2a}}_{\text{Wechselbezügliche Einnahmen}})}^{\text{neutral receipts}}-\overbrace{(IV_{1a})}^{\text{against expenditures}}\}=\{\overbrace{(\underbrace{III_{1a}+III_{2a}}_{\text{Wechselbezügliche Ausgaben}})}^{\text{neutral expenditures}}-\overbrace{(II_{1a})}^{\text{against receipts}}\} \quad \ldots\ldots\ldots (3)$$

Then, if the third formula can be recognized in the first one, the neutral

* Erich Kosiol, Betriebswirtschaftliche Gesichtspunkte zum Bilanzsteuerrecht, ZfB, 1952, S. 268.

receipts and expenditures will offset each other and be neutralized on the income determination. We can gain the following formula from (1) and (3) formula:

$$\{(I_{1b}+I_{2b})+(II_{1b}+II_{2a}+II_{2b})\}$$
$$-\{(III_{1b}+III_{2b})+(IV_{1b}+IV_{2a}+IV_{2b})\}=G \quad \cdots\cdots\cdots\cdots\cdots\cdots (4)$$

We must clarify the income calculating processes which lie in the behind (4) formula in the next place.

Subtracting the sum of neutral expenditures i. e. the neutral-cash expenditures (III_{1a}), the neurtal-credit expenditures (III_{2a}) and the against expenditures (IV_{1a}) from the actual receipts (I), we have the temporary revenue-receipts ($I_{1b}+I_{2b}$). In the next step, the temporary revenue-receipts are given a periodical limitation by the addition and subtraction of the various kinds of calculative receipts and expenditures. Namely, in order to reduce the pre-received sum of revenues into an unsettled condition on closing the books, such revenues are deducted from the revenue items concerned and further correspondingly from the actual receipts as back-expenditures. As a result, we will have basic revenue-receipts. Adding the additional revenue-receipts i. e. the after receipts (II_{2a}) and the before receipts (III_{2b}) to the basic reveune-receipts, we shall gain the entire revenue-receipts. We are able to reveal these relations in a formula as follows:

basic revenue receipts

$$\overbrace{(\underbrace{I_{1b}+I_{2b}}_{\text{temporary revenue-receipts}})-(\underbrace{IV_{1b}}_{\text{back expenditures}})}+(\underbrace{II_{2a}+II_{2b}}_{\text{additional revenue-receipts}})=\underbrace{RR}_{\text{revenue receipts}} \quad \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (5)$$

In the same manner, subtracting the sum of neutral receipts i. e. the neutral-cash receipts (I_{1a}), the neutral-credit receipts (II_{2a}) and the against receipts (II_{1a}) from the actual expenditures (III), we are able to gain the temporary expense-expenditures ($III_{1b}+III_{2b}$). In the next place, the temporary expense-expenditures are given a periodical limitation by the addition and subtraction of the various kinds of calculative receipts and expenditures. That is to say, so as to reduce the pre-delivered amounts of expenses into the pending conditions, such expenses are deducted from the expense items concerned and further correspondingly from the actual expenditures as back-receipts. Consequently, we shall have basic expense-expenditures. Adding additional expense-expenditures i. e. the after expenditures (IV_{2a}) and the before expenditures (IV_{2b}) to the basic expense receipts, we shall have the entire expense-expenditures:

$$\overbrace{(\underbrace{III_{1b}+III_{2b}}_{\text{temporary expense-epxenditures}}-\underbrace{II_{1b}}_{\text{back receipts}})}^{\text{basic expense-expenditures}}+\underbrace{(IV_{2a}+IV_{2b})}_{\text{additional expense-expenditures}}=\underbrace{EE}_{\text{expense expenditures}} \quad \ldots\ldots (6)$$

If we rearrange (4) formula into the forms of (5) and (6) formula, (4) formula will be modified as follows:

$$\{(I_{1b}+I_{2b})-(IV_{1b})+(II_{2a}+II_{2b})\} - \{(III_{1b}+III_{2b})-(II_{1b})+(IV_{2a}+IV_{2b})\}=G=RR-EE \quad \ldots\ldots (7)$$

or,

$$\{(I_{1b}+I_{2b})-(IV_{1b})+(II_{2a}+II_{2b})\} = \{(III_{1b}+III_{2b})-(II_{1b})+(IV_{2a}+IV_{2b})\}+G \quad \ldots\ldots (8)$$

This formula is simplified as follows:

$$RR=EE+G \quad \ldots\ldots (9)$$

As it is made clear from (7) formula, there are two accounting processes of which on the one hand the revenue-receipts are ultimately determined from the actual receipts, and on the other hand the expense-expenditures are also determined from the actual expenditures, in the structural formula of the kinetic balance sheet, so we see that the periodic income is decided as a difference between (5) and (6) formulas. Where we conceive the above facts, it is made clear that the kinetic balance sheet has a fundamental function which may determine the periodic income only from the receipts and expenditures in a pair of income statements. Accordingly, the income calculation on the kinetic balance sheet has a character of revenue and expense calculation (Ertrags- und Aufwandsrechnung) which may be performed with the receipts and expenditures.

We can show the above mentioned relationships in the following Schema.

Processes of Income Determination on the Kinetic Balance Sheet

Actual Receipts	Actual Expenditures
=Cash and credit receipts (I)	=Cash and credit expenditures (III)
−Neutral cash and credit expenditures in addition to against expenditures ($III_{1a}+III_{2a}+IV_{1a}$)	−Neutral cash and credit receipts in addition to against receipts ($I_{1a}+I_{2a}+II_{1a}$)
Temporary Revenue Receipts	Temporary Expense Expenditures
−Calculative neutral expenditures	−Calculative neuntral receipts
=back expenditures (IV_{1b})	=back receipts (II_{1b})

Basic Revenue Receipts	Basic Expense Expenditures
+Calculative revenue receipts	+Calculative expense expenditures
=additional revenue receipts ($II_{2a}+II_{2b}$)	=additional expense expenditures ($IV_{2a}+IV_{2b}$)
Current Revenue Receipts	Current Expense Expenditures

Current Income (or loss)

ON THE VALUE OF STOCK RIGHTS AND ITS SIGNIFICANCE IN CORPORATE FINANCE

Jiro ONO

I

A stock right is the preemptive subscription right given to existing shareholders for prior purchase of additional stock-issue in proportion to their holdings, because they must be given an opportunity to retain their proportionate control in the affairs of the corporation and their equities in the surplus must not be impaired, that is, their shareholders' rights must not be diluted in the additional stock-issue. So it is not always related to the subscription price, but usually the stock right is considered the existing shareholders' right to subscribe to additional stocks at a value considerably less than the current market price — especially in Japan, at a par value.

There are some important accounting and financial problems in regard to this right; whether the issue at a less value than the market price means a dilution of the existing shareholders' equity or not; what influences it has on the capital market; and how it may distort corporate finance, etc. But the most important one is how to appraise the value of a stock right which is the most essential factor for the solution of other problems.

In this report, referring to several sources, I shall try to consider two different theories on the value of stock rights and to consider, in connection with the acquired conclusion, the significance of stock right in the corporate finance of Japan.

