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THE IMPACT OF EXCHANGE POLICY ON THE INTERNATIONAL ECONOMY OF JAPAN DURING THE PERIOD 1930–1940

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CHAPTER I
EXCHANGE POLICY AND THE EXPORT TRADE OF JAPAN

Importance of the Continental Venture

Impact on Japanese exports.——One aspect of the export trade of Japan not generally observed or evaluated by analysts of the Japanese economy was the impact of Japan's continental venture on exports. Prior to 1930, and even in that year, nearly all of Japanese exports to Manchuria and China earned foreign exchange, whereas after 1931 a large part was paid for by loans floated in Japan or by direct investment by Japanese corporations. Yet from the initiation of the venture Japan attempted to develop the Asiatic Continent militaristically, politically, and economically as a major market for Japanese products and as a source of supply of raw materials for its industries. Consequently, throughout the decade that area came to be of ever increasing importance in Japan's total exports, and whereas China, including Manchuria and the Kwantung Leased Territory, received only

a total of 23.4 per cent of total exports in 1930, by 1940 the area took 56.1 per cent of the reported total. These figures in themselves were significant, but complicating factors, which otherwise adversely affected Japan's exchange position, made them misleading.

Immediately following the first invasion of Manchuria the Chinese initiated a boycott of Japanese products. Consequent reduction of trade with the unoccupied areas of China meant that a constantly larger proportion of total Chinese trade was destined for Manchuria and the occupied areas. As early as 1934 Japanese exports to Manchuria alone had increased to ¥107,151,000 from ¥25,947,000, or by 313 per cent. From then until the end of the decade shipments mounted steadily to a peak of ¥581,592,000. In addition Japanese shipments to Dairen, a large part of which were destined for Manchuria, grew from ¥65,541,000 in 1930 to ¥755,829,000 in 1939, dropping off to ¥604,294,000 in 1940. After 1935 all failed to earn Japan any foreign exchange; for with the creation of the Yen Bloc the currency became, to all intents and purposes, the Japanese Yen; yet the trade still continued to be included in total Japanese export statistics and in balance of payments compilations. Had the commodities been manufactured from raw materials originating in Japan, the adverse effect on Japan's international position would not have been serious, though it would have withdrawn commodities from domestic markets or markets in which Japan could have earned foreign exchange. However, with the attempt of the Japanese military leaders to develop Manchuria as an industrial reservoir, the effects were far more serious, for the shipments to Manchuria consisted in large measure of capital equipment manufactured out of raw materials imported from foreign countries. Furthermore, as is discussed more fully in the following chapter, Manchuria and subsequently North China failed to become in any large measure a substitute source of supply of commodities previously imported from other areas.

Impact on the exchange position of the country. —— In addition to the adverse position in which Japan was placed in her trade with

Manchuria and the Kwantung Leased Territory, expansion into North China worsened rather than bettered the exchanges. Whereas purchases of railroad equipment, machinery and other supplies had previously been made in Europe and America from Chinese foreign exchange, these supplies were now furnished by Japan, earning no exchange for that country yet requiring the purchase abroad of a large part of the raw materials. On top of all this, military operations in China brought about a severe food shortage requiring diversion of Japanese commodities to that area. Evidence of the impact of the continental venture on the export of commodities is strikingly apparent from an examination of commodity trade statistics. For example, machinery exports stood at ¥8,392,000 in 1931, dropped to ¥6,831,000 in 1932, tripled to ¥18,292,000 in 1933, and rapidly climbed thereafter to ¥160,240,000 in 1940. Marine products rose from ¥3,535,000 in 1931 to ¥57,632,000 in 1940; canned foods from ¥639,000 to ¥27,297,000; timber from ¥2,844,000 to ¥91,879,000 and wheatflour from ¥9,202,000 to ¥54,976,000. Cotton fabrics, which stood at ¥165,441,000 in 1929 and ¥96,066,000 in 1930, rose to ¥285,709,000 in 1937 and then dropped to ¥204,001,000 in 1939 and ¥166,589,000 in 1940. Examination of other commodity statistics shows similar trends to these: that is, capital equipment and foodstuffs climbed steadily with the captured market becoming the prime destination of exports, while non-essential goods after initial rises tended to decline in the latter years of the decade.

The expansion of exports to the dominated areas caused a continued drain on exchange reserves to a point that it became necessary for the Japanese authorities to place shipments to the Yen Bloc under official restrictions which became increasingly severe as time passed. These ranged from placing a prohibition on the movement of flour milled in Shanghai to the Yen Bloc area on October 2, 1936, to the exclusion of the region from the link system, and finally to issuance of an order by the Minister of Commerce and Industry on September 20, 1939, requiring the specific permission of the control authorities for exports

to the Yen Bloc of certain designated commodities. Consequently, an area which had optimistically been regarded as a new market for the products of industry and a reservoir of productive capacity for the military machine came to be a millstone around the neck of the Japanese economy, and forced the political and military authorities to drastically revise their plans for economic development.

The importance of Japan's continental venture was underscored in an article in the *Far Eastern Survey* when the observation was made that:

> ……we are forced to conclude, after careful examination of the facts, that so far as her balance of international payments is concerned, Japan's recent difficulties are due not to anything in the realm of trade, but rather to her huge, continuous and in part artificially forced export of capital to Manchoukuo.

Nevertheless, as serious as the continental venture in itself may have been, through absorbing products which otherwise would have been available for sale in world markets, depreciation of the Yen at the end of 1931 added to the gravity of the situation by making imports from foreign countries which were destined for the region far more costly than they would have been had the Yen not been depreciated. It even appears likely that without depreciation it might have been possible to avoid the severe restrictions on trade subsequently imposed, and the economic development planned by the political and military authorities might have been more nearly achieved.

Changes in the Composition of Exports

Decline of the silk trade. —— Various explanations might be offered for the failure of raw silk exports to respond to the depreciation of the Yen at the end of 1932. One of the most obvious would be that Japanese authorities were pursuing a conscious policy of diversification, and thereby deliberately discouraging the silk trade. However, such an interpretation is quickly disproved by the fact that the government actively encouraged Japanese shipping companies to construct new, high

speed vessels, especially designed to permit rapid transportation directly to New York through the Panama Canal, in the hope of reducing delivered costs. Another explanation might be that there was serious over-production in Japan —— so serious as to make raw silk a glut on the market. This explanation might be tenable except for the fact that at no time after depreciation did the quantity exported reach the totals of either 1931 or the years before 1930.

The most probable explanation for the failure of raw silk to respond to depreciation is that the demand for silk was income elastic rather than price elastic. This involves the nature of silk as a consumer good and the position of Japan in total world production. Silk was —— and is —— typically a luxury products, and normally luxury products respond more to changes in income than to changes in price. Thus, notwithstanding a substantial reduction in price in the New York market, with intensification of the depression in the United States people turned from the purchase of silk to cheaper —— and more basic —— textiles such as rayon and cotton which met biological, though not aesthetic, needs almost as satisfactorily. With gradual recovery some increases in purchases of silk took place even at higher prices; however, the stimulus to American producers to develop satisfactory substitute textiles curtailed subsequent potential sales as recovery progressed.

The price inelasticity of demand in the United States would not have been serious for Japan had that country produced only a small percentage of total consumption. Under such circumstances the depreciation of the Yen would have placed Japan in an extremely favorable position; for it would have been able to undersell other countries. However, since it was almost the sole producer of silk traded in world markets such a beneficial effect was lost, and the general price inelasticity of demand reacted directly upon Japan in the form of reduced foreign exchange earnings.

The net effect of demonstrated price inelasticity was that the index of quantity exported up to the inception of World War II showed

some correlation to changes in personal income in the United States, but almost no correlation to the average Dollar import price. Explanation of the failure of total value received to correlate with quantity shipped also rested on internal conditions in Japan, including, as the most important factor, the size of the yearly yield. In any event, depreciation of the Yen failed to bring about recovery of the silk trade, and at no time in the decade did either quantity or value reach the total of 1929, and Yen value totals surpassed that of the deflation year of 1930 only in 1939 and 1940. More important, from 1929 through 1934 Dollar exchange earnings —— the largest single source of Dollars, since cotton textiles, the other major export product, was marketed principally in Asiatic areas —— diminished steadily, and even after 1934 never reached the amount earned as late as 1931. Although there was never any one admission —— or for that matter even implied admission —— the failure of the reimposition of the gold embargo and the depreciation of the Yen to revive the silk trade must have been a great disappointment to the Japanese financial authorities, and probably a source of considerable anxiety. It is believed that they had great expections and never considered the possibility that silk would prove to be price inelastic.

Rise of cotton textiles. —— A superficial examination of cotton exports would indicate that depreciation had proved beneficial to that important industry in the Japanese economy, for immediately following depreciation the export value rose sharply and continued to rise until the inception of the inflation period. However, within these total figures there were several noteworthy developments which must be taken into consideration before a decision can be reached. First and most important, from 1933 through 1938 an ever increasing part of the exports was destined for the Yen Bloc area. This meant that a constantly diminishing portion was earning foreign exchange for the country. Large and increasing proportion of exports to the Yen Bloc also meant that the apparent increasing percentage of cotton fabrics in total exports was an actual decreasing percentage in exports to

foreign countries. Further evidence on this point was found in the pages of the *Oriental Economist* in 1937 in which there was a report that, of seventy-two countries to which Japanese cotton textiles were exported, forty-two were importing less in that year than in previous years, and only thirty were buying the same or larger quantities.

What an examination of export figures also fails to reveal is the relation between total production of cotton fabrics and total exports. From 1932 to 1939 the trend in the proportion of production exported was generally upward. Rising exports in proportion to production signified that relative output available for domestic consumption was being reduced. No wonder, therefore, if it was necessary to maintain or increase foreign sales to earn exchange, that the government was compelled to impose restrictions on production and distribution for domestic consumption, including production controls, price controls and finally rationing.

Finally, export figures fail to show that as exports of cotton textiles rose, imports of raw cotton rose proportionately, since there was no domestic production of raw cotton. Increasing shortages of dollar exchange, the consequence of the loss of the silk market in the United States, forced Japan to turn to other sources of supply, and to negotiate "linked" sales and barter agreements, an aspect which is discussed more fully in the following chapter.

Growth of new export industries. —— A particularly notable change in the Japanese export trade by commodities was the growth during the period of industries, the products of which previously had not been exported, or exported only in small quantities. One of the most spectacular of these was rayon textiles. Prior to 1930 almost no rayon was produced domestically; but commencing in that year the industry was firmly established. In the following years its development was phenomenal; yet it depended upon exports to absorb consistently over half of total output —— in fact 1938 nearly 85 per cent was destined for areas outside Japan. Until 1938, with the exception of 1933, yearly output expanded from one hundred to two hundred million

square yards, and export quantities and values increased commensurately. As a result, as a percentage of total exports of the country, rayon fabrics climbed from nothing in 1930 to 5.3 per cent in 1936. Initially, the government encouraged the expansion to develop a textile trade free from reliance on foreign sources of raw materials, and in the early stages domestic supplies of pulp were adequate to accommodate the industry. However, subsequently, production reached the point that imported pulp was required to supplement domestic sources. As exchange reserves became increasingly short, it became necessary to reduce output and restrict consumption in the same manner as in the case of cotton.

