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9th

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THE RESEARCH INSTITUTE FOR
ECONOMICS AND BUSINESS ADMINISTRATION
KOBE UNIVERSITY

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PROBLEMS IN PORT ADMINISTRATION AND FINANCE IN JAPAN

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I

Administrate forms of ports and harbors throughout the world vary widely according to the countries or districts, and some ports are administered under very complicated systems which can not be found in other public organizations or private corporations. World ports administered under systematically unified organizations in management, control and operation, are very few. This is specially so in Japan, at the present state, where principal ports have no single supervisory organization responsible for all parts of port administration.

Until the end of the War the principal ports were owned and governed by the National Government, and as a governmental agency the Custom-House (Ministry of Treasury) had complete supervision over all ports. Since the decline of the War (1943), the Regional Shipping Bureau (Ministry of Transportation) had generally administered each port in place of the Custom House for over seven years, when the Custom-House executed its rôle only as collector under the command of the Shipping Bureau. In 1950, a Law of Ports and Harbor was enacted and a new administrator fixed other than the National Government, that is, a local government (prefectural or municipal) or a port authority (public corporation). But in reality, the new port-administrators have control over only a part of port administration; that is, the development of ports and the operation of facilities which belong to themselves and are entrusted to operate by the National Government, while other functions and activities are controlled by the agencies of the National Government. This fact is shown in the Table 1.

The complicated condition of port administration in Japan can be accounted for historically. Since the overall opening of ports at the beginning of the Meiji Era, port administration had been undertaken as a duty of the Imperial Government, for the reason that a port of entry was considered an institute for diplomacy and a source of national revenue. Thus, the Custom-House was the principal agency of the national government and the collector was the head of port administration; all other national organs and

Table 1. Competent Authorities in the Principal Ports in Japan

Competent Agencies	Governments	Business
Local Government or Port Authority	Municipality, Prefecture or independent Corporation	Development, management and control of ports except those under the domination of other organs.
Regional Bureau of Shipping	Ministry of Transportation	Development, improvement and control of port transportation, shipping, warehouse, etc. Business regarding crew and pilots, ship-buliding and ship overhauling.
Custom-House	Ministry of Treasury	Clearance and inspection of imports and exports. Collection of Custom duties and tonnage. Control over the sea-going ships.
Control Office over Entance	Ministry of Justice	Control over entrance and landing of foreigners.
Regional H.Q. of Maritime Safety	Ministry of Transportation	Maintenance of peace and order of maritime traffic. Salvage and life-saving.
Port-master	Ministry of Transportation	Pratcice of port regulations.
Quarantine Station	The Ministry of Public Welfare	Practice of quarantine regulations for ships, cargoes and people entering ports.
Sanitary police for foodstuffs	The Ministry of Public Welfare	Inspection of foodstuff to be imported and exported.
Quarantine Station for Animals	Ministry of Agriculture and Forestry	Quarantine on Animals and their carcasses, bones, hairs, etc.
Quarantine Station for Plants	〃	Quarantine on plants imported.
Foodstuff Office	〃	Control over the imported foodstuff.
Regional Bureau of International Trade and Industry	Ministry of International Trade and Industry	Improvement and adjustment of exports. Control over foreign exchange. Practice of export insurance.
Regional Brueau of Radio Wave Control	Ministry of Postal Services	Control over wireless communications.
Regional Bureau of Land Transportation	Ministry of Transportation	Control over land transportation facilities.
Regional Office of Land Transportation	〃	Control over highway traffic.
Regonal Managing Bureau of Railway	Japan National Railway Corporation	Control and service for port-railways.
Bureau of Labor Standards	Ministry of Labor	Superintendence over labor conditions of port laborers.
Supervisory Station for Labor Standards	〃	Practice of the superintendence over the labor conditions.
Public Employment Security Office	〃	Service of employment for port laborers and port works.
Regional Labor Relations Board	〃	Control over port labor relations.
Port Police Station, Head-Quarter of the Prefectural Police	The National H.Q. of Police	Exercise of poilce power in ports, except duties of the Regional H.Q. of Maritime Safety and of Custom House.
Municipal Fire Station	Municipality	Fire service in port areas.

agencies attended to their respective duties under the directions of the Custom-House. Thus, port administration and services were executed without a hitch, but public opinion, especially the voice of the business circles, was hardly reflected in the port administration, and ships, shippers and people who used or worked in the ports were under the domination of bureaucratic control.

Notwithstanding these conditions, the minor facilities, sheds, warehouses, handling machines, tugboats, lighters, water tanks, welfare facilities for port-laborers, and even piers in some ports were owned and controlled by the local governments or private companies which took in the profits from charges of all descriptions from the users of those facilities.

After the War, the General Headquarters of the Allied Powers generally controlled and managed all Japanese ports during the time of occupation, and the authority of the Japanese National Government over the ports ceased at that time. In 1950, G.H.Q. suggested that the Japanese Government establish a "Law of Port and Harbor" which had never before existed in Japan as an independent law, and it was actually established and enforced on May 31, 1950. The Law of Port and Harbor states that the administration of the port should be executed democratically to avoid a centralized authoritarian rule and port administration should be reorganized under a single body for each port independently. For these reasons, the Law provided that the single administrate body should be a local autonomous entity (prefecture or municipality), or the port authority should be organized as a public corporation.

Before the Law was established, G.H.Q. suggested to the Japanese Government that national affairs should be released as far as possible to local autonomous entities, and consequently, police power, educational authority and other old national affairs which were deemed appropriate to be dealt with locally were actually transfered to the local authorities. If the transference of national affairs was practiced consistently in all fields, the complications in port administration might possibly have been checked within limits. But soon after the withdrawal of G.H.Q., the National Government began to restore centralized authority, —— police power being the first to be recaptured from municipal control, and then educational authority was centralized to a great extent. In the same way, national governmental agencies in the principal ports, which were moderate in action, strengthened their administrative power so that it became equal to that of the legal administrators or in some cases even stronger than the latter. Besides, each national agency conducted its own business on an equal footing so that ships, cargoes and passengers who enter or go out from the ports have to go

through troublesome procedures at different offices. When any case common to all or several departments happens regarding port administration, the officials concerned confer with each other and work out a solution of the case.

The duties which a port administrator should carry out according to the Law are the construction, maintenance, improvement and operation of port facilities which are owned by him or left to him to be managed by the country, and the establishment and use of welfare facilities for mariners and port-laborers; but any activity which concurs with that of existing private traders should not be undertaken by the port administrator.

II

The finances of the port are formed and programmed on such an administrative basis as described above. The expenditures for port administration are, like those of other ordinary enterprises, classified into two large groups: ordinary expenditures and extraordinary expenditures. The former includes various expenses necessary to maintain and operate the port and port facilities normally, and personnel expenses; the latter consists of the costs of construction, improvement and large repairs of the port and its facilities and expenditures of other extraordinary works.

Ordinary expenditures are usually covered by the various dues, port charges and rents which the beneficiaries and users of port or port facilities pay to the administrator. This is a general rule provided in the Law of Port and Harbor. So far as ordinary expenditures are concerned, the port charges and rents received by the administrators have barely covered expenses. The question is that of extraordinary expenditures. Extraordinary expenditures would be out of question, though, if current revenues could cover them in a lump sum or in installments. But in the case of fairly large works it becomes necessary that the administrator demands a special revenue.

The expenditure for such construction works carried out in the principal ports should be defrayed by both the State (National Treasury) and the port administrator, on a fifty-fifty basis as a rule, in accordance with the Law. But, when the works are done on a specially large scale, this fifty-fifty rule is not neccssarily carried through. If the port administrator's desire for construction is more intensive, his share would be in excess of fifty percent; conversely, when the national demand for new construction or improvement is greater, the State bears more than fifty percent of the expense. But the defrayment on the port administrator would make the burden too heavy for its finance in the case of a large construction work,

regardless of the rate of share of the expense. The port administrator, in such a case, would scarcely be able to settle the expense immediately, but on a fairly long term basis it would be inevitable that it be paid in instal-lments, i.e. by issuing a public loan or by borrowing from the State. Even to pay in installments, the annual payment would mount up to a good sum which would still be hard on the finances of the port. The main port facilities in Kobe, Yokohama, Nagoya, and all other principal ports in existence have been established on such a principle of finance from their inception. Therefore, the so-called "national-owned ports" were mostly established and maintained by the half apportionment of their total expenses imposed on the local autonomous entities, i.e., properly saying, "joint-owned ports".

Large construction works should not only be an important national undertaking, but are certainly international works, and as a matter of course the State should bear the costs. The citizens of a municipality where a port is located derive various advantages directly or indirectly from the port, and they also should have a share in that defrayment. Besides, ships, cargoes, and people who use the port or port facilities should pay the charges and dues according to the benefits they receive, a part of which should be appropriated for the redemption of the construction expenditure. That is, the expenditures of port construction works should be placed on three parties: the State, local autonomous entities and direct beneficiaries of port and port facilities.

That the State should bear the whole or partial costs of contruction or improvement does not necessarily mean that the State can execute its authority actually in the administration or control of the ports, neglecting the proper port-administrators. The State, as its proper function, should be in a position to supervise the administration of ports merely on behalf of the whole nation. All operations of the national governmental agencies in ports, excluding the proper business of Custom Houses, would be released to the port-administrators who have been determined by the Law of Port and Harbor, and thus a port administration would present a coherency overall in itself, and most of the present complication in port administration would be simplified to a great extent.

III

An essential source of revenue in port administration are the dues, charges and rents paid by ships, cargoes and people who use the port and port-facilities. The nature of port dues and charges differ somewhat according to ports, and their importance as port revenue also varies accord-

ing to the kinds and ownership of port facilities. For example: when warehouses or sheds owned by the administrator exist in great numbers, their charges and storages will be the main revenue for that port; conversely, when they are mostly owned by private firms, the administrator's revenue will be presented in the form of land-rent, if the land is owned by the administrator. A harborage (or entrance dues) which is generally paid to the authority by every ship calling at the port is not levied in Japanese ports, while a tonnage tax is imposed by the State on every ship coming in; that is, such a general port charge on ships is counted as a national revenue, but not as a port income.

Here, we will observe questions principally concerned with the Port of Kobe by way of example, because the latter is not only one of the most important ports in Japan, but the system of administration and the economic character can be viewed as model types of Japanese ports.

The Port of Kobe had established modern port facilities in 1907 when the first port construction work began on four piers. The second construction work for two piers were completed during 1919-1941, and after the War when, first of all, the war damage rehabilitation works were finished the 7th. pier was constructed and at present the 8th. pier and the Maya piers (including reclamation of the sea fronting the shore) were planned and are under construction.

The cost of constructions for the pre-war period amounted to ¥73,043,143, of which ¥46,339,971 was charged to the National Treasury and ¥26,703,172 was the burden placed on the City of Kobe; that is, 63% to the State and 37% to the City.

After the War and before the City became port administrator, the port construction expenses amounted to ¥152,427,162, of which the National Treasury paid ¥145,535,819 (95%) and the City ¥6,891,343 (5%). Because these works were planned and started in accordance with the order of G.H.Q., the entire sum of the expenses should have been borne by the State alone. Furthermore, the principal ports were administered by the State as described above, and the expendiures for port construction should have been charged to the National Treasury essentially with the local burden only an auxiliary. So it was considered ipso facto that the main port-facilities were owned and administered by the State. In spite of this fact, the State deputed the management of state-owned facilities to the City of Kobe, and the City received the port charges from beneficiaries of the facilities and appropriated them as a part of the managing expenses, disbursing a larger part of the expenses from the general account of the municipal treasury. That is, the City had a harbor division, whose general expenses was

supported by the annual budget for the management of the Port of Kobe. The annual budget of the Port of Kobe at that time is shown in Table 2.

Table 2. Revenues and Expenditures of the Port of Kobe, 1949

Unit: Yen

Revenues		Expenditures	
1. Dues and charges	45,807,105	1. Administration	1,585,601
2. Defrayment out of the National Treasury	37,515,541	2. Operation	3,413,336
for construction works	37,214,600	3. Maintenance	4,360,927
for dividend	300,941	4. Welfare Services	1,868,782
3. Defrayment out of the Prefecture	300,000	5. Water Supply Works	6,034,728
4. Contribution	1,000,000	6. Reclamation Works	18,794,369
5. Miscellaneous revenues	5,997,117	7. General Services	4,325,400
Total	90,619,753	8. Equipment of Facilities	11,275,031
Excess of Expenditures (disbursed from the municipal treasury)	47,808,244	9. Building Construction	2,791,917
		10. Improvement and Repair of the Port and Dock	81,022,906
		11. Lighters	3,000,000
Total	138,427,997	Total	138,427,997

Table 2 shows that the nature of the port administration of Kobe City in 1949 was not essentially different from the present status as administrator of the Port of Kobe as legally settled by the Law of Port and Harbor, 1950. One noted change is that the City has strengthened its voice in the administration of the port since then.

As stated above, port facilities are classified into three parts; those established by the State, by the City, and by both jointly. The City (port administrator) receives dues and charges from the users of the facilities, except those which are used by the State and administrator themselves. The port administrator appropriates these revenues to the principal ways and means for the ordinary management of the port. The uses of the dues and charges in the ways and means of the Port of Kobe are shown in Tables 3 and 4.

Tables 3 and 4 show that about half of the annual expenditures of the Port of Kobe was covered by the dues and charges; however, regarding national properties the administrator transfers a part of them to the National Treasury at a settled rate, of which the largest item is land rent.

The port facilities are ordinarily used by ships, cargoes and warehouses, and some of them are used free of charge. The relations between the users and port facilities are presented in Table 5.

There are port facilities for which no charges exist not only because of tradition but for the reason that they are necessary appendages of the

Table 3. Items of Operating Revenues of the Port of Kobe, 1959
(in ¥1,000)

Wharfage and Quayage	104,112
Buoyage	9,114
Unloading place dues (for domestic trade)	9,889
Charges for sheds	156,025
Charges for handling machines	6,571
Charges for open storages	12,858
Charges for exclusive use of water area	6,927
Other miscellaneous dues and charges	4,860
Land rent	100,260
Towage	19,465
Water charges for ships	68,885
Dues at welfare facilities	9,267
Total	508,233

Table 4. Settled accounts for the Port of Kobe, 1959
(in ¥1,000)

	Revenues	Expenditures	Excess or Deficit (△)
General Administration	728,016	746,991	△ 18,975
Welfare facilities	19,997	46,669	△ 26,172
Sheds and handing machines	256,984	210,333	46,651
Tugboat business	89,100	120,289	△ 31,189
Water supply works	69,572	77,753	△ 8,181
Total	1,163,669	1,201,535	△ 37,866

Note: The deficit was met with the outlay from the general account of the municipal treasury.
Data: Report of General Bureau of Port and Harbor, the Kobe City.

Table 5.

Users	Port facilities	Charges
Ships	Breakwater	Free
	Fairway	Free
	Wharf or pier	Chargeable
	Buoy	Chargeable
Cargoes	Unloading place	Chargeable
	Apron of shed	Free
	Road	Free
	Railroad	Chargeable
	Shed	Chargeable
	Handling Apparatus	Chargeable
Warehouses	Land	Chargeable

Table 6. Financial Conditions of the Principal Ports in Japan

1 9 5 9

Unit: in ¥ 1,000.

Ports	General Expenditures			Welfare Facilities			Sheds, Handlingmachines			Tugboats			Water Supplies			Total		
	Rev.	Exp.	Bal.	Rev.	Exp.	Bal.	Rev.	Exp.	Bal.	Rev.	Exp.	Bal.	Rev.	Exp.	Bal.	Rev.	Exp.	Bal.
Muroran	118,779	125,803	△ 7,024	1,156	1,798	△ 642	12,220	10,318	1,902	5,545	5,682	△ 137	—	—	—	137,700	143,601	△ 5,901
Hakodate	90,798	115,980	△ 25,182	280	948	△ 668	5,740	9,405	△ 3,665	—	—	—	8,009	9,892	1,883	104,827	136,225	△ 31,398
Aomori	95,777	95,777	0	—	—	—	20,979	20,959	20	—	—	—	—	—	—	116,756	116,736	20
Kawasaki	507,183	476,561	30,622	0	691	△ 691	242,188	240,555	1,633	4,570	8,450	△ 3,880	1,437	1,685	248	2,092,901 (1,337,523)	2,000,829 (1,272,887)	92,072 (64,636)
Yokosuka	41,266	55,216	△ 13,950	—	—	—	—	—	—	—	—	—	—	—	—	41,266	55,216	△ 13,950
Osaka	279,935	181,391	98,544	Include in general expenditures			281,753	342,216	60,463	75,566	62,055	13,511	Include in general expenditures			894,654 (257,400)	877,942 (292,280)	16,712 (△34,880)
Kobe	675,175	713,705	△ 38,530	22,828	51,796	△ 28,968	261,796	210,349	50,947	111,043	120,509	△ 9,466	91,782	78,206	13,576	1,162,624	1,175,065	△ 12,441
Kure	37,651	60,321	△ 22,670	—	—	—	13,962	14,380	△ 418	—	—	—	—	—	—	51,613	74,701	△ 23,088
Yokohama	1,076,830	1,165,204	△ 88,374	3,021	30,076	△ 27,055	245,714	203,446	42,268	21,559	18,792	2,767	—	—	—	1,347,124	1,417,518	△ 70,394

Notice: For Yokosuka, figures do not include personnel expenses. For Kawasaki and Osaka, figures in parentheses show the reclamation expenditures.
Mark △ stands for a deficit in balance.

Table 7. General Expenditures of the Principal Ports in Japan

1 9 5 9

Unit: in ¥ 1,000.

Ports	REVENUES							EXPENDITURES						Balance
	State Subsidies	Dues & Charges	Alloted Charges	Miscella-neous	Municipal Loans	others in addition	Total	Personnel	Supplies	Maintenance	Construction Improvement	Loan Flotation	Total	
Muroran	23,805	10,321	—	26,653	58,000		118,779	7,816	404	4,615	83,114	29,854	125,803	△ 7,024
Hakodate	95	16,447	—	2,256	—		90,798	17,057	5,603	2,995	83,246	7,079	115,980	△ 25,182
Aomori	8,769	5,925	—	196	—	80,887 (Public loans & the local allocation tax)	95,777	5,543	2,014	2,097	66,853	19,270	95,777	0
Kawasaki	32,103	28,148	8,319	19,603	181,141	237,959 (General municipal expenditures)	507,183	29,731	9,843	269,865	167,122	—	476,561	30,622
Yokosuka	20,680	7,094	—	1,492	12,000		41,266	295	2,395	8,520	44,006	—	55,216	△ 13,950
Osaka	—	118,588	—	12,643	—	148,704 (Property revenues)	279,935	126,618	43,426	9,968	1,379	—	181,391	98,544
Kobe	33,821	250,756	4,436	138,062	248,100		675,175	87,310	59,199	18,981	480,287	67,298	713,705	△ 38,530
Kure	16,842	5,443	235	2,247	12,884	97,039 (Prefectural subsidy)	37,651	7,962	3,520	4,272	39,998	4,569	60,321	△ 22,670
Yokohama	83,155	120,329	12,597	97,039	491,636	175,035 (Others)	1,076,830	120,004	89,381	217,951	692,739	45,129	1,165,204	△ 88,374

Note: Tables 6 and 7 were compiled by the Port-Cities Conference, attached to the National Association of Mayors.

principal facilities just as corridors or lobbies in a hotel. The rates of dues and charges are made open to the public.

In the case of the Port of Kobe, the largest item of revenues comes from the charges for sheds. A shed, built on the public pier, is originally opened to the public for putting up cargoes temporarily from the beginning of customs formalities to the time of loading or forwarding or warehousing. But actually, for traders who usually handle cargoes in large quantities the administrator may permit them to use a part of the shed exclusively, provided that subletting is not done because of impairing the function of public utilities.

Wharfage which is imposed on the ships or cargoes which are moored or unloaded at the pier or wharf, is also a great item of revenue and it is the most common item of port charges throughout the world. The third item of large revenue is the rent for land owned by the state or port administrator, above which private buildings or other equipments have been built. Other port charges, excepting those which are paid to private firms, are inserted in port revenues and appropriated to current expenditures of port administration.

Besides the above charges, those who use welfare facilities for seamen and port laborers pay a certain fee for their benefits, but this charge is a small part of the cost of maintenance and is imposed for the purpose of equity to the beneficiaries rather than as a revenue source.

The ordinary accounts of administration of the principal ports in Japan are shown in Tables 6 and 7.

A touchy question in the port finance of Japan is that of the extraordinary expenditures or capital expenditures. No port in Japan can pay the extraordinary expenditures for port construction or improvement from its current revenues only. Especially, for the construction of breakwaters, piers, sheds, roads, bridges, etc. special measures in finance have to be taken.

IV

The construction of a port and harbor demands huge expenditures and all port administrators find it a matter of vital importance to raise such funds.

The Port of Kobe, with the development of foreign trade after the War, has completed the construction of the 6th, 7th, and 8th piers, and further, forecasting that larger types of vessels would be calling in general and that the unloading of cargoes also would increase in abundance, is planning to newly build four large piers of 18 berths at the east side of the present

port (Maya district), with sufficient facilities of the newest type. The total sum of these expenditures for two piers (settled works) amounts to ¥12,066,000,000, of which ¥4,752,000,000 (39.4%) is a state liability and ¥7,314,000,000 (60.6%) must be borne by the administrator (City of Kobe). The administrator must pay in cash about ¥1,000,000,000 to the State and the remainder has to be covered by public loans. (Unredeemable for three years, thenceforth redeemable in twenty years with interest of 7% p.a.) The amount of the loan redeemed annually will be ¥744,000,000, which is just about 60% of the sum of the total revenues of the Port of Kobe and 140% of the total dues and charges earned by the administrator in one year. This means that the redemption can not covered by the ordinary revenues of the port. Nevertheless, this scheme has been put into practice and construction is now under way.

Under such financial conditions, the administrator must rely on the general finance of the municipality or entreat the State to extend the term of redemption to 40 years or raise the rate of port charges exorbitantly. The City desires to have the terms of redemption extended and also to raise the dues and charges to a certain degree, so that the general finances of the municipality will not be burdened by the entire expenditures of this construction work. This desire of the City connects concretely to the idea of the self-support of port administration. The expenditures for the port account for a fair percent (about 17%, including those of the reclamation of the front shoreline) of all public expenditures of the City (excluding those of self-supporting municipal works); and like self-supporting works (surface transportations and waterworks) of the municipality, the port itself earns a good revenue from terminal services. Therefore, if the port would endeavor to accomplish its self-support, it would not be impossible of attainment.

It is possible that almost all traders would be opposed to the raising of the rate of port charges. Generally, the rates of port charges should be determined between two margins; the upper margin being the payable basis of the traders and the lower margin the covering limit of the operating expenses of port facilities.

The highest limit of the rates should take into consideration the cost-bearing capacity of export or import prices of commodities. Actually, port charges are included in the selling cost of commodites, but we do not consider that port charges are so predominant that they influence the prices of commodities or the freight of shipping.

Table 8 shows the monthly average prices per ton of classified cagoes which were entered in the declaration for the warehouse companies in the Port of Kobe in 1959, and Table 9 presents the rates of port charges for

Table 8. Monthly Average Prices per Ton of Classified Cargoes entered in the Warehouses, PORT OF KOBE

1 9 5 9

Unit : Yen

Articles Classified		Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ave.
Foodstuffs	Cereals	31,948	37,983	35,126	43,477	36,022	34,885	32,148	32,204	32,866	42,251	39,575	33,879	36,030
	Others	54,173	54,823	56,534	52,939	40,763	60,340	62,637	58,465	59,527	50,782	41,729	50,999	53,643
Textiles	Manu-factured	171,918	177,166	166,344	162,505	160,310	159,074	158,421	163,808	165,002	175,636	168,653	173,306	166,845
	Raw Materials	71,091	65,947	68,990	78,627	67,845	88,119	96,567	84,423	90,516	89,186	78,600	74,350	79,522
Papers & Pulps		49,028	44,664	59,836	54,884	52,709	52,369	48,536	57,056	50,860	53,805	52,209	54,099	52,505
Fertilizers		31,897	36,933	28,844	24,170	25,032	23,077	22,394	20,895	24,746	26,643	30,150	27,760	26,878
Metals	Raw Materials	65,260	70,466	17,548	32,176	47,887	68,591	102,332	96,292	62,218	96,352	99,438	116,445	72,917
	Manu-factured	95,374	146,583	245,835	272,281	—	156,754	119,437	210,083	211,987	184,704	184,415	159,365	180,620
Chemical Manufactures		142,956	105,647	89,045	97,630	109,824	99,001	133,941	135,738	128,577	124,925	113,371	128,389	117,420
General Cargoes		123,761	135,813	136,144	111,106	114,068	123,918	118,847	119,230	100,744	108,009	127,873	90,341	117,488
Averages		83,741	87,602	90,425	92,979	72,718	86,613	89,526	97,819	92,704	95,229	93,601	90,893	90,387

Note: Calculated from the Statistics for Private Warehouses compiled by the Kobe Shipping Bureau, Ministry of Transportation.

Figure of July for Metal Manufactures is excluded as an exception; its average price was ¥ 626,278, probably because any specially high priced manufactured goods were stored for a time.

cargoes and vessels in effect at the Port of Kobe the same year. From these figures we know that the average unit-price of all cargoes warehoused in 1959 was ¥90,387 and the port charges per ton for the cargoes were averaged at ¥1,650; that is, the percentage of the port charges for cargoes to the unit-price of cargoes was about 1.8%. Seeing this in classification, for fertilizer (ave. price ¥26,878) the percentage was 6.1% and for metal manufactured goods (ave. price ¥180,620) was 0.9%. Thus, port charges do not place too much a strain on the price of cargoes, especially on the cargoes of

Table 9. Port-Charges for Forwarding General Cargo in the Port of Kobe

(Rate per ton)

Descriptions	Rate of Charges or Fees	Of which Administrator's Receipts
For Cargo	Yen	Yen
Carrying in shed	140	—
Shed storage (assume 10 days' storing)	220	28
Tally and weigh	55	—
Delivery from shed (with additional charge)	182	—
Handling at alongside	105	—
Use of wharf area	530	—
Handling fee for forwarding cargo	250	—
Stevedoring	168	—
※Foreman, watchman, etc.	a few	—
※Custom-brokerage (in comprehension)	(each time 1,500)	—
Total.....	1,650	28
For Vessel		
Pilotage	5	—
Securing of lines	2	—
Wharfage	15	15
Tug hire	18	18
Tonnage tax	20	—
Special tonnage dues	25	—
Total.....	85	33
Grand Total.....	1,735 (100%)	61 (3.5%)

Note: Compiled by the General Bureau of the Port of Kobe.
※ Excluded from total.
Rates of charges for vessel are computed with the following assumption;
Gross tonnage (Average).....7,000 tons
Net tonnage (Average) ..... 4,550 〃
Loading cargoes (Average) ..... 1,800 〃
Mooring (Average) 2.5days
Hire one tug-boat at the time of arrival and clearance.

higher priced goods. Besides, port charges for vessels are rather lower than those for cargoes. The shipping freight rates to San Francisco for textiles are ¥12,870 per ton, for general cargoes ¥17,280 and for iron and steel ¥5,400; and their port charges for vessels, converted to cargo-tonnage, are computed at the ratios of 0.6%, 0.5% and 1.5% respectively. These port charges are mostly the income of port traders and those of the administrator are only a small part. Therefore, a steep raise of port charges which are collected by the administrator will not greatly influence the business concerning cargoes and ships.

V

Now, we will consider the resolution on the establishment of autonomous port authorities, by the Permanent Technical Committee on Ports, attached to the Inter-American Economic & Social Council of Organization of American States, at the Second Meeting held in Montevideo, June 22-27, 1959. The purport concerning only the present theme is excerpted as follows.

1. The mission of the port authority should be to serve with efficiency and economy the users of the terminal, that is the consignees, shippers, passengers, and the vessels which use the port.
2. It would operate and efficiently maintain all equipment, installation and services belonging to the Port Authority.
3. The Port Authority would be self-supporting.
4. The Port Authority would make its tariffs and other charges to enable it, operating efficiently, to be self-supporting.

To try to apply this purport immediately to Japan several difficulties would be encountered. That is, (1) as already stated, the idea that a port is primarily a national-governmental establishment is deeply rooted in the officials' minds and they do not think of a port as a facility of national economy, but as an object of national administration. This fact hinders the actualization of port authority in Japan; (2) to raise the rates of port charges so as to be self-supporting would be severely opposed by the users of the port and also by some departments of the National Government which control the charges of public utilities; and (3) even if the port administrator aspired to operate any gainful business in the port (e.g. cargo-handlings) so as to be self-supporting, such a business is prohibited by the Law as being a competitive action against private enterprises.

In spite of these unfavorable conditions, the ideal for self-support should be actualized sometime or other from the administrative and economic natures of a port of entry. The expenditures of port administration

have depended upon the general finance of the municipalities hitherto in general, but making a close inspection of all the items shown in Tables 6 and 7, we believe all ports may have a fair margin for improvement in their finances if they exert all possible effort to attain a self-supporting condition.

TYPES OF EARLY MODERN JAPANESE SHIPOWNERS

Seiji SASAKI

I

Modern Japanese shipping industry, as a whole, consisted of many independent shipowners, either in the form of firms or as private concerns, and each individual shipowner had his own distinctive history, character, organization and definite turning-point in its modern development. Such individuality of each, or at least of the main shipowners' modernization, should, of course, be clearly recognized in the study of Japanese shipping history, as the author has described so often in other articles. In fact, it may safely be said that the author has in mind as investigation of such special traits even in this article.

However, it is possible to classify these numerous individual modern Japanese shipowners into some inclusive groups. The special Japanese contrapositions, "Shasen" and "Shagaisen", and the old group names, "Kitamae-sen", "Taru-kaisen", "Higaki-kaisen", etc. were the most popular examples and foreshadowed the possibility of such a classification. All of them had their distinctive characteristics and played their important respective parts in Japanese shipping history as a group as well as individually. In this article the classification method and main types of early modern Japanese shipowners will be explained.