II

On the valuation procedure of a stock right, theoretically there have been

two formulas, that is, one is the static (or substantial) valuation-formula and the other is the dynamic (or earning-power) valuation-formula.[1]

The static formula, which K. Bötcher insisted on and named "the mixed valuation-formula" in 1912, has been supported by many authorities of corporate finance theory in Germany and also in America, that is, K. Banse, E. Schmalenbach, J. I. Bogen, W. A. Paton, etc.[2]

The X Co., for example, with a certain number of outstanding stocks at a market price K per stock, offers shareholders the right to subscribe for N stocks of an additional stock-issue, at a price B per stock, for each A stocks held.

At this time, if the value of the stock depends on the market price, the total value of stocks is $A\cdot K+N\cdot B$ and the value of one stock after the subscription is $\frac{A\cdot K+N\cdot B}{A+N}$. Therefore, the value of stock rights for each A stocks is $N\cdot\left(\frac{A\cdot K+N\cdot B}{A+N}-B\right)$ and the value for each old stock is $\frac{N}{A}\cdot\left(\frac{A\cdot K+N\cdot B}{A+N}-B\right)$. So, the theoretical value of a right W can be represented by the following formula.

$$W=\frac{(K-B)N}{A+N} \text{ or } \frac{K-B}{\frac{A}{N}+1}$$

On the other hand, the dynamic formula which was brought forward by W. Mahlberg and was formulated by K. Theisinger and H. Sommerfeld,[3] is as follows.

The X Co., for example, with outstanding stocks of a paid-in value of E_1 and a profit ratio $D_1\%$ per stock (it is supposed that no part of the income has ever been retained), offers shareholders the right to subscribe for N stocks of an additional stock-issue, at a price E_2 per stock, for each A stocks held.

At this time, if the expected profit ratio of a new stock (new paid-in capital) is $D_2\%$ and the average rate of interest in the capital market (the rate of interest for capitalization) is $P\%$, the total value of stocks is $\frac{A\cdot E_1\cdot D_1}{P}+\frac{N\cdot E_2\cdot D_2}{P}$ and so the value of one stock after the subscription is $\frac{\frac{A\cdot E_1\cdot D_1}{P}+\frac{N\cdot E_2\cdot D_2}{P}}{A+N}$.

Therefore, the value of the stock right for each old stock W is represented by the following formula.

$$W=\left(\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}-E_2\right)\frac{N}{A}$$

Here, differing from the above mentioned, it is considered that the value

of a stock depends on its earning-power.

Thus, it has been pointed out that there are two opinions in regard to the valuation-procedure of a stock right. In the next place we will compare these two formulas resorting to Theisinger's example.

Note:

(1) W. Stricker; Aktienkapitalerhöhungen und Bezugsrechte, 1955, p. 62–p. 63.

(2) K. Bötcher; Das Bezugsrecht, ZfhF, 1911/12, p. 516, K. Banse; Die Berücksigtigung von Kosten und von Dividendenbeschränkung bei der Wertberechnung des Bezugsrechtes, ZfhF, 1928, p. 330, E. Schmalenbach; Die Aktiengesellschaft, 1950, p. 137, J. I. Bogen; Financial Handbook, 1954, p. 450, and W. A. Paton; Asset Accounting, 1952, p. 126–p. 130.

(3) K. Theisinger; Bezugsrechtsberechnung vom Ertragswert, Bank-Archiv, 1927, p. 175–p. 178, W. Mahlberg; Bezugsrecht und Bilanzkurs, ZfhF, 1920, p. 223–p. 237, and H. Sommerfeld; Die betriebswirtschaftliche Theorie des Bezugsrechtes, 1927, p. 51.

III

We shall suppose that X Co., with outstanding stocks of a paid-in value of \$1000 (E_1 in the above formula) and a profit ratio of 21% (D_1) per stock, offers shareholders the right to subscribe for 2 (N) stocks of an additional stock-issue at a price of \$2000 (B or E_2) for each 3 (A) stocks held, and that the rate of interest for capitalization (P) is 7%. So, at this time, if on the new paid-in capital profit ratios of 10.5%, 7% and 5% can be expected, the value of a stock right is respectively as follows.

In the static valuation-formula, no matter what the profit ratio of capital is,

$$W=\frac{2(3000-2000)}{3+2}=\$400$$

In the dynamic valuation-formula, if the profit ratio of new paid-in capital is,

$$10.5\%,\quad W=\left(\frac{100}{7}\times\frac{3\times1000\times\frac{21}{100}+2\times2000\times\frac{10.5}{100}}{5}-2000\right)\frac{2}{3}$$

$$=\$666\frac{2}{3}$$

〃 〃 7%, $W=\$400$

〃 〃 5%, $W=\$247.62$[1]

First it must be regarded that in the former the total value of stocks after the additional issue, which is represented by the sum of the market price of old stocks before the issue and the paid-in value of new stocks i. e. the substantial value of assets to be newly acquired, is assumed to coincide with the market price again. And here the value of a stock right is appraised by the value which

is transferred from the old stock to the new in consequence of the additional issue, that is, the difference between the value that shareholders keep in cash but for the subscription, and the value to be acquired from the subscription.

So, as far as this example indicates, having no connection with the profit ratio of capital, the value of a stock right is decided by the market price of the old stock and the paid-in value of a new stock.

Therefore, from the point of view that the market price of a stock is decided by its earning-power, this valuation-procedure logically has no consistency because it is partly dependent on the earning-power value and partly on the substantial value.[2]

From another point of view that the book value and the secret reserve reflect on the market price of stock, that is, in Banse's or Porterfield's opinion,[3] it is understood as a valuation-procedure of more substantial character.

Whichever point is adopted, in this formula we can point out an important fault that the earning-power of new capital is not directly taken into consideration.

Mahlberg and Theisinger, in regard to this fault, pointed out that in the static valuation-formula of stock right the substantial value of a stock is identified with its market price or the profit ratio of the new paid-in capital is supposed to be the same rate as the rate of interest for capitalization (the average rate in capital market), that, however, new capital has usually a higher profit ratio than the average rate, and that therefore the static formula can not be applied to any other than a limited condition[4] (the case of an expected profit ratio of 7% in the above example).

So, rejecting this formula, they brought forward the dynamic (or earning-power) valuation-formula.

On the other hand, as is indicated in the example, in the latter dynamic formula the value of stock after the issue is represented by the capitalized value of profit which is averaged in consequence of the additional issue, and the value of a stock right is appraised by the difference between this stock value and the paid-in value i. e. the capitalized value of a profit of the same rate as the rate of interest for capitalization (the average rate in capital market).

That is, the value of a stock right is the capitalized value of the difference between the profit that the existing shareholders can expect from the corporation, and the due profit that they can expect from the other investment of money to be paid-in, or the capitalized value of the profit that is to be lost by giving up the use of capital in the corporation.

Therefore, the higher (or the lower) the expected profit ratio of new capital is, the higher (or the lower) it becomes. If the expected profit ratio is under a certain rate (1.75% in our example), it even becomes negative.

So, it is pointed out that in this dynamic valuation-formula the expected profit ratio of new capital is directly taken into consideration. We must give regard to the important fact that the value of a stock right can be different according to the profit ratio anticipated in the future.