Depreciation of the Yen served to introduce into world markets many products not previously exported from Japan in large quantities. Included in the list were such items as electric light bulbs, various types of machinery, and other manufactured products as well as sugar and flour. However, the benefits accruing to the country were more apparent than real. Most of the products previously had been produced for home consumption. With greater profits to be realized from export sales they frequently were withdrawn from the domestic market, thus creating shortages at home. In those industries in which there was the necessary expansion to take care of both home and foreign markets, rather commonly there was reliance upon foreign sources of raw materials, and part of the added foreign exchange earnings had to go to pay for the raw materials.

Although, singly, the minor industries were not important, in totality they came to have a fairly important position in Japanese export trade. The percent of total trade represented by the ten leading exports in 1930, after increasing slightly in the second year of the deflation period, fell steadily from 62.4 per cent in 1931 to only 36.4 per cent at the end of the decade. As of the middle of the decade —— the fourth year of the reflation period —— the *Oriental Economist* reported that the value of miscellaneous goods exported —— those not specifically listed elsewhere —— had expanded to ¥1,233

million or 49.3 per cent of the total as against ¥417 million or 36.3 per cent in 1931. These figures were, as a matter of fact, somewhat too high, for not all of the commodities except the leading ten were under the heading "miscellaneous". In any case the trade statistics emphasize the rise of new export industries, a growth deliberately encouraged by the Japanese authorities to provide diversification of industry. By this two goals were achieved: earning additional foreign exchange, and reducing as far as possible reliance on imported raw materials, a condition which existed when exports depended heavily on cotton textiles.

Shifts in Markets for Japanese Products

Decline in importance of the United States. —— The year 1932, with resumption of the gold embargo and depreciation of the Yen, brought with it the commencement of important changes in the direction of Japanese trade. The United States, under the continued influence of the depression and consequent continued reduction of raw silk purchases, became less important as a market and as early as 1934 was the destination for less than one-fourth of total exports instead of amounts in excess of one-third which had prevailed in the preceding years. Although subsequent years saw a rising trend in sales in terms of Yen until exchange control restrictions and attempts to develop new markets brought with it a reversal, never again did the value of shipments to the United States exceed one-fourth of total exports. Moreover, although total United States imports gradually revived after 1932, it is particularly noteworthy that Japanese sales failed to keep pace with the general trend.

Rise in importance of the Asiatic Mainland. —— A superficial glance at trade statistics would give the impression that depreciation of the Yen and additional exchange policy which followed promoted export trade to China. However, it must be remembered —— and has frequently been forgotten in analyses which have unqualifiedly concluded that Japan experienced an export "boom" following depre-

ciation —— that shipments to Manchuria and, subsequently, the entire Yen Bloc area, were included in those figures. As a matter of fact, as years passed, a constantly larger part of the total was either paid for in Yen received from the Yen Bloc or paid for domestically through loans and investments. Unfortunately, the Japanese failed to abstract trade with Free China from the total reported. Were such figures available undoubtedly they would show an ever smaller total as a result of the Chinese boycotts of Japanese goods and increasing economic difficulties in China associated with Japanese military operations against that country.

The consequence of expanding trade with China, including the Yen Bloc, and contracting trade with the United States was that in 1934 the former country supplanted the latter as the leading export market for Japanese products. However, to the extent that gain in sales to China constituted shipments to the Yen Bloc area, supplanting sales to the uncontrolled areas, this constituted the substitution of a non-foreign exchange earning for a foreign exchange earning destination. Undoubtedly this change was a primary reason for new exchange control measures adopted in subsequent years.

Diversification of export markets. —— One important consequence of Japanese exchange policy —— perhaps the most favorable —— was the diversification of markets for Japanese exports particularly during the reflation period, because it meant the reliance upon the conditions of demand in the two chief countries for the success of Japanese export trade was reduced.

Japan's attempts to diversify export markets through direct and indirect exchange control is well exemplified by tracing the course of trade with a few particular countries. With the sole exception of the Union of South Africa, trade declined in 1930 as compared to 1929. In 1931 a further decline was experienced with the exception of Belgium and the Union of South Africa; but commencing with 1932 important changes set in. In that year the outstanding expansion occurred in trade with British India and Australia. Exports to India

increased from ¥110 million in 1931 to ¥192 million in 1932, or 75 per cent and shipments to Australia mounted from ¥18 million to ¥37 million, or slightly over 100 per cent. Further expansion was experienced until 1935 with both of these countries, but then was followed in 1936 by an absolute contraction. Signing of barter agreements in 1937 brought a rise in that year, followed by new reductions as Japan was unable to fulfill its commitments to purchase Indian cotton and Australian wool.

The most striking changes in the Japanese export trade were with those countries which can only be classed as secondary markets, but it must be noted that many of these changes did not occur either in 1930 or 1932, which means that they may have been the result of influences other than changes in the value of the Yen. For example, shipments to Africa expanded by nearly ¥50 million annually in 1933 and 1934 as against an increment of only approximately ¥27 million in 1932 over 1931; and these increases followed the despatch to the continent of trade missions which granted price and other concessions to buyers. Among other countries to which exports mounted abruptly during this period was Mexico. After successive decreases in 1930, 1931 and 1932, exports thereto rose by 134 per cent in 1933 and by a further 169 per cent in 1934. Subsequently exports continued to increase, but at a greatly reduced rate. Exports to other Latin American countries increased in 1932 by 42 per cent over 1931, 140 per cent in 1933 and 116 per cent in 1934. In 1935 and 1936 exports were almost stable at the 1934 figure; followed by a rise of 50 per cent in 1937 and a fall of 46 per cent in 1938. Similar abrupt changes were noted in exports to European countries. For instance, in 1933 exports to France expanded 80 per cent over 1932 but was followed by a contraction of 1 per cent in 1934, even though total exports to Europe were 25 per cent larger. Exports to Belgium increased 70 per cent in 1932 over 1931 and a further 86 per cent in 1933.

Particularly noticeable is that almost every country experienced a sudden rise at some time during the period, but not all in the same

year; and some of the greatest percentage expansions occurred several years after depreciation of the Yen. Further, subsequent declines in the rate of expansion on several occasions were followed by absolute decreases, or by increases at a rate much less than the growth in Japan's total exports or even exports to the general area. Also, when aggregate Japanese exports shrank by 15 per cent from 1937 to 1938, the movement of commodities to exchange earning areas declined by a percentage greater than the total since included was a 47 per cent increase to China. Thus, for example, shipments to Great Britain declined 20 per cent; to Egypt 57 per cent; to the Netherlands East Indies 48 per cent; to India 37 per cent: and even 23 per cent to German, with whom Japan by this time had concluded a closely binding trade agreement.

Ssme Particular Influences on the Export Trade. —— Of course, depreciation of the Yen in itself did serve to increase sales of Japanese merchandise or, alternatively, prevent further reductions; but not all the beneficial effects can be attributed to it, nor can the failure of trade to expand more be blamed entirely upon depression. There were other influences which in part serve to explain the limited expansion but in part should have accounted for an even larger growth. Contradictory as it may seem a portion of the enlarged trade in 1932 and the immediately following years may be attributed to the beginning of recovery in a few countries; but some portion may be ascribed to continued depression, though there is no way of ascertaining statistically the relative importance of each influence. For example, the price inelasticity of raw silk sales and the influence of the depression in the United States has already been discussed. On the other hand, after several years of low incomes many of the peoples of the world had exhausted what little personal financial resources they had possessed and, accordingly, were required to lower their standards of living. Reduced purchasing power —— in some cases approaching dangerously close to the minimum subsistence level —— left, not a choice between buying high grade manufactured products of Europe

or America, or Japanese merchandise of poor quality, but a choice between purchasing inexpensive, low grade Japanese merchandise, or no purchases at all. Evidence of this statement may be found in the pages of the *Oriental Economist* of the period which frequently mentioned shifts to sales of inferior, lower priced grades of merchandise. Particularly outstanding evidence of this shift was in the increase of exports of poorer grade textiles to Southeastern Asia and in the boom in sales of electric light bulbs to the United States —— the quality of which is well remembered by persons in the United States who lived through the depression. Further support for this point is contained in the return to purchasing higher grade merchandise as the depression lessened in the latter part of the decade. Yet again the impossibility of compiling exact statistical evidence is well exemplified here; for it may be argued that had the Yen not been depreciated even the cheap Japanese merchandise would have been too high-priced for as much enlarged sales as did occur.

Notwithstanding such conflicting influences, the significant facts are that in terms of foreign exchange earnings Japanese exports were less following depreciation than before and that the fractional gain in percentage of total world trade was achieved only through sales to the dominated area of the Asiatic Continent.

In some instances in which depreciation did serve to influence trade there is evidence that it also disrupted the normal flow. For example, in the Africa, South America, and other minor markets depreciation was followed by an immediate boom in sales; but in more than one case the expansion was excessive and swamped the local market. The consequence was that shortly there was an equally drastic decline until surpluses were abated at which time shipments were again increased. In other markets, the outstanding examples of which appear in Europe, buyers, rather than increasing purchases of Japanese products actually reduced orders anticipating further depreciation. Consequently, in these markets the greatest increases were in 1933, over a full year after the initial devaluation of the Yen, and at a time

when some appreciation had occurred.

Further, such initial advantages as were evoked by the reduction of the value of the Yen were lost as time passed as a result of advanced costs of imported raw materials. Examination of export statistics shows a subsidence in commodities manufactured from imported raw materials occurring at the same time as a continued enhancement of those few commodities which utilized domestic materials. The influence of higher costs of imported raw materials had a particularly notable effect in 1937 and 1938, during which time there occurred a noticeable recession in world trade from the recovery of the preceding years. At that time Japan was unable to recapture depression markets as had been done in 1932.

Finally, the attempt of Japan to export her depression by depreciating the Yen was not accepted with equanimity by the other members of the family of nations. Although it must be admitted that the various countries placed general restrictions on imports to attempt to alleviate domestic unemployment by eliminating competition from foreign countries, restrictions imposed especially against Japan multiplied following depreciation. In the words of a Japanese, as early as 1933, "Japanese merchandise has been made the object of obstructionist policies in almost all the trading areas of the world." By 1937 the commodity now ranking first in Japanese exports —— cotton textiles —— was subjected to restrictive measures by no less than 78 countries. The restraints included quota systems, licensing of imports, discriminating tariffs, control of exchange and other measures. Thus it can be concluded that some of the early beneficial effects of the devaluation were offset by retaliation. Of course, even had the Yen not been devalued, there undoubtedly would have been some restrictions placed on the products of which Japan was one of the world's leading competitive producers, but it seems clear from evidence contained in the official records of the period that depreciation brought forth added special discrimination against Japanese commodities.