What are the types or groups of modern shipowners? This problem will be taken up first, for its meaning or concept is not only unfamiliar to the average person, especially Japanese, but is sometimes even indefinite and questionable. It is unaccountable in a sense that we can hardly find any difinite theory or theoretical works referring to this subject in our country, although there were some historical classifications and group-names for Japanese shipowners which were frequently used either in daily business or in publications. Besides the above-mentioned terminologies, there are many other terms like shipbuilder-shipowner and merchant-shipowner, which would indicate that there were shipowners originating from shipbuilders and shipowners originating from merchants. Each is surely one of the shipowners' groups which can be severally treated as a party and should have its own speciality. "Liner" and "Tramp", the most popular inter-

national maritime terms, are frequently quoted too. Nevertheless, the classification and its concept are very strange to the Japanese public. For this curious gap between actuality and theory we must begin our study by attempting to introduce some classification methods of so-called modern shipowners in advanced nations.

Fortunately there are numerous excellent articles on this subject in Britain which is the mother-land of the world's modern shipping industry. Now let us select conventionally, but containing a firm belief, the interesting description of Mr. C. E. Fayle. The author of the most interesting book, "A Short History of the World's Shipping Industry," has treated it in Chapter 10.

The chapter which is titled "Liners and Tramps" and is devoted to an explanation of the evolution of modern shipping industry as seen in its subtitle begins with the following sentence.(1)

" The culmination of the sailing vessel in the Clipper Ship, the rise of steam, and the great expansion of the world's maritime commerce which accompanied these developments, partly as cause and partly as effect, were accompanied also by very important changes in the methods by which the ships were owned and operated. Indeed, one of the most significant of these changes, the replacement of the "constant trader" of the eighteenth century by regular liner services, had already made substantial headway before the competition of steam had become generally effective in the world's carrying trade."

And we can easily recognize the main types of early modern English shipowners which are explained very briefly but distinctly. Based on his description, the author of this article wishes to point out the chief modern shipowner types during the middle years of the nineteenth century as follows.

(A) **Owner types of modern sailing vessels**

Although it is fairly questionable whether Japanese sailing vessels, both of native Japanese style and of imported European style, could be equivalent to modern ships in the rigid meaning, the British large ocean-going sailing vessels in the last great days of sailing, at least since the middle of the 19th century, have been definitely included in the category of modern ships by Mr. Fayle. And the main British owners of those vessels, either in the form of big clipper fleets as liners—regular traders—or in the form of little humbler sisters which knocked about the Seven Seas unhonoured and

(1) cf. C. E. Fayle; A Short History of the World's Shipping Industry p.253.

unrecorded, but doing a large proportion of the world's carrying trade as tramps, can be classified into five types:

① group of traditional shipowners
② group of merchant-shipowners
  a) import traders
  b) export traders
③ group of shipowners originating from brokers
④ group of shipowners originating from shipbuilders
⑤ group of shipowners originating from seamen (especially, retired shipmasters)

(B) **Owner types of early steamers (mainly liners)**

The majority of the early British steamers belonged to a fleet employed in regular liner services, and these vessels were almost all owned by the following two organizations.

① very wealthy capitalistic firms
② joint-stock companies incorporated under Royal Charter

Each of them were naturally able to form an obvious and important type among British modern shipowners severally.

(C) **Chief members of the so-called sixty-fourth system—types of tramp-owners**

By various laws dating back to 1823, the interest in every British ship was divided into sixty-four parts. While this system applied to steamers as well as to sailing vessels, specially in the early days of steam cargo-boats most tramps were owned by small syndicates formed on the sixty-fourth system unless they were owned by individuals or private firms. Indeed, there are still a few questions in deciding whether this system was one type of modern British shipowner as a whole, or was divisible into some smaller groups. However, Mr. Fayle has pointed out specially its chief members and has emphasized their importance or role. Each of them had certainly a direct and familiar relation with the actual aspects of the shipping business. They were as follows:

① shipbuilder
② shipbroker
③ merchant with occasional shipments to send abroad
④ dealer in marine stores
⑤ provisioning contractor

II

From the above-mentioned quotation or summarization we can easily recognize the fact that the types of British modern shipowners were originally divided on the basis of their historical growing process and the character of their organization. In other words, the historical origin, the past or principal profession and the actual formation condition of these modern shipowners were most essential in such a classification. And it will have an universal validity for worldwide shipping circles. So far as it is, we may introduce these types into Japanese shipping circles. In fact, we have to recognize its theoretical adequateness and also can point out the real existence of some similar types in our country.

The types of modern shipowners which were able to be classified and accepted in Britain, however, would be only "made in Britain", as if they had a certain theoretical importance and general leadership or universality. There were so many differences in the actual modernization process between British shipping and Japanese shipping that would make an easy application of the same thought impossible. Some British types will be repulsed while some will be accepted.

A few types of the above-mentioned British shipowners will certainly be found in Japan. The Kaiso Kaisha that was the first steamship company in our country, the Kaiso-toriatsukai-sho and the Nippon-koku Yubin-Jokisen Kaisha both of which were succeeding enterprises of the Kaiso Kaisha bear a close resemblance to the British type, "joint-stock companies incorporated under Royal Charter". The Mitsubishi Kaisha which took the place of the above enterprises as the first successful steamship company in Japan, the Kyodo-Unyu Kaisha, established in 1882 as the competitive company against the Mitsubishi, and the Nippon Yusen Kaisha which was the most famous and greatest enterprise and was established in 1885 formally in the way of a combination but actually as the successor of the Mitsubishi after the legendary competition of the former two companies, also belong to the same type. For, these earliest Japanese steamship companies were just so-called protected enterprises which were founded under government decrees, at least under the strongest and most direct "Upper-protection" and were given their possibility for development only by such aid. Moreover, they adopted the steamer from the beginning and employed it in regular liner services. Lastly they gave a great impetus to the growth of other steam-shipowners. Such effects were almost the same in both countries.

The next three types were also found even more clearly in our country.

group of traditional shipowners

group of merchant-shipowners
group of shipowners originating from shipbuilders

While the continuous development of Japanese shipping was very much interrupted by the national isolation policy during the Tokugawa Era, there were many coast sailing vessels ("Yamato-bune", or, "Yamato-gata Hansen" that is, Japanese style sailing vessels) and consequently there were many shipowners during that period. At the time the most famous or typical vessels were the "Higaki-kaisen", later called sometimes "Kyuten-bune", the "Taru-kaisen" — both navigated regularly from Kamigata (Osaka and Kobe) to Edo (Tokyo) — and the "Kitamae-sen" which engaged in active voyages between Hokkaido and Osaka via Bakan (Shimonoseki). The greater part of these traditional owners of historical sailing vessels continued to exist in the early years of the Meiji Era, in which a few privileged steamship companies were beginning to grow under the special encouraging policy. They not only wielded much power in those days, but played an important role in the development of the Japanese shipping industry as a whole through their own modernization which must be studied from the following two viewpoints as the author has frequently said;

① The first and visible one was the modernization of ships. This was itself started off by the employment of the newer and better European style sailing vessels about after the 10th year of Meiji — more exactly, after the South-western Rebellion — and was accomplished by the introduction of the newest and best ships, steamers, since about the 20th year (1887).

② The secondary and inner one was the transition of business types. Along or with the development of the ship, the shipowners wished to become common (public) carriers.

Without hesitation we can regard the above-mentioned three shipowner groups to be representative of Japanese "traditional shipowners."

The existence of the merchant-shipowner type can also be confirmed in our country, and its role and position was very important. The most typical example was the famous Mitsui Bussan Kaisha, sometimes called by the names Mitsui Senpaku-bu or Mitsui Bussan Senpaku-bu. It had begun to operate a real shipping business about 1878-9, and had grown to be one of the greatest shipping firms next to the so-called "Shasen" which consisted mainly of the Nippon Yusen Kaisha and the Osaka Shosen Kaisha. By the way, today's Mitsui Steamship Company was the successor of the shipping business in this firm. Another example was the Mitsubishi Shoji Kaisha which has developed into today's Mitsubishi Shipping Company.

When Japanese modern shipping industry, especially the so-called Shagaisen group really developed on an epockmaking scale from the closing

years of Meiji to the early years of Taisho—strictly speaking, that term is beyond the present scope of our study—, many new shipowners who belonged to this type came into view. These newer merchant-shipowners owned steamers in the position of foreign traders as a rule. They were not only too numerous to be mentioned but played an important part in the prosperity of Japanese shipping as a whole. In so far they were different from the older shipowners, who had been domestic traders, as well as from the British or European merchant-shipowners. Another not to be neglected speciality of these newer Japanese shipowners was the fact that it was a period of historical reversal; for, they appeared just after the modern separation between shipping business and commerce, in other words, after the settlement of a common carriage system.

Last, there was one more peculiar characteristic to be remembered. If the concept of this merchant-shipowner is taken in a wide or most popular sense, the majority of Japanese "traditional shipowners" should also belong. Especially, the Kitamae-sen group and the Setonaikai (the Inland Sea of Seto) or Kyushu shipowners' group which had mainly engaged in transporting Kyushu-rice to the Hanshin area (Osaka and Kobe) were clearly merchant-shipowners, even if their activities were limited within the country.

The two greatest representatives of the third shipowner type originating from shipbuilders in this country were Kikusaburo Oaki and Shozo Kawasaki. The former engaged in the old Shinagawa Shipbuilding Factory as a worker (shipcarpenter) and established his own shipbuilding factory in Tokyo. The latter was the founder of the famous Kawasaki Shipbuilding Yard which has developed today into the Kawasaki Dockyard Company L.T.D. Oaki was one of the most celebrated shipowners in the Meiji Era and the earliest leader among the Shagaisen group, even though his shipping business has been discontinued. On the other hand, Kawasaki's shipping business has been taken over by the Kawasaki Steamship Company which is one of the greatest shipping enterprises in Japan today.

Through the above consideration we can understand that some British types of modern shipowners might be adaptable to our country. However, our investigation must not come to an end here.

III

We must pay great attention to the fact that the rest of the above three or four types, peculiarly some very important shipowner types which Mr. Fayle emphasized for their great role or situation, can hardly be recognized in Japanese shipping circles during the entire Meiji Era, at least in its middle ages.

At the outset we shall state a few commonplaces:

(1) The concept of "very wealthy capitalistic firms" would be difficult to adapt for classifying the then Japanese shipowners, because capitalism itself had not yet developed in this country.

(2) Before the pre-Restoration days the Japanese people were hardly aware of modern economic, political or cultural organizations or their rules, so naturally such British shipowner types as a limited company or small syndicate formed on the sixty-fourth system were not adequate for the early modern Japanese shipping circles. Although a few Japanese shipowners had been established on the so-called company system with a special protective policy, they were widely different from the British organization of the sixty-fourth. We also can not recognize such a cooperative ownership as "a shipbuilder, a shipbroker, a merchant with occasional shipments to send abroad, a dealer in marine stores, and a provisioning contractor might agree together to build and operate a vessel for their joint benefit"(2) as in Britain.

(3) We can not overlook the following fact either, that the two members inside the above-mentioned sixty-fourth system, "a dealer in marine stores" and "a provisioning contractor" had hardly any importance in our country, for these merchants had not yet appeared independently in those days.

Now we shall proceed to the main subject.

It is somewhat questionable whether a dealer in marine stores and a provisioning contractor could become an independent modern shipowner individually. Mr. Fayle also has not always emphasized their special situation and role in the development process of British shipping. He and other students, however, have stated distinctly the existence of the following two modern shipowner types and stressed their historical importance;

group of shipowners originating from brokers
group of shipowners originating from seamen

Then, shall we be able to discover these shipowner types in Japan? It should be surely worthy of note, in so far as both were very well-known and important types.

On group of shipowners originating from brokers

"In the Australian trade, where the flow of emigration had been quickened by the gold rush of 1851", Mr. Fayle says "the development of the true liner service reached the farthest point it ever attained under sail," and he has pointed out very liquidly the greatest part of the group of shipowners originating from brokers as follows;(3)

(2) cf. Fayle p.260.
(3) cf. Fayle p.255.

"A regular monthly service to Australia implied a fleet of at least a dozen ships, and as a Colonial Clipper might cost anything up to £30,000 or £40,000 there were very few firms who could provide such a service entirely from their own resources. Some owners chartered vessels to fill the gaps in their sailing list. Others, like James Baines, were ship brokers as well as shipowners, and could easily arrange for vessels entrusted to them for loading to carry their houseflag and fill the vacant dates. Some managing owners of lines, like Bethel, Gwyn and Company, were ship brokers first and foremost, and most of ships which carried their flag were privately owned. Messrs. Devitt and Moore, who carried much of the Blackwall tradition into the Australian passenger trade, started as ship brokers, loading on commission, but later acquired an interest in, or bought outright, many of the ships ontheir list."

However, in Japan the job of shipbroker was a new marine business which Mr. Yutaro Sato had just started as a pioneer in about 1888-9. No one had ever undertaken such a job before, and even when a few members of Japanese shipbrokers followed him under the stimulus of his quick and great success none of them grew to be a shipowner or establish a steamship company as president, at least till the middle of the Meiji Era.

After World Wars I and II, we can acknowledge some leaders of shipping companies originating from brokers. But speaking plainly, almost all of them have still not only a lower position in today's Japanese shipping circles, but their part or contribution to the development of modern shipping industry is too insignificant to compare with that of the British. Though we will later deal with the main reasons, deeply and comprehensively, which accounted for such a scarcity of this shipowner type in Japanese shipping circles, here it will be useful to point out repeatly the next few facts, that a broker was, as it has been above-mentioned, such a very new profession as the Japanese people knew of it just after the 20th year orlater of Meiji, and that they had not sufficient experience and capital so fast to purchase or operate their own steamer, even if they were growing successfully as brokers.

On group of shipowners originating from seamen

In the early development period of modern British shipping there were also many shipowners who originated from seamen, especially from retired shipmasters. They played just an important part in the expansion of their country's shipping industry as well as the former group of shipowners originating from brokers. Then, we will cite again from Fayle's description;(4)

"While the performances and the commercial success of the later sailing vessels depended very much on their captains, they depended also on

(4) cf. Fayle pp. 258-9.

the technical knowledge as well as on the business ability of the owners.. ....There were owners who were also merchants ..... Some as we have seen were brokers. Others, such as Green and Money Wigram and Company, started as shipbuilders. Many of the most successful owners were retired ship-masters. Old John Willis, owner of The *Tweed*, *Lammermuir*, and other famous ships, and the hero, according to Captain Shewan, of the well-known chanty "stormalong" had worked his way up from before the mast. His son, John Willis the younger, owner of *Cutty Sark*, had served as master in his father's ships."

Every able-minded seaman who had spent his seafaring life as a crew, especially as a captain, would naturally be able to accumulate sufficient funds, trust and practical knowledge to attempt to obtain his own ship and to operate it as profitably as possible. This has not only a theoretical possibility in itself but there were many actual illustrations in Britain. Can we recognize this type in our country?

Through the latter part of the Tokugawa Era and the early Meiji Era in which "Yamato-bune" (Japanese style sailing vessel) was still superior, there were fairly many young people who were at first glance like John Willis the younger. Indeed, it seemed to be a common practice for the sons and brothers of Japanese shipowners to board their family ships and serve as apprentices in their youth. Some of the historically famous Japanese shipowners were experts in the art of navigation. At this point, it may be said that there should be a type of modern shipowner originating from seamen like John Willis the younger in Japan.

But we must not overlook an important difference between British John Willis the younger and Japanese shipowner's sons. In fact, the former was just a novice whose father had originally "worked his way up from before the mast," while the latter were almost all sons or brothers of traditional shipowners. For example, Nisaburo Hiroumi—exactly, N. Hiroumi IV—, the founder of the present Hiroumi Steamship Company which is the oldest and most famous successor of "Kitamae-sen" together with the Baba Steamship Company, had surely gone on board during his youth. The author has recently discovered a record proving the fact that he had served as "Jikinori-sendo" (owner-captain) on his family vessel, *Eikichi-maru*, in about 1878. As such, he had formally the same seafaring experience as John Willis the younger. The history of the Hiroumi shipping business, however, is the oldest in our country so that its origin can be traced back to the Keicho Era or still further to the early years of the seventeenth century. Their ships' names have been recorded since the beginning of the nineteenth century at least, at which time his grandfather's grand-

father, Hachiemon, had been the head of the family. For this great pioneer had owned *Kotoku-maru* (400 koku) and others, and had begun the so-called "Kitamae trade" (navigation to Hokkaido). Incidentally, the majority of other Kitamae-senshu (shipowners) began their voyages between Hokuriku and Hokkaido about this time. And the greater part of the Kitamae shipowner's sons or brothers went generally on board their own sailing vessels as apprentices. Therefore these young men were never such simple and pure seamen as old John Willis and John Willis the younger.

Another famous shipowner, the Shimatani family — has developed into the present Shimatani Steamship Company — had also a similar historical characteristic. This family had rather a shorter history of shipping business than Hiroumi according to the remaining valid records, because Tokuemon had only set up his own independent shipping business from about 1877. His son, Tokusaburo, the substantial founder of the Shimatani Steamship Company, bought a steamer, *Urato-maru*, and accomplished the modernization of this family's shipping business after the Sino-Japanese War. Before this established position as a modern shipowner, he had served as an apprentice or as a responsible co-operator on his father's sailing vessels. And Tokuemon, himself, seems to have been sometimes the captain of his own ships, *Shoei-maru* and *Shoho-maru* both of which were Yamato-bune and engaged entirely in transporting Kyushu-rice to Hyogo (Kobe). On those points, the career and other historical circumstances of the Shimatani father and son were apparently very close to these of John Willis and his son.

However, a member of this family definitely and undeniably stated in his memories to the author that the Shimatani family were already in possession of a few sailing vessels even before Tokuemon. Apart from this, it is very certain that Tokuemon was never such a sailor before the mast or a retired ship-master like John Willis judging from his kinship with his employer's house, Nakao, in Yu, for whom he had served during his youth. It seems that his forefathers engaged sometimes independently and sometimes co-operatively in the shipping business. Moreover, the most essential character of the Shimatani shipping business to be observed at first is its private carriage type, in which the shipping business is comprehended inside of commerce. They were originally rather rice merchants as well as shipowners. So Shimatani should belong to the merchant-shipowner type, not to that of a shipowner originating from a seaman. We must be careful not to make a wrong estimation of their historical origin by an apparent resemblance only. The Kitamae-sen group, including Hiroumi, also belong to the merchant-shipowner type as far as regards their actual business style, while they were traditional shipowners from the historical viewpoint as it has been said.

Through the above description, it will be clearly shown that the British concept for the type of shipowners originating from seamen would be not only in applicable to Japan as it stantds, but would also not always be necessary.

IV

The actual absence or scarcity of modern shipowner groups originating from brokers and seamen who played together important part in Britain and Europe should be in itself a fairly good reason for the difficulty in diverting British shipowner classification-methods simply and directly. There were, however, other numerous factors to prevent the hasty application of British concepts in Japan. First, there is an inevitability or necessity of enlarging or digesting the British (foreign) concept in case of its application to our country, even if it is not always peculiar to this subject. Among the four types, joint-stock companies incorporated under Royal Charter, traditional shipowners, merchant-shipowners and shipowners originating from shipbuilders which could have once been adapted to the then Japanese shipping circles, the second and the last may be applied nearly as they stand. But the rest must be considerably enlarged beyond their original concepts.

The basic meaning of "Royal Charter" in the first type must be digested into the somewhat changed meaning of "Government Order" or of "Strongest Protective Policy" in case of applying it to the Kaiso Kaisha, the Mitsubishi Kaisha, the Nippon Yusen Kaisha, etc. Morever, the word, government, must include some stronger local governments (clans or provincial governments) together with the Meiji-Restoration Government.

The concept of "merchant-shipowner", itself, may be needless of special enlargement at first glance. However, when the above-quoted Fayle's prescription is investigated more deeply and minutely, we shall discover the fact that so-called merchant-shipowners were almost distinctly foreign traders, either exporters or importers. Such a concept of merchant-shipowner is also imaginable in theory, and in fact can be found at least in the further developmental steps of Japanese shipping. Nevertheless, no one engaged in foreign trade in the early days of Japanese modern shipping due to the long isolation policy. On the other hand, there were many inland-merchant-shipowners in our country who played an important role. As a result, even this concept needs to be partly enlarged.

Second, other difficulties still remain even after such possible enlargement or digestion of British concepts. The difficulty of making actual Japanese shipowners belong to any British type (concept), the conflict in choosing the single type adequate to Japanese shipowners who had complicat-

ed characters really, the delicate difference between the English and the Japanese, these are very conspicuous factors in making it almost impossible to adapt British types to Japan simply.

In reference to this aspect we must imagine the fact that almost all Japanese earliest modern shipowners should be listed as so-called individual private owners or private firms.— Even the Nippon Yusen Kaisha and the Toyo Kisen Kaisha were originally enterprises which had been set up by one great personality, that is, the former by Yataro Iwasaki and his Mitsubishi Kaisha, and the latter by Soichiro Asano and his private firm. — It should indicate an easiness in classifying or grouping them and therefore should show an even greater simplicity and clearness for each character or organization. It does not mean, however, the possibility of applying British concepts to Japan. The consequence is that a very delicate but undisregardable discord has to be recognized between the classification method of British shipowners and the real situation of Japanese shipowners. And it is possibly the most substantial reason for rejecting an imprudent borrowing of the above-mentioned British types.

Although it is too well-known to be repeated here, there are certainly some clearcut differences, either from the aspect of time or of surrounding, between the growing process of Japanese modern shipping and that of the British. Both main activity fields varied distinctly, as well as the kinds or sizes of used ships. The British shipping industry, especially, had continuously grown during the Middle Ages and the Modern Ages with such internal and external fullness as the expansion of national resources, the development of colonies and the growth of capitalism, and as a result their fleets had been engaged mainly in ocean-going routes. On the other hand, Japanese shipping had been interrupted for about two and a quarter centuries by the dogged isolation policy and was under the necessity of quickly modernizing their shipping business in such inferior conditions as real technical stagnation, narrow activity fields limited to only a few intercoastal routes and an uncompleted national economy. There was also another problem to be remembered that its actual start was possible only through the strongest support and leadership from "upside" (government) and by the stimulus and introduction from "outside". Consequently there were no such clear modern indications in our country as British shipping had already accomplished; that is, the industrial independence of shipping as a link in national economy, the settlement of common (public) carriage styles in actual shipping business, and the individual advancement among shipowners themselves or between them and other shipping interests, specially, brokers and seamen, etc.

This was the most important reason that made it impossible to regard the development of Japanese modern shipping in the same light as that of British modern shipping, and therefore to apply the British concepts to Japan imprudently. It compels us, on the other hand, to look for a special classification method and a standard suitable enough to fit actual Japanese conditions.

V

Until about the 20th Year of Meiji (1887), the modern and large-scale shipping business with the then large-sized steamers had been almost completely monopolized by a few privileged companies in our country, except for owners or operating firms of small steam-launches who had been fairly numerous but very short-lived and operating on a small scale. More important was the fact that a very large proportion of sea commerce had been conducted by sailing vessels in those days. Such owners of sailing vessels had just begun after the 10th Year of Meiji to replace their old Japanese style sailing vessels with newer European style sailing vessels as the first step in their modernization. The second and last step to the most modern ship, the steamer, was made after the lapse of another decade. It must be well remembered, however, that the actual business type of those younger modern shipowners has still remained at the stage of "private carriage" in spite of their ship's advancement. At least, the first transition was not accompanied by a definite change in management type. The second transtition to steamers certainly promoted such a tendency, but, there were still many complicated problems behind the actual trend, for some attained quickly their object while others did so slowly.

What can be —and must be—found distinctly from the above speciality in the actual growing process of Japanese modern shipowners is the distortion or discrimination between the minority privileged shipowners and the majority unprivileged shipowners. It is definitely important to our study of Japanese modern shipowner types. While the greater part of the latter had historically been the older and more important shipowners in our country, they were in fact new-comers as modern shipowners on account of not being beneficiaries of governmental protection. On this point, it might be said that they really proved the correctness of the principle, "the unprotected never develop".

Now, this clear difference between the quick modernization of a few privileged companies and the slow development of the majority of unprivileged shipowners shows us the existence of two distinguishable types within Japanese modern shipowners as a whole. In other words, we must first

classify Japanese modern shipowners into two large groups under the above-mentioned basic character. It was even natural that the most popular maritime terms in our country, "Shasen" and "Shagaisen" came to be used very widely from about the 25th Year of Meiji (1892). The former, of course, meant the privileged force which consisted of the Nippon Yusen Kaisha and the Osaka Shosen Kaisha, sometime including another line, the Toyo Kisen Kaisha.

In conformity with such a basic and largest division as showed in the form of "Shasen" vs. "Shagaisen", we have to seek for a more detailed and practical classification of Japanese modern shipowners. In this case, the Shasen is not only a too distinct type or concept to be understood easily, but in fact, it consists, as it has been shown, of only a few large companies that were very well-known. So, it is unnecessary to subdivide them. It would be better to grasp them as a single group or type.

In comparison, the Shagaisen was a very complicated group-definition and included so many kinds of shipowners that they would have to be subdivided according to their real specific characters.

The earliest Shagaisen group (Shagaisenshu, owners of Shagaisen) who adapted steamers before the 30th Year of Meiji (1897) can be first classified into the following two types.

(1) older (traditional) shipowners' group
(2) newer shipowners' group

This method has a different importance from the above-mentioned classification of Shasen vs. Shagaisen, although there is some resemblance. The former type, as it has been stated, was the greatest and most important successor to the past shipping business, and the majority moved from Japanese style sailing vessels to European style sailing vessels in the first stage and to steamers later. The latter, as well as all of Shasen, was so-called new comer who started out to engage in the shipping business without any experience after the Meiji Era.

Each of them should be divided into smaller but more tangible groups, according to the author's opinion, for the purpose of looking for more detailed and useful types of Japanese modern shipowners. First, the older shipowners' group will be classified into four smaller groups as follows:

(a) Kitamae-sen group
(b) Taru and Higaki Kaisen group
(c) Kyushu and Inland Sea of Seto shipowners' group
(d) others

The three groups, (a), (b) and (c), were the most famous and important shipping forces before Meiji and played a large part in the further develop-

ment of Japanese shipping with their own specialities and traditions. Without sufficient imformation about these groups it is impossible to understand completely the actual growing process of Japanese shipping.

The newer shipowners' group is somewhat difficult to subdivide, for there is as yet no definite standard of classification. The author of this article has hitherto tried such subdivisions as follows, and believes that it needs not only no correction but will be very useful in the study of the development process of the modern Japanese shipping industry.

(a) "Zaibatsu" group
(b) other general foreign traders' group
(c) group of shipowners as new entrepreneurs
    1) promoter of other trades
    2) pure shipowners (shipping companies)
    3) others

The Zaibatsu group consisted of the Mitsui Bussan Kaisha and the Mitsubishi Shoji Kaisha. The other general foreign traders' group, who set up the shipping business chiefly as a side job after the Twentieth Century, especially since World War I, had better be distinguished from the above Zaibatsu group. They played a temporary but unnegligible part in the later development of modern shipping industry, though they rendered hardly any direct service to the reconstruction of today's Japanese shipping after World War II. Except for a few shipowners, the third type was a comparatively new product. And the subdivision within this group is based on our specific viewpoint gained from studying Japanese specialities as well as all other classifications.

1961. 9. 9.

ON THE EMPLOYMENT SYSTEM OF SEAMEN IN JAPAN

Hiromasa YAMAMOTO

I

An Outline of the Employment System of Seamen in Japan

The working conditions of seamen are not only in many ways different from those of laborers on land, but have also peculiar disadvantages. One of the greatest disadvantages of seamen is that their working place, i.e. the ships in navigation are separated absolutely from seamen's homes and society on land. Therefore, after a certain period of off-shore work it becomes necessary for seamen to leave their ships so as to have a chance for a vacation with their families and to have contact with the social life on land. Accordingly, in the employment system for seafarers, the pay-off system has been traditionally adopted from ancient times by all employers. In this system a shipowner hires seamen at the beginning of a navigation stating in the contract that he will discharge them after a predetermined number of navigations.

In the prewar period up to World War II most of the Japanese shipping companies had also adopted this traditional employment system with regard to their unlicensed personnel, while they had employed the larger part of their officers on a continuous basis.(1) However, after the war the employment system of Japan changed so that both officers and unlicensed personnel were employed continuously and exclusively by respective shipping companies. Of course, the continuous employment of seamen is the recent international trend. Kindred employment systems adopted by several foreign ship operators may be found. Such a system can be found in the United Kingdom where the Merchant Navy Established Service Scheme has been enforced since 1947.(2) But in the Scheme a considerable part of all seafarers who are under the General Service Contract are not employed permanently by the specific companies, though seamen who work under

(1) As to the prewar employment system of seamen in Japan, see, H. Yamamoto, "Job exchange service for unlicensed seamen in the prewar period."(Kobe Univ. International Economic Review, No.11)

(2) Regarding the outline of the Scheme, refer to the following. Thornton, British Shipping, 2nd ed., 1959. p.202 ff.

the Company Service Contract are employed by the specific companies during the period of contract. In contrast the employment system of seamen in Japan has peculiar points quite different from those of foreign seamen. In Japan all ship operators have adopted this system of employment and all seamen are also employed under this system. In addition, in the case of Japan the employment relation between seamen and shipping companies are of long term and exclusive in character, continuing as long as either seamen or employers want to continue the employment contract. Therefore the employment system of seamen in Japan may be called "the exclusive continuous employment system" in comparison with the traditional "pay-off" system.

In order to clarify the effect of the employment system of seamen in Japan upon the employers, seamen and their trade union, and also to show the difference between this system and others, it is convenient to give an outline of the employment system of Japanese seamen. For those who receive licenses of officers after graduation from mercantile marine colleges and for those who are qualified as unlicensed personnel after leaving national training courses for seamen the public employment security offices for seamen will secure jobs for them in respective shipping companies. The employment contract concluded at that time will be on a long term basis and continuous in character so that it will be effective until either the employer or seaman expresses a desire to end the contract, and in ordinary cases it will continue until a seamen reaches the retirement age of the company, while under the traditional employment system the employment contract of seamen was on a short term basis ending after a few voyages or months. Of course under the Japanese employment system off-shore work of seamen is intermittent. In accordance with the seamen's law and labor agreement, a seaman who has engaged in continuous voyages of twelve months has the right of taking a vacation on land with pay. Seamen may leave their ship also for a vacation with no pay, due to accidents or other reasons. However, the leaving of a ship by seamen does not mean that their employment contracts have ended. In other words, seamen maintain their employment relations with a specific shipping company not only during off-shore working peroids but also during their stay on land.