It must be next regarded that in the dynamic valuation-procedure an account can be given of whether the acquisition of stock rights is profitable for shareholders or not.

We shall try to consider the position of a shareholder's property in each case of the above examples.[5]

I. The case in which the shareholder subscribes for additional stocks.

In the static valuation-procedure

the position of property				profit
before the issue		after the issue		
3 stocks	$9000	5 stocks	$13000	$0
cash	$4000	@$2600		
	$13000		$13000	

In the dynamic valuation-procedure

the expected profit ratio of new capital	the position of property				profit
	before the issue		after the issue		
10.5%	3 stocks	$9000	5 stocks	$15000	$2000
	cash	$4000	@$3000		
		$13000		$15000	
7%	3 stocks	$9000	5 stocks	$13000	$0
	cash	$4000	@$2600		
		$13000		$13000	
5%	3 stocks	$9000	5 stocks	$11852	−$1148
	cash	$4000	@$2370.4		
		$13000		$11852	

II. The case in which the shareholder does not subscribe for and acquire cash from selling of stock rights.

In the static valuation-procedure

the position of property		profit
before the issue	after the issue	
3 stocks $9000	3 stocks•@$2600, $7800 cash $1200 (3 stock rights•@$400)	$0
$9000	$9000	

In the dynamic valuation-procedure

the expected profit ratio of new capital	the position of property		profit
	before the issue	after the issue	
10.5%	3 stocks $9000 $9000	3 stocks•@$3000, $9000 cash $2000 (3 stock rights•@$666.7) $11000	$2000
7%	3 stocks $9000 $9000	3 stocks•@$2600, $7800 cash $1200 (3 stock rights•@$400) $9000	$0
5%	3 stocks $9000 $9000	3 stocks•@$2370.4, $7112 cash $740 (3 stock rights•@$247) $7852	−$1148

This example indicates that in the static procedure an account is not given of how much profit the shareholder acquires from receiving stock rights because the profit ratio of the new capital is not taken into consideration, but that in the dynamic procedure the shareholder's profit (or loss) from the stock rights, depending on each of the expected profit ratios, can be computed.

So, Schmalenbach stated that it means an extra dividend to vest the shareholders with stock rights if the previous rate of dividend is still kept on after the issue.(6) That is, the shareholders acquire a profit from receiving the stock rights if the expected profit ratio of new paid-in capital is higher than the average rate of interest (the rate of interest for capitalization), and this fact can be taken account of only from the view-point of dynamic valuation.

This extra dividend of stock right is a pre-payment of profit in the future. (Because in our example it is supposed that no part of the income has ever been

retained. If retained, giving of stock rights may mean the dividend of the retained income as far as it exists.)

In other words the corporation must acquire a higher profit on the new paid-in capital than the average rate of interest in order to give the character of extra dividend to the stock right and to satisfy the shareholders.

Thus, the dynamic valuation-procedure has a very important significance. However it seem to me that there are some further problems to consider in this procedure. We shall try to examine these problems in the fourth chapter.

Note:

(1) K. Theisinger; ibid., p. 1766–p. 177.
(2) E. Schmalenbach; ibid., p. 138.
(3) J. T. S. Porterfield; Dividends, Dilution and Delusion, Harvard Business Review, 1959, Nov. — Dec., p. 56–p. 60, and K. Banse; ibid., p. 330.
(4) K. Theisinger; ibid., p. 175, and W. Mahlberg; ibid., p. 225.
(5) W. Stricker; ibid., p. 65, p. 68, p. 74.
(6) E. Schmalenbach; ibid., p. 134–p. 135.

IV

First, it must be pointed out that there are some uncertain factors in the dynamic valuation-formula.

Theisinger, recognizing the limit of the significance of his procedure, said "In the valuation of stock right by earning-power it is supposed that each profit in future periods can be calculated, but the exact measurement of these amounts may be impossible. It cannot but depend on the estimated or anticipated profits."(1) So the expected profit ratio in the future, which is the most essential factor in the dynamic formula, must be estimated, and that of each of the new and old capitals even if it has much uncertainty.

Besides, there is not given an account of whether the profit means a periodical net income or a dividend, and therefore what rate must be adopted as the rate of interest for capitalization is also not taken into consideration.

The dynamic valuation-procedure, in comparison with the static procedure, is dependent on these more uncertain factors which are determined by the subjective long-range anticipation,(2) and it brings much difficulty to the valuation.

Second, in this procedure it is supposed that the earning-power value of stock before the issue coincides with its market price, and that the latter never reflects the earning-power of new paid-in capital. Though it can be recognized that the market price of stock approximates its present earning-power value, the market price is rather determined by the relation between demand and supply,

on which not only the present but the future anticipated earning-power of the new paid-in capital always influences.

Therefore, though Theisinger and Mahlberg insisted on only the earning-power value and rejected the market price, from such a point of view a question may be brought forward; that is, is the static valuation-procedure essentially different from the dynamic valuation-procedure?

In other words, the dynamic valuation-procedure must start from the time when nothing is known of the additional stock issue — the time when the market price of stock is determined only by its then earning-power, being irrelevant to the information of the issue.

On the other hand, in the static valuation-procedure, the time of the highest market price of stock is taken as the starting point. At this time the market price may be much higher than the then earning-power value of old stock (if the expected profit ratio of total capital after the issue is much higher than the average rate of interest), as Schmalenbach pointed out the market price of old stock may reflect the effect of additional stock issue at once if the corporation is expected to be more profitable by means of the new paid-in capital.[3]

So Theisinger's criticism against the static procedure may lose its basis of argument.

Then, how high an amount may the market price of stock reach?

The X Co., for example with outstanding stocks of a paid-in value of E and a profit ratio $D_1\%$ per stock, offers shareholders the right to subscribe for N stocks of an additional stock-issue, at a price E_2 per stock, for each A stocks held.

At this time, if the expected profit ratio of the new paid-in capital is $D_2\%$ and the rate of interest for capitalization is $P\%$, the value of stock right W is

$$W=\left(\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}-E_2\right)\frac{N}{A}.$$

Because theoretically the market price of stock K is considered to reach such an amount that is higher by W than the earning-power value after the issue,

$$\begin{aligned}K&=\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}+\left(\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}-E_2\right)\frac{N}{A}\\&=\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}\left(1+\frac{N}{A}\right)-\frac{N}{A}\cdot E_2\\&=\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}-\frac{N}{A}\cdot E_2.\end{aligned}$$

Therefore K becomes higher than the earning-power value of stock before the issue by

$$\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A}-\frac{N}{A}\cdot E_2-\frac{E_1\cdot D_1}{P}=\frac{N}{A}\cdot\frac{E_2}{P}(D_2-P).$$

And the value of a stock right by means of the static valuation-procedure, if this K is inserted, is as follows.

$$W=\frac{\left(\frac{1}{P}\cdot\frac{A_1\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A}-\frac{N}{A}\cdot E_2-E_2\right)N}{A+N}$$

$$=\left(\frac{1}{P}\cdot\frac{A\cdot E_1\cdot D_1+N\cdot E_2\cdot D_2}{A+N}-E_2\right)\frac{N}{A}$$

The value of a stock right coincides with the result in the dynamic valuation-procedure. That is, the market has no sooner been informed of the additional stock-issue than the market price of old stocks begins to rise, and it will rise by the capitalized value of the surplus profit $\frac{N}{A}\cdot E_2(D_2-P)$ just before the issue of warrants —— the segregation of the preemptive subscription rights from stocks.