What would have been the course of Japanese exports had the

Yen not been depreciated can only be a matter of conjecture. Undoubtedly revival after 1931 would have been slower, but also it would have been on a much sounder and less restrictive basis. Considering the changes in the world economic situation during the decade, it would seem that any favorable general trend depended more on world business conditions or other factors than upon the influence of the reduction of the value of the Yen. Actually, devalutation and the policy of holding the Yen at a low level appears to have had more unfavorable effects than favorable. In any event the acceptance of military policy by the people was made easier by the argument that control of the continent would provide a trading bloc thus freeing the country from dependence upon the liberal policies of other nations.

Overlooked was the extreme dependence of the country on imported materials. This was a dependence so great that with disruption of the free inward flow of commodities, the consequence of the reduced value of the Yen, Japan not only was unable to develop the continent as had been optimistically planned, but also was propelled along a path of domestic as well as of export regimentation. For these reasons, it now becomes important to examine the impact of exchange policy on the import trade, for only from such an examination can the totality of exchange policy be comprehended.

CHAPTER II
EXCHANGE POLICY AND THE IMPORT TRADE

Changes in the Composition of Imports

Fluctuations in textile raw materials. —— Various explanations have been offered for the advance in imports of textile raw materials especially in view of continued diminishing exports of textiles. Study of the Japanese textile industry indicates that the paramount reason was speculation in anticipation of the reimposition of the gold embargo. Evidence of this existed in the excessively large purchases in the second half of 1931, during which times inventories increased

to well over a year's normal supply at then current and anticipated rates of production. Reaction to speculative purchases was felt in 1932 when imports again contracted to 669,409 tons; but at this time the impact of the devaluation of the Yen was felt, for total value mounted to ¥447,400,000 in spite of a continued decline of world prices. At that time raw cotton climbed in relative importance in total imports to 31.2 per cent as against 24.0 per cent in 1931, principally the result of revival of textile exports.

Although there was an initial speculative flurry in 1931, a greater speculative impact of exchange policy began to be felt in 1936. In that year and to some extent in 1937, after a steady growth associated with expanding exports, imports in both quantity and value rose notably. Japanese cotton textile executives by that time were able to see clearly the path which Japan was following and engaged in intensive speculation in anticipation of severe import restrictions. Consequently, a few mills were reported to have acquired stocks of raw materials sufficient for as much as ten years normal operations.

Although it has been impossible to ascertain the exact extent, it seems probable that initiation of the link system and barter agreements caused the Japanese to pay somewhat higher than normal prices for raw cotton. The reason for this seems to have been that rather commonly the Japanese were compelled to pay premium prices as a condition of the selling country's willingness to receive Japanese products in return. In any event, the increase in price of cotton was not as great as the reduction in price of textiles necessary to provide effectiveness for such arrangements. More important, the contraction in imports was not accompanied by a corresponding contraction in exports. As a result, the output of cotton piece goods was maintained only by drawing heavily on existing stocks of raw material, and as early as the latter part of 1938 total inventories of all mills reached a low of two months supply. To alleviate this situation without increasing imports it became necessary to impose drastic restrictions on domestic consumption.

Raw wool imports followed a somewhat similar trend to that of raw cotton. Quantity fluctuations from 1932 to 1937 mirror the trade dispute with Australia and the spasmodically successful attempts to develop Argentina and the Union of South Africa as substitute sources of supply. After 1937, with the urgency to conserve foreign exchange, imports of raw wool were curtailed even more than cotton, for wool textiles were not exported extensively and therefore not an important source of foreign exchange earnings; however, to provide uniforms for the military force domestic consumption was totally forbidden.

The impact of exchange policy on textiles is most clearly observed in the trade in pulp for rayon manufacture. Deflation in 1930 and 1931 had little effect on imports, for in those years imports remained at approximately the same proportion of domestic production —— about one fifth. But, beginning in 1933 imports began to climb steadily relative to domestic production, until in 1937 they were over fifty per cent. More important, as the indices of quantity and value show, commencing in 1933 the value of imports rose more rapidly than did the quantity and placed an ever heavier burden on exchange reserves. This waxing of imports raised the percentage of pulp in total commodities purchased from foreign countries from less than one per cent to 3.4 per cent and moved it from an insignificant position to the sixth most important. The explanation for this is simple. Continued world depression had generated a demand for cheaper substitute textiles and rayon was the one which best met requirements. Furthermore, the pulp-rayon relationship provided proportionately more exchange since pulp constituted a smaller part of the cost of the finished textile than did cotton. Also, a minor part of the explanation was that as less and less cotton and wool were made available for the domestic market greater reliance was placed on rayon to clothe the population. Consequently, imports expanded until the serious exchange situation which developed in 1938 forced restrictions on all imports.

Advance of other raw materials. —— The results of exchange policy can perhaps best be seen in imports of industrial raw materials. Almost

without exception, expansion commenced shortly after the inception of the reflation period and continued up to the time when it was necessary to restrict severely all imports. For those materials absolutely essential for the economy expansion even continued to the end of the decade. Particularly noteworthy among these imports was copper. Prior to 1933 Japan was almost completely self-sufficient in production and in fact from time to time even had some surplus available for export; however, by 1934 imports exceeded domestic production in spite of of continually expanding exploitation of domestic resources. Likewise, prior to 1932 domestic production of salt surpassed imports, but thereafter imports were greater and to an ever increasing extent. Of course, the explanation for these trends was the need for munitions; but it did mean that industrial expansion placed pressure on the exchanges to supply commodities previously provided domestically in adequate quantities.

Industrial development and the diversion of imports from finished commodities to raw materials, was not entirely beneficial. Throughout the entire period Japan was extremely deficient in heavy industry; and hence, capital equipment had to be procured from foreign sources in large quantities, thus consuming in part savings of exchange effected by the movement of less finished goods. From an almost constant annual total of ¥10 million in the years 1929 to 1932, overseas purchases, mounted steadily from 1933 to 1940 with total spending in the last year of the decade having been nearly twenty times that of 1932, though the quantity of machinery received in terms of tonnage was only approximately six times as great. Within this large, catchall category reports of the period indicated several important individual changes. Most important, those items of machinery which might be designated consumer goods were replaced by industrial equipment. For example, between 1931 and 1933 imports of sewing machines and parts were reported to have been reduced by 20 per cent, and automobiles and parts by 15 per cent. Some shifts occurred even in industrial commodities with electrical machinery declining by 18 per

cent during the same period. After 1933 the bulk of the expanded import total was the consequence of an enormously increased demand for machine tools.

Decline of consumer goods. —— Part of the program of national self-sufficiency, introduced almost simultaneously with the reflation period, included freedom from reliance on foreign sources of supply of consumer goods. As the period progressed, growing shortages of exchange reserves gave impetus to the movement beyond a mere desire to be independent of other countries. However, with the notable exception of textiles, the Japanese population bought few imported consumer goods except foodstuffs; but even in foodstuffs every effort was made to replace foreign with domestic products. Domestic production was encouraged, and although it was not possible to eliminate imports entirely, they were reduced as far as possible.

As part of the national self-sufficiency program of the reflation period domestic production of wheat was encouraged to replace these foreign sources. Nonetheless, complete self-sufficiency could not be achieved. To conserve exchange, domestic flour mills were constructed, and by the middle of the decade raw wheat had almost completely replaced flour. Further, the source of supply was shifted to a large extent from the United States and Canada to Australia. By this it was possible to shift some exchange requirements from the Doller, supply of which was extremely scarce and the value high in terms of Yen, to the Pound, supply of which was more plentiful and value stabilized at a more favorable rate.

One last product —— lumber should be mentioned because the effect of exchange policy on the import trade had an important domestic reaction. Over the years Japan had adopted a positive policy of preserving and building up forest resources to prevent soil erosion and floods; and by relying on foreign sources of lumber, balance had been achieved domestically. However, with imposition of exchange restrictions to conserve exchange, procurement from foreign sources was steadily reduced in quantity though the annual outlay climbed steadily

until 1937. But more vital to Japan was that increasing population and industrial expansion added to the total requirements for lumber. Consequently, domestic cutting was intensified to a point far in excess of reforestation; and by the inflation period there was serious apprehension of the geophysical effects within the country.

Analysis of Changes in Sources of Supply

Change in importance of the United States. —— Devaluation of the Yen at the end of 1931 accompanied important consequences in imports from the United States. As a source of supply that country immediately rose in importance from furnishing 28 to 29 per cent of the total to 36 per cent in 1932, principally the result of continued large purchases of raw cotton at prices in depreciated Yen, and a temporary shift from ordering in India to ordering in the United States. Subsequent diversification of Japanese industry tied the economy even more closely to the United States, and imports continued at from 32 to 34 per cent of the total in every year thereafter. Purchases of cotton continued at a high level with from 700 to 900 million pounds being imported annually through the reflation period, or from 40 to 65 per cent of total Japanese imports of cotton. But at the same time the new industries required raw materials of which the United States was the leading producer. Consequently imports of petroleum, pig and scrap iron, copper, and pulp rose steadily. In addition to this, since the United States was the primary producer of machine tools, purchases in that classification likewise mounted. Yet all of this increase was paid for with Yen having a considerably reduced value. In fact, in 1932 and 1933 much of the apparent increased Yen value merely reflected depreciation. The Dollar value of exports to Japan was less in 1932 than in 1931 and only slightly higher in 1933 than in 1932. After that imports consistently exceeded the 1930 figure in terms of both Yen and Dollars, reaching an all time high in 1937 of ¥1,269,541,000 with a Dollar equivalent of $288,558,000. Even extension of exchange controls in the inflation period failed to relieve materially

the dependence of Japan upon the United States. Though imports in Dollars were somewhat smaller, renewed depreciation in the value of the Yen kept the Yen value close to pre-inflation levels with the exception of 1938, in which year there was a general world recession.

One additional point is that United State exports to Japan shrank less than did those to the rest of the world in the deflation period and expanded more in the reflation period. In other words, during the decade Japan proportionately bought more from and sold less to the United States than did the other countries of the world; hence, depreciation rather than relieving a shortage of Dollars actually served to worsen it, especially since sales of raw silk proved to be exchange price inelastic. Had the Yen not been depreciated the costs of industrial expansion to the country would have been far less.

Total trade figures in either Dollars or the Yen fail to reveal that the volume and value of imports would have been even more substantial had the policy of self-sufficiency not been carried through vigorously. Restrictions on imports of consumer goods, especially wheat and lumber, and the shift from high cost steel to lower cost pig and scrap iron permitted substantial reduction in imports of those commodities. In other words, the United States became a supplier of commodities essential for fulfillment of Japanese political and military policies: that is, of producers' goods rather than consumers' goods.

Europe as a Source of Supply —— The importance of Europe diminished steadily during the entire decade. Two reasons stand out in explanation. In the first place, although export sales did expand somewhat, the products of Japanese industries were either not in sufficient demand in European markets or were competitive with European industries and, hence, were subjected to various trade restrictions. Consequently, exports failed to earn adequate additional exchange capable of being utilized to purchase a substantially larger volume of imports. More important, Europe was primarily an industrial area, and with the governmental policy of actively fostering industrial development the country was searching for raw materials

rather than finished products. One minor exception was the purchase of Scandinavian pulp, but this source never become large in the Japanese import trade.