II

Characteristics of the Employment System of Japan

(1) Stability of seamen's employment

The above-mentioned employment system of Japanese seamen has a peculiar effect upon seamen, shipping companies and also the seamen's

union. One of the most important effects is that it secures the stability of seamen's employment and also does away with the activities of crimps or boarding-house keepers. Under the traditional employment system seamen had to suffer from intermittent and unstable employment due to the nature of the employment system in addition to the cyclical fluctuation of employment in the shipping industry. As a result they often fell into the hands of boarding house keepers. Measures to remedy short comings of this traditional employment system were adopted. In 1920 member countries of the International Labor Organization adopted the rule regarding the establishemnt of a public employment exchange service office for seamen in order to check the activities of boarding-house keepers. Recently the necessity of increasing the continuity and stability of seamen's employment has been admitted as a more fundamental problem. In 1944 ITF laid stress on the importance of stability of employment in the International Charter of Seamen which was adopted at the London Convention. The International Labor Organization adopted the resolution regarding the continuous and regular employment of seamen. In the United Kingdom the Merchant Navy Established Service Scheme whose object is to secure the stability of seamen's employment was established in 1947.(3) In the light of these international trends the present employment system of Japan should be highly appreciated because it affords seamen stability in their employment.

In Japan a seaman waiting for his next navigation as a reserve personnel after his vacation receives his wage which amounts to about half of his earning when on board.(4) The amount of seamen's average wages and allowances on land which is paid while they are waiting for their next manning is

(3) K. Kokado, "International prospect of seamen's problem." 1958. pp. 333-343.

(4) As a result of the fact that all Japanese seamen are employed permanently by specific companies, their wage structure corresponding to the employment system is also different from those of foreign countries. In Japan the wages of seamen are determined and paid without regard to whether they work on board or stay on land, However, when a seaman is on board, he receives many kinds of allowances which are paid in addition to his wage, while he receives only his wage and family pay when he spends a vacation period or is waiting on land for his next navigation.

The average monthly earnings of seamen on board*

wage	45.7%
family pay	2.9
manning pay	14.0
navigation allowance	26.8
overtime	6.7
other allowance	3.9
total	100.0

* calculated regarding the crew (including both officers and unlicensed personnel) of steamships of 5.000 g. t. and over in September, 1958.

Source: Ministry of Transportation.

nearly 70% of the average wage of workers employed by manufacturing industries. Therefore seamen can enjoy their vacation on land without consideration of finding their another job.

(2) Emergence of wage differentials

While the employment system of Japanese seamen secures the stability of employment, it is a hindrance in the movement of maritime labor from one shipping company to another in combination with the characteristics of the wage system.

Generally speaking, the distinctive trait of the wage system of Japan is that the wage of a worker increases in accordance with the increase in the period of his employment in a certain enterprise. Consequently there may be differences between the wages of workers engaged in the same job in the same enterprise, if there are differences in the length of their employment, even in cases where the technique or productivity of a worker does not increase proportionally to the increase in the period of his experience.(5) Similar characteristics may be found in the wage system of seamen.

In the wage system of seamen the minimum amount of initial wage is determined with regard to each job, and in addition the increment of wage in accordance with the increase of the period of employment is also determined by labor agreement. Accordingly seamen's wage will increase automatically with the increase of the length of their employment. However, if a seaman changes his employer, his wage at his new place of employment is not necessarily based on the full period of his experience. Therefore, the wage system of seamen has the effect of encouraging the permanent employment of seamen with the same employer and discourages their changing of employers.

Moreover, under the employment system of Japanese seamen it is very difficult for seamen out of employment to find new employment, and in fact there can be found only a few cases in which seamen change their employers in Japan. Because Japanese shipping companies employ sufficient crew members and reserve seamen necessary to operate ships according to schedules, their demands for seamen are limited to filling up vacancies which emerge due to the retirement of old seamen or to man newly built vessels. And shipping companies prefer ordinarily to fill up their demand with new graduates from mercantile marine colleges and training courses. Consequently, if a seaman loses his employment for some reason, his new employment field will be limited to coastwise shipping or fishing boats.

(5) cf. S. Ujihara, W.Fujita and N.Funahashi, Japan Type trade union and seniority system, 1960.

The demand for experienced seamen by shipping companies operating ocean-going vessels are exceptional even in the case of temporary hiring.(6)

Owing to the above-mentioned conditions which disturb the movement of maritime labor, a difference in wages and working conditions emerged and grew larger among shipping companies, reflecting the difference of earning power and labor management among shipping companies. Of course under the traditional employment system of seamen frequent movements of maritime labor tends to set the wages of seamen in the same job at the same level, and there is little room for the emergence of wage differentials among shipping companies.

During the war all seamen of Japan were under the control of the government, and their wages and working conditions were regulated. At the reopening of private shipping activities after governmental control over shipping was abolished, there were few differentials in the wages among the seamen employed by respective shipping companies, though the exclusive continuous employment system of seamen was then adopted by all shipping companies. At that time wages and working conditions were determined by the uniform labor agreement between the Japan Shipowners' Association and the seamen's union. However, wage differentials gradually grew larger among seamen who were employed by respective shipping companies, as the differences in earning power became clear among shipping companies—especially between companies engaging in coastwise trade and those engaging in foreign trade. In 1955, at last, uniform collective bargaining regarding wage and working condition was abolished due to the discord of interests of shipowners, resulting in the separate labor agreement concluded respectively between the seamen's union and shipowner's groups that were organized by those maintaining similar trades. Thenceforth wage differentials grew much larger among different groups of shipowners. For example, wage differentials among seamen who were employed by different groups of shipowners were as follows at the beginning of 1958.(7)

(6) cf. Monthly Report of employment exchange service for seamen, Aug. 1960. pp.9-10.

(7) Commission of Research for the Employment System of Seamen, "Problems of Joint Employment System, 1959, pp. 14-15.

(Differences of average wage of seamen employed by respective groups of shipowners)

	wage (yen)	%
Group composed mainly of liner operators	16,643	100
Group composed of tramp operators and shipowners whose vessels are chartered by large ship operators in the Kanto district	15,114	91
Group composed of tramp operators and shipowners whose vessels are chartered by large ship operators in the Hanshin district	14,521	87
Group composed of coastwise shipowners in the Kanto district	13,120	79
Group composed of coastwise shipowners in the Hanshin district	12,566	76

In addition, there may also be found great wage differentials among seamen employed by shipping companies belonging to the same group in relation to the collective bargaining regarding wage. If we take as the base the average wages of seamen who are employed by a company that pays the highest wages, the average wages of seamen who are employed by liner operators is 76%, and that of seamen employed by coastwise ship operators is only 59%.(8)

Regarding welfare facilities maintained by respective shipping companies for their employees there are considerable differences. Though welfare facilities for seamen are partly determined by collective bargaining, many facilities including lodging houses at ports are maintained by respective shipping companies with no relation to the seamen's union.(9)

Thus wages and working conditions show great differences among seamen who are employed by different shipping companies due to the institutional hindrance of their movement, i.e. the exclusive continuous employment system.

(3) Effects upon labor management

Under the traditional employment system of seamen each shipowner can fill up any vacancies in crew caused by discharging a man by hiring seamen out of employment at convenient ports of call. In other words each shipowner may select and hire at will the necessary number of seamen from the labor pool of seamen out of employment. In this case the maritime labor pool, which supplies necessary seamen to ship operators so that they can operate their ships continuously without hindrance, is maintained and financed not by shipping companies but by the seamen or by the government which grants an unemployment allowance.

(8) Y. Sekiya, "On the collective bargaining at the stage of the branch of Seamen's Union, (Kaiji Kenkyu, No.45) p.70.

(9) cf. Y. Sekiya, op. cit. p. 71.

On the contrary under the exclusive continuous employment system of Japan each shipping company must maintain not only crews but also certain reserve members on its own account so as to enable continuous navigation even in the case when several members of the crew leave the ship.(10) That results undoubtedly in the increase of personnel expenditures and also in the increase of ship operating costs for each shipowner. In case of small shipping companies operating only a few vessels, it is quite natural that their personnel expenditures should increase much more than those of large shipping companies. This is because the reserve members to the crew of small shipping companies becomes much larger than that of large shipping companies, if the former maintains adequate reserve seamen all jobs, including officers and wireless operators. Accordingly small shipping companies find difficulty in maintaining an adequate number of reserve members on their own accounts. They are often supplied with the necessary seamen to fill up their vacancies in the crew regarding a specific job from a large shipping company.

Though shipowners have to maintain reserve seamen on their own accounts under the exclusive employment system, on the other hand they may anticipate the ease of labor management and also improvement in the working efficiency of their crew. Because shipowners can select and employ permanently seamen who are considered as most adequate for the company, the seamen tend to show their loyalty to the company because of their enterprise-consciousness under the exclusive continuous employment system. (Refer to 2. 4)

(4) Effects upon the seamen's union(11)

Under the exclusive continuous employment system a seaman tends to be conscious that he is an employee of a certain shipping company, because he finds much difficulty in changing his employer, and his wage and working conditions are influenced directly by the ups and down of his employer. The above-mentioned consciousness of seamen has the effect of strengthening their motive for working for the development of the company.

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(10) According to the estimate of Bureau of Seamen, Ministry of Transportation, the ratios of reserve seamen against crew members were in average as follows during the peiod of 1958 and 1959;

the average ratio of reserve seamen against crew members

officer	deck	25.1%
	engine	21.1
unlicensed personnel	deck	18.5
	engine	21.6

(11) cf. H. Yamamoto, Singularity of the Structure of Seamen's Union of Japan. (Kobe Economic & Business Review, 7th annual Report. 1960.).

At the same time they tend to lose consciousness of coordination with other seamen employed by other shipping companies.

It is inevitable that the above-mentioned consciousness of seamen had an undesirable influence upon the seamen's union which stands for the common interests and coordination of seamen. In the 15 years' history of the seamen's union after the war several attempts of organizing an enterprise union appeared among the seamen, though they were in vain. The destruction of the uniform collective bargaining system in 1955 was partly due to the discord of interests of seamen employed by different shipping companies.

III

The Joint Employment Pool Program

In 1958 at the 17th national convention the All Japan Seamen's Union determined to adopt a program for the joint employment pool of seamen as the most preferable employment system and stated that necessary measures should be taken to realize the employment pool. The contents of the program is as follows;

1. For the purpose of employing seamen jointly a group of several shipowners is to set up a joint employment organization.
2. The joint employment organization is to take the position of employer of seamen and maintain the necessary number of seamen so as to be able to supply a crew to its member-shipowners and to control the reserve seamen on land.
3. The wages and working conditions of seamen are to be determined uniformly by a labor agreement to be concluded between the joint employment organization and the seamen's union.
4. The wages and allowances of seamen waiting on land for their next navigation are to be paid by the joint employment organization.
5. Necessary expenses for maintaining the organization are to be contributed by the member-shipowners.
6. Though it is desirable that the members of the organization include all shipowners, at the beginning the organization should be organized by several shipping companies in which there are comparatively little differences in wages and working conditions.

The joint employment pool program which was presented by the seamen's union had of course the intention of eliminating the differences in

(12) As to the attitude of shipowners against the system, refer to Commission of Research for Employment System of Seamen, "Problems of Joint Employment System," 1959.

wages and other working condition emerging under the present employment system of Japan, and of strengthening the structure of the seamen's union. But shipowners have made clear their attitude against the program up to the present, for they consider that a change in the employment system would neither decrease the personnel expenses to any large amount nor make it easy for labor management.(12)

In the case of large shipping companies operating more than ten ocean-going vessels, the ratio of the reserve seamen on land against the seamen on board is comparatively stable and does not result in a large decrease on every job if the number of the crew increases as the result of an increase in their fleet. Consequently, in the case of large shipping companies if they adopt the joint employment system, they can anticipate neither a decrease in the number of reserve seamen, nor much decrease in expense for maintaining reserve seamen, for they must contribute to the joint employment organization. Moreover, because many of the large shipping companies engage in liner sevices, they attach more importance to the skills of seamen and to the smoothness of labor management rather than to any relative decrease in personnel expenses.

In the case of small shipping companies, the joint employment system would make it possible to lower the ratio of reserve seamen as compared to their crew. However, among them those who customarily have their vessels chartered by large shipping companies need not maintain a large number of reserve seamen, for vacancies in the crew of their vessels may be supplied by the charterers, if necessary. Therefore, not all small shipping companies feel the necessity of establishing a joint employment pool so as to secure the necessary reserve seamen. Moreover, all of them may face the possibility of employing seamen at higher wages, as it is the purpose of the joint employment system to destroy the cause of wage differentials among seamen.

On the other hand seamen do not show a uniform attitude toward the system. Seamen who are employed by small shipping companies can gain many advantages including an improvement in wage and welfare facilities, and also an extension of their retraining period in which to obtain upper grade licenses. On the contrary employees of large shipping companies are against this system, because they are afraid of the possibility of losing their better wages and working conditions.(13) In short, the possibility of reali-

(13) As to the opinion of seamen employed by large shipping companies with regard to the system, see. "Questions and Answers regarding the Joint Employment System" (All Japan Seamen's Union, educational pumphlet No.1, Jan. 1960).

zing the program of the joint employment pool is found only among seamen employed by small shipping companies. It appears quite difficult at the present stage to establish a joint employment pool including all seamen for the purpose of supplying crews to all shipping companies.

While the joint employment pool program faces many hindrances towards its realization, there can be found several benefits in the recent labor agreements that are useful in decreasing the differences in wages among seamen. Of course the results have the effect of remedying defects of the exclusive continuous employment system on the one hand, and they also form conditions for the smooth change of the present employment system into the new on the other hand.

A remedy to decrease the differences in wages among seamen was realized in collective bargaining in the autumn of 1957 in the form of a minimum wage system for seamen on board. In this system the initial wage is determined with regard to each job and size of vessel (which corresponds to the trade routes, for example, coastwise and oceangoing), and the wage increases in proportion to the increase of the period of experience of the seamen. The amount of the wages thus determined is called the guaranteed minimum wage. If the wage of a seaman employed by a certain shipping company is lower than the guaranteed minimum wage, the latter is determined as his wage so long as he engages in his job on board, while the former is paid as his wage when he is waiting on land for his next navigation. By this system wage differentials among seamen who are employed by different companies decrease or disappear at least when they work on board, though there are still considerable differences in wages which are paid to seamen on land and in welfare facilities. By the enforcement of this system about 19% of all seamen are paid the increased wages. Seamen who are employed by smaller shipping companies are of course much more benefited by this system. In the case of 39 small ship-owners of the Hanshin district whose vessels are customarily chartered by large shipping companies 26% of their officers and 34% of their unlicensed seamen are under application for the guaranteed minimum wage system.(14)

Another important benefit of collective bargaining by the seamen's union is the establishemnt of an industry-wide retirement pension plan. In August 1960, the Shipowners' Association and seamen's union concluded a retirement pension plan for seamen. This plan is enforced on an industry-

(14) D. Mori, Minimum wage system of seamen, Shipping and Shipbuilding Seminar, Aug 1957. No.11, p.15.

wide scale with the co-operation of 161 shipping companies including all members of the shipowners' association which is organized by companies of different sizes. The point that we should pay attention to in relation to the employment system is that the necessary period for seamen to be eligible for a pension is calculated based on the whole period of his off-shore work even if he may change his employer. We may consider that the pension plan of seamen includes implicitly the possiblility of destroying the present exclusive continous employment system, because in the plan all seamen are treated equally regardless of their employers and seamen do not lose any advantages because of their change of employers.(15)

IV

Conclusion

As is generally admitted, it is indispensable for the welfare of seamen that; seamen should be given a reasonable period of vacation with pay, by which they can rest in their homes and have contact with society on land; and the chance to be employed should be given equally to each seaman who is waiting his next employment after his vacation. For this several measures or the combination of them may be adopted. The permanent employment of seamen by a specific company is not the sole means for attaining this purpose. The seamen's livelihood during their wait for their next employment may be maintained either by a public unemployment allowance or by a private unemployment allowance, which is contributed to by shipowners or the seamen's union. And also the chance of employment may be equalized by means of a union-hiring hall system which is found in the United States or by means of a public employment exchange service.

Incidentally, the measure most adequate to secure the welfare of seamen in one country is not necessarily the most adequate measure in another country, if the labor relations of the shipping industry, especially the conditions of demand and supply of maritime labor, are different. For example, when the supply of maritime labor is balanced to the demand, the stability of seamen's employment may be attained only through the service of the public employment exchange office. On the contrary, if there are many seamen out of employment in the country, it is quite difficult to secure the stability of the seamen's employment however well the employment system

(15) If we compare the pension plan of seamen with other private pension plans enforced by different industries, the characteristics of the former become clearer. There are several private pension plans for retired workers in Japan. However, all of them except that of seamen are enforced by respective enterprises only for the purpose of encouraging long service of employes.

may be set up. Indeed the present employment system of Japan, i.e. the exclusive continuous employment system was introduced inevitably so as to avoid the large unemployment of seamen after the destruction of our merchant fleet due to the war. At that time the exclusive continuous employment system was the most adequate, for under other employment systems the activities of boarding house keepers were inveitable in the case of widespread unemployment among seamen. However, as the result of the fact that seamen were employed by specific companies exclusively and that they had great difficulty in finding new employment, seamen had to maintain their services in the same company even if they were not satisfied with their wages and working conditions. The above conditions enabled the companies in financial dificulties to maintain their personnel expenses at a low level. Thus the difference in wages among seamen was a necessary outcome in spite of the effort of the seamen's union. In other words the difference in wages among seamen was due to the institutional hindrance to the movement of maritime labor as well as to the comparative oversupply of maritime labor. Therefore in order to solve the wage difference among seamen along with stabilizing seamen's employment, a mere change in the employment system is not adequate. But a more basic measure to balance the supply of maritime labor to the demand should be introduced.

The joint employment pool program introduced by seamen's union intends mainly to remove the institutional hindrance to the movement of maritime labor. But, as we have seen already the establishment of a joint employment pool including all seamen is quite difficult, and the co-existence of a joint employment pool and the present employment system may still leave wage differentials among the seamen under a different employment system, resulting in an undesirable influence upon the consciousness of seamen. Consequently measures to balance the supply of maritime labor to the demand in company with the efforts of collective bargaining to decrease the wage differentials among seamen is more adequate for the the welfare of seamen in Japan. An improvement in the employment system should be taken as the next step.

A STUDY ON JAPAN'S INVISIBLE TRADE

Fukuo KAWATA

I

The purpose of this article is to make an analysis of Japan's invisible trade in 1936, and in postwar years (1950-1960).

According to the statistics of the International Monetary Fund, trade on current account is divided into ten broad categories: (1) merchandise, (2) non-monetary gold, (3) foreign travel, (4) transportation, (5) insurance, (6) investment income, (7) government transactions not included elsewhere, (8) miscellaneous services, (9) private donations, and (10) official donations. The invisible trade items with which we are going to deal cover those from (3) to (10).

Table 1 shows the amount of Japan's invisible trade and its relative importance to her total trade. The amount of receipts increased by 60% during the period from 1950 through 1960, while that of payments increased by 600% during the same period. The relative importance of invisible trade receipts to her total trade receipts, visible as well as invisible, shows a declining tendency from 1950 till 1960, while the ratio of invisible payments to her total trade payments shows an upward trend during the same period.

In 1936, invisible trade receipts accounted for 24% of total trade receipts. This percentage showed more than 40% in 1950, 1951, 1952, and 1953, but since then it began to decline, coming down to 20% in 1960, which is below the pre-war level. On the other hand, the ratio of invisible payments to total trade payments was 16% in 1936. This figure rose in the postwar years, amounting to 23% in 1960. It was highest in 1958 with 27%. In short, the relative importance of invisible receipts was lower in 1960 than in 1936, while that of invisible payments was higher in 1960 than in 1936.

Table 2 shows changes in the composition of Japan's invisible receipts. It can be seen from this table that the largest share was taken by transportation and investment income in 1936, each accounting for 30% of total invisible receipts. In post-war years, however, the largest share was taken by government transactions, the major part of which constituted foreign

Table 1. Japan's Invisible Trade and its relative importance to her Total Trade

	Invisible Trade		Invisible Trade as percentage of Total Trade	
	Receipts (million dollars)	Payments (million dollars)	Receipts (%)	Payments (%)
1936	316	195	24	16
1950	635	162	44	17
1951	963	346	41	17
1952	948	316	42	15
1953	955	371	43	15
1954	790	414	33	17
1955	758	551	27	19
1956	968	771	29	23
1957	912	1,131	24	26
1958	843	949	23	17
1959	892	892	21	23
1960	1,008	1,126	20	23

Source : IMF, Balance of Payments Yearbook, and Economic Planning Agency, Japanese Government, "Keizai-Hakusho" (Economic Survey of Japan), 1961.

Note : Figures in the following tables are quoted or calculated from above mentioned sources, unless otherwise noted.

military expenditures. Receipts from transportation gradually increased their share, and regained their prewar level in 1959 and 1960.

Receipts from investment income, which were one of the largest items in prewar years, declined heavily in postwar years, but they were gradually increasing since 1955. Receipts from insurance, from foreign travel, and from private donations also decreased their shares in postwar years, while receipts from miscellaneous services increased. Receipts from official donations, which were negligibly small in 1936, increased their share largely

Table 2. Composition of Invisible Receipts of Japan (%)

Item	1936	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Foreign Traval	8	3	1	1	1	1	2	2	2	3	4	4
Transportation	31	3	4	7	8	12	17	24	29	29	32	32
Insurance	12	—	—	1	1	1	1	1	2	2	3	3
Investment Income	30	—	—	1	1	1	2	3	3	3	5	8
Government, n. i. e.	4	24	65	83	85	78	70	61	54	51	44	42
Miscelleneous	3	6	3	2	2	3	3	4	5	6	6	5
Private Donations	12	7	16	5	2	4	4	4	4	5	6	6
Official Donations	..	56	11	—	—	—	1	1	1	1	—	—
Total Invisible Receipts	100	100	100	100	100	100	100	100	100	100	100	100

Source : See Table 1.

in 1950, but they declined thereafter owing to the termination of aid from the U.S. government.

Table 3 tells us of the changes in the composition of invisible payments of Japan. Government transactions, investment income, insurance, and transportation constituted major items for invisible payments in 1936. In postwar years transportation had occupied by far the largest part in invisible payments. It registered as high as 83% in 1950. This figure declined afterwards and in 1960 it was 52%, and yet this still is three times as large as the figure in 1936.

Miscellaneous services also increased their share from 8% in 1936 to 21% in 1960. The main item contributing to the increase of miscellaneous service payments in recent years has been patent royalties. This implies the progress of technological innovations in Japanese industry through the import of foreign "know-how". Other items, such as government transactions, investment income, insurance and foreign travel decreased their shares in postwar years. Official donations, however, increased their share since 1955, owing to the payment of reparations.

Table 3. Composition of Invisible Payments of Japan (%)

Item	1936	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Foreign Travel	9	1	1	2	2	2	2	2	1	2	2	4
Transportation	17	83	74	71	67	61	57	66	68	43	52	52
Insurance	18	2	5	5	5	5	4	3	3	3	4	4
Investment Income	22	4	2	3	9	11	12	9	7	7	9	10
Government, n. i. e.	25	—	—	2	2	3	3	2	2	2	3	3
Miscellaneous	8	9	15	12	14	17	17	15	12	17	22	21
Private Donations	1	1	3	5	1	1	—	—	—	—	—	—
Official Donations	—	—	—	—	—	—	5	3	7	(1) 26	8	6
Total Invisible Payments	100	100	100	100	100	100	100	100	100	100	100	100

Source : See Table 1.
Note : (1) The percentage for reparations was 7%.

Table 4 shows the regional distribution of our invisible trade in 1959. On the receipt side, the United States and Canada hold the preeminent position, taking about two thirds of the total. "Other countries" come next, followed by OEEC countries. On the payment side, the United States and Canada also rank first, and OEEC countries take the second place with small difference, followed by "other countries." The amounts of receipts and payments are almost equal in total. The United States and Canada alone register positive balance, while all other regions show negative ones.

Table 4. Regional Distribution of Invisible Trade in 1959.
(in millions of U.S. dollars)

Region	Receipts	Payments	Balances
United States and Canada	616.1	312.7	303.4
OEEC countries	77.7	285.5	−207.8
Soviet area	2.0	7.7	−5.7
Other countries	190.9	202.1	−11.2
Intenational Institutions	0.3	10.7	−10.4
Unallocated	3.4	71.4	−68.0
Total	890.4	890.1	+0.3

Source : See Table 1.

II

Now let us examine the amount and balance of receipts and payments of each individual item of invisible trade.

(1) Foreign Travel

The amount of receipts and payments of foreign travel tended to increase in post-war years, although their relative importance in total invisibles declined. The foreign travel account registered positive net receipts both in 1936 and in postwar years, except in 1960 when receipts and payments were almost equal. (See Table 5-1.)

Table 5-1. Receipts and Payments in Foreign Travel
(in millions of U.S. dollars)

Year	Receipts	Payments	Net Receipts
1936	26	17	9
1950	21	1	20
1951	9	4	5
1952	8	5	3
1953	10	7	3
1954	11	7	4
1955	14	8	6
1956	17	12	5
1957	22	15	7
1958	24	16	8
1959	33	20	13
1960	40	40	0

The regional distribution of foreign travel account in 1959 is shown in Table 5-2. As is seen from this table, the United States and Canada

take up the major part in this account. They occupy about 80% of total receipts and about 60% of total payments. On the receipt side, OEEC countries come next to the United States and Canada, followed by "other countries". On the payment side, "other countries" rank second, and OEEC countries hold the third place.

Table 5-2. Regional Distribution of Foreign Travel in 1959.
(in millions of U.S. dollars)

Region	Receips	Payments	Balances
United States and Canada	26.5	11.7	14.8
OEEC countries	3.5	3.6	−0.1
Soviet Area	—	0.1	−0.1
Other Countries	2.6	4.7	−2.1
International Institutions	—	—	—
Unallocated	—	—	—
Total	32.6	20.1	12.5

Source : See Table 1.

The balance of receipts and payments is positive in total, owing to the large amount of net receipts from the United States and Canada, which more than offsets the negative balance of other regions.

(2) Transportation

The amount of receipts and payments increased in postwar years, but the balance turned negative in postwar years, although it was positive in 1936. As to the receipt side, freight holds the major part, but as to the payment side freight occupies a smaller part in 1958 and 1959, owing to the increase of port disbursements.

The transportation account as stated above, registered a positive balance in 1936, but it turned negative in postwar years. The peak of negative balance was reached in 1957, but thereafter net payments decreased. The net payments of freight were also highest in 1957, but in the following years it declined remarkably. (See Table 6-1.)

As is shown in Tables 2 and 3, the relative importance of transportation receipts recovered their prewar level in 1960, while that of transportation payments became far greater in postwar years.

Table 6-2 shows the regional distribution of transportation transaction in 1959. On the receipt side, "other countries" hold the first place, and the United States and Canada come next, followed by OEEC countries. On the payment side, OEEC countries rank first, and the United States

Table 6-1. Receipts and Payments in Transportation
(in millions of U.S. dollars).

Year	Receipts	Payments	Net Receipts
1936	96 (—)	32 (—)	64 (—)
1950	17 (2)	135 (131)	−118 (−129)
1951	41 (35)	256 (238)	−215 (−203)
1952	71 (54)	223 (201)	−152 (−147)
1953	77 (58)	247 (213)	−170 (−155)
1954	90 (75)	256 (209)	−166 (−134)
1955	127 (116)	276 (225)	−149 (−109)
1956	210 (158)	513 (334)	−303 (−179)
1957	261 (178)	762 (530)	−501 (−341)
1958	240 (178)	406 (187)	−166 (−9)
1959	288 (199)	467 (223)	−179 (−24)
1960	317 (—)	588 (—)	−271 (—)

Note : Figures in parentheses represent receipts from and payments for freight.

and Canada stand next, followed by "other countries".

The balance of receipt and payment is negative in total, and almost all regions show negative balance except "other countries".

Table 6-2. Regional Distribution of Transportation in 1959.
(in millions of U.S. dollars)

Region	Receipts	Payments	Balances
United States and Canada	105.1	138.5	−33.4
OEEC Countries	36.9	178.2	−141.3
Soviet Area	0.4	6.9	−6.5
Other countries	144.1	72.2	71.9
International Institutions	—	—	—
Unallocated	1.4	70.8	−69.4
Total	287.9	466.6	−178.7

(3) Insurance

The amount of receipts and payments in insurance tended to increase in postwar years. The balance which was positive in 1936, turned negative in postwar years. (See Table 7.) The relative importance of insurance receipts and payments to total invisibles became smaller in postwar years than they were in 1936. (See Tables 2 and 3.)

(4) Investment Income

The amount of receipts and payments of investment income tended to

increase during the postwar years. In contrast to the positive balance in 1936, the investment income of Japan showed a negative balance in postwar years. (See Table 8-1.) The share of investment income in invisible receipts and payments was far larger in 1936 than in postwar years, although the percentage shows a gradual increase in postwar years. (See Tables 2 and 3.) It is to be noted that in the latter years of the 1950's receipts and payments of items other than direct investment became much larger than in the former years. (See Table 8-1.)

Table 7. Receipts and Payments in Insurance
(in millions of U.S. dollars)

Year	Receipts	Payments	Net Receipts
1936	40	35	5
1950	—	3	−3
1951	4	16	−12
1952	6	15	−9
1953	5	18	−13
1954	9	20	−11
1955	10	19	−9
1956	12	25	−13
1957	17	34	−17
1958	22	32	−10
1959	24	39	−15
1960	32	48	−16

Table 8-2 shows the regional distribution of investment income transaction in 1959. On the receipt side, the United States and Canada hold the predominant position, occupying about three quarters of total receipts. Next come "other countries", taking up only about less than 20% of the total. On the payment side, the United States and Canada, also rank first, accounting for about 50% of total receipt. OEEC countries hold the second place with 35% of the total, followed by International Institutions.