So in the static valuation-procedure which starts from the time just before the issue of warrants the market price of old stocks is already supposed to include the surplus earning-power value of new paid-in capital, and the paid-in value — the capitalized value of a profit equal to the average rate of interest has only to be taken into computation as another factor.

But because this market price appears just before the segregation of stock rights, the value computed by means of static procedure can be used only in very short periods during the time the warrants are circulating in the market, though the value can be computed by more certain factors in the market than in the dynamic procedure and shareholders are given a more reliable market value of stock rights.

On the other hand, from the point of a more long-range view, the dynamic valuation-procedure is considered to give the managements and the shareholders many kinds of useful suggestions in regard to stock right and to make the anticipation of a market price of stock possible.

As W. Stricker says "From the difference between both valuation-procedures only the limit of application of each procedure is brought. Only one procedure must not be determined to have general applicability,.....but these two procedures are the same in their substance",[4] we must recognize that though each of these two valuation-procedures has an individual application they are not substantially different, from the point of view that the earning-power value not only of the old capital but also of the new paid-in capital determines the market price of stock, that is, from the point of view that may be again

considered as the dynamic valuation-procedure in a wider sense.

Note:
(1) K. Theisinger; ibid., p. 178.
(2) W. Stricker; ibid., p. 70.
(3) E. Schmalenbach; ibid., p. 134.
(4) W. Stricker; ibid., p. 83.

V

As above-mentioned we have examined the natures of two opinions in regard to the preemptive subscription right i. e. the stock right and concluded, from the point of view of the dynamic valuation-procedure in the wider sense, that they are not quite different but the same in their substance though each of them has a different application.

And then we must point out that in our point of view of the dynamic valuation-procedure in the wider sense it is not other than the pre-payment of profits in the future to give the shareholders stock rights whether its value is computed by means of one of two procedures or the other.

Especially in Japan where additional stocks are usually issued at a par value considerably less than the current market price, but warrants are not segregated from stocks to circulate in the capital market, it has little significance to determine the value of stock rights as a fair market price from the more short-range point of view and it is considered to be rather necessary that we understand the nature of stock rights as the pre-payment of profits in the future from the more long-range point of view.

That is, in Japan it is more significant to give an account of the impacts of stock rights on corporate finance in the more long-range view-point of earning-power in the future.

It seems to me that there are some important problems to consider in regard to stock rights in Japan as follows.

As I mentioned above, it means an extra dividend and a pre-payment of profits expected in the future for a corporation to offer its shareholders stock rights. So the rate of the dividend of the stocks becomes higher than of such stocks that are always issued at the market price, and in the course of nature the former stocks become more attractive in the capital market.

In Japan additional stocks are usually offered to shareholders at a par value. The additional stock issue in form of an allotment to shareholders at a par value is, on the average during 1951～1958, 86% of the whole additional stock issue

(in ¥), though it is 29% (in $) in U. S. A.[1] And an investment in stocks is more profitable than in bonds. It seems to me that the profit ratios of some kind of stocks, including the acquisition of stock rights, become about 20%～25% in a year because after the war many corporations have often issued additional stocks in Japan. On the other hand the rate of interest of first class bonds is 7%～8%.

Though the profit ratio of stocks is usually considered to be higher by the rate of risk than the rate of interest of bonds, such a high rate is not always necessary. And moreover the investment in stocks has little risk in regard to inflation.

Therefore the financial convention in Japan that corporations offer their shareholders the right to prior purchase of additional stock-issues at a par value interferes with the equalization between the rate of interest in the bond market and the rate of profit in the stock market, gives support to the higher level of interest rate in Japanese capital markets, makes the development of the bond market more difficult, and gives cause to prevent preferred stocks or convertible bonds from prevailing in Japan because, besides the above-mentioned basis of argument, their equities may be diluted by the offering of the right to subscribe for additional stock-issue at a par value.

On the other hand, because the high profit ratio including the acquisition of stock rights is dependent on the pre-payment of the profits in the future, the managements of corporations must keep such a high dividend even after an issue that makes the market price of stock i. e. the expected profit ratio hold on, if they intend to reply to the shareholders' expectations.

That is, if other conditions are the same, for common stock capital is demanded a high profit ratio which can be acquired only by "trading on equity" or "financial leverage." However Japanese corporations cannot but be much more dependent on short term credits because other long term capital cannot be so used as in the U. S. A..

It is the reason why the current ratio and the capital structure in Japanese corporations are much worse than in the U. S. A.. Of course the offering of stock rights must not be considered as only one cause of the bad financial structure of Japanese corporations, but it seems to me it must be regarded as one of the most important causes.

Last, we must point out that the profit ratio including the acquisition of stock rights is much more speculative than the common rate of profit or dividend

of stock on account of its dependence on the anticipated profits in the future. The financial convention of the offering of stock rights have made the Japanese stock market more speculative than in its normal phase. The speculative character of the stock market will tend to prevent the capital of the Japanese people from participating in corporation finance and delay the democratization of the whole of Japanese economy though it is said that many people have joined the group of shareholders following the war.

Before the war most corporations in Japan were controlled and financed by several rich families i. e. so called "Zaibatsu", and then it was very significant for the corporations to offer their shareholders stock rights and to keep the Zaibatsu's controlling power, but whether the stocks were issued at a par value or at a market price is not so important because it didn't influence the capital market, the circulation of people's capital and the level of the rate of interest.

However after the war it is of little significance to retain the shareholders' controlling power, and the impacts of stock rights on the capital market and the corporate finance are rather important.

It seems to me that one of the most urgent things for us to do is to examine the nature of stock rights, to make a counter-plot to develop normal capital markets, and to improve corporate finance in Japan.

Note:

(1) I. Kawai; Kabushikikakaku Keisei no Riron (The Theory on The Market-Price-Formation of Stocks), 1960, p. 228–p. 231.

BUSINESS FEATURES AND MANAGEMENT POLICIES OF INDUSTRIAL ENTERPRISES IN LOCAL DISTRICTS OF JAPAN

Minoru BEIKA

I
Introduction

In dealing with the problem of the location of an industrial enterprise a careful consideration of the following two phases of the subject matter should not be lost sight of: viz., first, the locational features of an enterprise and, secondly the conditions of the locality or the regional characteristics for industries. Consequently, in a study of the location of a plant, on the one hand, a scrutiny of the conditions of the locality as well as its regional characteristics should be made. Further, on the other hand, a consideration of the business features and management policies in connection with such conditions of the locality and regional characteristics should likewise be made. However, with the so-called problem of the location of a plant it is usually the case that the former aspect is chiefly dealt with, while the latter is apt to be often ignored. From such a viewpoint an attempt will be made in the following pages to take a forward step in the elucidation of the situation as it actually exists in this country today in order to fulfill in a measure the objectives aimed at.