Outstanding in this declining trend was trade with Great Britain. Of course, as a prominent producer of industrial equipment of the types required by Japan, that country continued throughout the reflation period to have sizable annual sales. Yet as early as 1933 Great Britain had slipped from fourth to sixth place with total sales contracting from ¥153,271,000 to ¥82,548,000. Furthermore, quantitatively sales shrank even more, for the 1933 totals were in terms of the depreciated Yen. Tying of the Yen to the Pound did nothing to enhance Britain's position, for the proportion of total imports, which had stood at seven per cent in 1929, fell steadily throughout the decade and never exceeded three per cent after 1934.

Even the conclusion of the Tri-Partite Agreement with the other members of the Axis —— Germany and Italy —— which the Authorities had hoped would serve to improve trade relations with those two countries, failed to live up to expectations. Japan quickly found that Italian products were competitive with those produced domestically, and the needs of Germany were essentially the same as hers. Germany was an important producer of machine tools but Japanese purchases never increased substantially for the reason that only limited quantities and varieties of commodities required by that country could be offered as barter in return. The conquest of Machuria had raised high hopes in Japan that Germany could be utilized as a source of industrial equipment, by furnishing soy beans and other agricultural products of that area in payment. To this end, a barter agreement was signed in April, 1936; however, the failure of Manchuria as a major source of agricultural production quickly destroyed Japan's expectations in that direction.

Detailed presentation of Japan's import trade from other countries is unnecessary, for it would merely show trends similar to those already presented. Countries having raw materials vital to Japanese

industry experienced larger sales for varying periods of time. Included in this classification were the Netherlands East Indies and the Philippine Islands. Countries previously furnishing finished items, especially of consumer goods or "peace" industry classifications, experienced smaller sales always relatively and usually absolutely. These included the European countries particularly. In those countries in which Japanese purchases tended to become excessive, active sales campaigns would be initiated to alleviate pressure on the exchange. However, competition with domestic producers and belief that Japan was engaging in dumping usually resulted in imposition of restrictive measures. Trade missions would be dispatched and negotiations entered into. Barter agreements would be signed. But in nearly all those cases in which the country was furnishing materials vital to Japan the provisions would be unfavorable, and in practice would prove to be unworkable. Subsequently, Japan would be compelled to impose restrictions either on the importation of the commodity or on domestic consumption when the product was required to further military or political policy.

Failure of the continental venture.——In the latter part of the 1920 decade China, including Dairen and Manchuria, furnished Japan from 350 to 400 million Yen worth of commodities annually, or from 17 to 19 per cent of total imports. The depression reduced that area as a source of supply to ¥283,106,000 in 1930 and ¥235,862,000 in 1931, but as all imports had shrunk extensively, the percentage remained constant. Military operations in Manchuria and the inception of a boycott by the Chinese on trade with Japan further reduced imports in 1932 to ¥205,463,000, or 14 per cent of the total. The Japanese undoubtedly expected such a temporary decline, but anticipated that upon reestablishment of peaceful conditions production of the continent would boom and a new era in trade would be established. In fact, the military forces sold the population on its policies on the basis that control of first Manchuria and then North China would provide a lucrative source of supply free from dependence

upon procurement of foreign exchange. However, except for a relatively minor expansion, expected results were not achieved, and the relative importance of the area as a source of supply declined until exchange restrictions in the inflation period caused reductions in purchases from other areas of the world.

The reasons for the failure of the continent as a source of supply are several. As military operations expanded, trade with the free areas of China contracted through extension of the Chinese boycott and the diversion of production to supplying the domestic economy. Military operations also disrupted agricultural production, destroyed productive capacity and dislocated the population. Even return of peaceful conditions and rehabilitation failed to bring about substantial improvement. In agriculture total productivity could not be expanded sufficiently to provide adequate quantities of foodstuffs to provision the domestic population and substantially fill Japan's requirements. Though there were somewhat larger shipments of soy beans to Japan, they were insufficient to replace shipments from foreign countries and oilcake never equalled the quantity imported in 1930. Manchuria and North China had been considered to be potentially a major substitute source of raw cotton; however, as with other industrial crops, including tobacco and hemp, it was quickly perceived that expansion of acreage would entail a disastrous abandonment of food crops. Furthermore, it was found that the raw cotton produced there was not of a quality suitable to the Japanese textile industry. Manchurian coal and iron output, though expanded slightly, could not keep pace with Japanese industry. In fact, only production of salt was sufficient to supplant foreign sources.

As a result, the proportion of imports supplied shrank from the 17 to 19 per cent existing before the invasion of the continent to 12 to 14 per cent, and continued at that level until the inflation period. Hence, instead of becoming a great reservoir of products for industry and consumer goods for the population, enabling the area to become a self-sufficient political and economic unit, military expenditures,

support of the Manchurian and Chinese population and rehabilitation of devastated areas proved to be a wellnigh bottomless pit into which Japanese production was poured —— production largely using raw materials from foreign countries paid for from ever smaller supplies of foreign exchange. Were it possible to secure adequate data, it would be interesting to compare the increment in volume and value of commodities secured from the continent with the drain of those secured from foreign sources into military activities alone. Although such is not possible, it is believed that it would show a net deficit; that is, more imports were consumed by military operations than were obtained additionally from the conquered areas.

Some Particular Influences on the Import Trade

As with all the family of nations, the onset of world depression caused a reduction in imports, but Japan was particularly affected because of the functional relationship between exports and imports. Consequently, reduction of the percentage of total exports of the world from 3.0 per cent to 2.8 per cent occasioned a corresponding reduction in imports from 2.9 per cent to 2.7 per cent. Perhaps it was this contraction which led Finance Minister Takahashi to reimpose the gold embargo and allow the Yen to depreciate. Apparently he failed to realize at the time that the country in 1931 had regained its former position in exports and likewise in imports, and that action to promote further export expansion would mean that imports would also be expanded. Moreover, notwithstanding a desire to achieve domestic self-sufficiency an expansionist domestic policy would necessitate an even greater volume of imports. In any event the decision was made, and the country was started along its path of restrictive exchange policy.

If Japan had possessed reasonably adequate supplies of domestic raw materials, as had the United States, Germany, France, or Brazil, or if it had been a creditor on capital account, as was Great Britain, exchange depreciation might have benefited the country's international

trade to the extent of more nearly equalizing commodity imports and exports by expanding exports and reducing imports. However, with a paucity of resources exchange policy and other efforts exerted to expand exports meant that imports had to increase rather than decrease. Had there been no other domestic developements during the period, the problem of paying for larger imports perhaps could have been alleviated by securing products containing smaller quantities of capital and labor; in other words, by shifting from finished goods to raw materials. By this not only would scarce foreign exchange reserves have been conserved but also domestic ecomomic recovery would have been promoted through more complete utilization of domestic labor resources and capital equipment. But increased exports to both foreign markets and the continent, expansion of military preparedness and the promotion of industrial development leading to self-sufficiency offset the favorable effects of the downward trend in the extent of processing by foreign suppliers and worsend rather than improved Japan's exchange position.

CHAPTER III
EXCHANGE POLICY AND THE BALANCE AND TERMS OF TRADE

Balance of Trade

Introduction. —— Widely different conclusions have been drawn concerning the effect of the exchange policy of the decade upon the balance of trade. They have ranged from the extreme that after the middle of the decade Japan was able to achieve an active balance to the opposite that there was a steadily larger passive balance. Japanese economists in particular, using trade figures only to the year 1936 and for Japan Proper —— embracing the four main islands of Honshu, Shikoku, Kyushu, and Hokkaido, plus the southern half of Saghalien —— maintained that after 1931 exchange policy served to improve the balance. However, following the custom of the Japanese statisticians,

they invariably included trade with Manchuria and the Yen Bloc area in arriving at their conclusions. Others, Particularly those writers in foreign countries who criticized Japanese military, economic or political policies, maintained on the basis of trade figures of the Japanese Empire —— embracing Japan Proper, Korea, Formosa, and the Lurile and Ryukyu Islands —— and including the year 1937, that the balance failed to improve substantially. A few, apparently arguing intuitively —— for they usually failed to furnish supportng evidence —— even concluded that the balance deteriorated.

The question is, how was it possible for those using the same statistics to arrive at such completely differing conclusions? Strangely enough, the opposing points of view were substantially correct, but only because each writer used a different basis of analysis or strove for divergent objectives. When the objective was merely an analysis of the total flow of commodities into or out of Japan Proper and statistics for particular years, especially those before 1937, were used, the favorable conclusion was correct; and the balance of payments as published by the Japanese could be accepted without serious question. When a study of the total flow of commodities of the Japanese Empire was undertaken, a less favorable conclusion had to be drawn. When the purpose was to determine the demand for or supply of foreign exchange —— usually that of a particular country, especially the United States —— the conclusion was usually unfavorable.

In this study, rather than merely a study of commodity flow, the objective is an analysis of the impact of exchange policy. To reach this objective a modified base of analysis will have to be used —— that which abstracts trade with Manchuria and subsequently the entire Yen Bloc area, for such trade involved no foreign exchange.

The Japanese Empire. —— When the commodity trade of the Japanese Empire is examined —— as it rightly should be for an evaluation of exchange policy, since the demand for or supply of foreign exchange encompassed the trade of the entire area —— a rather unfavorable picture is presented, for depreciation of the Yen failed to

react immediately as favorably on the Empire as a whole as on Japan Proper. Though exports and imports of both climbed in 1932, imports of the colonial area climbed more than in proprtion to those of Japan Proper. Consequently, though the unfavorable balance of the Empire was less than in the deflation period, it was not as much reduced as that of the home area. Improvement in demand for export products of the colonies to a greater extent than for those of Japan Proper combined with a new expansion of industrial commodity imports kept the proportionate rise in the unfavorable balance of trade for the Empire for 1933 and 1934 below that of Japan Proper. However, whereas that area showed a favorable balance in 1935, the Empire had an unfavorable balance of ¥17,285,000; and not until the imposition of stringent import controls in the inflation period did the trade balance of the Empire become favorable, reaching a total of ¥803,380,000 in 1939.

Manchuria and the Yen Bloc excluded. —— Actually the balance of trade totals cited above —— though important in consideration of the total flow of commodities into and out of Japan —— are misleading in terms of foreign exchange; for inculded are the figures of trade with Manchuria and the Yen Bloc. From the establishment of Manchuria as a separate "independent" country the currency of that area was closely associated with the Japanese Yen. Yen circulated freely and purchases and sales were made in terms of it, while creation of the Yen Bloc made the currency of the area virtually the Japan Yen. Accordingly, to gain a clear picture of the exchange position of Japan it is necessary to abstract trade with the Japanese-controlled continental areas from total trade.