The balance of receipts and payments is negative in total. The negative amount is largest for OEEC countries, followed by the United States and Canada, and International Institutions. It is only "other countries" that show a fairly large amount of positive balance.

(5) Government Transactions

One of the most important features in Japan's postwar invisible trade

Table 8-1. Receipts and Payments in Investment Income
(in millions of U.S. dollars.)

Year	Receipts	Payments	Net Receipts
1936	94 (—)	43 (—)	51 (—)
1950	— (—)	6 (5)	−6 (−5)
1951	1 (—)	6 (6)	−5 (−6)
1952	6 (—)	11 (4)	−5 (−4)
1953	12 (—)	35 (5)	−23 (−5)
1954	8 (—)	47 (7)	−39 (−7)
1955	14 (1)	56 (11)	−41 (−10)
1956	27 (3)	66 (15)	−39 (−12)
1957	34 (4)	82 (19)	−48 (−15)
1958	27 (5)	67 (11)	−40 (−6)
1959	48 (5)	85 (11)	−37 (−6)
1960	80 (—)	114 (—)	−34 (—)

Note : Figures in parentheses represent receipts from and payments for direct investment income. Items other than direct investment income include, for receipts, interest on foreign exchange deposits of Ministry of Finance and the Bank of Japan; and, for payments, interest on IBRD loans and on other government obligations and charges on IMF holdings of yen in excess of 75 per cent of Japan's quota.

Table 8-2. Regional Distribution of Investment Income in 1959.
(in millions of U. S. dollars)

Region	Receipts	Payments	Balances
United States and Canada	35.7	45.5	−9.8
OEEC countries	2.2	30.5	−28.3
Soviet Area	0.1	—	0.1
Other countries	7.6	0.4	7.2
International Institutions	0.2	8.7	−8.5
Unallocated	2.0	—	2.0
Total	47.8	85.1	−37.3

Source : See Table 1.

is the spectacular increase in the receipts of the government transactions. Almost all the amount is included in the foreign military expenditures account, which suddenly increased since the outbreak of the Korean conflict. The amount reached its peak in 1953, and after that year it tended to decrease. The amount of payments also tended to increase, covering Japanese diplomatic expenditures abroad and contributions to international organizations. The balance of Government rtansactions account was negative in 1936, but in the postwar years it turned positive. (See Table 9-1.)

The share of government transactions in invisible receipts which was

only 4% in 1936 rose to as high a level as 85% in 1953, but thereafter it gradually declined, registering 42% in 1960. (See Table 2.) By contrast, the ratio of government transactions to total invisible payments, which was 25% in 1936, declined in the postwar years to the low level of 2 or 3%. (See Table 3.)

Table 9-1. Receipts and Payments in Government Transactions, n.i.e.
(in millions of U.S. dollars)

Year	Receipts	Payments	Net Receipts
1936	12 (—)	50	−38
1950	154 (154)	..	154
1951	625 (624)	2	623
1952	792 (788)	6	786
1953	811 (803)	9	802
1954	614 (602)	11	603
1955	524 (505)	13	511
1956	524 (498)	19	505
1957	486 (449)	20	466
1958	427 (404)	24	403
1959	395 (381)	27	368
1960	427 (—)	32	395

Note : Figures in parentheses represent receipts from foreign military expenditures.

The regional distribution of government transactions account in 1959 is shown by Table 9-2.

On the receipt side, the United States and Canada occupy almost all the amount of total receipts. "Other countries" come next, followed by OEEC countries. On the payment side, "other countries" rank first, followed by the OEEC countries and the United States and Canada.

Table 9-2. Regional Distribution of Government Transactions in 1959.
(in millions of U. S. dollars)

Region	Receipts	Payments	Balances
United States and Canada	384.9	4.7	380.2
OEEC countries	2.2	4.8	−2.6
Soviet Area	0.3	0.3	0
Other countries	7.3	15.6	−8.3
International Institutions	0.1	2.0	−1.9
Unallocated	—	—	—
Total	394.8	27.4	367.4

Source : See Table 1.

The balance of receipt and payment is positive in total. Only the United States and Canada show positive balance, while all other regions register negative balance.

(6) Miscellaneous services

The amount of payments in the miscellaneous service account shows a remarkable rise in postwar years, although the increase in receipts was not so remarkable. Therefore the negative balance of this account increased greatly. (See Table 10-1.) Miscellaneous services cover receipts and payments of (1) fees, (2) film rental, (3) patent royalties, etc. (4) personal services, (5) communications, (6) adjustment, (7) construction abroad, (8) pensions, (9) management fees, (10) profits or losses on business activity abroad, (11) advertising, (12) subscription to press, (13) copyrights, (14) other rentals, (15) lottery tickets and prizes, (16) processing fees, (17) claims, (18) private contribution, (19) settlement of postal money order, (20) news services, (21) settlement of open book account, and (22) others.

The increase in payments is largely due to the rise of payments for patent royalties, etc. For example, the payment of patent royalties, tec. from Apirl, 1960 to March, 1961 amounted to 94 million dollars out of the total payment of 281 million dollars for miscellaneous services during the same period.

The ratio of miscellaneous services receipts to total invisible receipts was 3% in 1936 and 5% in 1960, while that of miscellaneous services payments to the total was 8% in 1936 and 21% in 1960. This indicates the considerable rise in the relative importance of miscellaneous service payments in postwar years. (See Tables 2 and 3.)

Table 10-2 shows the regional distribution of miscellaneous services and insurance in 1959. On the receipt side, the United States and Canada, and OEEC countries rank first with almost equal amount, "other countries" coming next to them. On the payment side, the United States and Canada occupy the foremost position, followed by OEEC countries and "other countries".

The balance of receipts and payments is negative both in total, and in each individual region. The largest negative balance is registered by the United States and Canada, followed by OEEC countries and "other countries."

(7) Private donations

The amount of receipts of private donations is far larger than that

Table 10-1. Receipts and Payments in Miscellaneous Services
(in millions of U.S. dollars)

Year	Receipts	Payments	Net Receipts
1936	10	16	−6
1950	37	15	22
1951(1)	101	51	50
1952	16	40	−24
1953	18	53	−35
1954	26	71	−45
1955	22	82	−60
1956	32	115	−83
1957	47	131	−84
1958	52	158	−106
1959	55	181	−126
1960	55	241	−186

Source : See Table 1.
Note : (1) The 1951 figures include receipts of 89.0 million dollars and payments of 24.1 million dollars under the convertible yen system.

Table 10-2. Regional Distribution of Miscellaneous Services and Insurance in 1959
(in millions of U.S. dollars)

Region	Receipts	Payments	Balances
United States and Canada	28.7	110.9	−82.2
OEEC countries	28.6	64.3	−35.7
Soviet Area	0.3	0.4	−0.1
Other countries	21.4	44.0	−22.6
International Institutions	—	—	—
Unallocated	—	0.6	−0.6
Total	79.0	220.2	−141.2

Source : See Table 1.

of payments, which makes the balance of this account positive both in 1936 and in postwar years. (See Table 11-1.) Private donations cover (1) personal remittance, (2) institutional remittance, (3) legacies, etc., and (4) migrants' transfers. The relative importance of private donations to total invisibles was 12% in 1936 and 6% in 1960 for receipts, while, for payments, it was 1% in 1936 and negligible in 1960. (See Tables 2 and 3.)

The regional distribution of net receipt of private donations, is shown in Talbe 11-2.

Private donations originating from the United States and Canada

account for about three quarters of the total. "Other countries" and OEEC countries follow the United States and Canada, although their respective amount is far smaller.

Table 11-1. Receipts and Payments in Private Donations
(in millions of U.S. dollars)

Year	Receipts	Payments	Net Receipts
1936	39	2	37
1950	45	2	43
1951	26	10	16
1952	50	16	34
1953	23	2	21
1954	32	3	29
1955	33	2	31
1956	34	1	33
1957	37	2	35
1958	41	2	39
1959	50	2	48
1960	57	4	53

Table 11-2. Regional Distribution of Net Receipts of Private Donations in 1959.
(in millions of U.S. dollars)

Region	Net Receipts
United States and Canada	34.9
OEEC countries	3.7
Soviet Area	0.9
Other countries	7.9
Total	47.4

Source : See Table 1.

(8) Official Donations

The amount of official donation receipts was negligible in 1936, but it increased to as much as 360 million dollars in 1950. This is because of U.S. aid. With the end of U.S. aid, the amount decreased. The amount of official donation payments cover reparations and grants. Since 1955, the payment of reparations increased, making the balance of this account negative. In addition, the waiver of the credit balance on Japan's open account with Indonesia largely increased the deficit of this account in 1958.

The relative importance of official donation receipts to total invisible

receipts was negligible in 1936, but it rose to 56% in 1950. Later it declined to a negligible figure in 1960. (See Talbe 12-1.)

The ratio of official donation payments was negligible in 1936, but in 1955, the figure showed 5%. (See Table 2 and 3.) This was due to the beginning of reparations payments. The figure in 1958 was 26%, but the ratio for reparations was only 7%, the rest mainly representing the amount of waiver of Japan's credit balance on her open account with Indonesia.

Table 12-1. Receipts and Payments in Official Donations
(in millions of U.S. dollars)

Year	Receipts	Payments	Net Receipts
1936	..	..	..
1950	360	..	360
1951	155	..	155
1952	5	..	5
1953	—	—	—
1954	—	—	—
1955	13	24 (24)	−11
1956	12	20 (20)	−8
1957	10	76 (76)	−66
1958	10	245 (64)	−235
1959	..	71 (70)	−71
1960	..	79 (69)	−79

Note : Figures in parentheres represent reparations. The payments in 1958 cover the waiver of the credit balance on Japan's Open Account with Indonesia amounting to 177 million dollars.

In contrast to private donations, official donations register net payments.

The regional distribution of net payment of official donations is given in Table 12-2.

Nearly all the amount of net payment is absorbed by "other countries", because reparations, which constitute by far the largest item of the payment of official donations, are paid to them.

Table 12-2. Regional Distribution of the Net Payment of Official Donations.
(in millions of U. S. dollars)

Region	Net Payments.
United States and Canada	1.1
OEEC countries	4.1
Soviet Area	—
Other countries	65.2
Total	70.4

Source : See Table 1.

III

It may be interesting to make an international comparison as to the size and relative importance of invisible trade of the major trading nations. Professor Ely Devons calculates invisible receipts and payments for major trading countries which had a total import trade of over $2,000 millions in 1958. According to his study, the size of Japan's invisible receipts ranked ninth and that of her invisible payments ranked fifth. (See Table 13.)

The ratio of Japan's invisible receipts to her total trade was 22.7% in 1958. This percentage is slightly lower than the world average, while the percentage of her invisible payments to total trade was 27.5%, which was almost equal to the world average. (See Table 13.)

Table 13. Invisible Receipts and Payments for Major Trading Countries: 1958.

	Invisible Trade		Invisible Trade as percentage of Total Trade	
	Receipts	Payments	Receipts	Payments
	$'000 m.	$'000 m.	(%)	(%)
World	**33.8**	**33.4**	**27.8**	**27.4**
United States	7.7	10.4	32.2	44.6
United Kingdom	3.8	3.1	28.2	24.7
Germany (1)	2.5	2.9	21.9	28.5
Canada	1.2	2.2	18.9	29.3
France (2)	1.6	1.4	33.0	28.6
Netherlands	1.1	0.7	35.8	23.8
Italy	1.8	0.9	41.7	23.0
Belgium	1.0	0.8	23.5	21.7
Japan	**0.8**	**0.9**	**22.7**	**27.5**
Sweden	0.8	0.6	28.7	20.6
Venezuela	0.1	1.2	3.8	43.6
Australia	0.4	0.8	17.9	32.0
India	0.5	0.2	28.5	8.7
Switzerland	0.7	0.4	30.7	17.3
Union of S. Africa	0.8	0.5	43.9	25.6

Source : Prof. Ely Devons, World Trade in Invisibles, Lloyds Bank Review. April 1961.
Note : (1) In this and in the following tables, "Germany" means "Western Germany".
(2) Figures for France relate to trade between the Franc Area and the rest of the world.

Table 14 shows the amount and relative importance of invisible receipts items of selected countries in 1958. As to the foreign travel item, the

United States is largest in amount, but Italy is more dependent upon this item than any other country. In the transportation item, the amount for the United States is the biggest, but the relative importance of this item to total invisible is greatest in the United Kingdom. For investment income, the amount for the United States is by far the largest, as well as being of greatest relative importance. As to government transactions, the amount for Germany is largest, but the ratio of this item to total invisibles is greatest in Japan.

With respect to insurance and miscellaneous services, United Kingdom ranks first both in the amount and in the relative importance, although the breakdown of insurance and miscellaneous services is not made clear in the United Kingdom. As far as the separate figures are available, the United States holds the first place in the amount both of insurance and of miscellaneous services. As for private donations, Italy ranks first and as for official donations, France stands in the first place.

Table 14. Invisible Receipts of Selected Countries in 1958
(in millions of U.S. dollars)

Item	U.S.	U.K.	Germany	France	Italy	Japan
1. Foreign Travel	825	386	452	163	492	24
2. Transportation	1,672	1,210	718	151	401	240
3. Investment Income	3,677	944	101	168	53	27
4. Government, n. i. e.	438	148	925	369	142	427
5. a Insurance	223	1,080 (1)	50	35	34	22
5. b Miscellaneous	851		264	350	390	52
5(a)+(b)	1,074	1,080 (1)	314	385	424	74
6. Private Donations	33	— (1)	12	— (1)	276 (1)	41
7. Official Donations	61	8	20	106 (1)	14	10
Total	7,780	3,776	2.592	1,342	1,802	843

Source : See Table 1.
Note : (1) Net receipts.

Table 15 shows the amount and the relative importance of invisible payments items for selected countries. For foreign travel, the amount for the United States is by far the largest, but the relative importance of this item is greatest for Germany. In transportation, the amount is largest for the United States, but the ratio of this item to total invisible payments is greatest in Italy, followed by that in Japan.

For investment income, the amount is largest for the United Kingdom, and the percentage of this item is also greatest for that country. As to the government transactions, the amount is by far the highest for the United

States, owing to her enormous amount of military expenditures abroad, and the percentage of this item is also highest in that country.

The United States, also ranks first in the payment of insurance, but Germany holds the first place in the payment of miscellaneous services. As for donation payment, the United States holds a preeminent position both in private and in official ones. The major part of official donations paid by the United States is used for her military aid, while those paid by Germany and Japan are devoted chiefly to indemmifications and reparations.

Table 15. Invisible Payments of Selected Countries in 1958.
(in millions of U.S. dollars)

Item	U.S.	U.K.	Germany	France	Italy	Japan
1. Foreign Travel	1,460	434	486	101	80	16
2. Transportation	1,636	969	799	291	433	406
3. Investment Income	786	829	250	108	88	67
4. Government, n.i.e.	3,899	620	92	183	48	24
5a. Insurance	304	(1) —	74	46	31	32
5b. Miscellaneous	310		713	493	163	158
5. (a)+(b)	614	(1) —	787	539	194	190
6. Private Donations	573	75	58	(1) 6	—	2
7. Official Donations	1,677	143	366	(1) —	23	245
Total	10,646	3,070	2,838	1,288	866	950

Source : See Table 1.
Note : (1) Net Payment.

Table 16 shows us invisible trade balances of selected countries in 1958. Balances are negative for the United States, Germany and Japan, and positive for Italy, the United Kingdom and France.

As to foreign travel, Italy, France and Japan register positive balances while the United States the United Kingdom and Germany show negative ones. The amount of deficit is largest for the United States, and that of surplus is largest for Italy. As to transportation, the United Kingdom and the United States show positive balances, while Japan, France, Germany and Italy have negative ones. The amount of deficit is highest in Japan, and that of surplus is biggest in the United Kingdom. As to investment income, the United States, the United Kingdom and France register positive balances, while Germany, Japan and Italy record negative ones. The amount of surplus is by far the largest in the United States, and that of deficit is greatest in Germany.

As to government transactions, the United States, the United Kingdom,

show negative balances, while other countries show positive ones. The amount of deficit is exceedingly large in the United States and that of surplus is greatest in Germany. Japan comes after Garmeny in the amount of those transactions. This tells us of the fact that a large amount of military expenditure is paid by the United States in these countries.

As regards insurance and miscellaneous services, the United Kingdom, the United States and Italy register positive balances, while other countries show negative ones. The amount of surplus is largest in the United Kingdom, while that of deficit is greatest in Germany.

With respect to private donations, only Italy shows positive balance, while as to official donations France alone records positive one. The United States is biggest in the amount of negative balances of both private and official donations. Her negative balance in private donations is chiefly due to the semittance in cash, personal as well as institutional, and that in official donations is mainly ascribed to the payments related to Mutual Security programs and other military aid grants.

Table 16. Balance of Invisible Trade of Selected Countries in 1958
(in millions of U.S. dollars)

Item	U.S.	U.K.	Germany	France	Italy	Japan
1. Foreign Travel	−635	−48	−34	67	412	8
2. Transportation	36	241	−81	−140	−32	−166
3. Investment Income	2,891	115	−149	60	−35	−40
4. Government, n.i.e.	−3,468	−472	383	186	94	403
5a. Insurance	−81	1,080	−24	11	3	−10
5b. Miscellaneous	541		−449	−143	227	−106
5. (a)+(b)	460	1,080	−473	−132	230	−116
6. Private Donations	−540	−75	−46	−6	276	39
7. Official Donations	−1,616	−135	−346	106	−9	−235
Total	−2,866	706	−246	54	936	−107

Source : See Table 1.

IV

In conclusion, we may summarize our findings about the features of the structure of Japan's invisible trade.

First we take up the receipt side.

(1) Japan is too much dependent upon government transactions. This item alone occupies about a half of her total invisible receipts in 1958. Germany also depends largely on government transactions, but

the percentage of this item is not so high as in Japan.

(2) The amount and percentage of foreign travel is too small in comparison with other countries. This item should and can be expanded by making efforts to attract foreign tourists.

(3) The amount and percentage of investment income is also very low. This is partly because of the losses affected by the Second World War. In order to enlarge this item, Japan should endeavor to expand her foreign investments.

(4) Receipts from transportation, which rank next to government transactions, should be increased by strengthening our merchant fleet. Now let us turn to the payment side.

(5) Payments for transportation holds the first place, taking up about 40% of the total. Compared with other countries, this percentage is only second to that of Italy.

(6) Payments for miscellaneous services have recently been increasing. This is chiefly due to the increase in the payments for patent royalties.

PROBLEMS OF INDUSTRIAL LOCATION RELATING TO REGIONAL DEVELOPMENT IN JAPAN

Minoru BEIKA

I

The writer was deeply impressed by public and private activities relating to regional development problems, during his recent tour in western countries. Roughly speaking, three common points concerning regional phenomena could be found in those countries; the policies of industrial location to develop the depressed or underdeveloped areas, the energetic activities of urban renewal or redevelopment, and the active formation of new suburban industrial districts. The same problems are found in Japan. But it is a matter of course that each country has its respective peculiar conditions, when observed more exactly. This article aims to approach the problems of industrial location relating to regional development in Japan, by comparison with the common phenomena and special conditions in western countries.

II

It is not necessary to say that Great Britain has had the most progressive national policy of industrial location, which purpose is to induce new industrial factories in several development areas (meaning depressed areas), while restraining their establishment in existing, excessively concentrated industrial districts, in the last thirty years. The French Government is following the British policy for avoiding excessive industrial concentration in Paris and the surrounding districts which occupy about 50% of her industries, after the Second World War. On the contrary, in the United States of America, the local government and local communities have taken leading parts in the regional development activities, by means of inducements to new industries and assisting existing industrial firms, while the Federal Government has promoted their activities indirectly. But recently as several districts have become depressed economically by the change in industrial structure, the Federal Government began to take a positive action in the redevelopment of these depressed areas.

In Japan, the Central Government has been shaping the policies for regional development and industrial location, following such experiences of western countries, within these last ten years. The government has

established service bureaus of information for industrial location to enterprises in Tokyo and several other local central cities. Since 1961, the establishment of a new plant is obliged to be registered with the government. If the location decided by the enterprise is undesirable from the national standpoint, that it brings an excessive concentration of industries, a change in its location plan is recommended by the government. Moreover several new plans to avoid an excessive concentration of industries and to develop underdeveloped local districts industrially, have been recently taken into consideration by relating departments of the central government. These plans have not yet been coordinated, but their final objectives can be seen to be the same. The locational policies of industry in Japan are common to those of western countries, as far as stated above. But more pointedly, our country has confronted peculiar, difficult problems on several points, physically, economically and socially.

(1) While the greater part of the areas in the western countries stated above are plain fields or low hills, 80% or over of the land in Japan is occupied by mountain ranges. Therefore the development of land transportation has been greatly obstructed, especially road networks in the inner part of Japan. This is a necessary factor in the development of motor truck transportation, which promotes the industrialization of the underdeveloped local districts by attracting new industries. Under such conditions, the government has been confronted with very difficult problems, as to which is more urgent; to redevelop the existing industrial congested districts, or to develop the underdeveloped local districts; to reconstruct or enlarge the main roads in the existing industrial districts to avoid congestion by the enormous development of industries; or to construct new roads in the underdeveloped rural districts to induce new industries in these districts, because road construction is very expensive, physically because of our mountainous districts, and socially because of our densely populated narrow plains.

(2) The policy in western countries to induce new industries in local districts, is chiefly due to the remarkable change in their industrial structure; the old industries have become depressed while the new have become prosperous. In other words, the districts set aside for the inducement of new industries are those that have already been industrialized to some degree, rather than the so-called underdeveloped districts, but the existing industries in such districts are of old type and depressed for this age of innovation. The depression of these old fashioned industries has brought about severe unemployment regionally. The policy of industrial location is related to the unemployment problem for the most part.

The condition is very different in Japan. The industrial districts in

Japan have been originally limited to a few metropolitan districts including the large representative ports for foreign trade. Mostly agriculture and forestry are the leading economic activities in the other local districts. Recently a few local coastal regions including reclaimed land only as been industrialized by some growing new industries. Therefore the income difference between residents of the central and local districts has been considerably large. Now some effective policies to decrease the difference should be taken by the government. Namely, in the case of Japan, the districts in which the new industries are to be induced, are not depressed areas, but so-called underdeveloped areas. The industrialization of these underdeveloped districts is more difficult than in the industrially depressed districts, since the former have had less experience in fostering industries than the latter, and most of the national industrialists have little interest in these districts when selecting a plant location, in most cases.

(3) Regional development, essentially, should depend on the positive activity of the local community. In western countries as stated above, the inhabitants in each district are more or less well conscious of the local community, and many industrial companies located there have taken into consideration the good community relations policy, especially in the United States of America.

In Japan, after the War, the local governments and public bodies endeavoured to induce new industries and then later began to make more general development plans. But these activities could be found only on the political or administrative level, and not in the local communities and in the policies of the industrial companies located there. They tend to depend mainly on the positive action of the central government.

However, such phenomena are reasonable from some standpoints. Japan has few resources and an excessive population. Therefore the efficiency of a national investment and development action is an indispensable factor, and a comprehensive national plan for regional development is most desirable. Excessive competition for development activities among local districts may lead to an undesirable waste of national resources.

Nevertheless, regional development is dependent on the spontaneous activities of the local communities, their inhabitants, and individual industrial companies located there. In the present free economy system, it should be naturally admitted that the national planning activity may conflict with the regional prospect to some degree. Such problems of national and regional planning activities lead to more desirable and adapted projects for regional development.

Due to the difficulties as stated above in Japan, social investments for

public facilities by the central and local governments are one of the most important factors in regional development. It is generally said that social investments are far less than private individual investments in Japan. This is not unreasonable. Nevertheless, it must be emphasized that the leaders of the industrial world of Japan should initiate more creative action, due to the above-stated peculiar regional conditions of Japan. Until now, Japanese industrialists have been forced to absorb their energies and activities only in their own businesses and to ignore their surrounding conditions to some degree, because of the rapid industrial development in such a short period. But now their environment has changed, and their positive cooperation is needed for regional development such as in the selection of industrial location, urban renewal, and suburban industrial development. It would be very difficult to leave the solution of the problems relating to regional development only to government planning and action, especially due to the physical, economical, and social peculiar conditions of Japan. When a business leader is not swayed by conventional thinking and recognizes accurately the logic of industrial location in Japan, the business policy which he would adopt relating to industrial regional development, would be not only very effective for the solution of our development problems, but would also improve the surrounding environment for his own greater industrial development.

III

We could find positive public and private action for urban renewal or redevelopment in many large cities in western countries. In the United States of America, the rapid development of motor transportation (car and truck) and the change in consumers' behavior, have brought about the remarkable development of new suburban industrial and residential districts, so that urban districts (downtown) of the center of the core city in the metropolitan region have been rapidly depressed in physical facilities, economical condition, and social structure. Now the core cities have been confronted with severe problems to redevelop the downtown section by any means. Each respective core city has planned for urban renewal with the cooperation of industrial associations, business leaders, and many people in the local community, and some energetic core cities have already been reconstructed in new city centers. In the near future, the writer supposes, development differences among such cities will be found according to the different degrees of interest and effort in the redevelopment of public organizations and private bodies of the communities. In Europe, the degree of urban depression is not so large, but several large cities have

been redeveloping their urban districts, along with reconstructing war damages by bomb attacks of World War II. In some cases, middle-and-small-sized industrial firms have relocated their plants from the central old districts to new suburban industrial estates for better land-use and modernization of their industry, and some small industrial firms have been accomodated in newly constructed flat buildings at the same site. In other cases, slum clearance in old urban residential districts has progressed, but industrial relocation in those districts has been confronted with some difficulties. In most of cases, the local governments and public bodies have endeavoured to develop the urban districts.

In Japan, also, we have been confronted with heavy traffic congestion and the declining advantages of other locational factors in the central districts of large cities, and commercial and industrial activities have been obstructed by these difficulties. There are many problems to be solved in these urban renewals, but this article intends to limit its scope to the problems relating to industrial location and business policy. Two points will be examined here; (1) commercial (wholesale) and (2) industrial function in the core cities of the metroplitan districts.

(1) In the center of the core cities (especially Tokyo and Osaka) in the metropolitan regions, there are many head offices of public and private establishments, commercial companies and small industrial firms. Now the large commercial companies have begun to relocate their warehouses which had been built in congested business centers to suburban districts. But in the small commercial firms located there, their offices have the function of head offices, trading places, stockyards and, in some cases, dwelling houses of the employees. These business features have hitherto been essential for many small commercial firms. Therefore, for the redevelopment of such districts, it is indispensable to revise business policies and commercial customs to some degree with the cooperation of these small commercial firms and their customers (local wholesalers and retailers). Moreover, manufacturing industries could be gradually dispersed to surrounding districts of the existing industrial center by the national policy of industrial location, but the commercial functions relating to these manufacturing functions would still have to be concentrated in the few central districts in Japan, and the volume of the business world would increase more and more by the rapid industrial development of other new districts.

(2) The tendency of a market-oriented location in many industries, the narrowness of level plains for industrial location in Japan, and the challenge by regional communities to modernize the structure of the industries there, have brought about a large scale reclamation of the waterfront of the central

districts for new industrial plants. From the standpoint of the industrial regional structure of the whole country, this concentration is not desirable for decreasing the income differences among the regions, but we can not help admitting such phenomena for the reasons stated already. As far as it is the inner part of reclaimed estates, the land use or layout of industrial establishments can be modernized and planned properly, but the multiple effects from their industrial activities might bring many undesirable problems to the hinterland. Accordingly, the problems for urban redevelopment or renewal are more difficult to solve. It is desirable that public action and community relations of industrial firms be coordinated more closely.

Fortunately, the representative industrial and commercial associations in the metropolitan regions in Japan have recently recognized the importance of these problems and begun research on them. Some kinds of industrial and commercial firms have planned to set up their own joint new industrial estates in the suburban districts, relocating their existing establishments.

IV

It is a common phenomenon in western countries that suburban industrial districts have been enormously developed, and in Japan it is also the same. But the types of suburban industrial districts of the former are considerably different from the latter, Japan. In western countries, recently especially after World War II, many of these developments have been in the type of well planned, and managed (or controlled) industrial estates.

In the United States of America, such a type is generally called an industrial park, and has had an enormous development throughout the country. In industrial parks, which have been established by private companies and public bodies, the layout and related facilities are not only well-planned for efficiency and beauty, but also the kinds of industrial firms to be located there are selected to avoid obstructions in the effect of their industrial activities on each other, and moreover, the parks are continuously controlled by the organizations to maintain the desirable good conditions for industrial development and business climate.

In Great Britain, we can find two types of suburban industrial districts. Some are found in the so-called "development areas" for the promotion of inducing new industries by the government, and they are developed as new types of industrial estates like the industrial parks in the U.S.A. The others can be found in the industrial zones of the "new towns". Both are well planned and have very beautiful landscapes, and maintain excellent conditions for industrial development, especially in the cases of those

which have been constructed after the War. In the U.S.A., cases of the success of industrial parks can be found relatively more in the types of private companies, while in Great Britain, they are rather in public bodies.

These beautiful and efficient suburban industrial districts are perhaps partly due to the well-designed and controlled formula of the industrial estates or industrial parks, and partly due to the community relations policies of the industrial firms located there. At least, the industrial firms must inevitably be under an obligation to be community-conscious, being located in these planned and controlled districts.

On the contrary, in Japan, industrialization in the suburban districts has developed disorderly, because the tremendous industrial development made it difficult to maintain a well-designed land use. Of course, we can find the same kind of reasons for disorderly development as in western countries, for example, hindrance to cooperative actions by inter-cities boundaries, and the entrepreneurs easy-going behavior in selecting locations for industry. Moreover, industries of Japan tend to concentrate in a few central industrial districts because of the characteristic factors, physically, economically and socially as stated before. Accordingly, new industrial establishments tend to overflow to a greater degree to suburban districts from central districts. It is the reason why land use has been disorderly in suburban districts, at least until now.