The industrial activities of Japan made a marked progress in recent years with the result that an excessive regional concentration in certain central areas ensued to such an extent that there is an urgent call for their adjustments and coordination. At the same time, in order to remedy the unbalance as a result of the regional expansion of economy much emphasis is being laid on regional developments with special reference to industrialization of the local districts.

Stated in other words, it has been proposed to effect a transformation of the regional structures of the current industries of this country to a more or less extent. It may be observed that such regional structures of industrial enterprises are the results of the natural growth in the industrial development of Japan.

At the same time, in the course of this development, the business features and the distinctive characteristics of their management policies have also been naturally built up on the basis of such regional structures. It is believed that a comparison of the regional characteristics of the various industrial enterprises in Japan with those of similar enterprises in European countries and in the United States will make the situation existing in this country clearer.

From such a viewpoint it is proposed to review the situation of the various industrial factories of a considerable scale in the local districts of Japan, where large factories are exceptional, as well as their special features and management policies.

In another paper, the writer made an attempt to deal with the regional characteristics of enterprises in their relation to business features.(1) In the concluding part of the paper, seven typical types were formed from 75 kinds of industries in 1956. For convience' sake the general types of industries will be shown in the list which follows, viz.:

Type No. 1 comprising those industries which are centralized in the central industiral areas (various kinds and scales of industrial plants are intermixed), including chiefly machinery industry, electrical machinery industry, precision machine industry, etc.;

Type No. 2 comprising those industries consisting chiefly of large sized plants located in the central industrial areas as well as those existing in local districts, and including chiefly iron and steel works, non-ferous metal works, shipbuilding yards, cotton spinning mills, chemical fiber plants, petroleum refineries, etc.;

Type No. 3 comprising market-oriented industries consisting of medium-sized plants, and including chiefly manufacturers of pharmaceutical supplies, rubber goods, glass, organic industrial chemicals, sugar, etc.;

Type No. 4 comprising those industries consisting of local market-oriented or material-oriented medium-scale plants, and including chiefly paper mills, manufacturers of agricultural machines, and of ropes and nettings;

(1) Refer to "The Spatial Characteristics of Industries Relative to Their Business Features" —The Kobe Economics & Business Review 2, 1954.

Type No. 5 including such localized industries as small and medium-sized manufacturers of potteries, china wares, and weavers of broad-cloth fabrics;

Type No. 6 including market-oriented industries consisting of small-sized plants — omitted here;

Type No. 7 including local material-oriented industries consisting of small-sized plants — omitted here.

In this paper metal working and machine industries belonging chiefly to type No. 1 and type No. 2 as above-noted will be dealt with. In this connection it should be noted especially that the machine industry, electrical machines and appliances making industry, existing in the central areas, belong to type No. 1, while the iron and steel industry, non-ferrous metal refining industry, shipbuilding industry, which exist both in the central industrial areas and in the local districts, belong to type No. 2. It is to be noted further that the former group of industries has oriented to their market in the central areas, and, at the same time, it is worthy of note that there exists a high degree of mutual dependence, which gave rise to their concentration in the central areas. In the case of the latter, it may be pointed out that they exist due to their special locational conditions of the localities respectively. In this article, the metal working and machine industries located exceptionally in the local districts far away from the central industrial regions of Japan will be dealt with on their actual conditions. It is believed that the consideration of their developments will throw light on the problem of the industrialization of the local districts, from an angle of business conditions, management and business policy. Besides it will enable us to make an observation on the key point of the fundamental problem of the location of enterprises.

II

Actual Conditions of Enterprises Located in Local Districts in the Metal Working and Machinery Industries

The medium and small-scales and other petty firms of the metal working and machinery industries will be ignored here because they are largely included in types No. 6 and No. 7. Accordingly in the following pages chief emphasis will be placed on No. 1 and No. 2 types of industries.

According to the Establishment Census of Japan for 1957, the number of metal working and machinery plants each having 300 employees or more accounted for 810, of which those located in Kyushu, Shikoku, Chugoku and the

Northeastern regions, consisting of a total of 22 prefectures and the island of Hokkaido comprised 129 plants, which amounted to only 15.9% of the total number of such plants for the entire country, while these regions comprise 63.3 % of the entire territorial area of Japan, and compared on the basis of population, these regions comprise 43.9% of the total population of Japan. It will thus be seen that their relative importance is exceedingly small. It will be as shown in the following table:

		Total No. of plants each with 300 Employees or more for the Entire Country	Ditto for local areas (22 Prefs. & Hokkaido)	
I	Type No. 1 concentrated in central industrial areas (Machinery Industry, Electrical Machinery Industry & Precision Machine Industry.)	402	50	12.4%
II	Type No. 2 concentrated in central industrial areas & local industrial regions combined. (Iron & Steel, Non-ferous Metals, Transportation Machinery Industries.)	370	73	19.7%
III	Others-metal products industry (chiefly type No. 6)	38	6	15.8%

It may be noted in the above table that the relative importance of the plants comprising chiefly of machinery industry, electrical machinery industry, precision machine industry, etc., whose degree of processing is high, is exceedingly small in the local districts. But, as the problem about the characteristic aspects of the regional structures of these industries and their business features will be dealt with in other paper, their consideration here will be dispensed with.

It will be apparent from the foregoing fact that at least regarding the regional development and rural industrialization of Japan, the consideration of the business features and of management policies together with the improvement of the conditions of industrial location of undeveloped areas is imperatively required. It is to be observed that this improvement of the locational conditions for industries is playing an extremely important role in such industries as the iron and steel, non-ferrous metals refining, and transportation industries and in the various chemical industries, etc., belonging to type No. 2, and it is also con-

tributing more or less to the promotion of industrialization of local districts in recent years. It should be noted further that in the modernization of the industrial structures of Japan, its developments, and also in the industrialization of the local districts, the various industries belonging to type No. 1 should not be ignored. It will be impossible to explain in this instance the problem without making the consideration on the business features and management policies relative to the special characteristics of the locatilies.

	Iron & Steel	Non-ferrous Metals	Metal Products	Machinery	Electrical Machinery	Transportation Machinery
Prefectures in the *Kyushu Region:*						
Kagoshima						
Miyazaki						
Oita		2		1		
Kumamoto				2		
Saga				1	1	
Nagasaki	1				1	3
Fukuoka	8	4	3	6	6	
Shikoku Region:						
Kochi				2		
Ehime		4		3		1
Kagawa		1		1		1
Tokushima						
Chugoku Region:						
Yamaguchi	3	2		3		5
Hiroshima	2	1	1	5	1	13
Okayama		1		3		2
Shimane	1			2		
Tottori			1			
Hokkaido Region:	2		1	2		2
North Easter Region:						
Aomori						
Iwate	2				1	
Akita		1				
Miyagi	1	1			1	
Yamagata	2			2	1	
Fukushima	1	2		2	2	

From such a view point, in the present survey, it will be, at any rate, a forward step to investigate the business features and management policies of the major factories which are found exceptionally in the local districts. Consequently, emphasis has been laid chiefly on those industries belonging to the industries of the type No. 1 and, at the same time, the industries of the type No. 2 also are to be considered, since some of them have problems more or less akin to those of type No. 1.