Deducting trade with these areas from the totals reveals that exports did increase after consecutive declines to 1931, but to only ¥2,384,161,000 in 1937 instead of ¥3,175,418,000. During the same period, the failure of Manchuria to develop as a source of supply left Japan with no alternative but to purchase increasing quantities of commodities from the rest of the world with the total reaching ¥3,345,272,000.

On the basis of these modified totals the adverse balance of trade of Japan Proper in 1932, the first year of the "independent" State of Manchoukuo, was ¥92,015,000 rather than the reported ¥21 million. In 1935, the first year in which Japanese statistics reported an active balance for Japan Proper,actually there was a passive balance of ¥197,926,000. Two years later the aggregate import excess reached the staggering sum of ¥961,111,000, an amount approaching total imports from all sources in 1931; and in the inflation years of 1938 to 1940 reported active balances were actually passive balances averaging over seven times as great as that of 1931.

With the United States.——If reimposition of the gold embargo and devaluation of the Yen was intended to improve the trade balance with the United States, it failed to accomplish its purpose. Rather than improving the balance, devaluation consistently worsened it. Inefficacy of depreciation to improve the silk trade combined with a sizable advance in the Yen cost of imports brought a prompt import surplus in 1932 of ¥64,726,000. Thereafter, the adverse balance mounted, reaching a total of ¥630,113,000 in 1937 and ¥671,500,000 in 1940. United States statistical sources showed no substantial difference from the Yen totals except for 1932. Based on figures published in the *Foreign Commerce and Navigation of the United States by Calender Years* an export surplus of $114,470,000 in 1930 and $50,634,000 in 1931 became an import surplus of $910,000 in 1932, $91,229,000 in 1934 and $51,886,000 in 1935, the year in which Japanese statistics showed an export surplus for the total trade of Japan Proper. In 1938 the the passive balance was $112,900,000, an unfavorable amount almost as large as was the favorable total of 1930.

With the rest of the world.——Some revealing figures are uncovered when the balance with the Asiatic continent and with the United States is deducted from the total trade of Japan Proper. In 1929 the excess of imports from the rest of the world was ¥422,477,000. Thereafter the excess of purchases was less than ¥110 million with the exception of 1937 and 1940. More important, in 1934 and 1935

Japan enjoyed an export surplus with the rest of the world —— or in other words the adverse balance of trade with the United States was larger than the total adverse balance —— and in all of the years after 1931 the major part of the total unfavorable balance was attributable to trade with the United States.

Problems of balance of trade analysis. —— Within these totals there are some complicating problems. Those Japanese who defended exchange policy but recognized that the unfavorable balance of trade was not materially smaller attributed the slowing down of the increase of exports —— and in some cases there were actual decreases —— to intensified restrictions placed on Japanese goods by foreign nations. But they failed to indicate and statistics failed to show that at the same time an even larger unfavorable balance was prevented by added restrictions on imports into Japan.

In addition, Japanese statistics published before World War II did not disclose —— and as far as can be determined no student of the period has taken into consideration —— action taken by government statisticians in 1936. To make trade totals appear more favorable, the compilation of trade statistics was revised from reporting imports on a c. i. f. Japan to a f. a. s. foreign port cost basis. By this it was possible to exclude freight charges from cost of imports and thus reduce import totals. If total freight charges could be added to reported import values for the years from 1936 the unfavorable balance would appear much larger, for the great majority of commodities were hauled long distances. However, it has not been possible to do so, for it has been impossible to determine the total freight bill. Even attempts to furnish some indication of this amount by comparison of the United States and Japanese statistics of imports from the United States prior to 1936 during which time the figures were ostensibly f. a. s. American port and c. i. f. Japanese port respectively has proved unavailing because of differences in methods of calculation and in exchange rate utilized. However, one possible indication is contained in the shipping account of the balance of payments which shows a

jump of ¥66 million in payments in the year 1937, but this at best reveals only payments for carriage of goods in foreign bottoms and does not include freight paid on commodities in Japanese bottoms.

Still further, there were several important developments not readily ascertainable in total figures. As pointed out in the discussions of the changes in the nature of exports and imports in the previous chapters, products dependent upon domestic raw materials maintained export expansion while those dependent upon foreign raw materials —— such as cotton and iron and steel products —— tended to decline as costs, and hence values, of such imports rose. From this it might be concluded that devaluation of the Yen and restrictions on the allocation of exchange, by increasing the costs of imports and hence the costs of production, held down expansion in the value of exports.

Finally, adoption of the link system and negotiation of barter agreements served to reduce substantially the excess of imports. But this reduction was at the expense of exports as well as imports, and in the last three years of the decade net exports in terms of Yen were not far above the levels prevailing at the beginning of the period. Yet higher world prices, reduced efficiency in the conduct of trade through the obligation to purchase from high cost sources and procurement in many instances of inferior quality merchandise meant the receipt of far smaller real quantities than previously. Furthermore, the compulsion to acquire essential military supplies forced the regulation of domestic industry to produce commodities of the quality and at a price which would insure continued purchasing by foreign countries. In other words, the less unfavorable balance of the inflation period was achieved at the expense of the domestic econmy.

Terms of Trade

Trend in terms of total trade. —— Analysis of the balance of trade of a country in relation to exchange policy is inadequate and incomplete without reference to the terms of trade, for it might be possible for a country experiencing a more unfavorable balance actually

to be gaining a real advantage economically if at the same time the terms of trade were becoming more favorable. This normally could only be accomplished if the costs of imports were declining while the prices of exports were rising —— in other words, if the quantities of goods received were increasing in proprtion to value while quantities shipped were decreasing in proportion to value. However, this did not prove to be the case for Japan. A more unfavorable balance of trade was accompanied by a worsening in the terms of trade.

An excellent analysis of changes in the terms of total trade is contained in the Department of State, *Intelligence Research Report, OCL-2815.* Using a number of important commodities imported and exported, weighted indices of import and export prices were arrived at for the years 1930 to 1939. 1930 was selected as a base since prices in that year were close to the average of the preceding decade and a half. Davaluation of the Yen at the end of 1931 was followed by some rise in export prices in terms of Yen, but import prices rose even more and exceeded the 1930 average as early as 1933. Consequently, the ratio of export and import prices declined to 91 in 1932, 83 in 1933 and a low of 68 in 1934. In other words the terms of trade as early as 1934 moved against Japan to such an extent that the exports which would have paid for a given volume in 1930 paid for only approximately two-thirds that volume in 1934. From 1935 through 1938 the ratio rose by a slight two points a year. The impending outbreak of World War II in 1939, combined with drastically increased controls by Japan on imports and domestic prices, brought a sharp rise to 88, but still below the levels of the deflation years.

A correlative of the shifting of the terms of trade against Japan was the position of exports and imports in the national income. While imports remained stable or decreased slightly as a percentage of national income, the percentage of exports increased. This meant that, though production and national income were increasing, the necessity of exporting a continuously larger proportion of the products

of industry left the economy with a smaller fraction of total output for domestic consumption and investment.

CHAPTER IV
EXCHANGE POLICY AND THE BALANCE OF PAYMENTS

In the previous chapter it was established that, in trade with foreign exchange requiring countries, imports exceeded exports for every year of the decade. A question which must, therefore, be answered is: in the Japanese balance of payments how was balance achieved? More specifically the important question to be answered at this point is: what effect did exchange policy have on the accounts in the balance of payments other than commodity movements in their capacity to offset the excess of imports. In the following sections of this chapter each of the major accounts reported in the Japanese statistics will be examined in turn in order to furnish answers to these questions.

Service Account Items

Shipping. —— Following the economic development of Japan as a consequence of World War I, foreign earnings of the Japanese merchant marine were regularly one of the largest sources of foreign exchange. In fact, next to the physical commodities, raw silk and cotton textiles, shipping ranked third in importance as a contributor to income in the balance of payments. This position remained unchanged through 1938, and similar to the general trend in Japan's export trade the total annual receipts increased to that year. From a low of ¥166,911,000 in 1931 income from this source rose steadily to ¥303,180,000 in 1936, then jumped to ¥429,157,000 in 1937 and to ¥493,483,000 in 1938.

Nevertheless, the gains were not as great as might have been if Japan's exchange policy had been other than as adopted. When exports to the United States, particularly raw silk, failed to respond

to depreciation the Japanese were compelled to seek other means of stimulating sales. One was by economizing in transportation costs. Formerly, a substantial part of total shipments were consigned to West Coast ports and then transported by rail across the country. To reduce this expense the trade route through the Panama Canal direct to the East Coast was expanded. However, since import cargoes originated largely on the West Coast of the United States, the return voyage from New York failed to produce much revenue, nor did the outbound voyage for vessels sailing directly to the West Coast. This meant that the one-way movement in each case had to bear the brunt of total operating costs with consequent effects on shipping income. Further, to deliver the raw silk without deterioration it was necessary to place a fairly large number of the newly constructed, high speed freighters on the New York run, thus removing them from competition for other established trade routes.

It is believed, though it has been impossible to prove, that part of the sudden rise of shipping income in 1937 was the outgrowth of the shift in reporting imports from a c. i. f. to a f. a. s. basis in 1936. Where freight paid in Yen to Japanese steamship operators for commodities carried in Japanese bottoms had previously been included in commodity import values, it seems probable that it now was reported separately as shipping income. This would account for the sudden increase in 1937 over 1936. However, it did not result in any actual increase in exchange earnings.

Offsetting the gain in shipping income were increases in shipping expenses. Not all cargoes moving from Japan were carried in Japanese vessels. For those moving in foreign bottoms depreciation resulted in a proportionate rise in freight payments in Yen. This is most clearly shown in the enhancement of payments on shipping accounts from the low figure of ¥66,270,000 in 1931 to ¥88,142,000 in 1932 and ¥105,748,000 in 1933. Costs of ship charter are reflected in the rise to ¥125,520,000 in 1935 and in the further growth in the following years reaching ¥314,909,000 in 1938. Furthermore, as previously

pointed out the shift from the c. i. f. to f. a. s. basis for reporting commodity imports added to shipping expense to the extent that those commodities were being carried in foreign vessels or freight was prepaid in foreign currencies for Japanese vessels. However, this item did not add to total outpayments, being merely a diversion from merchandise imports to shipping expense.

The net effect of these conflicting influences on the shipping account was that the contribution of the merchant marine to equality in the balance of payments was less that might have been expected. In 1930 net income —— excess of income over payments —— was ¥125,345,000; and in 1931 ¥100,641,000. In the first year of depreciation there was a reduction to ¥99,701,000. In the following years net earnings climbed, reaching ¥177,660,000 in 1935 and ¥222,065,000 in 1937. But in 1938, the year in which income showed the largest total, net earnings dropped off to ¥178,574,000. In other words, in the best year —— 1937 —— total additions to the balance of payments were only approximately ¥100 million more than in the worst year of deflation. And this addition was in Yen with a considerably depreciated value.