The writer thinks, in general, the idea of industrial parks is not only one of the best means to prevent locational disorders of suburban industrial districts, but it also promotes industrial firms located there to be more community-conscious and to adopt a business policy to bring about good community relations. The policy of "new town" is also desirable. But in Japan, the scarcity of land and dense population might hinder the execution of such an ideal policy. Therefore, it is most desirable to design several types of well-planned and controlled industrial estates or industrial parks in new suburban districts in representative metropolitan regions in Japan. These are industrial estates for a single largescale plant, for several plants belonging to growing medium-size industrial firms, and several types of relatively smaller industrial estates for many small-size firms; they are groups of related industrial firms belonging to some core large scale industrial enterprises, cooperative groups belonging to the same kind of industries, and groups independent industrially on each other.

V

The government policy for the location of industry, the plan of an industrial estate in a suburban district, and the plan of an urban redevelop-

ment are important means for a well-balanced regional development of the whole country, common to all industrialized countries. But each country should try respectively to execute these plans for adaption to its peculiar conditions. Especially, the function of industrial firms is very important in the accomplishment of these plans.

Problems of industrial location should be approached by industrial firms, not only as problems to investigate locational factors, but also as problems to contrive creative business policies to overcome restrictions for industrial locations. The logic of business activities and business experiences in the past show the possibilities for these business policies relating to industrial locations. The experiences of western countries as stated above, show such evidences to some degree. In Japan, where more difficult conditions for industrial location are to be found, it is most desirable that the business leaders recognize the important function of their business policies for a balanced regional development of Japan. In other words, it is desirable for business leaders to contrive to absorb social costs into their private costs by their creative activities, which they inevitably bring forth by their business activities, in business policies as far as possible.

THE SYSTEM OF INSIDE CONTRACTING

Tadakatsu INOUE

About the rise and growth of the factory system we know a great deal and yet our knowledge is largely centered in general backgroud, technological development, personalities, manufacturing establishments, capital invested, and social results. The vital story of the factory management in the earlier days is not well known, expect at a few scattered spots. For instance, one might suppose that the factory owner should exercise supervision over the details of the manufacturing processes. But such an idea did not spring into existence as soon as he had been drawn within the factory. A remarkable fact which emerges from a study of the early factory organization is that work in factories was performed by the system of inside contracting. In this paper, thus, we shall attempt to examine (1) the nature of the system, (2) the origin of the system, (3) the advantages attending the system, and (4) the decline of the system.

I

The chief feature of the system of inside contracting is the existence of an intermediary class of men who act as a link between the factory owner and the workers. Termed "contractors, " "subcontractors," "job-takers," "job-hands," "piece-masters," "overseers," "overhands," "department heads," "department supervisors," "fitters," or "charter-masters," they all had much the same general function to perform. This was to contract with the factory owner to furnish him with a certain number of products at a specified price, and then to employ, pay and supervise such workers as they needed to fulfil their individual contracts. These arrangements look very much like the so-called subcontracting or subletting between a prime company and an independent company or companies, yet were confined entirely within the factory walls.

In detail, however, the duty of the contractors varied according to the nature of their trade. Sometimes they had large numbers of workmen under them; in other cases, they had only one or two helpers. Occasionally they provided their underhands with tools and certain raw materials. But usually they relied on the factory owner not only for the plant and machines

but also for all neccessary materials and supplies. Theoretically, they could not recieve payment until their individual contracts were fulfilled to the satisfaction of the factory owner. In actual practice, however, most of them claimed payment from the factory owner before the completion of the work. As to the payment to their subordinates, the contractors in some industries paid directly whatever wages they considered suitable; eleswhere they only fixed the wage rates of their subordinates and depended on the factory owner for the payment of the wages. In the latter cases, the wages paid through the factory owner were deducted from the contractors' price. Sometimes the contractors recieved a daily base rate in addition to the differential between the job price and the labor costs on the work for which they contracted.

In all cases, however, the contractors relieved the factory owner of much of the responsibility attending the actual manufacturing processes. After the factory owner had made agreements with the contractors, he had no need to concern himself about the employment of workmen and about the supervision of them. His chief functions were defined to provide a workplace and machinery, to supply raw materials and working capital and to arrange for the sale of the finished products. The multiplicity of operations was left to the contractors who, in turn, ran their divisions with almost complete authority or independent autonomy.

II

The inside contract system can best be understood by observing how it worked in each particular instance.

A. The industries of Birmingham and the Black Country[1]

In Birmingham and the Black Country in 1860, this system had long existed in the majority of industries in which large units existed, from the coal and iron trades to the manufacture of brass goods, chains, edge-tools, gunlocks, buttons, machine-made nails and washers, bedsteads, saddlery and harnesses, hollow-wares and tinplate wares.

a In the blast-furnaces, the iron master commonly contracted with the "bridge-stocker" and the "stock-taker." The former was the contractor in charge of the upper part of the blast-furnace. He kept horses, employed a gang of men, women and boys, and supplied the furnace with neccessary materials. He was paid so much a ton on the produce of the furnace, and he made his own arrangements with his underhands. The latter was

(1) For information on the system in Birmingham and the Black Country, *see* G. C. Allen's *The Industrial Development of Birmingham and the Black Country 1860-1927*, 1929.

the contractor in charge of the lower part of the furnace, and his subordinates prepared the sand and looked after the casting and the weighing of the pigs.(2)

b As in the blast-furnaces, the system of inside contracting was common in finished-iron works. The puddler, who performed the key-process in this industry, usually employed one or two men and boys as assistants at the puddling furnace; the "singler," who reheated and hammered the iron in the form of a ball in order to remove the slag, had an underhand to help him move the iron; and in the rolling mills the work was done by contract between the employers and the master-rollers, who themselves hired and paid the workers they required.(3)

c In the brassfoundry trade, an overhand commonly specialized in some particular class of article and employed about seven underhands, although twenty or thirty was not an uncommon number. Often the overhands supplied the tools, aqua fortis and other "loose" materials; while the master provided space, power, machinery and metal. When the job was a long and complicated one, then two or more overhands would sometimes go into partnership with each other, and would pool their resources for the duration of the particular contract.(4)

d The women in the button factories each had a few girl assistants, and it was said of that trade that "the manufacturer.....has merely a nominal control over the large proportion of his workpeople. He neither engages them, pays them nor dismisses them. They are the servant of his servants."(5)

e In the collieries, the owners usually contracted with the "butties," who employed, managed and paid the workers required for getting the coal from a mine, and for carrying it to the shift. Sometimes the "butty" had as many as a hundred and fifty workers under him and also employed a "doggie" to help in the work of superintendence.(6)

B. The textile-machinery industry of New England

The system of inside contracting was in common use by many New England textile-machinery companies in the middle nineteenth century.

a The Proprietors of the Locks and Canals Company

As successor to the machine shop of the Boston Manufacturing Com-

(2) Ibid., p.146.
(3) Ibid., p.148.
(4) Ibid., pp. 164-165.
(5) Labour and the Poor in *The Morning Chronicle*, October 21, 1850. (*see* G.C. Allen, *op. cit.*, p. 164.)
(6) G. C. Allen, *op. cit.*, p.144, 164.

pany which was founded in 1813 by the mercantile capitalists of Boston, this company engaged in the manufacture of a nearly complete line of textile machinery for the period from 1825 to 1845 at Lowell, Mass. The capital stock was $600,000; the building was probably 142 feet long and five stories high; and the numder of employees was nearly 300 men in 1835.

There is little information about the organization of this machine shop. It is evident, however, that the key-position in the shop was occupied by the contractors. A business historian has described it as follows:(7)

"These men [the skilled mechanics and overseers] were respected by laborer and [mill] agent alike as masters of a trade. They contracted with the Locks and Canals Company for the performance of specific jobs and enjoyed considerable freedom in the fulfillment of their contracts. The job hand and overseers hired and discharged their own help, trained their own apprentices,....."

b The Lowell Machine Shop

In 1845, the machine shop of the Locks and Canals Company was sold to a new corporation, known as the Lowell Machine Shop. The new company, like the old, performed its operation on a job-contract basis:(8)

"Work in the Shop continued to be performed, as in the past, by the contract system. Job-takers worked in the Shop under contract and under supervision, but exercised, nevertheless, much independence. They were paid a daily rate and supplied with materials and they employed, supervised, and paid their own assistants as needed. On large orders formal contracts were signed with the job-takers; on small orders, or what the superintendent referred to as the 'peanut trade,' verbal orders were deemed sufficient and binding."

c The Saco Water Power Company

This company was launched in 1839 at Biddeford, Maine. The initial capital stock authorized, $500,000, was increased to $2,000,000 in 1847; by 1850, the machine shop establishment consisted of a building 271 feet long, 46 feet wide, and five stories high, and other shops and houses; by that time the old-style hand lathes and fluting engines had been replaced by machine tools capable of heavy work; and in the peak years from 1844 to 1848, 600 men labored in the company.

The organization of the machine shop as stated in G.S.Gibb's *The Saco-*

(7) G. S. Gibb, *The Sco-Lowell Shops: Textile machinery Building in New England, 1813-1949*, 1950, p.89.

(8) Ibid., p.217.

Lowell Shops:[9]

"Reminiscences of an old machinist relate how work in the shop was done by contract, with experienced machinists taking certain parts of a machine to do by the job, employing cheap help, many of them boys, to perform over and over again one small task. 'In this way, even boys would become so adept in a single process as to be quite profitable to the contractors employing them, yet would obtain but little real knowledge of the machinists trade.....'

"These bits of information are augmented by a detailed account, written by the superintendent and dated January 31, 1850, of the machine shop as it then existed..... He said that he contracted for the different kinds of work in the shop with men 'who employ their own hands, make contracts with them and pay them.' These contractors and their employees worked in the shop and were furnished by the company with all the tools and materials necessary for carrying on their work. When the work contracted for had been completed to the satisfaction of the superintendent, the contractors received payment in accordance with the terms of their written contracts.

"The superintendent noted that at the time of his report there were sixteen contractors at work in the shop, employing one hundred and thirty men and boys."

"Apart from these contractors, the company employed some hands directly, the number varying according to the quantity of work to be done."

d The Whitin Machine Works

Perhaps the best illustration of the contracting system in the textile-machinery industry of New England was afforded by the practice in the Whitin Machine Works, Whitinsville, Mass. The following are the selections from T.R. Navin's *The Whitin Machine Works since 1831*.[10]

"Whitinsville supervisors who were employed on a contract basis were said to be 'on job work'. The first Whitin job records begin in 1864, at which time the system must have been in full effect, since fifty-six of the company's employees, or about one in ten, were being paid on a job-work basis. This meant that they were receiving a daily base rate, in addition to which they were being paid the differential between the job price and the labor costs on the work for which they had contracted.

"The Whitin records show that Henry F. Woodmancy, head of the spindle department, worked on a jobbing basis from 1864 until his death

(9) Ibid., pp.145-147.

(10) Published in 1950 by the Harvard University Press.

in 1898. He began with only two assistants and ended with a department comprising fifty or more. Like all other job workers, he was allowed a base wage in addition to his jobbing pay..... In general his income followed the business cycle, growing rapidly in prosperous times and falling off in periods of inactivity. In 1888, a fairly good year, job work paid him $5,216.51. In the following year jobbing paid him $7,931.78; a year later it fell to $ 6,277.35 and in the year after that to $3,254.21.

"Since Woodmancy's department produced not only spindles but also collars, skewers, and caps, he was required to submit to the paymaster an itemized report of his department's output. The paymaster then computed the amount of his job-work earnings on a so-much-per-piece basis and credited the amount to his account.....

"Since the paymaster also entered on the debit side of Woodmancy's account all the wages of the men in the spindle department, Woodmancy's net income per spindle was very small compared with his gross income—at no time more than a cent or two. Theoretically, the paymaster settled with Woodmancy only four times a year, at which times he balanced Woodmancy's account. In actual practice, however, Woodmancy did not wait for his job-work earnings to be paid him in quarterly sums but instead drew against his account at irregular intervals."

C. The Winchester Repeating Arms Company

See John Buttrick's *The Inside Contract System* (The Journal of Economic History, Summer, 1952) and H. F. Williamson's *Winchester: The Gun that Won the West* (1952) in both of which the practice of inside contracting at Winchester are treated in detail.

D. The Taunton Britannia Manufacturing Company

In 1824, two village mechanics in Taunton, Mass., formed the partnership of Babbitt & Crossman to experiment in the manufacture of household articles of britannia or white metal. In 1830, the partnership of Crossman, West & Leonard, successor to Babbitt & Crossman, was dissolved, and a joint stock company, called the Taunton Britannia Manufacturing Company, was formed with a capital stock not exceeding forty thousand dollars.

The company, it seems, used a variation of the inside contract system for the performance of special jobs. "In some cases one or two employees agreed to perform a certain task, the company charging their account with materials used, and crediting them for the ware completed. Time worked by other employees on such jobs was charged against the earnings of the contracting men. This time was kept in the company records book, paid for directly by the company, and deducted from the account of the con-

tractors before the final settlement."(11)

This practice of contracting looks very much like the inside contract system which has already been described. Nevertheless, there was a substantial difference: hiring and firing were in the hand of the company, that is, the contractors could choose their own helpers but only from among those whom the company had already hired.

III

In considering the origin of the inside contract system, G.C. Allen's interpretation shown in his *The Industrial Development of Birmingham and the Black Country* (1929) is worthy of quotation:

"The origin of this system is not difficult to surmise. When the employer first decided to establish a factory, he would naturally engage subcontractors, since he would thus avoid the trouble of supervising the process of production; and his position would still approximate that of the factor. The subcontractor, indeed, was a logical development from the shop owner. Their relation to the employer was identical, except that, whereas the shop owner had his own workplace, the subcontractor worked in the employer's establishment. In those days, moreover, the employing class had as yet worked out no managerial system by which control could be centralized. If wide functions devolved on the overhands, then the manufacturer had no need to concern himself about the supervision of his labour and about wages.

"During the old era the manufacturer, even if he had a large factory, usually delegated much of his authority to overhands, and had little to do with the actual productive process. He was, in turn, a factor who had gathered his dependent craftsmen into his own establishment. His relation to them had not fundamentally changed.

"This system grew up naturally with the rise of the factory from the older methods of industrial organization, and the relation of overhand and employer bore a strong resemblance to those of shop owner and factor."

This well considered idea that the inside contract system was a natural development from the domestic system was only applicable to such industrial areas as Birmingham and the Black Country where the domestic system once prevailed throughout the majority of industries. But it was inapplicable to New England where the putting-out system did not precede the factory system except in such consumer-goods industries as boots and shoes,

(11) G.S.Gibb, *The Whitesmiths of Taunton: A History of Reed & Barton 1824-1943*, 1946, p. 70.

straw hats, and ready-made clothing. Judging from the fact that the Industrial Revolution in the United States borrowed much from the early industrial capitalism in England, it seems possible that the inside contract systm in New England was also introduced from England. The opinion of T. R. Navin regarding this point was that:(12)

"How the contract form of plant organization originated is not known, but in all likelihood it came to this country from England where industrial development in the late eighteenth and early nineteenth centuries was considerably more advanced than in the New World."

At any rate, the inside contract system was a method of adjustment to the need of the time. On the one side, the manufacture was relieved of one of his chief functions, that is, the organization and management of large numbers of workers attending large-scale production. Even if he was a factor or merchant in his previous history, he could easily enter the field of manufacture by forming an alliance with a master mechanic. On the other side, the contractor was able to avoid the problems of providing for a plant and machines and selling the finished products while maintaining a high degree of independent autonomy within the factory.

IV

From the manufacturer's standpoint the contract system had many advantages: (1) as we have already described, the manufacturer was able to avoid the problem of engaging the workers and of supervising them; (2) the manufacturer was able to shift part of the risk of operating to the contractors, since the latter bore the full effect of all fluctuations in labor costs, whether favorable or unfavorable; (3) the manufacturer was able to expect that the method of organization would function as a crude incentive system. The contractors, who enjoyed considerable freedom in the fulfillment of their contracts and received a piece rate for the completed goods, conducted their rooms with as much economy as if they were their own. Thus, they gave their whole thought to the employment of cheap help, to the training of inexperienced boys, to the supervision of the work processes, and to the invention and application of new processes and tools. Though the contractors received a given sum for their work, the factory owner gained ultimately the advantage of any reduction in the cost of production by resetting contract rates to be kept realistic.

(12) T.R. Navin, *op. cit.*, p. 142.

V

The practice of contracting, which had exercised a powerful influence over the organization of factories, began to disappear during the period from the late nineteenth century to the early twentieth century. In Birmingham and the Black Country the transition was taking place during the quarter of a century preceding the First World War, and in the textile machinery industry of New England it occurred during the last quarter of the nineteenth century. For instance, in the Lowell Machine Shop, Lowell, Mass., "by 1890, at the very latest, the long-established system of job-takers or contractors in the plant had been abolished."(13) In the Pettee Machine Works, Newton, Mass., "by 1887 the traditional system of job contracting had been abolished in the plant."(14) In the Whitin Machine Works, Whitinsville, Mass., "by 1895 job work as a system was a dead letter."(15)

From the beginning, the system of inside contracting had its fault. As we have already described, the contractors were given almost complete authority to hire, train, fire, and make out the payroll for the workers in their departments. In other words, they performed their work on an informal, decentralized basis. Under the system, the contractors had to be farsighted and cooperative, so as to keep the whole process of production in harmony. But in actual practice their position of authority, more often than not, encouraged them to be arrogant and autocratic. They acted with independent disregard of the welfare of the whole, and brooked no interference in the conduct of their departments' affairs. Thus the inside contract system tended to cause irregularity in the flow of production.

In the early days of factory production, however, the above mentioned fault in the system was not a serious matter. The establishments of those days required no expensive plant and the loss occasioned by irregular work was small. Moreover, in those days, when the competition was not keen, there was less need of careful attention to costs of production. After all, the advantages of the system outweighed such disadvantage in the eyes of the manufacturer.

In the meantime, however, the character of industrial operations changed. The size of the establishments was enlarged and the burden of overhead charge was raised. The loss from irregular work was very

(13) G.S. Gibb, *The Saco-Lowell Shops*, p. 296.
(14) Ibid, p. 359.
(15) T.R. Navin, *op. cit.*, p. 148.

large. At the same time there was the increasing pressure of severe competition. The manufacturer, therefore, was forced to make an attempt to secure a regular flow of work through his factory in order to minimize the effects of overhead costs. In addition, trial-and-error methods, based on long experience and inherent mechanical aptitude, began to give way to scientific principles and knowledge. This development weakened the technical dominance exercised by the contractors. Thus the long-established system of contractors had to be abolished and the new method of factory management had to be devised. The manufacturer began to deprive the contractors of their erstwhile prerogative and to transfer many of their former responsibilities to the newly enlarged office staff. The contractors were gradually superseded by the modern foremen who merely directed their department under the direction of the office. The results were the shifting of managerial function from the departmental level to the office staff and the increasing centralization of factory control.

A CRITIQUE ON PROFESSOR MAHALANOBIS MODEL OF ECONOMIC PLANNING IN INDIA

Hikoji KATANO

1. The Draft Plan-Frame for the Second Five Year Plan in India had been founded on Professor P. C. Mahalanobis' economic planning model. In this paper, we will explain one of the factors from which unfavourable results in the Second Plan might have been caused. This is regarding estimations for some of the parameters in Mahalanobis model.

2. Table 1. shows both the planned and actual values of the net national product at 1952/53 prices. It is clear that the actual value had followed about the same path as the planned value during the First Plan period, and that the actual growth path was much below that of the planned path during the Second Plan. Considering the fact that the favourable situation in 1958/59 had been supported by an unexpected abundance in agricultural product, it is possible, I think, that the rate of growth over the Second Plan should have been very low.

Table 1. Net National Product
(Rs. crores)

	Planned Value* (at 1952/53 price)	Actual Value
1950/51	8,710	9,190
1951/52	9,090	9,510
1952/53	9,490	9,820
1953/54	9,910	10,430
1954/55	10,350	10,690
1955/56	10,800	10,730
1956/57	11,270	10,770
1957/58	11,770	10,560
1958/59	12,990	11,040
1959/60	12,890	—
1960/61	13,480	—

* The planned value is calculated in accordance with interpolation and extrapolation at 5% rate of growth per year on the basis of Rs. 10,800 crores in 1955/56 and Rs. 13,480 crores in 1960/61.

If it is possible to visualize the agricultural products of the year as the

average level of the preceding two years, the rate of growth over the Second Plan may be 1.5% per year: this is much below the planned rate of 5% per year.

3. Professor Mahalanobis has constructed his model as follows. The model consists of four sectors of production:

Sector K : industries producing capital or investment goods,
Sector C.1: factory industries producing consumer goods,
Sector C.2: small and household industries producing consumer goods, and
Sector C.3: services such as health, education, etc.

We shall use the subscripts k, 1, 2 and 3 for Sectors K, C.1, C.2 and C.3 respectively.

We shall then have λ_k, λ_1, λ_2 and λ_3 as fractions of investment allocated to the respective sectors; where, of course,

$$(1) \quad \Sigma \lambda_i = 1, \quad (i = k,1,2,3)$$

Next, we also have β as the ratio of increment of income to investment. β of the economy as a whole is the weighted average of β_i,

$$(2) \quad \Sigma \beta_i\lambda_i = \beta, \quad (i = k,1,2,3)$$

where weights are the corresponding λ_i. Last, we have α as the ratio of new employment to invetsment. And also, α of the economy as a whole is the weighted average of α_i,

$$(3) \quad \Sigma \alpha_i\lambda_i = \alpha, \quad (i = k,1,2,3)$$

where weights are the corresponding λ_i.

In this model (1)-(3), investment criteria λ_i ($i = 1,2,3$) are uniquely determined corresponding to some conditions in the economy (α_i and β_i) and certain targets of economic planning (α, β and λ_k), where it must be that

$$(4) \quad \begin{vmatrix} 1 & 1 & 1 \\ \beta_1 & \beta_2 & \beta_3 \\ \alpha_1 & \alpha_2 & \alpha_3 \end{vmatrix} \neq 0$$

4. Professor Mahalanobis estimates the sectoral coefficients (α_i and β_i) according to the experiences during the First Plan period. Those estimates are

	α_i*	β_i
Sector K	0.05	0.20
Sector C.1	0.116	0.35
Sector C.2	0.40	1.25
Sector C.3	0.267	0.45

* unit: man/Rs. 1,000

Considering priority, industrialization of economic structure in India, in the Second Plan, he takes

$$\lambda_k = 0.33$$

for the value of a fraction of the investment allocated to Sector K. And the conditions of

initial national income	Rs. 10,800 crores,
total asset formation	Rs. 5,600 crores,
rate of growth of national income	5% per year,

and total new employment to be created 11 millions lead to

$$\alpha = 0.20 \quad \text{and} \quad \beta = 0.50.$$

By all conditions, we have the following simultaneous equations of λ_i ($i = 1,2,3$).

$$\begin{array}{rl} & \lambda_1 + \lambda_2 + \lambda_3 = 0.67 \\ (5) \quad & 0.35\ \lambda_1 + 1.25\ \lambda_2 + 0.45\ \lambda_3 = 0.454 \\ & 0.116\ \lambda_1 + 0.40\ \lambda_2 + 0.267\ \lambda_3 = 0.180 \end{array}$$

Then we can easily determine the investment criteria for the Second Plan; that is,

$$\begin{array}{lll} \lambda_1 = 0.17, & & \\ \lambda_2 = 0.21, & \text{for} & \lambda_k = 0.33 \\ \lambda_3 = 0.29. & & \end{array}$$

At the same time, we can calculate the values of investments allocated to the respective sectors (see Table 2-A). And to make a partial amendment of the values, Draft Plan-Frame sets the investment programme as show in Table 2-B.

Table 2. Investment Programme
(Rs. crores)

	A. Mahalanobis model	B. Plan-Frame
electricity		500
large scale industry		1,400
transport		900
	2,830	2,800
of which investment goods	(1,850)	(1,850)
of which consumer goods	(980)	(950)
agriculture & irrigation	986	950
household enterprices	194	200
	1,180	1,150
construction, etc.		1,350
stocks		300
	1,600	1,650
grand total	5,610	5,600

5. We do not have any data, on hand, of the actual input of investment in the economy as a whole. We have only some data obtained from a government sector, which is shown in Table 3.

Table 3. Investment by Government
(Rs. crores)

	the First Plan		the Second Plan	
	planned	actual	planned	actual*
Agriculture	354.0 (17.5)	299.0 (14.3)	568.0 (11.8)	410.7 (11.4)
Irrigation & energy	648.0 (27.1)	585.0 (29.1)	913.0 (19.0)	695.7 (19.3)
Mining & manufacturing	188.0 (8.4)	100.0 (4.9)	890.0 (18.5)	842.0 (23.3)
Transport & communication	570.0 (24.0)	531.0 (26.3)	1,385.0 (28.9)	1,039.8 (28.8)
Social adjustment	532.0 (20.5)	423.0 (21.0)	945.0 (19.7)	547.8 (15.2)
Others	86.0 (2.5)	74.0 (4.4)	99.0 (2.1)	77.7 (2.0)
Total	2,378.0	2,013.0	4,800.0	3,613.7

* These values are totaled for the first four years, of which the value in 1959/60 is the estimate.

It is clear that Rs. 4,800 crores of planned investment has been managed by the government; this is equivalent to 86% of the total planned investment (Rs. 5,600 crores). And it is shown that Rs. 3,613.7 crores has been the actual input by the government over the first four years of the Plan. At this rate about Rs. 4,600 crores would be invested by the government over the entire period of the Second Plan. On the other hand, it is supposed that Rs. 800 crores of planned investment in the private sectors may also be almost realized. Moreover, fractions of investment actually allocated to the respective sectors are about the same as planned fractions. Thus we can see that investment planning for the Second Plan might work well.

6. As stated above, while investments have worked well as planned, the growth of the net national product has been realized at the rate of only 1.5% per year instead of the planned rate of 5%. What can be the reason? To answer this question, we will examine the Mahalanobis model from the view-point of estimations of parameters in that model.

In the model (1) - (3), equation (2)

$$\Sigma\, \beta_i \lambda_i = \beta$$

is directly related to growth of the net national product. β is the ratio of increment of income to investment. Therefore,

$$\beta = \frac{\text{increment of income}}{\text{new investment}}$$
$$= \frac{\text{initial national income } \{ (1 + \text{rate of growth})^5 - 1 \}}{\text{new investment}}$$

In the Mahalanobis model, β is settled at the level of 0.5. This is equivalent to 5% of the growth rate of national income under given conditions. However, the economy has been realized only at 1.5% of the growth rate. Then we can estimate that the actual β has been 0.20 under the same given conditions.

The value of 0.20 is also of minimum level among β_i (values of respective sectors). This means that all investments should be concentrated only upon Sector K, that negative investments might happen in any sectors, or that some of β_i must be overestimated. It is assumed that the first two are nonsense. We believe the third reason to be true. Then we have to explain the reasons by which overestimations of β_i have been caused.

As above-mentioned, in the Mahalanobis model, estimations of β_i have been based on the experiences during the First Plan. Therefore, whether values of β_i in planning for the Second Plan might be overestimated or underestimated must be due to the comparison between the two Plans.

β_i is the ratio of increment of income to investment in each sector. In order that the values of β_i estimated according to experiences during the First Plan can be true during the Second Plan too, investments must play the same role during the Second Plan period as in the First Plan period.

The role of investment may be classified in various ways. In this paper, we have to divide it into two activities; the activity to enlarge the scale of production and the activity to improve the equipment of production. The former works in that the larger the new investment the larger the increment of income. This effect is direct and for a short duration. This, however, does not change productivity. The latter does not create, directly and in the short run, an increment of income from a new investment. After production equipment is fruitfully improved and productivity can be increased, there must be a positive and large increment of income. Therefore, this effect is indirect and on a long run basis. Thus, in the short run, the larger the fraction of the direct character in investment and the smaller the fraction of indirect character, the smaller is the value of β_i.

Then we will re-examine the inside characteristics of investment both in the First and in the Second Plan. The actual level of investment allocated to respective sectors has been increased from the First Plan to the Second Plan period as follows:

Mining & manufacturing 10 times,

Transport & communication	2.5 times,
Agriculture, irrigation, energy, etc.	1.5 times.

At the end of the First Plan period, the main constituent of the manufacturing industry in India had been the light industry. There had not been any heavy industry. It is well known that priority in the Second Plan was given to raise the heavy industry in India. This must explain the huge amount of investment in mining and manufacturing.

It is clear that this investment in mining and manufacturing was input for new plants and equipments. Therefore, this investment may not contribute to an increase in the net national product. Thus, we assume, while 0.20 for β_k is true over the First Plan, the same value must be overestimated for the Second Plan.

As to the other β_i, we can assume, more or less, the same situations. Therefore, we believe that the values of β_i used in planning for the Second Plan are almost all over-estimated. This is a reasonable explanation that the actual β (0.20) over the Second Plan has been much below that of the planned β (0.5).

7. As stated above, some parameters used in the Mahalanobis model have been estimated according to experiences in the First Plan. But the role of investment was very different between the First and the Second Plan. Therefore, we believe that one of the causes for the unfavourable results in the Second Plan come from the above-mentioned overestimations of parameters.

NATIONAL INCOME CONCEPTS: RECONSIDERED

Nobuko NOSÉ

I

Introductory Remarks

From the traditional method of the analysis of social accounting, it is quite clear that all systems of social accounting are considered on the ground of the national income analysis. It should also be remembered, that the basic thinking methods and concepts of the theories of social accounting systems inherit from the national income analysis. First, groups of the social accounting systems are composed from the idea of the triple equality of national income, which forms each account. Second, economic quantities or volumes are estimated on the flow basis, i.e. in money terms. If we consider, however, the basic construction of national income, which is the basic concept of social accounts, from the point of view of the basic reproduction of a certain economy, the classification of national income as well as the formulation of social accounts needs to be reformed in order to show the relation of production to distribution and expenditure of the national income. Our object in this article is to give some exact definitions of national income from the view-point of the production of a certain economy, introducting the "classical pattern" in our system.