From such a standpoint as above-mentioned, if a summary statement were made of the metal working and machinery industries (each having 300 or more employees) in Kyushu, Shikoku, Chugoku and the Northeastern regions comprising 22 prefectures and Hokkaido, outside the sphere of the cental industrial areas of Japan, the results will be as shown in the foregoing table.

Regarding the chief enterprises and plants shown in the preceding table, consideration of the subject matter will be on the business features and management policies relative to their regional characteristics. As regards the data available in this instance, it was the result of on-the-spot investigation made by the writer. They are also based upon certain materials furnished by the various companies. However, since the data on hand are limited, besides as the on-the spot investigation of the principal plants had to be made hurriedly, the investigation is necessarily incomplete. As it is thought that it will be possible for the writer to obtain a clue to further study on the subject, he hopes to make a systematic investigation of the actual conditions at a later date.

III

Reasons for Establishment of Plants in Local Districts

It will be noted that the plants for metal working and machinery industries of large and medium-scale with 300 or more employees each are located chiefly in the central industrial areas of Japan, and that these plants are of highly consentrated type. However, there are about a hundred of plants of these industries in the Kyushu, Shikoku and Chugoku regions and in the Northeastern region and in Hokkaido. Viewed from their regional chracteristics, as the whole, they may be said to represent a special category as an exception. But if readjustments in the regional distribution of plants would be one of the objectives of the policy of location of industrial plants in the current situation of Japan, a consideration on the business features and policies of these various plants now existing as an exception, would provide one method of approach to the solution of the problem.

At the same time, it will also serve to enlighten us in the elucidation of the essential problem of the location of industrial plants relative to the study of the business features and policies. In this sense, the writer wishes to pursue further consideration of the principal plants now exsiting in the local districts as exceptions.

From a perusal of the list of various plants shown in the preceding table, it may be noted that there are a large number of plants which depend for their raw materials and other supplies upon the localities, in some degree, in which the various plants are located. At the same time, it should be noted that the degree of their dependence on local supply is rather low. A detailed treatment of the situation will be deferred to later. The actual conditions of the various enterprises will now be taken up. Let us proceed on the survey of their historical developments and on their present status relative to their management policies.

1. Reasons for Establishment of Local Enterprises

Upon taking a glance at the reasons for establishment of the various enterprises such as the iron and steel works, non-ferrous metal works, and shipbuilding yards, which belong chiefly to type No. 2, it may be noted that in the case of a considerable number of these enterprises the conditions of locations as, for instance, accessibility to raw materials and other special circumstances played an important role. As regard the various works like the machinery and electrical machinery plants, which belong principally to type No. 1, it may be noted that many of these plants owe their establishment to the presence of vitally related enterprises like the mining industry in the same area, or due to the local markets. These then are the features that stands out conspicuously in the establishment of these industrial enterprises. To begin with, let us consider the latter or allied industries or proximity to local markets, viz., those which are due to the market-oriented conditions in the broad sense of the term.

(1) Establishment of Allied Industries.

More than any others there are the cases related to the mining industry, especialy those that owe their establishment to historical developments as a branch for making their own machines.

As instances of enterprises allied to manufacturing industries the following may be cited: an electrical machinery plant and a machine plant in Kyushu, industrial machinery plants in Chugoku and Hokkaido. A certain number of industries related to shipbuilding (in Nagasaki and Hokkkaido); besides a number of industries related to chemical fibers are found in the Chugoku. However, in the Chugoku and Kyushu, despite the fact that there are leading shipyards

for the shipbuilding industry, it should be noted that the metal working and machinery industries of more than medium scale which were established in their environs and relying directly upon them are but few in number.

(2) Plant Establishment Due to Marketing Potentiality of Local Districts.

a) As one of the fields in which an industrial plant had its origin in the marketing potentiality of the locality may be mentioned the agricultural machinery industry. A considerable number of medium and small scale agricultural machinery plants was established widely dispersed in the various places of the country. But as it will be mentioned later, some of these plants have expanded their marketing activities in recent years. As a result of wide expansion in the scale of their business, as certain number of these enterprises are fast emerging in their new aspects by sloughing off their former characteristics of medium and small scale enterprises. Among these agricultural machinery plants each having 300 or more employees in the Chugoku, Shikoku and Kyushu shown in the preceeding table, a certain number may be cited as typical examples.

b) Another field in which the basis of plant establishment may be attributed to marketing potentiality in the historical development is the establishment due to increased demands from the local markets. With the intensification of competition, large-scale branch plants were established in the centers of local markets throughout the entire country. Among the foodstuff and other consumer goods industries there is a marked tendency in this direction throughout the country in recent times. Among the machine industries also an electrical machinery industry in Fukuoka prefecture in the northern Kyushu may be cited as an instance.

(3) Plant Establishment Due to Availability of Raw and Processed Materials and to Special Conditions of Location.

It is needless to state that in the cases of the iron and steel works and of non-ferrous metal refining plants, the chief bases of establishment were the availability of raw-materials existing in the locality or an easy means of transportation in the acquisition of raw-materials. Consequently, generally speaking, it may not be said to form an exceptional case of establishment in the local districts though it is exceptional in the case of the machinery and electrical machinery industries. Among these plants, the development of some iron and steel works in the northern Kyushu with the Yawata Iron and Steel works as the center and two iron and steel works in Muroran, Hokkaido, stand out conspicuously as showing the basis of establishment in the development of the mining industry

and in the exploitation of Hokkaido.

The fact that the Chugoku and Kyushu regions are the central areas for the shipbuilding industry may be cited as instances of establishment based upon the original existence of the special conditions for shipbuilding which these regions possess.

(4) Other Bases of Establishment (war-time plant dispersals, etc.)

In the various local districts there is a considerable number of plants, belonging to machinery and electrical machinery industries, which has arisen out of the demands for expansion of plant facilities or due to plant dispersals during World War II; these dispersed plants have continued to exist in their dispersed sites. Then, the reversionary uses to which some of these plants were put became the direct bases of establishment.

The plants mentioned above are of a considerable scale in the metal-working and machinery industries. Such is the overall situation of the establishment of the various industries in their respective localities at the present time.

From the foregoing we are enabled to note the bases of establishment of a rather small number of the machinery and electrical machinery plants, which have the local markets as their targets along with the mining industry as an allied industry together with those that have their bases of establishment in the war-time plant dispersal. Further though reference will be made later, viewed from the standpoint of their present business conditions, the relative importance of the industrial machinery departments in the shipbuilding plants and rolling-stock plants have gradually increased, due to decreasing orders for their original business received by them. In so far as this phase of the matter is concerned, it may be said that they are having the same locational characteristics as the machinery and electrical machinery plants in local districts.

The foregoing represents the view on the bases of plant establishment chiefly from the standpoint of its business. It will be advisable naturally to make a side-view consideration from the standpoint of capital.

In the machinery and electrical machinery plants, etc. belonging to type No. 1 industries, and existing as an exception to the regional structure of the industries of Japan, there is a number of enterprises, which stands out conspicuously as tracing its historical development to local capital. Many of these plants are found in the mining and allied industries and the agricultural machinery industries, and their developments today is quite noteworthy.