It must be assumed that, since trade with the Yen Bloc area is included in commodity totals, income and expenses associated with carrying the commodities also were included in the shipping account. Though it has been impossible to ascertain the amount of contribution to that account, the large excess of exports of commodities necessarily made income substantially larger than payments. Consequently, net foreign exchange earnings were even smaller than reported totals. Furthermore, if the assumption is true that after 1936 freight paid in Yen on imports carried in Japanese vessels was included in total income, it would mean that actually less net foreign exchange from shipping was being received than in the worst year of deflation. In any event depreciation of the Yen failed to increase income from this source sufficiently to offset material lythe large unfavorable balance of trade.

Insurance.—— During the first two decades of the twentieth century writing of insurance by Japanese companies became well established. However, because of earlier founding of firms in other countries, a large volume of coverage in Japan continued to be written by foreign firms. This proved particularly true for fire, casualty, and marine insurance. The tradition of relying on well organized British and American companies for these types overcame any beneficial effects to businesses of other countries of securing insurance in Japan at lower rates as a consequence of a depreciated Yen. But devaluation did mean that Japanese firms securing coverage from foreign countries were required to pay larger premiums in terms of Yen. Consequently, although foreign firms were still utilized extensively, there was some tendency for Japanese business firms to transfer their insurance accounts to Japanese insurance firms, thus reducing expenses in the insurance account. It is believed, though no evidence could be found, that by the latter part of the decade government regulation of foreign exchange made it extremely difficult to secure exchange to pay insurance premiums to foreign firms for other than marine insurance.

As the value of trade increased in the decade there was, of course, some increase in earnings from marine insurance on the sale of products on a c. i. f. basis. However, expenditures likewise increased on foreign sales to Japan on the same basis. Furthermore, although these is no documented evidence to the effect, on the basis of casual conversations with persons engaged in trade with Japan there is reason to believe that there was some shifting, because of the uncertainties arising out of Japan's exchange policy, from purchasing from Japan on a c. i. f. basis to an f. o. b. basis and sales to Japan to a c. i. f. basis from an f. o. b. basis. This would mean that an ever larger amount was going to foreign marine insurance companies which might otherwise have accrued to Japanese companies.

Similar to the shipping account, receipts from sales of insurance shrank slightly in the deflation year of 1931 to ¥108,812,000 from

¥116,218,000 in 1930, and mounted again, beginning in 1932, to ¥117,258,000 in that year, ¥138,517,000 in 1934 and finally to ¥170,029,000 in 1938. Yet, while shipping receipts climbed steadily, insurance income contracted temporarily in 1935 to ¥128,629,000 before continuing its rise. Outbreak of the war and uncertainty of the future of Japan brought a sharp drop in 1939 and 1940 to ¥23,317,000 and ¥28,166,000 respectively. Payments followed the same path; but whereas shipping income was on the average over ¥100 million in excess of payments, insurance payments closely approximated income. Thus, outpayments dropped from ¥115,854,000 in 1930 to ¥105,896,000 in 1931, rose to ¥151,125,000 in 1938. Exchange controls and world uncertainty resulted in a contraction to ¥26,533,000 in 1939 and ¥31,516,000 in 1940.

The net effect, as far as contributions to the balance of payments were concerned, of the insurance account was insignificant. It is unnecessary to itemize net income for the significant years, for at the maximum point in 1934 only ¥23,437,000 was contributed to the balance of payments, an amount insufficient to have any substantial effect.

Emigrant remittances, tourist and business expenditures.—— Emigrant remittances were never a large source of foreign exchange earnings for the simple reason that the number of Japanese living overseas retaining contact with the parent country was small. For that reason what small amounts were returned were included with tourist and business expenditures. Likewise, immigrant remittances were non-existent as Japan was a surplus population area with migrants leaving the country rather than entering. Expenditures by tourists and by businessmen and their families residing in Japan were a source of foreign exchang earnings almost from the date of the reopening of Japan. Depreciation of a country's currency usually results in a considerable increase in earnings through this channel. But it failed for Japan for three reasons. In the first place the devaluation was effected in the midst of the depression in the United States, and

Americans, the world's leading tourists, had little in the way of funds to spend on touring no matter how favorable the exchange rate. Furthermore, those few who might have visited Japan began to avoid the area because of the uncertainties arising out of the military activities and the general unfavorable conditions for tourists. Last, increasing shortages of commodities in Japan, increasing complexity of doing business and finally military intervention in their activities caused many businessmen to leave the country.

Consequently, after the usual decline in income in the deflation period from ¥50,730,000 in 1930 to ¥43,166,000 in 1931 the only substantial increase was through the effects of currency conversion by businessmen and their families to meet living expenses in the years in which the Yen was depreciating. In terms of foreign currencies this was negligible. However, in Yen, income from this source rose to ¥57,158,000 in 1932 and ¥69,458,000 in 1933. After mounting to a peak of ¥107,688,000 in 1936, this account as a source of foreign exchange declined thereafter to a low of ¥19,819,000 in 1939.

Accompanying the absence of additions of emigrant remittances, tourist expenditures and business expenditures to exchange earnings in any material amount, were corresponding limitations on payments. The effect of depreciation on Japanese tourism was negligible; for, similar to the populations of most countries with low income levels, the Japanese were never tourists to foreign countries to any great extent even at the appreciated value of the Yen in 1930. Japanese businessmen, before depreciation, travelled widely promoting their activities; but, the increased cost of such business trips and subsequent restrictions of exchange controls seriously limited their ability to travel. Some of the larger organizations maintained overseas offices in the principal cities of the world staffed with their own personnel. Costs of continued operation of these offices, together with expenses for some necessary business trips, prevented reduction of this account —— rather depreciation caused a slight increase. Therefore, from a low of ¥44,897,000 in 1931 outpayments on this account rose to ¥51,258,000 in 1932,

¥68,462,000 in 1933 and hovered around that level until 1938. In that year there was a reported ¥165,907,000, but all attempts to discover the cause of this sudden jump have been unavailing. It can only be assumed that this was either associated with completing business negotiations under the link system or barter agreements, or in that year alone for some reasons business expenses in the Yen Bloc area were included in the totals. In any event the following year saw the usual sharp contraction in service outpayments.

Governmental expenditures.—— Governmental overseas revenue was never a large source of foreign exchange during the decade under study. In 1930 ¥15,834,000 was derived from this source. Thereafter, to 1935 the total varied between ¥5 and ¥7 million. In 1935 the account shows an increase to ¥18,253,000, followed by further increases to ¥35 to ¥37 million in 1936,1937, and 1938. The amazing sums of ¥463,799,000 and ¥813,405,000 are reported for the years 1939 and 1940. However, study of the Special Accounts of the goverment indicates that the sources of these were governmental activies in the Yen Bloc area, and therefore must be discounted almost entirely as sources of foreign exchange.

Outstanding in the governmental account was the growth in expenditures. From ¥30,058,000 in 1930 and ¥37,896,000 in 1931 outpayment jumped to ¥92,882,000 in 1932, the first year of devaluation. In the following years expansion was steady to ¥164,526,000 in 1936. Enhanced political activity on the continent caused a sudden jump to ¥430,765,000 in 1937, to ¥1,014,365,000 in 1938, and to ¥1,901,118,000 in 1940, But not all of this increment constituted additional demands for foreign exchange. Administrative expenses of the government in the occupied areas were included, and being within the Yen Bloc area they were paid in Yen.

Depreciation of the Yen was a substantial direct influence on the initial expansion in 1932 and 1933. However, indirect causes were more important in subsequent years. In attempts to develop new markets and sources of supply it was necessary for Japanese businessmen

and government officials to visit foreign countries. This was accomplished by governmentally financed "trade missions" so frequently mentioned and commented upon in the press of the period. Albeit these missions were to promote private business, since they were financed by the government, the cost were charged to "government expenditures." Hence, there occurred a large and steady increase in this account, offsetting the almost constant figure for private business expenditures abroad.

It is impossible to determine the division of exchange demanding, for the Japanese did not publish separate figures for the costs of trade missions and governmental administrative expenses in the occupied areas. But, notwithstanding the lack of specific figures the large excess of expenditures over revenues in this account again indicates the failure of this account to bring about equality in the balance of payments.

Income Accounts

Interest on securities.—— Receipt of interest on foreign rentier investment was never a large source of foreign exchange for Japan, for neither Japanese business nor the government invested extensively abroad except in Manchuria and China and most of those were of an entrepreneurial nature. Consequently, income from this source varied only from a low of ¥10,451,000 in 1930 to a high of ¥22,274,000 in 1936. A change in statistical compilation in 1938 and 1939 makes the totals for those years appear large, but they included a substantial volume of dividends and profits. In 1937 and 1940 interest income was reported to have been ¥55,378,000 and ¥69,976,000 respectively; but a large part of this additional amount over 1936 was derived from investments in the Yen Bloc areas and yielded no foreign exchange.

As distinct from interest income both the government and private business had borrowed extensively from foreign countries. Being of a contractual nature interest payment was required whether or not there was depression or depreciation. Onset of depression resulted in some defaulting of interest with the result that payments shrank from

¥89,805,000 in 1930 to ¥80,122,000 in 1931. Thereafter the impact of devaluation of the Yen can be seen readily. Initial depreciation from the 1931 average Dollar rate of $0.4885 to $0.2811 in 1932 caused an immediate advance in payments to ¥97,752,000. Further devaluation in 1933 caused a further increase to ¥113,158,000. Appreciation in value in 1934 brought payments back to ¥97,211,000. Thereafter payments declined gradually as previously incurred loans matured and were retired until new depreciation in the latter part of 1939 again raised the total to ¥102,810,000 in 1940.

Outstanding in the interest account is that, when the Yen stood at approximately its gold par in 1930, net excess of payments over receipts were ¥78,146,000; but when the Yen reached its lowst average level in 1933 the excess mounted to ¥96,922,000, an increase of 24 per cent. In other words, instead of reducing net interest outpayments, the effect of depreciation was to add an additional ¥20 million burden.

Dividends and Profits.—— To the extent that income was derived from investments in foreign countries devaluation of the Yen proved beneficial; for it meant that a given amount of profits or a given dividend declaration when converted into Yen yielded as much more as there was devaluation. However, not all of the expansion from ¥97,499,000 in 1931 to ¥166,387,000 in 1932 can be attributed to this source; for as early as 1932 Japanese firms had begun investing in Manchuria with returns received as early as the latter part of the year. Had Japanese investments been in foreign countries and been a source of foreign exchange there would have been corresponding increases in interest income to those in profits. In fact, it might even be argued that the larger dividends reported represented an actual decrease in net foreign exchange earnings; for at the time of the greatest enhancement the world was experiencing a severe depression, and typically dividends, being residual payments, decrease more than interest payments, being contractual payments.

The significance of entrepreneurial investment in Manchuria and China is indicated in the years after 1932. As more and more political

control was exercised and more and more investment made, dividends and profits waxed. From the low of 1931 the amount received grew steadily to the end of the decade, with the exception of a slight recession in 1937 and allowing for a temporary change in statistical compilation in 1938. By 1940 it attained the unprecedented sum of ¥373,530,000. What part of this constituted foreign exchange earnings is impossible to ascertain; however, it is believed to have been quite small. As the following section on capital movements shows clearly, beginning in 1934 Japanese overseas investments were sold to finance imports. Reduced overseas investment necessarily meant reduced income from that source. Consequently, it is believed that foreign exchange earning income was never much larger than ¥100 million and in all probability was somewhat less.