II

Definition of National Income

Individual businesses, as building blocks of social capitals, produce physical products, consumption goods and production goods, services, circulation-costs and consumption-costs. Their net products, which are equal to sales minus the replacement costs of constant capitals, are divided into wages and profits. Profits are distributed at average, over average or under average levels according to the earning abilities of businesses. These totals, wages and profits, are equal to social income. Through these processes, the wear and tear of constant capitals are replaced from current revenues, and wages are expended to reproduce labour by labourers, and capitalists' savings (profits minus capitalists' consumptions) are accumulated

to be reinvested as capital, preparing for reproduction in the next period. In fact, these processes are a little more complicated, for example, through transfer by the government, as we shall discuss in the later contexts. The total income, which is earned by all factors entering into the circulation of individual capitals is called factor income by the Keynesian economics. It should be noticed, however, that the Keynesian national income is rather a subjective concept, because it contains the estimation of immaterial goods as well as material goods in terms of money. On the contrary, if we introduce and inherit the classical orthodox doctrines, we may distinguish original incomes, which are the basic concepts of reproduction of a certain economy, from distributive incomes and expenditure incomes, which are paid from original incomes. Then, total circulating incomes are divided into the original part which concerns the production of material goods and the derivative part which concerns the expenditure of original production incomes, which estimate, especially, immaterial services. Now, we must examine the reason why we should think of these relations between real income defined by the process of production and nominal income defined by the process of expenditure. This problem is to be solved through considering the following three subjects: 1) the relation of price to reproduction, 2) the relation of reproduction to incomes, 3) the relation of original national income to its derivative income.

III

Price and Reproduction

Generally speaking, the law of reproduction in a certain economy is such that the reproduction will be held on grounds of the production of physical goods, investment goods and consumption goods, which maintain productive means and productive labour powers respectively, and on the other side, it reproduces social relations among producers which correspond to the functions of divided incomes. Under these conditions, furthermore, it is clear that labours which create material goods and "surplus value" are only productive labours, if we consider it from the superior classical points of view. And in capitalistic societies, prices must have a standard for the exchange of goods, i.e. objective value that is often defined by the value of money (gold). The actual prices are defined by the levels of this standard value. In other words, the market price is equal to the "value price" which is the ratio of the value of the goods to the value of money.

On the grounds of this type of production, economies may be in equiliblium under the condition where the only one rate of profits comes into

being common to all industries, under the condition of free competition. We can show these relations as follows:

value price = (fixed capital + variable capital) (1 + rate of profits)
= profits (capital × average rate of profits) + fixed capital + wages

IV

Formation of Original Income

It is our next problem to see how goods are produced under certain productive conditions. If we assume the constant "value prices[1]" of goods and hence the average rate of profits, all goods are produced under the condition of obtaining the maximum rate of profits in all industries, where the volume of producers goods are defined by the technical relations to produce them, and the volume of consumers goods under the necessary condition of holding certain levels for both labourers and enterpreneurs. Income is obtained by multiplying prices to goods produced. The resulting relation of incomes to prices is defined by

sales = (1 + rate of profits) × costs = (1+ rate of profits) (necessary volume of fixed capital for a unit product) × (fixed capitals) + (necessary volume of labour-power for a unit product) × (wage rates)

prices = (1 + rate of profits) (cost price for a unit product) = (1 + rate of profits) (necessary volume of fixed capital for a unit product) × (prices of fixed capitals) + (necessary volume of labour-power for a unit product) × (wage rates).

According to the scale of the constant or expanding production of an economy, we may have the physical volume of products, which are composed of the products that are necessary to obtain the certain scales of production. We now have the replacement of producers goods, the production of consumers goods and the net investments; these are the concrete components of national income, "original national income" in its strict sense.

By adding up all products of all industries in an economy, we get social products, which is equal to the sum of replacement costs of capitals and the net products. The net products is referred to as an objective net national income, in a sense that is defined through the process of original

(1) See. N. Okisio, Value and Price, in Keizaigaku Kenkyu Nenpo, vol. 1. The value which is produced in an anarchic, competitive society, must be counted in terms of money (gold). So, the price of i commodity is defined as $P_i = t_i/t_1$, where t_i, t_1 denote the social value of i and of the money (1 commodity) respectively.

production of income. Introducing a multi-sectorial point of view(2), we can restate this connection as follows:

$$\sum_i y_i = \sum_i p_i x_i - \sum_{i,j} a_{ij} p_j x_j$$

$$\sum_i y_i = \tau_i w x_i + \sum_i \mu_i (a_{ij} p_j x_{ji} + \tau_i w x_i),$$

where y_i is an income of the i sector, p_i is the price of products of the i sector, x_i is the physical output of the i sector, a_{ij} is the necessary volume of fixed capital x_j for a unit of production of i goods, τ is the necessary volume of labour for a unit of production of i goods and w is the wage rate, μ_i is the rate of profit of i sector, respectively.

This expression is rather convenient for considering the characters of national income, compared with the traditional Keynesian definition of national income which is defined on the grounds of an even basis in terms of money. The national income, that is defined in the preceding context, shows easily the division of the national income between profits and wages, the former is given by w and the latter by $(ap-w)$. On the other hand, it explains the distinction between capital and labour, which concerns the distinction between the volume of indirect and that of direct work or labour, i.e. $a\,p$ and w. In the course of a certain scale of production, profits are created on the basis of the production of excess products, which are necessary to reproduce capital and to maintain the level of the living life of capitalists, by means of net profits, interests, rents, dividends, wages of management, etc. On the contrary, wages are necessary to maintain a certain level for holding the living standard or re-producing powers of labourers working in an economy. Thus, consumption in the Keynesian sense is composed of the consumption from profits and that from wages and investment from the net investment from profits, so we may think the propensity to consume of labourers as equal to unity.

V

Process of National Income Redistribution

Net product (=national income) as above mentioned is the original physical national income created by productive labour(3) in productive

(2) The criterion to classify industries is reproduction of the capitalistic society, *i. e.* reproduction of productive power and of social relations in production. Then, multi-sectors are consolidated into two industries *i. e.* investment goods industry and consumption goods industry. cf. K. Marx, Das Kapital, Diez verlag, Bd. I, S.593-4, u. Bd. II, S. 395-494.

(3) Cf. Marxian definition on productive labour. Marx defined the productive labour from two points of view — to produce the value in use and to produce exchangeable value. He explained the former as the labour to produce physical products in ch 5 and ch 14 of 'Das

industries.(4) But the actual circulation of national income is rather more complicated, because physical products are transfered on multi-sector markets in an actual economy, which consists of productive sectors and un-productive sectors. Interpreting from the rule of the basic material production in a economy, national income which is produced from productive industries is the only basis of an economy, and so incomes that are received by un-productive industries are the derivatives of physical national income (original national income). In this re-distributive process of original income, we may have two refinements: one is the redistribution through monetary exchanges including material goods and immaterial goods on a flow basis, in which all goods and services are estimated in money terms in order to make exchanges actually, and national income thus defined may be inflated compared with original income. The other is through the structure of public finance, where actual distribution of income is refined through the processes of public revenues and expenditures.

We shall explain the preceding processes more in detail. The original national income is a net product which is equal to the social product *px* minus productive consumption of investment goods *pax*. This implies that there is no other available income than the physical incomes, when we maintain reproduction of an economy without under-capitalization. National income is composed from productive capitals and consumers goods, while services cannot be produced or maintained without productive capitals or labourers, as they are neither productive nor creative. All sectors except physical production sectors cannot hold their operation unless they receive transfers of incomes from profits or wages of physical productive sectors. Such transfers are applied to incomes of un-productive sectors; the capitalists in un-productive sectors may receive profits for his capital, profits which originated in the sum of profits produced in productive sectors, and may

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Kapital', and the latter as the labour to produce surplus value in the appendix of his 'Theorien über den Mehrwert'. These two views raised much controversies among his followers. We can understand that a synthesis of the two views is necessary because in 'Mehrwert' he intensively criticized A. Smith's one-sided view which viewed productive labour only as making physical products. Cf. A. Smith, ed. Cannan, The Wealth of Nations, Book II, Ch III. pp. 314-332. Marx, Das Kapital, a.a.O., Bd.I, S.189, S.533-544, Bd.II,S. 100-123, Bd.III, S.310-312, S.319-333, S.346, S.354. Marx, Theorien über den Mehrwert, Beilagen [12], Diez verlag, S.353-376. K.Nonomura, Kokuminshotoku to Saiseisan (National Income and Reproduction), pp.32-44.

(4) Physical production is carried on in the following industries: agriculture, forestry, fishery, mining, construction, manufacturing, transportation and communication (in so far as used to produce), storage (in so far as used to store commodity as mornal stock), and the physical production carried on in the distribution process i.e. package of commodities. See and Cf. footnote 3. A. Petrov, Keizaitokeigaku Kyotei (Кчрс экономической статистики, под ролаклией прфессора) pp.24-25.

equalize the rate of profits similar to that of productive sectors, and on the other hand, the labourers in un-productive sectors may receive wages for their services to the extent that wages are necessary to maintain their life similar to those of productive labourers. Thus, the division of the fundamental basis of an economy from the phenomenal situation of it is our basic idea in analyzing national incomes.

Turning now to the incomes of un-productive sectors[5], the capital that buy un-productive labour are called un-productive capitals, which gain the same rate of profits as productive capitals with the mechanism of equalizing the rate of profits, setting down an average rate of profits in a free competition. The labourers in un-productive sectors may receive wages as those in productive sectors, from the capitalists in the sectors. In so far as the re-production of un-productive or service sectors depends upon the products of productive sectors, it may be called derivative sectors. And in capitalistic societies the prices of services p are determined in the same way as those of productive works or products, through the law of average rate of profits as follows:

$$p_i = (a_{ij}p_j + b_j p_j)\ (1+\mu).$$

In this equation, a is the quantity of the product j which is purchased from productive sectors by un-productive sectors to produce one unit of service i, b is the volume of living materials for holding the labour-powers, μ is average rate of profits.

The resulting transactions and formation of incomes in service sectors are held through the follwoing processes : (1) un-productive services are created in the un-productive sectors by the combination of capitals with un-productive labours, (2) the services are sold to productive sectors, (3) capitalists and labourers in the un-productive sectors receive incomes from those in the productive sectors, (4) the expenditure of incomes in the un-productive sectors. Especially, the last process involves the next five items: i) payment of wages to the labourers in un-productive sectors, ii) consumption of wage goods paid from the wages of un-productive labourers, iii) replacement of capitals in un-productive sectors, which is held by buying them from the productive sectors, iv) the aquisition of the average rate of profits and consumption of capitalists in the same way as those of productive sectors, v) the succession of re-production in un-productive sectors through

(5) Productive capital and un-productive capital are firms who buy productive labor and un-productive labor respectively, and are another expression for productive labor and un-productive labor respectively. Cf. Marx, Theorien, a.a.O., Beilagen [12]. Das Kapital, a.a.O., Bd. I, k.14.

the combination of capitals with labours.(6)

Where the types of un-productive capitals are considered, there are two different forms. One is the circulating-cost sectors, and the other is the consumption-cost sectors. The former are commercial sectors, which consist of sectors that supply distributive services to productive sectors and financial sectors that mediate funds to productive sectors through financial institutions. The consumption-cost sectors consist of institutions for health, study, welfare, or culturel associations(7), etc.

It should be noticed, however, that there are some complicated elements of incomes which we may consider as un-productive incomes. The first are the rents, that are paid to landlords as for use of lands. Rents are only dividends from profits created in the productive sectors, under the conditions of limited scales of lands and different conditions of fertility. The second element is the concrete dividend of profits, such as wages of management, dividends for stock-holders, retained incomes, etc. Even in the productive sectors, if these dividends are used to reproduce productive capitals, all incomes are estimated as un-productive incomes the same as those in the case of un-productive capitals. The last are wages for un-productive labourers who work in productive sectors, such as wages for clerks working at book-keeping, management, controlling businesses, etc. The other special element are incomes through public finance, which re-distributes and transfers national incomes through revenues and expenditures or public debts. Public finance has a special effect on the formation of national incomes, for while it produces no material goods, it transfers national incomes by employment of governmental officers and expenditures for subsidies with a voluntary political decision.

Through the above processes, we have the sum of national income in terms of money, which is equal to the sum of the revenue, after setting up derivative incomes. The resulting national income, which is estimated in terms of money, is composed of two main parts, one is the flow based on

(6) The reason why we should classify unproductive labour from productive labor, can be understood only in the reproduction of social capital. So, the "Economics" published by the Soviet Academy where the chapter of natinal income is settled before the chapter of reproduction of social capital is incorrect. See. H. Kaneko, Seisantekirodo to Kokuminshotoku (Productive Labor and National Income), in Keizai Hyoron, Oct., 1959, p.119, 125, 127.

(7) A. Palizev, The Theory of National Income in Capitalistic Society (translated in Japanese), p.147, pp.145-149. A. I. Petrov, ibid., p.23. In Marxian economics, there are many controversies on the definition of the unproductive sector, especially in the transportation industry. See. H. Kato, Shakaishugi Shakai no Kokuminshotoku ni tsuite (On the national income in socialistic society), Keizai Hyoron, Oct., 1955. H. Yamamoto, Regarding Marx's "Nutzeffekt", International Economic Review Annual Report, No. VII, 1957.

original incomes, the other is the flow from original incomes. The re-distributive effects occur principally in the latter process, where original incomes are divided into profits and wages in un-productive sectors, as well as into some other revenues (rents, interests, dividends, revenues of entreprenuers, retained incomes) as the concrete derivatives of profits. Replacement of capitals and consumption in un-productive sectors are paid from these incomes in the same way as in productive sectors. Such situations are shown in the following contexts, if we neglect public finance,(8) in the following three stages of the formation of national income.

(1) Stage of Production

When we denote national income, social products, the replacement cost of constant capital, the wages of productive laborers and capitalists' profits (before charges i.e. interest, rent, etc.) as Y^*, px, πx, w^*, R^* respecively, the fundamental relations are as follows:

$$(1.1) \qquad px-\pi x=Y^* \qquad\qquad (1.2) \qquad W^*+R^*=Y^*$$

(2) Stage of Distribution

Assuming capitalists' profits and wages in circulating-cost sectors as R_1 and W_{21} respectively and profits and wages in the productive sector as R_{21} and W_1 respectively, and neglecting the replacement cost of the constant capital employed in the circulating sector, we get, the following:

$$(2.1) \qquad W_1+W_{21}+R_1+R_{21}=Y^*$$

Assuming the profits and wages in the consumption-cost sector as W_{22} and R_{22} respectively, and the income aggregates (National income in the Keynesian sense) as Y_1 we get the follwoing:

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(8) Public Finance distributes the national income as follows:

$F_r=F_{rW_1}+F_{rW_2}+F_{rK}+F_{rI_1}+F_{rI_2}$ ..... (1)

where the redistribution effect from the revenue side F_r on W_1, W_2, K, I_1, I_2 are F_{rW_1}, F_{rW_2}, F_{rK}, F_{rI_1} and F_{rI_2} respectively.

$F_E=F_{EW_1}+F_{EW_2}+F_{EK}+F_{EI_1}+F_{EI_2}$ ..... (2)

where the redistribution effect from the expenditure side F_E on W_1, W_2, K, I_1, I_2 are F_{EW_1}, F_{EW_2}, F_{EK}, F_{EI_1} and F_{EI_2} respectively.

The net effect of public finance F is as follows:

$$F=F_E-F_R$$
$$=F_{W_1}+F_{W_2}+F_K+F_{I_1}+F_{I_2}$$

where F on W_1, W_2, K, I_1, I_2 are F_{W_1}, F_{W_2}, F_K, F_{I_1} and F_{I_2} respectively.

This net effect finally rearranges the original national income and the original structure of social demand.

$$(2.2)\quad W_1+\underset{j}{\Sigma}W_{2j}+R_1+\underset{j}{\Sigma}R_{2j}=Y \qquad (j=1,\ 2)$$

Assuming the wages of an unproductive laborer employed in a productive sector as W_{12}, and the charges on profit, i.e. retained profit, manegers' salaries, interest on loan capital, devidend and rent as r_1, r_2, r_3, r_4, r_5, respectively, we get, the follwoing:

$$(2.3)\quad Y=\underset{ij}{\Sigma}\ W_{ij}+\underset{i\ j\ m}{\Sigma}r_{ijm} \quad (\text{i, } j=1,2.\quad m=1,2,.....,5)$$

(3) Stages of Expenditure

Denoting the laborers' consumption, capitalists' consumption, the accumulation of productive capital (investment), the accumulation of unproductive capital as C_w, K, I_1, and I_2 respectively, the structure of aggregate demand E is as follows:

$$(3.1)\quad E=C_w+K+I_1+I_2$$

Denoting the profits minus capitalists' consumption as S we get,

$$(3.2)\quad S=\underset{i}{\Sigma}I_i \qquad (i=1,2)$$

Conclusion

The classical concepts of national income as above mentioned, are different from modern economics's concepts. From the latter aggregates which hold the triple equality of production, distribution and expenditure, we cannot distinguish i. physical net product from service, ii. original national income (productive original capitalists' profits plus productive laborer's wages) from derived income,(9) and cannot estimate, iii. the allocation of physical products between the physical production sectors and service sectors. The last point means that subjective national income cannot show the relation of redistribution and rearrangement of the annual created resources in a society.

So, when we are to analyse the national income structure concretely, it is very clear that we should reconstruct the income accounts on the former point of view.(10)

(9) The subjective national income aggregates are of no use in analyzing the distribution of income in social classes. Marxian national income is used to measure the distribution in capitalistic society. See H. Koziolek; Zur Marxistisch-Leninistischen Theorie des Nationaleinkommens, 1953. S.6-7. Marx, Das Kapital, a.a.O., Bd. III, S.932-942. W. Lenin, The Developement of Capitalism in Russia, pp.62-4.

(10) Our first design of social accounts on the former concepts is shown in Shakaikaikei-Ron (The Theory of Social Accounting), 1961, pp.246-252.

SOME PROBLEMS OF THE INSTALLMENT BASIS

Susumu WATANABE

I

In installment sales we employ a criterion for revenue recognition different from the sales basis in terms of which sales revenue is recognized in ordinary sales of merchandise, finished goods etc. It is what we term the installment basis. The installment basis may be defined for our present purposes as a criterion for recognizing sales revenue by which sales revenue is considered to be realized when an installment is paid in cash (or when that installment becomes due as prescribed by our tax law).

W.A. Paton and A.C. Littleton cite the following reasons generally given for employing the installment basis(1) instead of the ordinary sales basis in installment sales:

(1) The receivables involved are at least in part far removed from availability as purchasing power.

(2) The possibility of failure to collect is increased by the length of the term of settlement.

(3) The "after-costs" — largely billing and collection expenses — are higher than in the case of short-term credit sales.

Paton and Littleton offer the following criticisms upon these explanations:

"Of these points the first is probably the most significant, to the extent that 'revenue' implies an inflow of highly liquid assets, long-term receivables are an unacceptable evidence of revenue. The validity of the second point is questionable. The down payment invariably made by the installment buyer tends to give the installment sale some advantage over the ordinary account sale with respect to certainty of collection in full and the type of contract typically employed, under which the vendor retains title, facilitates recovery of goods in event of default. Further, the device of establishing an allowance for possible bad debts is available to the concern

(1) In the United States they think of the installment basis exclusively as a criterion for recognizing sales revenue in terms of collection, not in terms of receivables due as provided for in the Japanese tax law. Accordingly the installment basis as used in American literature means only the collection basis (the cash basis for recognizing revenue).

selling on the installment plan if it is desired to measure revenues in terms of sales. With respect to the third point it may be said that the problem of adjusting sales revenue in the amount of costs yet to be incurred is much the same whether the amount be small or substantial."(2)

There is an opinion that denies justification or significance to the use of the installment basis. This opinion considers it reasonable to apply the sales basis to installment sales with certain adjustments. For instance, H. A. Finney and H. E. Miller advocate that the application of the sales basis is more appropriate at least in theory. They maintain:

"Take up all of the gross profit in the period of sale, and, by setting up reserves, include among the expenses for the period charges for such 'after costs' as bad debt losses, collection expenses, and, if experience warrants, losses from repossessing merchandise. Theoretically, this method is perhaps the best, because its objective is to take up the earnings from the installment sale in the period in which the sale is made. However, in some circumstances it may be virtually impossible to estimate the after costs with any reasonable degree of accuracy, and if this is the case, it is questionable whether the method should be considered acceptable.

"There is an additional practical disadvantage to this method: Reserve provisions for collection expenses and costs of reconditioning repossessed merchandise are not allowable deductions for income tax purposes."(3)

This argument may be deemed to be theoretically presenting the case for the application of the sales basis (with adequate reserves set up), apart from disadvantage for income tax purposes, with the reservation that the procedure is inapplicable when an accurate estimation of after costs is virtually impossible. Where such estimation can be made with some degree of accuracy, therefore, Finney and Miller may be taken as supporting the sales basis.

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(2) W. A. Paton and A. C. Littleton, An Introduction to Corporate Accounting Standards, p. 58.

The Japanese Business Accounting Principles, Annotation 2 explains the installment basis in the following terms:

"In installment sales sales revenue is considered to be realized when an installment is paid, and it becomes part of the profit and loss of the period. The criterion for recognizing installment revenue is as a rule not the sales basis but the collection basis. Revenue recognition in accounting must be prudent, because, unlike ordinary sales contracts, installment sales contracts allow a relatively long term of credit and payment to be made in installments, involve greater risks in collection and complicated conditions for passage or recovery of title. Installment receivables uncollected by the end of the period contain revenue not yet realized, so that such unrealized revenue should be deferred to the succeeding periods.

(3) H. A. Finney and H. E. Miller, Principles of Accounting, Advanced, 5th ed., 1960, p. 106.

The Accounting and Reporting Standards for Corporate Financial Statements of the American Accounting Association (AAA) states as follows:

"An extended collection period or the necessity for substantial effort by the enterprise subsequent to sale may create problems of measurement without affecting the propriety of recognizing revenue on the basis of the sale."(4)

This extremely brief and somewhat unintelligible passage may be interpreted as stating the propriety of applying the sales basis to installment sales, though it entails problems of revenue measurement (adjustments for after costs and interest).

It is evident that the installment basis has for its objective the allocation of part of revenue (or profit) to a number of periods following the one in which the sale is made, in order to provide for expenses to be incurred in the future (after costs) with respect to that sale. So far as it is concerned, this objective can be achieved as well by recognizing whole revenue from the sale in the period in which it is made and charging the revenue of that period all after costs relating to such sale by providing reserves to cover such after costs, instead of allocating revenue to a number of periods. In such case, however, it is important that such after costs should be susceptible of accurate estimation.

The problem, however, lies basically rather in whether we can consider revenue from an installment sale to be realized in full in the period in which the sale is made.

II

In modern business accounting it is an established practice to determine the income of the period by deducting from the realized revenue of the period all costs relating to the revenue. According to E. L. Kohler's "Dictionary for Accountants", realized revenue (or profit) is "a profit in the form of cash or some asset which at the time the transaction was consummated could have been converted immediately into cash or another current asset." Installment receivables that derive from installment sales are not assets immediately convertible into cash at the time such sales are made. It will be a considerable length of time before they become cash or assets convertible into cash. It is erroneous, therefore, to apply the ordinary sales basis and consider whole revenue to be realized when the installment sales are made, for it would be to treat unrealized profit as fully realized beforehand in the

(4) AAA, Accounting and Reporting Standards for Corporate Financial Statements, 1957 Revision.

period in which the installment sales are made. In this connection it is to be noted that the possibility of getting financed on the security of an obligation arising from installment sales is not in itself conversion into cash (realization) in the accounting sense of the term. In such case, the bearer of possible loss from bad debts is naturally the seller of the merchandise. Whole revenue from installment sales cannot be considered, therefore, to be realized because installment receivables have been made means of finance.

Such being the case, installment sales require a criterion different from the ordinary sales basis to be applied. Here is one question, however, whether revenue (or profit) from installment sales should be considered to be realized when collection is made or when receivables are due as provided for by our tax law.

There is no doubt that the Japanese Business Accounting Principles adopts the collection basis.

By contrast, our tax law adopts the "due date" basis. There has been a ruling that with regard to sales contracts allowing payment to be made by monthly or yearly installments, gross profit corresponding to monthly or yearly installments due in the period may be computed as the income of the same period.

This "due date" basis was criticized in the "Proposal for Adjustments between Tax Law and Business Accounting Principles" as follows:

"This ruling threatens to impede the development of sound accounting practices by denying flexibility to the application of the accrual basis. It should, therefore, be amended so as to recognize the installment basis in the ordinary sense."

The ruling has been superceded by a new ruling providing as follows:

"The installment basis within the meaning of this ruling is the method of computing as the profit or loss of the period installment profit or loss corresponding to that portion of the amount of sales collected or to be collected during the period."

"That portion of the amount of sales collected or to be collected means the total of the following items:

1. That portion of the amount of sales that becomes due during the period (excluding the amount included in the amount of receipt of a preceding period as falling under head 2).

2. That portion of the amount of sales that has been paid during the period without becoming due (including the amount virtually received in payment, such as advance payment and others, whatever they may be called, and bills receivable drawn with the express understanding that they are given by way of payment).

3. In the case of sales in which merchandise is to be delivered upon receipt of a certain amount, the amount received before such date of delivery with regard to the period in which the delivery is made."

Thus the new ruling follows in the footsteps of its predecessor in adopting the due date basis (including the amount received before due). In other words, the reform proposed in the "Proposal for Adjustments between Tax Law and Business Accounting Principles" was not incorporated into the new ruling, which, therefore, is liable to the same criticism as its predecessor from the viewpoint of the said Proposal.

The Business Accounting Principles is in agreement with the new ruling in the treatment of the amount received before due, because it considers receipt to be realized revenue. They diverge with respect to due receivables that remain unpaid.

No procedure is more secure or more conservative than recognizing receipt as realization of installment revenue or profit. But it is by no means wrong, as does our tax law, to recognize the realization of installment revenue or profit when installment receivables fall due. For that portion of installment receivables which becomes due is immediately claimable and may be deemed to be a highly current asset. It is quite reasonable from the accounting point of view to recognize the realization of revenue or profit at this point. Seeing that a legal obligation comes into being at the time of delivery of goods whether the title passes or not, it would be a grace of tax law to defer revenue or profit recognition until the due date, if we accept the primitive "obligation" principle. But as the total of installment receivables is not immediately realizable, it is rather proper for accounting purposes to recognize the realization of revenue or profit at the due date. We may conclude, therefore, that the recognition of revenue or profit at the due date is not a grace of tax law, but a procedure meant to meet the needs of accounting.

If we recognize the realization of revenue or profit at the due date, another question arises whether the receivables due are to be appropriated for the recovery of cost or, on the contrary, to be taken, before everything, as the realization of profit. (A similar question arises where receipt is considered to be a factor in the realization of revenue.) But the view that receivables due or receipts should be appropriated for the recovery of cost (till the cost is completely recovered) is generally rejected as ultra-conservative. (There is, however, a view that endorses this procedure only where the merchandise delivered cannot be repossessed in event of default or where, even if repossessed, it has no net realizable value.) On the other hand, the view that receivables due or receipts are to be treated as profit before everything is

unconservative and improper from the viewpoint of matching cost with revenue. For this procedure allows the earlier periods to absorb full profit and does not take into account all future expenses relating to installment sales.

Hence it follows that the most appropriate procedure is to treat receivables due or receipts as consisting of profit and recovery of cost. In this case, there would be no alternative but to treat such receivables due or receipts as containing an average proportion of profit. For illustration, suppose the amount of installment sales is ¥100,000, the cost is ¥70,000 and the amount due or received in this period is ¥60,000, then the amount of gross profit realized will be ¥18,000 as calculated below:

$$¥60{,}000 \times \frac{100{,}000-70{,}000}{100{,}000} = ¥18{,}000$$

The figure is obtained by multiplying the amount due or received by the gross profit ratio. Of course, the same result is obtainable by multiplying the amount of gross profit by the collection ratio as follows:

$$¥30{,}000 \times \frac{60{,}000}{100{,}000} = ¥18{,}000$$

III

The following procedure is generally recommended for treating installment sales:

Suppose goods whose cost is ¥700,000 are sold for ¥1,000,000 to be paid in installments, and ¥600,000 is received in the period.

Installment Contracts Receivable	1,000,000	
Installment Sales		1,000,000
Cash.....	600,000	
Installment Contracts Receivable		600,000

Where, besides actual receipts, there is an amount due but yet unpaid during the period, such amount should be added to the actual receipts if the due date basis is adopted.

Cost of Installment Sales	700,000	
Inventory.....		700,000
Installment Sales	1,000,000	
Cost of Installment Sales		700,000
Deferred Gross Profit		300,000

The Deferred Gross Profit (on Installment Sales) account is also called the Unrealized Gross Profit on Installment Sales account. At the end of the period, the realized portion of the Deferred Gross Profit account should be transferred to the Realized Gross Profit (on Installment Sales) account. In this example, the amount to be transferred is:

$$¥600,000 \times \frac{1,000,000 - 700,000}{1,000,000} = ¥180,000$$

Of this amount we should make the following entry:

Deferred Gross Profit	180,000	
Realized Gross Profit		180,000

The balance of the Deferred Gross Profit account, ¥120,000, will be shown on the credit side of the balance sheet. In the next period, that part of the amount of the deferred gross profit corresponding to the amount received or due will be transferred from the Deferred Gross Profit account to the Realized Gross Profit account.

This accounting procedure for treating installment sales recognizes installment receivables as an obligation at the time of sales and defers unrealized portions of installment gross profit to succeeding periods. The Deferred Gross Profit account is used for this purpose.

The Deferred Gross Profit account is an account showing deferred gross profit. The Deferred Income account which is also an account to show deferred income represents consideration received in advance of delivery of goods or rendering of services, such as prepaid rent, interest or subscription for periodicals, and is, therefore, indicative of a kind of external obligations, whereas the Deferred Gross Profit on Installment Sales is to be distinguished from the former, in that the latter is not an account to show external obligations. This account is a special sort of deferred profit account intended to satisfy the requirement of recognizing profit on the installment basis, while recognizing receivables as an obligation at the time of sales as in the case of the sales basis.