In contrast to the above, there are a certain number of industrial enter-

prises belonging to type No. 2, such as the iron and steel works, non-ferrous metal plants, and shipbuilding yards, which have the characteristics of the primary, central industrial regions as well as of local industrial regions. It is significant that many of them trace their historical developments to establishment by the old Zaibatsu affiliated enterprises and nation-wide enterprises or directly or undirectly by the national government during the mid-Meiji era. It is interesting that, while some nation-wide enterprises established their plants belonging to Type No. 2 in these local districts by selecting their sites among broader areas, the local representative enterprieses by local capital established necessarilly in their districts their plants, chiefly belonging to Type No. 1, and have endeavered to exist by their management policies.

2. Present Business Features of the Industrial Enterprises and Plants in Local Districts

The industrial enterprises and plants in local districts above stated, now depend upon the different conditions or the different business features from their original or historical conditions to locate. They have developed by their management policies to adapt internal and external changing conditions.

(a) Some enterprises and plants which started originaly as the machine department of the mining enterprises, or as the parts maker of the shipbuilding industry in local districts, now depend on chiefly nation-wide market. A few electrical machine maker, and one machine maker in Kyushu are representative examples.

(b) Particularly in the case of the shipbuilding industry, belonging to type No. 2, it may be noted that, due to the current stagnation in the shipbuilding industry, and in order to stabilize the normal volume of business a policy of increasing the relative importance in the field of industrial machinery is being pursued generally. Therefore the locational characteristics is approaching to type No. 1. In certain rolling-stock manufacturing plants, from a similar standpoint, industrial machinery department is occupying about half of their productions.

(c) In the case of the various enterprises mentioned in the preceding table, the agricultural machine industry, which has the markets of the agricultural communities as its target and which are found throughout the country today, has the entire country as its marketing outlets in so far as the threshing machines, the rice-hulling machines, the automatic power cultivators are concerned. It may be noted especially that a certain number of these enterprises is growing up to large-sized enterprises through a process of sloughing off from their business status of local medium and small scale enterprises.

(d) In the enterprises belonging to type No. 2 industries especially the iron and steel industries, although many of these industries had developed, historically speaking, with dependence on locally procurable raw materials, the historical significance of the location of plants is almost negligible due to the changes in the quantitative developments, changes in the marketing situation, and likewise through changes in the structure of the respective industrial plants.

Be that as it may, we might cite the cases of the iron and steel works of the Sanin and the Northeastern districts, which rely upon the iron sand resources of the respective localities, as showing the cause of their historical developments. At present, however the relative importance of the dependence upon the raw-material resources is rather small. The existence of those plants which rely upon the specialization of products, such as the special steel, may be cited as typical examples. Moreover, in the case of those that belong to these types, it is needless to state, that the degree of dependence on the local markets is lower than that of the type No. 1 industries.

(e) The communications machinery and their parts plants of the Northeastern district being originated as the dispersed plants in their historical developments have existed from their very biginning as the so-called foot-loose industry. But in the midst of a high degree of centralization of these varieties of industries of Japan, which are concentrated especially in Tokyo and its environs the North-eastern district is also an exception. This is a point which should be noted in the location of industrial enterprises as well as of the conditions of business.

(f) Consequently, it follows that the metal and machinery plants of a considerable scale, chiefly depending on the local markets, are small in number in so far as the above-noted table is concerned.

As it may be seen from the foregoing if one were to view the situation of the enterprises now extent in these local districts, it will be noted that, inspite of their historical developments their relative importance on the basis of the local raw materials available or on the basis of the local marketing potentiality is low, in comparison with the markets of the entire country and with the raw and processed materials in other wider areas.

These are existing as exceptions in such industries as the metal working and machinery industries, chiefly belonging to type No. 1 which has concentrated in the central industrial districts. The management policy to cope with such a situation, or the means of surmounting the so-called spatial limitations, necessarily pose a problem, which is the subject of what follows in the following pages.

Further, as already mentioned, in such industries as the manufacture of chemical industrial products, the foodstuffs and a number of certain other consumer goods, a tendency has been discernible in recent years, that some medium and large sized plants have been established in local districts, but to an increase in the purchasing power in the local markets as the center. Such cases are found also in type No. 3 industries, which comprise the medium scale enterprises with the marketing potentialities as the target, and in type No. 6, of small scale industrial enterprises with the marketing potentialities as the target. But few medium and large-sized plants in the machinery industry depend on chiefly in local marketing potentialities. It poses one of the problems in the regional industrial development.

IV

Management Policy of Medium and Large Sized Enterprises in Local Districts

It is generally expounded in the study of the conditions of location of industry, that most industrial plants are enable to exist depending upon the traditional forces formed in the changes of time or economic inertia, even if the original locational conditions for them had either been diminished or ceased to exist entirely due to the internal and external changes. However, such is the case when an enterprise or plant is viewed from an objective viewpoint; but when an enterprise is viewed subjectively, it will be found that traditional conditions for industrial location have not been naturally formed to a large extent, but it is backed by the cumulative effects, directly or indirectly, of management policy, which tries to adapt to the changing conditions, and to surmount the spatial limitations.

Therefore, what kind of management policy is to be pursued in order to surmount the problem of the spatial limitations? From such a viewpoint, an attempt will be made in the consideration of the various industrial enterprises and plants as above noted.

(1) Specialization of Products

That one of the means of surmounting the spatial limitations in regions far from the marketing centers is the specialization of products as it has often been pointed out. In the areas under consideration, a number of pertinent cases may be cited. Such an instance may be seen in a steel works with the rotors for turbines as its chief products of some steel works in Nagasaki in the extreme

western part of Japan; and as if in parallel with it, there is a steel works in Hokkaido with facilities for making various large-type machines in the extreme northern part of Japan. The latter works are engaged in steel making, shipbuilding, large-type special accessaries for the various industrial machinery as its principal products, and with the various large scale engineering facilities of war-time munitions production era as the basis. The above noted two works are receiving orders from the central industrial areas of Japan on an almost exclusive basis. The instances cited are significant in that they are the makers of heavy industrial machinery products, although they are supported by an easy means of marine transportation, and moreover, although their manufacturing process which are accompanied by a few loss in weight in the course of their manufacture from raw materials. Also a machine tool manufacturer in Kyushu, where, it is only one in the tool manufacturing industry, is engaged in the manufacture of large-type machine tools, which require more than fully half a year to manufacture, are receiving orders from central industrial districts. The same may be said of the special steel works located in the Northeastern district and in the Sanin districts.

Then, the agricultural machine enterprises in local districts also, try to take the semi-monopolized market for them by forming their branded products. It may be said to be an effective means in the implementation of its management policy. A certain number of these enterprises, based on such a premise, is emerging as large-scale enterprises from their current status of medium and small scale enterprises.

(2) Specialization of Plants

A policy of specialization of products brings about specialization of plants to a certain extent. To this category belongs such enterprises as the manufacturing plants for electric appliances, communications equipment, and allied plants. This too provides an effective means of surmounting the regional limitations. Many of the allied plants for electrical applicances, as noted above, belong to this category. An electrical machinery plant in Kyushu in particular, which marked a turning point in its management policy of specialization into motor manufacturing from the manufacture of diverse different products may be cited as a case in point.