The small volume of entrepreneurial investment in Japan is shown in dividend and profit payments. Depression and reduced profitability of enterprises lowered payments from ¥28,980,000 in 1930 to ¥22,128,000 in 1931; while depreciation caused an expansion to ¥32,221,000 in 1932. Thereafter improved business conditions resulted in a gradual expansion to ¥47,469,000 in 1935. A sharp increase occurred in 1937 and even more so in 1939; but from all evidence obtainable these amounts represented earnings of firms incorporated in the Yen Bloc area with investments in Japan and did not represent actual outpayment across the exchanges.

Particularly noteworthy at this point is a comparison of the interest account with dividends and profits. It has been noted frequently by students of the Japanese economic system that Japanese financiers tended to borrow rentier from foreign countries and invest entrepreneurial in enterprises on the Asiatic mainland. This relationship is well brought out in the excess of interest payments and dividend and profit receipts. But the inception of the continental venture and the bringing of Manchuria and other areas under Japanese political domination meant that receipts of dividends and profits were in Yen and payments of interest was in foreign currencies. Devaluation resulted in little

additional foreign exchange income, but large additional payment.

Summary of service and income accounts.—— Summing up all service and income accounts, total receipts mounted steadily from a low of ¥446,764,000 in 1931 to a high of ¥1,541,498,000 in 1940, but the major part of this increase was from Japanese dominated areas and yielded little or no foreign exchange. Payments, on the other hand, also mounted steadily from a low of ¥363,144,000 in 1931 to a high of ¥2,331,137,000 with the balance becoming unfavorable after 1936.

At this point the question might be asked: "How did exchange policy affect these accounts?" In the deflation period income dropped by 15 per cent and payments by only 7 per cent; but this was the normal result of world depression and Japan's position of deriving income largely from rendering services to the other countries of the world and making payments of a contractual or fixed nature. Reimposition of the gold embargo at the end of 1931 was followed promptly by a rise of income by 30 per cent and payment by 32 per cent, indicating that the initial depreciation of the Yen affected payments slightly more than income. Further depreciation in 1933 was accompanied by a further rise in income by 19 per cent and payments by 22 per cent, another slight increment in the proportion. Again considering the nature of the accounts this relationship was to be expected; for, though the cheaper Yen gave rise to some tendency to utilize Japanese services, continued depression and the other factors previously discussed restricted earnings from these sources. Cancelling the benefits of the rise in income were larger payments because of the obligation to meet fixed expenses. It is probable that had there been no other internal developments the influence of exchange depreciation would have had favorable effects on the service and income accounts as world economic conditions improved, for fixed payments would have remained stable while income continued to improve. However, as it worked out depreciation was probably an extremely poor policy. Military preparedness, political policy and the exigency of seeking new markets and sources of supply occasioned more dependence on receiving services from

foreign countries than in rendering services thereto, more payments for trade promotion and continued payment of interest while dividend and profit income earned in foreign countries declined relatively. Consequently, the trend of the years immediately following depreciation continued until in 1937 payments became larger than income. Thus, rather than providing additional income to offset the adverse balance of trade, the exchange policy adopted tended to reduce it. Moreover, the true condition was worse than even balance of payments statistics showed, for an ever larger part of receipts was derived from non-foreign exchange earning sources while payments mounted to exchange requiring destinations. In any event the worsening of the balance on service and income accounts became one of the causes of additional exchange controls made necessary in the later years, particulary those of the inflation period.

Capital Accounts

Long term investment.—— For Japan the capital accounts were particularly important. As early as 1936 Japanese economists saw that "exclusive of capital movements, Japanese ordinary invisible trade has resulted in an export balance for Japan every year, it is true. But, even here, the favorable balance dwindles to almost nothing in the light of repayment of matured foreign loans for the government, private banks, and corporations……" To understand the reasons for this statement and, more important, to recognize that it was in reality an understatement, it is essential to summarize briefly the history of Japanese foreign investment.

Almost from the reopening of trade between Japan and the western world in 1854 the country was a debtor nation. With the exception of the years during and immediately following the First World War, the size of the long term foreign debt of the country grew continually. Obligations were incurred for several purposes, perhaps most important of which were for the procurement of capital equipment for industry, harbor improvement, electrification programs, waterworks and similar

types of economic development of the country. In addition funds were obtained from foreign sources to replenish specie reserves in years of abnormal import excess, such as those following the Great Earthquake of 1923, and for correcting an adverse balance of payments to relieve strain on Japan's money markets. At the end of 1930 —— the peak year of foreign indebtedness —— a classified list of the foreign incurred debt of Japan included:

National Government Bonds issued abroad	¥1,567,325,397
Internal Bonds purchased abroad	84,178,000
Local Government Bonds issued abroad	245,173,768
Corporate Debentures floated abroad	455,867,068
Foreign investment in domestic securities of banks and businesses	113,828,000
TOTAL	¥2,466,372,203

Although it has been impossible to find a corresponding breakdown for Japanese investments abroad, at the end of 1929 it was estimated to total ¥1,811,000,000. Not included in this were claims against China of 270 million Yen and against Russia of 240 million Yen, both of which were unsecured and considered bad debts. Thus, using the 1929 figures for investment abroad, and there is no reason for assuming that there was any substantial additional investing during 1930, Japan was a net debtor nation in 1930 to the extent of 655 million Yen. But this fails to tell the whole story; for a large share of Japanese investments abroad was of an enterpreneurial nature in Manchuria and China —— investments representing indemnities received from previous military activities, or shipments of capital equipment from Japan without going through the foreign exchange markets. Sale of these investments to investors in foreign nations after 1931 to secure additional exchange was politically impossible.

After 1930, in an attempt to become economically independent, Japan floated no further long-term loans in foreign countries. Further, even if Japan had tried to secure additional funds the success of such a move would have been doubtful, for with the devaluation of the Yen and the undertaking of hostilities on the continent her credit

rating, which had long been high in London and New York financial circles, dropped drastically to the point that there was reported to be no longer a market for any new Japanese security issues. Moreover, the European nations which might have been disposed for political reasons to extend credit had little dollar exchange —— exchange most badly needed by Japan.

As against the absence of new investment in Japan, there were large speculative purchases by Japanese nationals of Japanese securities denominated in foreign currencies and in foreign government securities in 1930 and especially in the Autumn of 1931 in anticipation of devaluation of the Yen. This placed extreme pressure on the foreign exchange reserves and was probably one factor which brought about depreciation. Yet depreciation failed to stop this movement and the flight of capital from Japan continued in the first part of 1932. Such movement placed the country in an untenable international financial position and compelled enactment of the "Capital Flight Prevention Law." For the purposes of evaluation of exchange policy, however, the failure to continue to borrow abroad, combined with the requirement of meeting principal payments on loans previously floated, added to Japan's balance of payments difficulties. Nor did depreciation solve the problem; for it merely meant that the Japanese financial authorities had to allocate more Yen than before to make a given amortization payment. Of course, not all of the increase in payments on capital account after 1932 can be attributed to enlarged costs of servicing previously incurred debts. Beginning in 1933 Japanese business firms and the government began investing extensively in Manchuria and later in North China. In 1933 the total investments in this area were reported to have been approximately ¥220,100,000, in 1934 ¥310,800,000, and in the following years successively greater as the area under control became larger. These investments represented for the most part shipment of capital equipment from Japan; and such actual funds as were expended on the continent, although included in the balance of payment totals, represented no demand for exchange.

With enactment of the Foreign Exchange Control Law, enforced from May 1, 1933, allocation of exchange for the purpose of purchasing either Japanese or foreign securities in foreign countries was prohibited. Hence, thereafter the only long-term debit items which required exchange were for purposes of redeeming matured loans, amounts which ranged from ¥50 to ¥100 million annually.

Returning to long term credit items, ineluctable requirement for exchange to cover the adverse balance of trade, service and income accounts compelled Japanese financiers to sell foreign securities held in Japan, to collect the proceeds of foreign loans at maturity and to dispose of businesses owned overseas. According to a very reliable calculation sale or redemption of foreign securities amounted to ¥22.8 million in 1933 and ¥136.8 million in 1934 but only ¥28.1 million in 1935, indicating exhaustion of this source of funds. Collection of foreign loans, prior to repayment of those made in the Yen Bloc area, were important only in the year 1933 with 76.2 million having been received. Outstanding was the sale of businesses owned in foreign countries. This became an important source of exchange in 1933 with receipts of ¥75.3 million. In 1935 such sales netted ¥129.4 million and in 1936 ¥270.0 million. Although these sales provided large sums temporarily, in the long run sale of overseas investments was detrimental for it reduced future income potential.

Short term investment.—— Although short term capital movements from Japan as part of the " flight of capital " were large in 1930 with an estimated ¥221 million exported, in subsequent years they little influenced the balance of payments. Since it was not a major international money market, there were almost no short-term balances owned by foreigners on deposit in Japan. Thus it was possible for the financial authorities to ignore in planning exchange policy the danger of such speculative movements away from the country. Of course the danger existed that Japanese-owned funds might move out, a danger which in the early years proved quite real; for it was quite widely rumored during the latter part of 1931 that the large firms, especially

the Mitsui and Mitsubishi organizations, were shifting short-term funds abroad speculating on possible devaluation of the Yen. After 1932 pressure was relieved by the successively more severe exchange control laws specifically preventing such movements.

Unfortunately all balance of payments statistics fail to distinguish between new short term borrowing and drawing down balances held abroad. Undoubtedly some funds were obtained from the first source, though they were probably not large, for the same reasons cited above in discussing long term credits; namely, the decline in the credit standing of Japan in world money markets arising out of Japan's financial policies and uncertainties concerning future political and military plans. As later evidence of this, the Japanese Department of Finance in 1937 prevailed upon the Japan Cotton Spinners Association to attempt to obtain foreign credits for the purchase of raw cotton in excess of the legally permissible exchange allocation. But all attempts to secure such credits proved futile. In fact, during the period previously established terms of payment, normally providing for ninety day sight drafts, were reported being reduced to thirty days, and in some cases time bills were completely eliminated.

The failure to secure foreign short-term credits combined with the reduction of time accommodation in payments compelled the authorities to draw on foreign balances and short term credits previously obtained. From a low of ¥35.2 million in 1933 income derived from this source rose to ¥148.0 million out of the total "receipts of foreign capital" in 1935 of ¥193.0 million. Credits rose further to ¥378.4 million in 1937 and to ¥869.7 million in 1938. Though it cannot be determined for the lack of any breakdown for figures after 1936 it is believed that a substantial part of this was a final using up of balances held abroad; for in 1939 and 1940 the account declined drastically, indicating exhaustion of foreign short-term holdings.