As to the treatment of installment revenue, there used to be in use a procedure for recognizing as sales revenue only receivables collected (or receivables due). This may be illustrated below by the example above given:

Installment Receivables	¥ 1,000,000	
Installment Sales Contracts		¥ 1,000,000

Cash	¥ 600,000	
Installment Sales Contracts	600,000	
Sales		¥ 600,000
Installment Receivables		600,000

In this case, the Installment Receivables and Installment Sales Contracts accounts are memorandum per contra accounts. In this procedure, the cost of goods sold is computed by the inventory method. That portion of the cost of goods delivered and no longer in the hands of the vendor which corresponds to uncollected installment receivables should be added to the ending inventory. In the present example, the amount is as follows:

$$¥400,000 \times \frac{700,000}{1,000,000} = ¥280,000$$

Then the cost of goods sold is ¥700,000 − ¥280,000 = ¥420,000, and the gross profit belonging to the period becomes ¥600,000 − ¥420,000 = ¥180,000.

This procedure is characterized by its recognition of sales revenue in terms of receivables collected (or due), but, on the other hand, suffers from the defects of not showing the total amount of installment receivables as an obligation, and of adding to the ending inventory that portion of the cost of goods no longer in the hands of the vendor which corresponds to uncollected installment receivables. (Under our tax law, either of the above procedures is considered permissible.) The latter procedure does not compare favorably with the other one which shows the total amount of installment receivables as an obligation at the time of sales and defers unrealized profit portions to succeeding periods.

IV

In the case of installment sales it is reasonable to apportion profits arising from such sales on the basis of receivables considered realized (or receipts), because receivables arising from such sales remain yet to be realized for accounting purposes at the time of such sales. There is no question as to the allocation of profit to a number of periods in the case of installment sales.

The question consists rather on the side of expenses to be charged to the profit. Expenses are generally treated as expenses of the period in which they occur. In consequence, the determination of periodic income on the installment basis often turns out to be unsatisfactory from the point of view of matching cost with revenue. In the above cited example, 60% of the

amount of sales is collected and, therefore, 60% of the gross profit is treated as realized in the period in which the sales are made. If then 60% of the expenses other than the cost of the goods sold with respect to the sales (selling expenses such as commissions etc., collecting expenses, bad debts, losses caused in repossessing merchandise, etc.) occur in this period, an appropriate matching of cost with revenue is achieved. If, however, the amount of expenses incurred in the period is above or below 60% of the total amount, there is no appropriate matching of cost with revenue. As a result, the net profit of each period becomes too small or too large. From this angle, it is theoretically justifiable to average expenses by deferring a portion of such expenses already incurred to succeeding periods or by adding expenses to be incurred in the future as already accrued to the expenses of the period.

No such procedure is followed in practice, however, but all expenses are treated as expenses of the period in which they occur. This practice of not deferring expenses is justified on the ground that, while the realization of gross profit from installment sales depends upon the collection of the amount of sales, expenses already incurred are definite, notwithstanding the collection of the amount of sales. In American tax law as well, expenses are to be deducted in the period in which they are incurred (with the exception of expenses to be properly included in the cost of goods sold).

Under this procedure it will be of little significance to add to the expenses of the period expenses to be incurred in the future as already accrued according to the gross profit realized, because it will not by itself achieve the averaging of expenses to realize an appropriate matching of cost with revenue.

As we have seen above, so long as we treat all expenses as expenses of the period in which they occur, an appropriate matching of cost with revenue is conditional on the way expenses occur.

ON THE PURPOSES OF A GOING-CONCERN VALUATION AND ITS NATURES

Jiro ONO

I

As everyone is aware, it is necessary to appraise an entire business enterprise as a whole when it or a substantial portion of its ownership is transferred and when the accounting of the business enterprise is going to make a fresh start on the basis of a new capital value; i.e. in the cases of merger, sales of a controlling interest, alteration of the company system, admission or withdrawal of partners in a partnership, reorganization, quasi-reorganization, valuation of goodwill for income tax purpose and borrowing money on the security of the entire business, etc.

It is said that the methods of a going-concern valuation vary with the types of situations and other circumstances and that in many sales of a business no precise calculation has been attempted.(1) Thus we can certainly recognize a great complexity in the practice of a going-concern valuation, but as for the methods, if they are arranged, which have been employed in the appraisal of an entire business enterprise, we can give the following.

(1) the method which is founded on the total amount of the share's market price,

(2) the method which capitalizes the future dividends on shares,

(3) the method which sums up the replacement-costs of each tangible asset of the business,

(4) the method which decides the value of a business by comparing the amount of its products (or sales) during a fixed period with the amount of another business of the same kind which value is already known,

(5) the method which decides the value of a business by comparing the amount of its cost during a fixed period with .the amount of another business,

(6) the method which capitalizes the difference between cash-receipts and cash-disbursements anticipated in future periods of the business enter-

(1) R. Wixon; Accountants' Handbook, 4th edition, 1956, 19.35.

prise.

The worth of a business as a going-concern, however, is usually considered to be based primarily on its earning power.(2) Because in the valuation of a business as a conglomerate of facilities and as a living organization the costs lose their significance and the worth is dependent on the profits anticipated in future periods, that is, from the viewpoint of a business entity, whether it is proprietorship capital or total capital employed in a business, the enterprise has a value in proportion to its future profits. And therefore (7) the method which capitalizes the profits anticipated in future periods is generally considered the most predominant way in a going-concern valuation. The value of earnings capitalized is regarded as the correct worth of a business enterprise.

For example, in Co. X the expected profits in future n periods are supposed to be $E_1, E_2, E_3, \ldots\ldots E_n$, the interest rates for capitalization in the same periods are $i_1, i_2, i_3, \ldots\ldots i_n$, then $q_1=(1+i_1)$, $q_2=(1+i_2)$, $q_3=(1+i_3)\ldots\ldots q_n=(1+i_n)$ and the liquidation-value after n years is L. If so, at this time the worth of X Co. as a whole is represented by the following formula.

$$W=\frac{E_1}{q_1}+\frac{E_2}{q_1\cdot q_2}+\frac{E_3}{q_1\cdot q_2\cdot q_3}\cdots\cdots\cdots+\frac{E_n}{q_1\cdot q_2\cdots\cdots q_n}+\frac{L}{q_1\cdot q_1\cdots\cdots q_n}$$

Supposing that $E_1=E_2=E_3=\ldots\ldots\ldots E_n=E$ and $i_1=i_2=i_3=\ldots\ldots i_n=i$, then

$$W=E\cdot\frac{q^n-1}{q^n(q-1)}+\frac{L}{q^n}=E\cdot\frac{1-\frac{1}{q^n}}{q-1}+\frac{L}{q^n}$$

In the case of $n=\infty$

$$W=\frac{E}{q-1}=\frac{E}{i}$$

And in many circumstances the replacement-cost of tangible assets is employed as a supplementary-value invarious ways.(3)

To say nothing of how the replacement-cost of a business enterprise is taken into consideration in a going-concern valuation, however, there is no generally accepted theory in regard to each of the detailed problems in the above-mentioned profits-capitalization-formula — especially in regard

(2) Paton & Paton; Asset Accounting, 1952, p.507.

(3) See, Paton & Paton; ibid., p.512~p.515, p.523~p.529, E. Schmalenbach; Die Beteiligungs Finanzierung, 1954, p.66 p.74, H. Jacob; Die Methoden zur Ermittlung des Gesamtwertes einer Unternehmung, Z.f.B., 1960, p.131 and p.209.

to how the contents of "profits" and "interest rate for capitalization" must be grasped, in spite of the fact that the value of profits capitalized is predominantly acknowledged as the theoretically correct value of an entire business enterprise.

So, in this report, referring to several sources, I will try to examine the two different points of view in a going-concern valuation and to consider the purposes and the natures of the valuation, in order that we may know how these important components of capitalization must be understood and in order that we may acquire a clue to a systematized theory of a going-concern valuation.

II

On the valuation of a going-concern, theoretically there have been two fundamental points of view, that is, one is the opinion that understands the worth of an entire business enterprise as the value of proprietorship capital, and the other is the view-point that tries to get the value of the total capital invested in the business.

In the first point of view which, for instance, E. Schmalenbach and A.S. Dewing(4) insist on, the going-concern valuation is to determine the value of stock equity or proprietorship capital for each of the persons concerned in the transaction of a business or a substantial portion of its ownership.

According to the theory of Schmalenbach, there are two forms in the so-called external corporation finance which means raising funds from outside of business, that is, the finance of borrowed capital and the finance of proprietorship capital.

The one is substantially distinguished by the payment of a fixed rate interest and of originally offered principal, and the most important character of the other, in contrast with the above form of finance, is that the capital financed in this form participates in all profits and losses throughout the whole period of the existence of a business enterprise — and so in the variation of its value as a whole. The finance of both forms raises the capital to be invested in a business enterprise, but only the proprietorship capital always participates in all variations of the going-concern value.

Therefore Schmalenbach said "The precise estimate of a going-concern value has great significance in the very finance of proprietorship capital, but has little importance in the finance of borrowed capital.(5)" It is here

(4) E. Schmalenbach; ibid., and A.S. Dewing; Financial Policy of Corporation, 5th Edition, 1953, p.287.

(5) E. Schmalenbach; ibid., p.9~p.10, p.18~p.19 and Die Optimale Geltungszahl, 1948, p.91.

insisted that the going-concern value is the worth of proprietorship capital in a business enterprise.

As he stated that it must entirely depends on the profits anticipated in the future for both buyer and seller of a business to dertermine the going-concern value,(6) we must recognize that from this point of view the value of a going-concern can be grasped as the worth of the proprietorship capital of business for each person concerned in the transfer of its ownership.

That is, from the higher standpoint of national economy, the going-concern valuation means the determination of the value of the capital which is offered, in the form of a proprietorship equity and so circulates in the form of share-transaction in a country.

So, from this viewpoint, when the competition-danger can be disregarded, a going-concern value is estimated by capitalizing the future profits that are to belong to the proprietorship capital with a rate of interest which corresponds to them.

According to the opinions of Schmalenbach(7) or some other german writers, the going-concern value is supposed to be between the above-mentioned value of profits capitalized and the part of replacement costs of tangible assets that is in proportion to the proprietorship capital, when the competition-danger is taken into account. In this report we will not refer further to this matter, but will only point out that it also means the valuation of proprietorship capital to calculate the going-concern value from the above two factors.

When the contents of the profit to be capitalized, from the viewpoint of proprietorship capital, is determined, we can give several important items to eliminate as follows;

(1) secret reserve or secret loss,

(2) interest expense that is considered to accrue naturally from the normal financial activities of a business,

(3) normal remuneration or pay to the management of a business,

(4) private disbursement that pretends to be a normal expense,

(5) all kinds of taxes to be paid by the business,

(6) capital expenditure appropriated in the repair a/c or other expense a/c,

(7) bad debt expense, and

(8) non-operating expense or revenue.

It is the elimination of interest expenses and all kinds of taxes that

(6) E. Schmalenbach; Die Beteiligungs Finanzierung, p.37.

(7) E. Schmalenbach; ibid., p.86.

we must especially point out as items which show the basic character of this viewpoint.

That is, by subtracting the interest expenses from operating profit, the profit which belong only to the proprietorship capital is calculated. And moreover the elimination of all kinds of taxes, including income tax, means the estimate of the net profit which each person concerned in the transaction of a business or its shares can expect to get in the future, not of the profit which is shown in the income statement. Similarly the remuneration to business management must also be subtracted whether it is a form of profit-distribution or an expense item.

Here it is understood that the contents of the profit to be capitalized indicate the nature of the going-concern valuation from this viewpoint.

On the other hand, in regard to the determination of the interest rate for capitalization, the starting point is the effective rate of return on investment expected under the present condition of the same kind of business, and then the rate is considered to be dependent on the present situation of the capital market, the company system of business, the scale of business enterprise and other special conditions in the business field.

According to the opinion of Schmalenbach, the rate for capitalization is determined by modifying the average rate of returns on capital stock in the same business field, taking account of the company system, the shares' ability to circulate in stock market and the scale of business.

For example, the rate for capitalization in the valuation of a small company whose shares are not yet dealt with in the security market is estimated as follows(8).

the average rate of return on capital stock in the same business field	5%
the additional rate for the scale of business (10% of the above rate)	1%
	6%
the additional rate for inability to circulate in the market (50% of the above rate)	3%
the rate for capitalization	9%

That is, from this viewpoint, the rate for capitalization must also be the rate of net profit which belongs to proprietorship capital and so the average rate of returns on capital stock in the same business field is taken as the starting point. It must be pointed out that the procedure for the determination of the rate comes from the basic concep of the nature of a going-

(8) E. Schmalenbach; ibid., p.50~p.53.

concern valuation.

In short, it can be said that the going-concern valuation theory from this viewpoint, which Schmalenbach and Dewing insist on, has the appraisal of proprietorship capital, that is, the estimate of the worth of shares for each person concerned in the transaction of an entire business or a substantial portion of its ownership, for its purpose. And the basic concept of the theory determines the contents of profit to be capitalized (the net proft which belongs to proprietorship capital) and the rate of interest for capitalization (the rate founded on the average rate of returns on capital stock).

III

In the second point of view, which was advanced, for instance, by K.Mellerowicz and W.A.Paton(9), the going-concern valuation is a procedure which from the standpoint of business management estimates the worth of the total capital employed in a business enterprise, at least in the first step.

Mellerowicz says "The acceptable viewpoint in this problem is only one of business management. The purpose of the valuation theory is not to advise a buyer of business how he can most profitably invest his capital, but to determine the objective value of a business enterprise regardless of the interest of each person concerned in the transaction of the business and so regardless of the transaction-price of business or its shares.(10)" According to his theory, differing from the first viewpoint, the form of finance need not be taken into account, but the very products (or sales) which the business as a conglomerate of supplementary production-factors will bring about in the future and the whole earnings which it will gain for them are considered to determine the value of a going concern.

So, from such a viewpoint, it has no significance in the going-concern valuation whether the capital once invested in a business is proprietorship capital or borrowed capital, and the capitalized value of earnings which the total capital brings about or the value of the total capital employed in business is regarded as the value of a going-concern. Because only the performance of the entire business enterprise as a structure composed of various forms of capital is the decisive factor in valuation.(11)

Therefore, the profit to be capitalized is necessarily one which belongs to the total capital employed in the business, and the rate for capitalization

(9) K. Mellerowicz; Der Wert der Unternehmungs als Ganzes, 1952, p.61, p.71, Paton & Paton; ibid., p.523 p.528.

(10) K. Mellerowicz; ibid., p.11~p.13.

(11) K. Mellerowicz; ibid., p.15.

must be also determined in accordance with the contents of profit.

That is, in this second viewpoint too, we can give several similar items which must be examined as in the first view point of proprietorship capital, but here it must be especially pointed out that both items of interest expense and income tax (if it is defined more precisely, all kinds of taxes wihch are charged on the earnings of the total capital employed in the business) must be included in the profit to be capitalized.

In regard to the charge of income taxes, however, there is no generally accepted opinion among many authorities.

Mellerowicz states that from the view point of business management income taxes must be subtracted from the profit because they decrease the profit which belongs to the capital of business and so they cannot constitute any portion of the value of profit capitalized and so of the going-concern value.(12)

And Paton & Paton also insist on the same opinion and show an illustration of a going-concern valuation in which income taxes are subtracted.(13)

On the other hand, J.B. Felten states that income taxes must not be subtracted from the profit because they are not an expense, that is, economic value consumed in a business for the acquisition of surplus, but they mean a form of distribution of the surplus value itself. He thinks that a going-concern value has no relation to whether the surplus value——the earnings of business is distributed in the form of dividends or of taxes.(14)

Then J. Liebl insists on profit before income taxes on the ground that capitalization of profit after income taxes misleads the income statement of business after the valuation. Because depreciation will be undercharged if the value of capitalized profits which do not include income taxes is taken as the whole value of assets and if each of the depreciable assets is revalued in accordance with the going-concern value.

That is, it leads to the undervaluation of assets when the assets are revalued on the ground of the value of capitalized profit after the charge of income taxes in spite of the fact that the total capital invested in business —— total assets bring about the earnings including income taxes.(15)

I consider that income taxes must not be subtracted to estimate the

(12) K. Mellerowicz; ibid., p.65.
(13) Paton & Paton; ibid., p.511, p.524 0p.525.
(14) J.B. Felten; Wert und Bewertung ganzer Unternehmungen unter besonderer Berücksichtigung der Energiewirtschaft, 1958, p.53 p.54.
(15) J.Liebl; Der Ertragswert der Unternehmung und die Gewinnsteuern, Betriebswirtschaftliche Forschung und Praxis, 1953, p.74~p.87.

going-concern value in accordance with the purpose of the valuation in this second viewpoint on the basis of the above quoted reasons. In regard to how to understand the purpose of a going-concern valuation I will state my opinion in the next chapter.

To say nothing of the fact that there are two opinions in regard to whether income taxes must be subtracted from the profit or not, we must recognize that the contents of profit to be capitalized are determined to include interest expenses from the viewpoint of total capital, that is, from the basic concept of the going-concern valuation.

And then, in the second viewpoint, the function of the interest rate for capitalization is first considered to compare and appraise the operating earnings, which belong to the total capital of each business enterprise, as a generally acceptable measure and second to take account of the risk factors which cannot be anticipated in the amount of future profits in the valuation.

Mellerowicz determines the rate for capitalization by modifying the normal market rate —— the average rate of returns on the most secure investment, for example, on first class bonds taking account of the normal rate of earnings in the same business field, the structure of capital and asset in the business and the risk expected in the future financial-or production activity.(16)

For example, the rate for capitalization in the valuation of a company is estimated as follows;

the normal market-rate of interest of first class bonds	7.5 %
the average rate of earnings in the same business field	7.5 %
A. average of the above two rates	7.5 %
(the rate which has the first function of comparison and appraisal)	
the additional rate for the structure of capital and asset	1.8 %
the additional rate for the risk of financial activity (as to the scale of business or the company system)	0.5 %
the additional rate for the risk of production activity (as to the competition-danger or the variation of demand)	1.5 %
B. total of the above three rates	3.8 %
(the rate which has the second function of taking account of risks)	
the rate for capitalization (A+B)	11.3 %

(16) K. Mellerowicz; ibid., p.77 p.82.

That is, differing from the first viewpoint of Schmalenbach, the rate of returns which capital can normally gain in a national economy and the rate of earnings which the capital in business enterprise should bring about are taken as the measure with which the value of profit on the total capital is compared and appraised.

If an investment is done from the standpoint of business management regardless of whether the capital is proprietorship capital or borrowed capital, the normal market-rate of interest is supposed to represent the capital utility in a national economy which must be acquired, but the competition region of total capital investment is practically limited to a certain business field, that is, the rate of earnings is usually equalized only in the same business field and not beyond the region, and so the mean of the normal market-rate of interest and the average rate of earnings on the total capital in the business field is taken as the starting point.

The rate of interest for capitalization must also be the rate of earnings which belong to the total capital employed in accordance with the contents of the profit to be capitalized.

In the second viewpoint, in comparison with the first viewpoint, the worth of a going-concern is grasped as the value of the total capital invested in the business from the standpoint of business management.

In regard to whether income taxes are included in the profits to be capitalized or not, there are two different opinions, but on the basis of the reason that the purpose of going-concern valuation is to determine an objective value of a business enterprise regardless of the interest of each person it is insisted that the value of total capital must be estimated from the earnings of total capital employed and the rate for capitalization which is determined by the rate of earnings on total capital.

IV

As mentioned above, in each of the two viewpoints, the value of a going-concern is quite different.

That is, in the first viewpoint, it is the value of the proprietorship capital of a business, and in the second viewpoint the value of total capital employed in business —— it equals the value of proprietorship capital plus the amount of borrowed capital.

It is an extremely important problem whether this difference between the two viewpoints is only such a numerical one that the one is equalized to the other if the nominal amount of borrowed capital is subtracted, or such a substantial one that is brought about from the difference between the purposes of each going-concern valuation.

We try to examine this problem in the fourth chapter.

The first viewpoint that understands the worth of a going-concern as the value of proprietorship capital is usually insisted on by many writers. And we can acknowledge that in the case of the transaction of an entire business or a substantial portion of its shares, the value must be appraised in this way.

On the other hand, however, in regard to the second viewpoint that appraises only the objective value of a business from the standpoint of business management regardless of the interest of each person concerned in the transaction of its shares, we must consider what the purpose of the valuation is.

M.R. Lehmann states that the motives of going-concern valuation are usually given from outside of the business and that it is not required by the business management itself.(17) However, in spite of Lehmann's opinion, we can point out that the estimate of future earnings acquired by the whole business activity and the revaluation, founded on them, of the total capital employed are sure to be required, when the business enterprise is going to make a fresh start on the basis of a new value of total assets or total capital in the case of a reorganization or a quasi-reorganization, from the standpoint of the business management itself, not from the standpoint of the interest of each person.

In other words, the basic concept of the first viewpoint is that the going-concern valuation is an estimate of the worth of proprietorship capital for each person cencerned in the transaction of a business or its shares, and the fundamental purpose of the second viewpoint of business enterprise itself, on the contrary, is considered to be the appraisal of a new base of capital value for the accounting of business to make a fresh start.

I am sure that these two concepts are related to two fundamental purposes of a going-concern valuation and that they respectively define the contents of the profit to be capitalized and the rate for capitalization in accordance with the purposes.

In the first viewpoint, the profit is one from which interest expenses and income taxes are subtracted, that is, the net profit which purely belongs to prorietorship capital. This valuation procedure, as mentioned above, can be acknowledged from the standpoint of proprietorship capital, but can not be accepted for the purpose of a fresh start of accounting.

Because by subtracting interest expenses, both the business activities

(17) M.R. Lehmann; Allgemeine Grundsätze für die Bewertung ganzer Unternehmung, Z.f.B., 1954, p.66.

and the capital structure of an enterprise have effects on the profit to be capitalized. When the rate of interest expense is lower than the rate of earnings on total capital, the more the borrowed capital is, the more the profit of proprietorship capital is and so the larger the value of a going-concern is. On the contrary, when the rate of interest expense is higher, the more the borrowed capital is, the less the profit is and so the smaller the value is.

Besides, the profit varys in accordance with alteration of income tax rates and subtraction of income taxes means to appraise the assets of business —— future expenses ——, which bring about the earnings including income taxes, on the basis of the profit after payment of income taxes. Therefore, if the depreciable assets of a business are revalued on the basis of the value estimated by this valuation procedure, the future expenses will be undercharged and the future income statements will be influenced and disturbed by the present capital structure and the existing institution of tax.

On the other hand, in the second valuation procedure, the earnings which include interest expenses and income taxes are taken as the profit to be capitalized, but thus the appraised value of a going-concern can not represent the worth of proprietorship capital in the transaction of a business or its shares, because here the profit or the loss, which should belong to the proprietorship capital as the result of the capital structure of a business and the charge of income taxes, is not taken into account, and so the net profit which will be purely given to each person concerned and the net value of proprietorship capital cannot be estimated.

Supposing that in a business the value of proprietorship capital appraised by the first valuation procedure is V_p, the amount of borrowed capital is V_b, the value of total capital appraised by the second valuation procedure is V_t, the earnings on total capital equals the interest expenses and therefore income taxes are not charged, $V_p=0$. However if the rate of interest expense is higher than the rate for capitalization, $V_t-V_b>0$. If the rate of interest expense equals the rate for capitalization, $V_t-V_b=0$. And if the rate of interest expense is lower, $V_t-V_b<0$. That is, for example, even when the profit on proprietorship capital is 0, the worth of proprietorship capital appraised by the second valuation procedure (V_t-V_b) can be larger than 0 or smaller than 0.

To the new base of capital-or assets-value for a fresh start of accounting, however, the appraised value of total capital can be applied. Theoretically it is at least considered to be one of the best basis of revaluation of whole assets.

The rate for capitalization must be also determined in accordance with each fundamental viewpoint of a going-concern valuation as we have already seen in the opinions of Schmalenbach and Mellerowicz.

The first valuation procedure is founded on the average rate of returns of capital stock, and the second procedure starts from the normal market rate of interest which capital can normally gain in a national economy.

As the result, the difference between the two viewpoints is not only numerical, but a substantial one in their natures and it is determined by the purposes and objects of valuation in each case.

In the valuation theories of many authorities, that is, W.A. Paton, E. Schmalenbach, A.S. Dewing, K. Mellerowicz, etc., the fundamental purposes which should be the basis have not been recognized and the theories which have been aimlessly brought forward have been vaguely considered to be applicable to general purposes. It has not been recognized that the value of proprietorship capital and the value of the total capital employed in a business are substantially different and that the purposes and natures of valuation must be also different in each of the cases. And as the result, such problems as above stated have remained unresolved.

Therefore I am sure that the valuation of a going-concern has two purposes and so two objects, that is, appraisal of

1) the value of proprietorship capital for each person concerned in the transaction of an entire business enterprise or its shares, and

2) the value of total capital employed in a business which should be the new base of capital- or assets-value for a fresh start in business accounting.

The fundamental concept and so the nature of a going-concern valuation must be also determined in accordance with each purpose.

DIE BETRACHTUNGSWEISE DER NEUEREN BETRIEBSWIRTSCHAFTLICHEN KOSTENTHEORIE

—— AUFFASSUNG DES ERTRAGSGESETZES ——

Tetsuo KOBAYASHI

I

Der kostentheoretische Streit ist eines der auffälligsten betriebswirtschaftlichen Probleme, die nach dem zweiten Weltkrieg in West-Deutschland bestritten worden sind. Dieser Streit ist von vielen Autoren auch in Japan vorgestellt worden, und sie hat gleichfalls die japanische betriebswirtschaftliche Kostentheorie zu nochmaliger Überlegung aufgefordet. Aber nach ihrem Anfang sind mehr als zehn Jahre vergangen. Nunmehr sollen wir also diese Bestreitungsprobleme einrichten und auch die allgemeine Bewertung der neueren Kostentheorie feststellen.

In dieser Abhandlung wollen wir die Unterschiede des Charakters zwischen der traditionellen Kostentheorie und der neueren Kostentheorie ins klare bringen, indem wir einige Probleme über das Ertragsgesetz besonders betrachten. Dabei nehmen wir Konrad Mellerowicz als den Vertreter der traditionellen Betrachtungsweise ihrerseits, und Erich Gutenberg als den Vertreter der neueren Betrachtungsweise anderseits, an.

II

Einige Autoren haben die Auffassung, dass Mellerowicz und Gutenberg die unterschiedliche Stellung zum kostentheoretischen Ziel, bzw. zur Aufgabe nehmen. Das ist der Fall für Mellerowicz selbst. Er schreibt; „Zusammenfassend kann....., gerade auch nach Kenntnis der Gutenbergschen Einwendungen, festgestellt werden:....., dass die Einwendungen, die Gutenberg gegen die Geltung der herrschenden Kostentheorie erhebt, auf nicht stichhaltigem Material, auf falschen Vorstellungen über die Ziele, Aufgaben und Voraussetzungen der betriebswirtschaftlichen Kostentheorie und auf Formulierungen und Einengungen theoretischer Tatbestände beruhen, die für die betriebswirtschaftliche Forschung unzweckmässig sind."(1)

(1) Konrad Mellerowicz, Kostenkurven und Ertragsgesetz, Zu Gutenbergs These über den Verlauf von Kostenkurven, Zeitschrift für Betriebswirtschaft 23.Jg. Nr.6 Juni 1953 S.346.

Dafür zählt Mellerowicz einige Gründe auf: „die unrealistische mathematische Deduktion", „die falsche Auffassung der empirischen Kostenuntersuchungen in Amerika", „die Ausschliessung aller Bedingungsveränderungen", „die Verwechselung der Betriebsgrösse mit dem Beschäftigungsgrades". Und Gutenbergs Auffassung über das Ertragsgesetz ist auch ein Grund. Dieser Grund bezieht sich auch auf „die unrealistische mathematische Deduktion" und „die Ausschliessung aller Bedingungsveränderungen".

Mellerowicz erhebt Einspruch gegen die Kritik von Gutenberg über das Ertragsgesetz, wie folgt:

„Wenn wir von einer Erklärung der Kostenkurve durch das Ertragsgesetz sprechen, so kann dieses Ertragsgesetz nur als Inbegriff für die Veränderungen in den Produktionsbedingungen stehen, die im Verfolg wechselnder Kombination von Produktionsfaktoren auftreten. Als solches —— darüber muss man sich stets im klaren sein —— ist das Ertragsgesetz aber kein Gesetz im strengen Sinne des Wortes, da es aus der Erfahrung gewonnen wird und somit rein hypothetischen Charakter trägt. Es ist nicht möglich, das Verhalten von Produktionsfaktoren im Kombinationsprozess a priori festzustellen."(2)

„Gutenberg hat mir vorgeworfen, ich hätte unzulässigerweise einen gekrümmten Kostenverlauf behauptet, und er hat durch die Auffassung einer Reihe von hypothetischen Fälle zu zeigen versucht, dass bei den Kosten einzelner Produktionsverfahren ein linearer Verlauf besteht. Es ist aber erkenntnistheoretisch unsinning, ein Gesetz, rein hypothetischen Charakter trägt, anders als aus der Erfahrung zu begründen oder zu widerlegen. Eine Erfahrungsregel kann nur aus der Erfahrung gewonnen werden und ist durch willkürlich gewählte Hypothesen nicht angreifbar."(3)

Den gleichen Einspruch können wir auch in den folgenden Sätzen von Ulrich Kühn sehen.