The retarded development of allied industries in the environs of shipbuilding yards, which are coordinated assembling plants of the localities, pose a problem from the viewpoint of the regional development. This fact presents a problem,

on the one hand, from the viewpoint of the management policy of the main shipyard, and at the same time, its cause is to be sought in the fact that the allied plants could not be made to forge ahead in the direction of plant specialization, on the other hand.

However, such a policy of plant specialization has a tendency which should be especially noted to make it feasible to conform to the market requirements with the changes of time. At the same time, it is frequently the case also in the expansion of the business sphere which aims at a higher plane from the specialized plant when it is a sole enterprise. It often happens that fairly difficult problems of management are encountered in the course of manufacture and sale of its products.

(3) Argumentation of Technical Developments

It is apparent that the problem of the spatial limitations can be surmounted only when specialization of products is carried out in conjunction with argumentation of technical developments. Some business leaders in such local enterprizes above stated have heretofore concentrated its energies in the manufacture of home-made products, a field in which Japan had till lately depended chiefly upon imports, or upon self-supply for such equipment as the mining machinery, or on the desire for introduction of technical innovations, etc. But technical development policy should be accompanied by management policy to realize the industrialization. It is found that some local enterprises failed to develop their potentialities due to lack of the management policy, in spite of their original merits in their industrial world.

(4) Forming and Maintaining the Marketing Route:

Marketing activities are very important for the enterprises and plants in the local districts. Necessary marketing activity of such enterprises and plants is not the simple selling technics or selling strategies, but generally to form and maintain their marketing routes or outlets. Because they are considerably distant from the central markets in our country. Some successful cases are formed among the enterprises and plants above stated.

In the distant localities far from the central distributing outlets the spatial limitations as above-noted have been surmounted thereby. Regarding the agricultural machines, it may be noted that the security and expansion of markets have been effected through the channels of the system of farmers' associations. There are not a few instances in which the security of the marketing outlets have been achieved by means of systematic arrangements with the special principal

enterprises in the central industrial areas.

(5) Intensification of Management Activities and Improvements

Though it is generally recognized that the improvements in the activities of management is a subject on which much stress is being laid, the management improvement should be emphasized in the cases of plants located in distant localities far from the central industrial area.

Though there are not a few enterprises in the localities, which have the local markets and allied industries of the localities as the targets, many of them are medium and small scale enterprises, of which a small number have achieved the status of fair-scale enterprises. Though the developments of such firms have been considerably retarded by the spatial limitations in the conditions of location, such spatial limitations also bring about exclusive characteristics of the localities for the small-scale enterprises by bringing about an attitude of management from a force of habits as a result of the lack of will for an enterprise. One of the reasons for the belated progress in the industrialization of Hokkaido is found here.

Some of the electrical machinery plants located in Kyushu, perceiving the management attitude from their force of habits based upon these regional characteristics, carried on investigations into the manufacturing phase of their products. As a result of analytical studies it was shown that the results achieved in a 10 month production period as theretofore could be shortened to 6 months. Such an example cannot fail to furnish a good proof as an importance the management effort in the present-day industrial enterprises in the local districts.

When the shipbuilding and the rolling stock industries are fast advancing into the spheres of industrial machineries as it has been in recent years, it is necessary for them to effect improvements in the activities of management in order to enable them to survive in the competitive markets in the production of the various products in small quantities. Such being the case, it is so different from the dominant position as regards the location of plant they had formerly enjoyed.

(6) Management Policies Towards Allied Sub-Contract Plants

The above-noted improvements in the activities of enterprises must not be overlooked in the policies to be pursued the allied sub-contract plants. Among the sub-contract plants now existing in the distant localities far from the central industrial areas, those that could be utilized effectively are few in number in contrast of the fact that the industries in the central industrial area must naturally rely on the allied plants to more or less extent. In so far as such a situation exists in the local districts, it follows from force of their habits that the limi-

tations due to the regional differences in their manufacturing and sales activities could not be avoided. As a consequence, they are naturally bound to pursue a policy of setting up and fostering their sub-contract plants in the localities, or to resort to a policy of expansion of parts making in their own plants. Moreover, their sub-contract firms are not considered to be a "cushion" in the vicissitudes of economy, due to the very nature of the local market as it is the case in the central industrial areas. There are a number of instances in the machinery and electrical machinery industries, on the contrary, which have pursued a positive policy of fostering their sub-contract plants; and there is a demand for promotion of the improvements in their activities for modernization of management.

(7) Problems of Sloughing off Medium and Small Scale Enterprises

There is some of medium and small scale enterprises in the local districts having local market as their targets, which is undergoing a process of sloughing from their present status of the medium and small scale enterprises. The sloughing process may be attributed to their superior management policy of effecting technical, managing and marketing improvements. The significance of this basic policy which brought about this state of affairs is worthy of special commendation.

Such policies necessarily should include effective use of able personnel, strengthening of organization and getting out of primitive management by the family ownership.

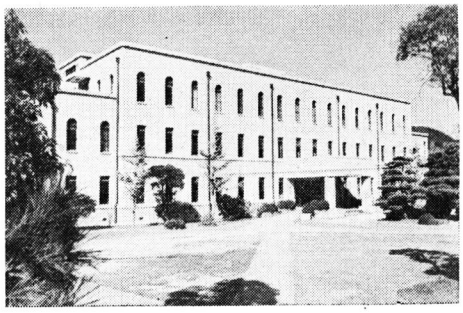
It is very difficult to establish such management policies by the business men who were the founders of the medium and small scale enterprises in the local districts. But a certain number of instances may be cited in which those difficulties have been surmounted. Considered as a problem of the medium and small scale enterprise it merits a special attention.

By the above-stated general survey on the management policies of the medium and small scale enterprises with the limited materials available, it will be noted that it covers the whole range of management policy, such as the products, technical innovations, sales, allied plants, supervision and the basic management attitude. Through a combination of these various factors distinctive conditions of business may be created which will meet the requisite conditions of the locations of enterprises. At the same time a management policy which will be able to cope with the changes in the internal and external conditions arrest out attention.

V
Conclusion

The problems of the local industrialization for regional developments with which Japan is confronted today, namely, the problem of changing an excessive concentration of industries and their regional structure, that of the business features and the management policies of enterprise now existing in the localities as an exception, must not be overlooked. These problems might have been made clearer to some extent as the result of this short survey.

THE RESEARCH INSTITUTE FOR ECONOMICS AND BUSINESS ADMINISTRATION, KOBE UNIVERSITY.



The Institute was founded in 1919 and attached to Kobe University (the Kobe Higher Commercial School at that time) with an endowment fund from F. Kanematsu & Co., Ltd., the pioneer firm in Japan-Australia trade. This fund provided the school with a building and the means to carry on research work. In 1949, the Institute became an official organization attached to Kobe University, maintained by the national treasury.

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Besides these regular research sections, we have horizontal study groups closely related to the regular research sections to carry on special research work by a Committee of Specialists. In the field of international economy, two committees for special study, the Committee on Asian Economy and the Committee on Latin American Economy, have been organized; and in the field of business administration the Committee on Company Accounting has been formed. The said special research work is carried on by the faculty of the Institute and by extra-Institute and extra-University research workers.

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