„Wenn Gutenberg die Geltung des Ertragsgesetzes für die Industrie davon abhängig macht, dass ‚die Ertragsänderung einzig und allein in eindeutiger Weise dem Mehr oder Weniger an Einsatzmengen des variierten Faktors zugerechnet werden kann', so hat diese Forderung zwar mit dem Bestimmen der Auswirkung des Ertragsgesetzes sehr viel, mit der Erklärung des Bestehens und mit der Gültigkeit dieses Gesetzes an sich sehr wenig zu tun. Freilich ist hier das Bemühen bei Gutenberg vorherrschend, für die Wahl der Faktorkombination und damit wiederum für die Maximierung

(2) Mellerowicz, K., a.a.O., S.343.
(3) Mellerowicz, K., a.a.O., S.344.

der Produktivität im voraus exakt bestimmbare Angaben zu machen, welcher Faktor in welcher Menge zu verändern ist, damit das Kombinationsergebnis möglichst günstig ausfällt. Gewiss wäre viel gewonnen, wenn es gelänge, die Kostenrechnung auch in dieser Hinsicht in den Dienst der Produktion zu stellen. Dies ist aber unabhängig davon, den Ertragsverlauf als solchen zu erklären,....."(4)

An der Gutenbergschen Kritik über das Ertragsgesetz haben wir häufig allerdings einen Eindruck, dass sie wenige immanente Faktoren gegen die traditionelle Kostentheorie enthält. Insofern erscheinen die Antikritiken von Mellerowicz und Kühn gerechtfertigt. Aber die Kritik von Gutenberg über das Ertragsgesetz ist ein Widerschein seiner kostentheoretischen Betrachtungsweise.

Bei Gutenberg baut die Kostentheorie sich auf der Produktionstheorie auf. Er entwickelt die kostentheoretische Verfeinerung, indem er das genaue fertigungstechnische Verhältnis zwischen Faktorertrag und Faktoreinsatz durch die Produktions—(bzw. Verbrauchs—) funktion angibt. Ausserdem nimmt er die verschiedenen Formen der Anpassung an Beschäftigungsänderungen als zusatätzliche und neue Variable in die Kostentheorie hinein. Somit bringt er das realistische Verhalten der Kosten bei Beschäftigungsänderungen ins klare, und die Untersuchung erstreckt auch sich auf Ursachen und Entstehungsformen von allen Kostenarten.

Dabei handelt es sich zwar um die Verfeinerung der Kostentheorie. Aber das bedeutet nicht, dass wir die Bedeutung von Gutenbergscher Kritik gegen die traditionelle Kostentheorie über das Ertragsgetz unsinnig untersuchen. Ich denke, dass die kostentheoretischen Betrachtungen von Gutenberg auch die immanente Bedeutung für die traditionelle Kostentheorie enthalten, und dass vor allem Gutenbergsche Kritik über das Ertragsgesetz die immanente Kritik gegen die traditionelle Begründungsweise von der Gesamtkostenkurve sein kann. Das soll in den folgenden Ausführungen von selbst bewiesen werden. Dabei handelt es sich um den Unterschied der Untersuchungsmethode.(5)

(4) Ulrich Kühn, Betrachtungen zur Theorie des Kostenverlaufs und des Ertragsgesetzes, Betriebswirtschaftliche Forschung und Praxis, Jg.8 1956 S.407.

(5) Ich denke auch, dass die Kostentheorie von Gutenberg die gleichen Aufgaben wie die traditionelle Kostentheorie enthält. Und ich denke also nicht, dass die Kritik von Kühn, die er in seiner Abhandlung „Ist die Theorie der fixen Kosten überholt?" (Zeitschrift für handelswissenschaftliche Forschung, 7.Jg.1955 Heft 9 S.399-412.) gegen die Lehre von Erich Schneiders gemacht hat, auch in die von Gutenberg übertragbar ist. Gutenberg berücksichtigt auch die Anpassung von dem erreichbaren Absatz an die Kapazität der Anlagen.

Deshalb untersuchen wir im folgenden die Bestreitungen über das Ertragsgesetz als ein Problem der kostentheoretischen Untersuchungsmethode. Das Problem ist über die Auszeichnung (und Auswahl) der kostentheoretischen Untersuchungsmethode.

Wenn man dieses Problem untersuchen soll, gibt es dabei zwei Untersuchungsweisen. Die erste Weise ist von der Seite der traditionellen Methode auszugehen. Und die zweite Weise ist umgekehrt von der Seite der neueren Methode auszugehen und davon auf die Problematik der traditionellen Kostentheorie einzugehen. Bei dieser Abhandlung möchte ich die letztere wählen, denn ich wählte früher(6) die erste Weise.

III

Die Grundidee von Gutenberg, auf der sich seine betriebswirtschaftliche Konzeption aufbaut, besteht in der prinzipiellen Auffassung des Produktionsprozess als eines Kombinationsprozess.(7) Auch seine Kostentheorie wird also dadurch ausgerichtet, dass der Kombinationsprozess zum Grunde seiner Betrachtung gelegt wird. Infolgedessen wird das Ertragsgesetz bei Gutenberg als Grundprinzip der Kombination betrachtet.

Die Auffassung des Ertragsgesetzes als Grundprinzip der Kombination mag zwar von der Auffassung nach der traditionellen betriebswirtschaftlichen Kostenlehre verschieden sein. Vor allem fasst Mellerowicz das Ertragsgesetz, wie oben gezeigt ist, nicht als a priorische Kombinationsprinzip, sondern als die emiprische Regel auf.

Aber im Gegensatz zu Kühn möchte ich meinen, dass es sich bei Gutenbergscher Auffassung des Ertragsgesetzes nicht nur um a priorische Kombinationsprinzip an sich handelt. Vielmehr interessiere ich mich dafür, mit welchem Umfang die traditionellen Begründungsweisen der Gesamtkostenkurve von Gutenbergscher Betrachtung über das Ertragsgesetz kritisiert werden. Ich denke, dass man dort die immanenten Zusammenhänge beider finden.

Gutenberg weist hin, dass die grossen technischen Hindernisse gegen die Kombination nach dem Ertragsgesetz in der industriellen Produktion bestehen. Das Ertragsgesetz baut bei Gutenberg sich auf der Voraussetzung auf, dass ein bestimmter Ertrag mit mehreren Kombinationen der Produktionsfaktoren erzielt werden kann, mit anderen Worten, dass die Vermehrung eines Faktors bzw. einer Faktorgruppe sogar mit keiner leistungsabgabmässigen Veränderung anderer Faktoren zu Ertragszuwächsen

(6) Tetsuo Kobayashi, Betrachtungen zur Theorie der fixen Kosten, Kobe University Business Review 11th Annual Report 1961, S.205-236.

(7) Vgl., Gutenberg, E., Zum „Methodenstreit", ZfhF 5.Jg.1953 Heft 7. S.334.

führen kann. Aber nach Gutenberg kann die Beschäftigungsvermehrung, die mit dem zusätzlichen Einsatz von variablen Faktoren wirklich verursacht wird, nur in der Mitwirkung konstanter Faktoren (d.h.mit der Veränderung von Leistungsabgabe der konstanten Faktoren) sein. Das widerspricht dem Ertragsgesetz (bei Gutenberg). Deshalb hält Gutenberg das Ertragsgesetz für unrepräsentativ in der industriellen Produktion.

Um die wirkliche Kombination und damit das relalistische Kostenverhalten festzustellen, hebt Gutenberg das Ertragsgesetz auf, und er nimmt die andere Produktionsfunktion auf. Dabei ist darauf achtzugeben, dass er für die Berücksichtigung des Verhaltens konstanter Faktoren die verschiedenen Benutzungsformen (Anpassungsformen an die Beschäftigungsänderungen) der Betriebskapazität in die Untersuchung einbezieht. Das ist besonders wichtig für die Feststellung des realistischen Kostenverhaltens. Aber das kann nicht vom Ertragsgesetz erklärt werden, da das Ertragsgesetz nach Gutenberg das konstante Verhalten des konstanten Faktors voraussetzt.

Daraus ergibt sich die Unwirklichkeit der Kostenkonsequenzen, die vom Ertragsgesetz (als Kombinationsprinzip) abgeleitet werden. Die traditionelle Betrachtungsweise mag zwar das Kostenverhalten bei Beschäftigungsveränderungen nicht mit dem Ertragsgesetz (als Kombinationsprinzip) begründen. Aber sie hat dieselbe Unwirklichkeit wie in der Begründug des Kostenverhaltens nach dem Ertragsgesetz (als Kombinationsprinzip). Die stärkeste Schwäche besteht in der Unberücksichtigung des veränderlichen Verhaltens der konstanten Faktoren, also in der Unberücksichtigung der Benutzungsformen der Betriebskapazität bei Beschäftigungsveränderungen. Im folgenden wollen wir dieses Problem noch näher untersuchen.

Mellerowicz begründet den Verlauf der Gesamtkostenkurve hauptsächlich mit den Einflüssen des Verhaltens der Menschen auf den Charakter bzw. auf die Charakteränderung der einzelnen Kostenarten. Dabei nimmt er die empirische induktive Methode auf. Das stimmt mit seiner Auffassung des Ertragsgesetzes über, insofern als er das Ertragsgesetz als die empirische Regel betrachtet. Aber, um die gleichen Problematiken zwischen Mellerowicz und Gutenberg festzustellen, müssen wir die empirische Begründungsweise und die produktionstheoretische Weise gegenüberstellen. Es bedarf also die empirischen Begründungen an der Sicht der Produktionstheorie zu überlegen. Und ich glaube es ist möglich, denn auch die empirische Produktion muss irgendeiner Produktionsfunktion zu Grunde liegen und ich denke, dass die Kombinationsverhältnisse von Produktionsfaktoren, vor allem die von variablen Faktoren mit den konstanten Faktoren, die

man in der traditionellen Kostentheorie findet, mit den Kombinationsverhältnissen nach dem Ertragsgesetz (bei Gutenberg) sehr verwandt sind.

Bei den traditionellen Betrachtungen werden die variablen Faktoren ohne Beschränkung innerhalb der technischen Kapazitätsgrenze mit den konstanten Faktoren kombiniert, bzw. wird keine Rechenschaft über die Möglichkeit der Kombination gegeben. Insofern sind die Kombinationsverhältnisse nach den traditionellen Betrachtungen mit der nach dem Ertragsgesetz bei Gutenberg verwandt, weil das Ertragsgesetz als Kombinationsprinzip nach Gutenberg eine Ertragsfunktion mit veränderlichen Produktionskoeffizienten und damit, wenigsten in gewissen Grenzen, die Möglichkeit der „frei-variierbaren Faktoreinsatzmengen"(8) enthält.

Damit haben wir dieselbe Unwirklichkeit in den traditionellen Betrachtungen wie in dem Ertragsgesetz als Kombinationsprinzip gefunden. Während, wie oben bereits erwähnt ist, aus dem Ertragsgesetz das veränderliche Verhalten der konstanten Faktoren abgeleitet wird, kann auch die traditionelle Betrachtungsweise das Verhalten, also die verschiedlichen Benutzungsformen der Betriebskapazität (Anpassungsformen an Beschäftigungsveränderungen) nicht berücksichtigen, insofern als sie die ähnlichen Verhältnisse wie die vom Ertragsgesetz als Kombinationsprinzip erkennt.

Die Ungültigkeit des Ertragsgesetzes für die industrielle Produktion und der Vorteil der Betrachtung, die Gutenberg für die Berücksichtigung des veränderlichen Verhaltens der konstanten Faktoren (Anpassungsformen der Betriebskapazität) neu entwickelt hat, werden vom Beispiel für eine Hobelmaschine,(9) die Gutenberg in „Grundlagen der Betriebswirtschaftslehre" angegeben hat, anschaulich gemacht.

Dabei unterscheidet Gutenberg zwei Fälle: im ersten Falle löst eine Veränderung der Materialmenge (variable Faktor) keine Änderung in dem arbeitsmässigen Verhalten des Arbeiters und dem technischen Verhalten der Maschine aus, also sollen die beiden konstanten Faktoren als auf eine bestimmte Leistung fixiert angenommen werden; im zweiten Falle beeinflusst eine Veränderung der Einsatzmenge des variablen Faktors das Verhalten der konstanten Faktoren. Diese beiden Fälle sind in ihren Benutzungsformen der Betriebskapazität (Anpassungsformen an Beschäftigungsveränderungen) verschiedlich miteinander.(10) Im letzeren Falle kommt zwar ein Mehrprodukt zustand, aber im ersten Falle nicht. Daraus ergibt sich,

(8) Vgl. Gutenberg, E., Grundlagen der Betriebswirtschaftslehre, Erster Band, Die Produktion, 4 Aufl 1958. S.210.

(9) Vgl. Gutenberg, E., a.a.O., S.214-215.

(10) Der erste Fall führt zur quantitativen oder zeitlichen Anpassung, der letzere Fall wird an der intensitätsmässigen Anpassung angeknüpft.

dass die verschiedliche Kostenkonsequenzen je nach der Benutzungsform der Kapazität (also, je nach der Anpassungsform) geführt werden. Unter dieser Beoachtung betrachtet Gutenberg die Kostenkonsequenzen bei Beschäftigungsänderungen. Der Unterschied des Kostenverhaltens bei den verschiedenen Benutzungsformen der Betriebskapazität kann, wie oben erwähnt ist, nicht vom Ertragsgesetz abgeleitet werden.

In diesem Sinne kann man sagen, dass Gutenbergsche Kritik über das Ertragsgesetz die immanente Bedeutung für die traditionelle Kostentheorie enthält. Dabei handelt es sich nicht nur darum, dass der liniare oder S-förmige gekrümmte Verlauf der Gesamtkostenkurve für die industrielle Produktion repräsentativ ist. Vielmehr sollen wir den Beweisführungsprozess, von welchem die Folgerung über den Verlauf der Gesamtkostenkurve abgeleitet wird, für wichtiger halten. Das soll aus den obigen Ausführungen verstanden werden.

Damit soll auch die Antikritik von Mellerowicz, der gegen die Gutenbergsche Auffassung des Ertragsgesetzes in Anlehung an die folgenden Sätze von Weller versucht hat, wenig sinnig sein.

„Ein Unternehmer rechnet jedoch nicht in Faktoreinsatzmengen, sondern er berücksichtigt lediglich den Verlust, den sein Vermögen durch die Produktion erleidet. Für den Betriebsleiter sind daher alle Produktionsfaktoren konstant im Sinne des Ertragsgesetzes, deren vermehrter Einsatz nicht zu einem zusätzlichen Vermögensverlust führt. Erhält der Arbeiter ..... Stundenlohn, dann hat der Unternehmer ihm die gleiche Lohnsumme zu zahlen, ob nun der Arbeiter einen oder zwei Webstühle bedient. Da der Stundenlohn von der Höhe der Faktoreinsatzmenge des Produktionsfaktors Arbeit nicht berürt wird, betrachtet der Unternehmer den Produktionsfaktor Arbeit in diesem Falle als konstant..... Bei seinen wirtschaftlichen Überlegungen kombiniert der Unternehmer nicht die Faktoreinsatzmengen der einzelnen Produktionsfaktoren, sondern die Vermögensverluste, die ihm durch ihren Einsatz entstehen. Der Unternehmer denkt nicht in Faktoreinsatzmengen, sondern in Kosten, und es ist sein Bestreben, die Kostenkombination zu verwirklichen, die ihm die höchsten Erfolgsaussichten bietet, bei der er den geringsten Vermögensverlust in Kauf nehmen muss. Er sucht die Minimalkostenkombination. Hierbei rechnet er mit dem Ertragsgesetz."(11)

Im Falle in dem der vermehrte Einsatz des Produktionsfaktors nicht wirklich zu zusätzlichen Kosten führt, mag der Faktor allerdings

(11) Weller, „Errechnung der Minimalkostenkombination als Grundlage für unternehmerische Entscheidungen", ZfB,Nr.3/1957 S.176/177. Vgl. Mellerowicz, K., Kosten und Kostenrechnung I: Theorie der Kosten, 3.Aufl., S.394-395.

als konstant für die Unternehmer betrachtet werden. Aber die Kosten können nicht immer mit der zusätzlichen Benutzung der Betriebskapazität unveränderlich sein, also nimmt die Gesamtkostenkurve nicht immer denselben Verlauf, wenn sich der Betrieb an Beschäftigungsänderungen in verschiedenen Formen anpasst. Man kann nach dem Ertragsgesetz die Änderungen des Kostenverhaltens, die mit dem zusätzlichen Einsatz des Produktionsfaktors, bzw. mit der zusätzlichen Benutzung der Betriebskapazität verursacht werden, nicht recht berücksichtigen. Von einer zufälligen Tatsache, dass der vermehrte Einsatz des Produktionsfaktors nicht zu einer zusätzlichen Kost führt, lässt nicht die unklare, ertragsgesetzmässige Berücksichtigung von Benutzungsformen der Betriebskapazität bleiben. Auch bei Gutenberg gibt es zwar solchen Verlauf von Gesamtkostenkurve, welcher in der traditionellen Kostentheorie festgestellt wird. Daher kann Gutenberg den S-förmigen, gekrümmten Verlauf nicht vollkommen ablehnen. Aber man soll denken, dass die Kritik von Gutenberg über das Ertragsgesetz zunächst die wichtigere Bedeutung an die Kritik gegen den traditionellen Beweisführungsprozess zum Verlauf der Gesamtkostenkurve, als den Verlauf an sich gewinnen, wenigstens, wenn man die immanente Bedeutung für die traditionelle Kostentheorie in der Kritik Gutenbergs über das Ertragsgesetz sucht.

IV

Das andere Problem über das Ertragsgesetz besteht darin, wie weit die Einflüsse von den Produktionsbedingungen in die Untersuchung des Kostenverhaltens bei der Beschäftigungsgradänderung einbezogen werden sollen.

Mellerowicz hat das Ertragsgesetz als eine Bestätigung für die S-förmige gekrümmte Gesammtkostenkurve herangezogen. Aber dabei nimmt er das Ertragsgesetz als „Inbegriff für die Veränderungen in den Produktionsbedingungen ....., die im Verfolg wechselnder Kombination von Produktionsfaktoren auftreten“[12] an. Er denkt, dass das Ertragsgesetz den reinen technologischen Charakter hat, und dass die Änderungen der Produktionsbedingungen sofern in Erwägung gezogen werden sollen, als sie „Ausdruck von technischen Datenänderungen im Produktionsprozess selbst“[13] darstellt. Solche Änderungen der Produktionsbedingungen, die zwangsläufig aus der Beschäftigungsgradänderung resultieren, werden also bei Mellerowicz aus dem Ertragsgesetz nicht eliminiert. Dagegen weist

(12) Mellerowicz, K., Kostenkurven und Ertragsgesetz, S.343.
(13) Mellerowicz, K., a.a.O., S.343.

Gutenberg hin, dass das Ertragsgesetz die konstanten Produktionsbedingungen voraussetzt. Darin besteht wieder die verschiedliche Auffassung über den Begriff des Ertragsgesetzes. Mellerowicz kritisiert die Auffassung von Gutenberg, wie folgt:

„Indem Gutenberg auch diese Einflüsse ausschalten will, eliminiert er nicht nur die Einflüsse, die aus der Marktseite herrühren, sondern auch diejenige, die eine Folge der veränderten technischen Produktionsbedingungen sind. Damit schaltet er hier dieses Gesetz selbst aus, indem er es zu erklären versucht."(14)

Auf der andern Seite weist Kühn auf die Tatsache hin, dass Gutenberg das Grundprinzip der Kombination, mit welchem die mit dispositiver Aufgabe Betrauten den Kombinationsprozess vollziehen, in dem Ertragsgesetz gesucht hat, und dass Gutenberg unvermeidlich infolgedessen die dispositiven Faktoren aus der Ertragsfunktion ausgeschlossen hat. Kühn schreibt: „Ob zwischen den Elementarfaktoren und den dispositiven Faktoren eine gegenseitige Abhängigkeit besteht, die auf den Effekt der Kombination von Einfluss sein und wenigstens allgemein in einem „Gesetz" ausgedrückt werden könnte, lässt Gutenberg vollständig offen. ..... schliesst er diese dispositiven Faktoren aus der Ertragsfunktion aus, indem er die Aufgabe der Kombination, für die er das Ertragsgesetz untersucht, so eng zieht, dass Veränderungen qualitativer Art —— auch im Hinblick auf den konstanten Faktor —— im Kombinationsprozess keinen Niederschlag finden, ohne später diese Abstraktion aufzuheben und den Inhalt eines dann geltenden Ertragagesetzes zu prüfen."(15)

Aber wir müssen vielmehr dieses Problem wieder auf das Problem von der Betrachtungsweise über das Kostenhalten bei Beschäftigungsänderungen beziehen. Auch bei seiner eigenen Begründung der Abhängigkeit der Kosten von Beschäftigungsgradänderung, in der das Ertragsgesetz zunächst aus der Acht gelassen wird, zieht Mellerowicz solche Änderungen der Produktionsbedingungen, die mehr oder weniger zwangsläufig aus der Beschäftigungsgradänderung resultieren, in Erwägung ein. An anderer Seite werden die Änderungen der Produktionsbedingungen ausser Beschäftigung in der Gutenbergs Untersuchung, bei welcher die andere Produktionsfunktion (d.h. nicht Ertragsgesetz) zum Grunde seiner Betrachtung gelegt wird, geeliminiert. Gutenberg wollte die reinen quantitativen Kostenverhältnisse betrachten.

Insofern stimmen beide Begriffsbestimmungen des Ertragsgesetzes

(14) Mellerowicz, K., a.a.O., S.344.
(15) Kühn, U., Betrachtungen zur Theorie des Kostenverlaufs und des Ertragsgesetzes, S.404-405.

(von Mellerowicz und Gutenberg) mit jeden Betrachtungsweisen über die Änderungen der Produktionsbedingungen überein. Deshalb können wir dieses Problem auf das Problem von der Betrachtungsweise über das Kostenverhalten bei Beschäftigungsgradänderungen heranziehen.

Gutenberg macht Bemerkungen darüber, dass die Einflüsse der Produktionsbedingungen in die Untersuchung der Kostenabhängigkeit von Beschäftigung einbezogen werden, wie folgt;

„Bezieht man aber dennoch diese Kosteneinflussgrössen in die Untersuchung der Frage nach der Abhängigkeit der Kosten von der Beschäftigung ein, dann wäre in diesem Falle zu beweisen, dass die angenommen Änderungen der Produktionsbedingungen allein die Folgen von Beschäftigungsänderungen sein und dass diese Änderungen der Produktionsbedingungen nun ihrerseits wiederum genau den Einfluss auf die Kosten ausüben, der von der Theorie behauptet wird, dass nähmlich erst abnehmende und dann zunehmende oder überhaupt nur abnehmende oder nur zunehmende Kostenzuwächse entstehen."(16)

„Die Untersuchung dieses Zusammenhanges zwischen Änderungen des Beschäftigungsgrades und Änderungen der Produktionsbedingungen ist von der Betriebswirtschaftslehre systematisch überhaupt noch nicht begonnen worden."(17)

Aber es gibt auch die Auffassung, dass die Änderungen der Produktionsbedingungen, über die Gutenberg Mellerowicz kritisiert, zum Teil auch bei Gutenberg, vor allem im Falle von der intensitätsmässigen Anpassung einbezogen werden. Man kann nicht ganz negativ urteilen, dass die Änderungen des Verhaltens konstanter Faktoren bei der intensitätsmässigen Anpassung nicht solche Änderungen der Produktionsbedingungen sind. Es soll jedoch achtgegeben werden, dass solche Änderungen aus dem schlagenden Untergrund abgeleitet werden. Bei Gutenberg werden sie aus den Verbrauchsfunktionen, die „die Abhängigkeiten zwischen Verbrauch an Faktoreinsatzmengen und technischer Leistung eines Betriebsmittel"(18) darstellen, abgeleitet. Mit anderen Worten, bei Gutenberg, werden nur die Änderungen der Produktionsbedingungen, deren Abhängigkeiten von Beschäftigungsänderungen von den technischen Gegebenheiten des Betriebsmittel genau bestimmt sind, in die Untersuchung der Kostenabhängigkeit von Beschäftigung einbezogen. Gutenberg bezieht keine vagen Bedingungsänderungen in diese Untersuchung ein. Insofern untersucht

(16) Gutenberg, E., Über den Verlauf von Kostenkurven und seine Begründung, ZfhF, Nr. 1/1953 S.16.
(17) Gutenberg, E., a.a.O., S.17.
(18) Gutenberg, E., Grundlagen der Betriebswirtschaftslehre, I. Band, 4.Aufl., S.219-220.

er die Abhängigkeiten der Kosten von der Beschäftigung, isoliert aus den Einflüssen der Produktionsbedingungen. Darüber schreibt Heinen; „Die neuere Betrachtungsweise in der betriebswirtschaftlichen Kostentheorie wendet, von einzelnen besonders gekennzeichneten Ausnahmen abgesehen, streng die isolierende Untersuchungsmethode an. Dies bedeutet, dass stets nur eine der von ihr unterschiedenen Kosteneinflüssgrössen bei strenger Konstanz aller übrigen untersucht wird."(19)

Nachdem wir den Unterschied der Untersuchungsmethoden ins klare gebracht haben, muss nun eine von dieser Methoden ausgewählt werden. Heinen betrachtet dieses Problem weiter in Bezug auf die Preispolitik bzw. die Beschäftigungspolitik. Er schreibt:

„Die neuere Betrachtungsweise in der betriebswirtschaftlichen Kostentheorie unterzieht die Einwirkung der von ihr unterschiedenen Kosteneinflussgrössen auf die Höhe der Produktionskosten einer streng isolierenden Betrachtung. Bei preiskalkulatorischen Überlegungen müssen die Kosten jedoch in Abhängigkeit von allen Kosteneinflussgrössen betrachtet werden."(20)

Jedoch stimmt er am Ende der isolierenden Untersuchungsmethode zu, denn er denkt: „Weder die Entwicklung der Gesamtkosten in Abhängigkeit von sämtlichen Kosteneinflussgrössen noch ....., lässt sich theoretisch ohne einschränkende Annahme so fixieren, dass sich praktisch einfach zu handhabende und zu übersehende Zusammenhänge ergeben."(21)

Wenn man das praktische Verfahren überlegt, dann müssen zwar alle wichtigen Faktoren in den Kreis der Betrachtungen mit einbezogen werden. Jedoch muss der Einfluss jedes Faktors zunächst einzeln bestimmt werden, um die Einflüsse aller Faktoren auf die Kosten zusammenfassend zu ergreifen. Dabei kann man nicht umhin, die isolierende Untersuchungsmethode anzuwenden. Das führt zur abstrakten Theorie. Aber das bedeutet nicht, dass diese Methode die pragmatische Dimension(22) geringschätzt. Auch die isolierende Methode bezweckt am Ende den Untergrund zu geben, von dem die praktischen Überlegungen abgeleitet werden.

Die traditionellen Betrachtungsweisen der betriebswirtschaftlichen Kostenlehre knüpfen im allgemein mehr unmitteltar die Preispolitik, und

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(19) Heinen, E., Betriebswirtschaftliche Kostentheorie, Bd.1.1959. S.171.
(20) Heinen, E., a.a.O., S.300.
(21) Heinen, E., a.a.O., S.330.
(22) Schreiber, E., Erkenntniswert betriebswirtschaftlicher Theorien, Wiesbaden, 1960. S.18-19. Er weist hin, dass die Theorie drei Dimensionen hat: syntaktische, semantische und pragmatische.

sie sind insofern mehr pragmatisch. Dagegen kritisiert Gutenberg die Ungenauigkeit ihrer theoretischen Untersuchung. Und die neuere Betrachtung an sich scheint mehr rein-theoretisch. Aber das Erkenntnisziel ist nicht anders. Die neuere Betrachtungsweise schätzt die pragmatische Dimension nicht gering. Der Unterschied zwischen traditioneller und neuerer Kostentheorie besteht nur in der Auffassung über den Charakter der Theorie. Es bestehen keine Unterschiede darin, dass die Theorie endlich zur Auflösung der praktischen Probleme beitragen soll.

Damit ist auch die Gutenbergs Auffassung des Ertragsgesetzes als Kombinationsprinzip nicht unsinning für die traditionelle Kostentheorie. Die Ausführungen von Gutenberg über das Ertragsgesetz können eine nochmalige Überlegung der traditionellen kostentheoretischen Untersuchung verlangen. Die Auffassung des Ertragsgesetz als Kombinationsprinzip ist, wie oben bereits erwähnt ist, auch bei Gutenberg, nicht der Selbstzweck. Sie ist nur das Mittel, mit dem Gutenberg seine Theorie systematisiert. Deshalb ist es nicht richtig, dass man aus seiner Auffassung des Ertragsgesetzes den Beweis für die falsche Problemstellung seiner Kostentheorie sofort ableiten will. Auf seine Problemstellung soll der Gegenstand der Kritiken nicht gelenkt werden. Wenn man auch denkt, dass die Betrachtungen von Gutenberg die neuen Richtungen enthälten, wird die tradtionelle Kostentheorie von seiner Kritik auch immanent nicht befreit.

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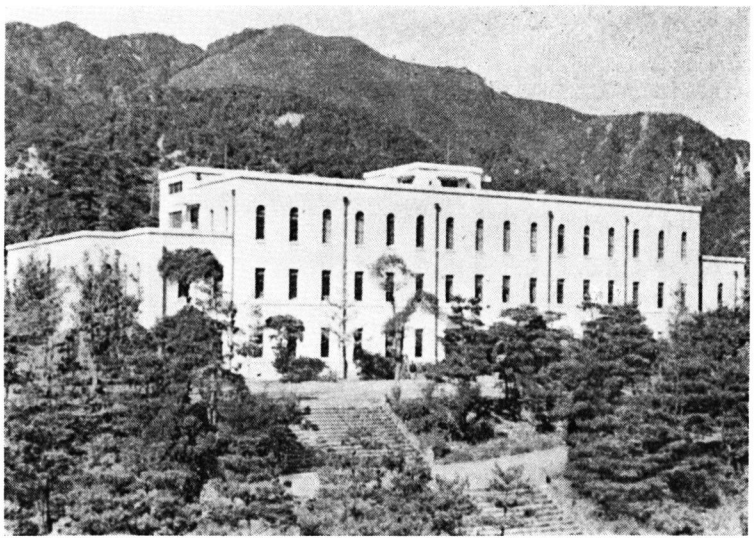
THE RESEARCH INSTITUTE FOR ECONOMICS AND BUSINESS ADMINISTRATION, KOBE UNIVERSITY



HISTORICAL SKETCH

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

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

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

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

LOCATION AND BUILDINGS

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

ORGANIZATION

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

A Group of International Economy

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

B Group of Business Administration

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

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

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