Summary of capital account items.—— The separate items in the capital accounts have been presented in considerable detail, but this was essential to establish correctly the exact manner in which these

accounts were used and to disclose the impact of exchange policy on the particular items. However, to see the overall picture it is desirable to bring them together in a summary. In 1930 payments exceeded income by ¥147,818,000. Speculative movements of funds in anticipation of devaluation or other positive action increased the excess to ¥232,664,000 in 1931. Imposition of controls over the flight of capital in 1932 resulted in a reduction to ¥100,136,000 in that year, and further extension of controls in 1933 brought the capital accounts almost in balance with an excess of only ¥20,976,000. This trend toward equality was reversed in 1934 with payments exceeding income by ¥183,441,000. From that year to the end of the decade the new trend continued with the exception of 1938. For instance, in 1937 debits were larger than credits by ¥565,094,000 and in 1940 by ¥1,300,408,000.

Were it possible to abstract investment on the continent from debit totals it is conceivable that credits might have exceeded debits after 1933, but unfortunately no accurate estimates of Japanese investments in the Yen Bloc have been discovered. As opposed to the smaller debit total, however, credits also would have been somewhat smaller by the amount of repayment of loans thereto and by the amount of purchase of Japanese securities by individuals and firms resident in the area.

More important for our analysis were the means by which foreign exchange was secured. Through either lack of desire or sheer inability, borrowing in foreign countries was discontinued after 1930 except for a small, though undeterminable amount of short-term credits. As a result, as early as 1933 it became necessary to begin selling foreign securities held in the country as well as assets held in foreign countries. So vital did income from this source become that in 1937 extension of the Foreign Exchange Control Law gave the government the power to acquire and dispose of all privately held foreign assets. Meanwhile, to provide exchange, banks commenced drawing down balances held in other countries and failed to renew loans previously extended. From 1933 through 1936 these two sources of funds enabled the country to cover the adverse balance in other accounts. But by the end of that

year the point of exhaustion was reached.

The question can now be asked——and answered: how did exchange policy affect the capital accounts? Whether or not the resumption of gold payments at the beginning of 1930 influenced the flight of capital in 1930 and 1931 is problematical. It might be argued that the consequent loss of gold reserves scared investors or forewarned them that depreciation would follow. In opposition, it might be argued that economic conditions in Japan were such as to have induced the flight in any event. On balance, the first argument appears to be the stronger, for loss of gold could not continue indefinitely, and investors could have recognized easily that some action would have to be taken at an international level, with reimposition of the gold embargo followed by depreciation being the most logical. "Tipping off" insiders was really unnecessary except that it provided information as to the exact time that action would be taken.

Depreciation in itself adversely affected the capital accounts, for it meant that, since both the government and private business were large debtors to foreign nations, more Yen had to be allocated for maturing loans. Had the country been a creditor or had it borrowed anew the opposite would have been true and depreciation would have had favorable effects to the extent that proceeds were remitted for use internally. Had the proceeds of sale of foreign assets been remitted depreciation would also have been favorable. However, as the proceeds were almost entirely utilized to meet payments in foreign countries the direct effect was neither favorable nor adverse.

Military preparedness had no direct influence on the capital accounts through depreciation; but the indirect effects were important. Increased import requirements and loss of shipping income in particular were compelling influences bringing about complete restrictions on new foreign investment and in the later compulsory sale of assets. Furthermore, through the loss of confidence, the ability to secure even short-term credits was limited.

Gold and Silver

Exports in Deflation and Reflation Periods.——When one considers that the large adverse balance of merchandise trade was not counterbalanced by receipts on service and income accounts or by new investment in Japan or by new borrowing in foreign countries the question is raised: how was the country able to maintain its international position as long as it did? The answer lies in the movement of gold and silver. In 1930 the excess of payment on current and capital accounts was met by a net shipment of gold and silver of ¥288,158,000 and in 1931 of ¥387,282,000. These large shipments were reported to have depleted Japanese gold reserves by more than 50 per cent. The loss of reserves was stated to have been the cause of the resignation of the Cabinet and the conclusive factor in the decision to reimpose the gold embargo. Yet, even with depreciation and the introduction of exchange controls, net shipments abroad in 1933 still totalled ¥120,905,000. By further restriction on exchange, shipments of gold and silver were almost entirely prevented in 1934 with a net outflow of only ¥600,000 in gold and ¥13,168,000 in silver in that year. In 1935 shipments again increased; but due to attempts to conserve gold, payments were made in silver in the amount of ¥146,805,000.

Encouragement of gold mining together with subsequent enactment of the Gold Purchase Law in April, 1934, expanded gold reserves from a low of ¥425,000,000 in 1932 and 1933 to ¥466,000,000 in 1934, to ¥504,000,000 in 1935 and to ¥548,000,000 in 1936. In 1937 gold reserves were revalued at 290 milligrams per Yen from the previous 750 milligrams per Yen providing a book profit of ¥747,000,000. Of this amount ¥412,000,000 was placed in a "Gold Fund Special Account."

Resumption of gold exports in 1937.——Fortunate it was for Japan that gold mining had been encouraged, for after 1936, during which net exports of silver were only ¥28,474,000, the depletion of foreign balances forced reconsideration of the policy of not shipping

gold of the previous three years. In March, 1937, the Minister of Finance, Toyotaro Yuki, resigned to the fact that there would be further increases in the import surplus as a consequence of domestic economic and military policies, reluctantly reversed the decision of the previous years and agreed to the resumption of exports to strengthen the Yen by restoring overseas balances. During the balance of the year total shipments amounted to ¥866,878,000. This unprecedented sum, however, failed to have any appreciable effect, and in 1938 another ¥660,639,000 in gold and ¥15,622,000 in silver was exported, followed by ¥663,794,000 and ¥320,141,000 worth of gold plus ¥22,953,000 and ¥30,946,000 of silver in 1939 and 1940.

Although estimates of gold reserves at the end of 1940 have never been published, subtracting shipments for 1937 through 1940 from reserves existing in 1937 plus probable production leaves one with the inescapable conclusion that, in the pessimistic words of the *Oriental Economist*, by June, 1940, "gold, silver, and foreign securities have about been used up."

Evaluation of the Influences of Exchange Policy on the Balance of Payments

Since considerable detail has been presented in the preceding analysis of exports, imports, the balance of trade, the terms of trade and finally the balance of payments, it is desirable to present in summary an evaluation of the influences of exchange policy on the balance of payments as a whole before turning to the effects on the domestic economy. By this the answers to the questions raised at the beginning of this chapter will be presented more explicitly.

Analyzing the balance of payments in light of the three periods of financial policy —— that is, the three successive periods of deflation, reflation and inflation —— some striking developments are to be found. In the first, or deflation, period exports of merchandise declined quite noticeably, yet the decline in Japanese exports was not as great pro-

portionately as was the decline of exports from the United States. Imports likewise declined, but not to the extent of exports. In particular there was a smaller decline from 1930 to 1931 than from 1929 to 1930. More shrinking of exports than imports in itself provided apparent evidence of difficulties at the international level; but the failure of imports to decline in proportion to exports was in large measure due to anticipations of exchange manipulation. Orders for Japanese products were being delayed in anticipation of devaluation of the Yen, and Japanese manufacturers were stockpiling and engaging in speculative buying for the same reason. While receipts from service, income and capital accounts were decreasing, payments were increasing. Foreigners were reluctant to invest in or lend to Japan because of the depression and uncertainties concerning the future, and the government was unwilling to borrow because of a growing nationalistic attitude; yet Japanese investors were engaging in speculative capital movements. The effect of the large excess of demand for foreign funds over supply made necessary large exports of gold; and this in turn reduced domestic monetary reserves to a dangerously low level. At the end of 1931 Finance Minister Takahashi announced what had been anticipated for some time —— a reimposition of the gold embargo. The immediate consequence was depreciation of the value of the Yen by nearly thirty per cent, followed by a further reduction in 1933.

In terms of the depreciated Yen, exports in 1933 and in the subsequent years of the reflation period revived; but in terms of the former value of the Yen a reduction in real values continued; that is, the quantity of necessary imports which could be purchased with a given quantity of exports decreased. Within total export figures there were three notable developments. First, and perhaps most important, was the failure of raw silk exports to revive. One author stated that this was the result of high silk prices in the deflation period during which time there was widespread shift in the American market to the use of substitutes, especially rayon and finer grades of cotton. However, since there had long existed a preference by American women for

silk stockings and lingerie, it seems more probable that the substitution was enforced rather than voluntary, brought on by the reduced incomes of the American depression. Moreover, the import price into the United States declined steadily to 1934 and reached a point some sixty-five per cent below that prevailing in 1930 without noticeably stimulating sales. In any event silk failed miserably to earn foreign exchange during the period. A second notable development was the expansion in exports of poorer grade materials. From an overall examination of trade statistics there is strong reason to believe that this development would have occurred whether or not the Yen had been depreciated, for in many cases world depression meant for buyers that it was a question of either purchasing cheap, inferior quality Japanese products or not purchasing at all. This trend was noted even in the American market in which consumers bought large quantities of tungsten light globes of inferior quality from Japan rather than the far superior, but higher priced, American product. However, of greatest importance in commodity exports was the sale of cheap cotton textiles to Southeast Asia. In fact, sales of this and other cheap products to that area helped maintain the volume of Japanese shipments to the Asian market even though those to areas of China not under Japanese control were declining rapidly. The third major development in trade was the attempt to promote new markets. Though the program had some success, it was a costly venture, for the expense of sending trade missions to promote sales undoubtedly in some cases was greater than profits realized. Furthermore, additional costs of transportation to the new and usually more distant markets reduced the financial gain derived from the sale.

More important in the reflation period in its influence on the balance of payments was the advance of imports. Initially, stimulation was provided by enhanced demand for products required by the export industries; however, as military plans unfolded emphasis was changed to the provision of military supplies. Yet larger munitions requirements in turn placed pressure on the economy to provide more exports and

this created more demand for imports. To reduce the adverse balance of trade and free the country from dependence on foreign production as far as possible, expansion of industry was encouraged. By this some shift from importation of semi-finished and finished commodities to raw materials was achieved; but continued reliance on foreign sources of capital equipment cancelled some of the benefits therefrom. As penetration of the continent progressed import demand became even greater to provide supplies and equipment to carry out economic plans, counteracted only by imposition of restrictions on imports for domestic consumption. Finally, though it has been impossible to work it out precisely, as production and employment expanded, the well-recognized multiplier effect was generated and served to enhance further exchange difficulties and create the need for even more direct restrictions on imports. But notwithstanding all attempts to relieve the pressure, the value of imports both absolutely and relative to exports continued to mount and the balance of trade to worsen.

In the service accounts there was some improvement in earnings from such items, as shipping, insurance, etc.; but world depression and uncertainty concerning the political and military future of the country held down income possibilities, especially from the merchant marine and from tourist expenditures. Conversely, the reduced value of the Yen required larger payments in that currency for services secured abroad; and more rather than less services were required.

Speculative movements of capital were almost completely stopped by steadily more severe controls over exchange; but still Japan was faced with the necessity of meeting interest and principal payments on previously incurred debts. For several years it was possible to continue business by drawing on foreign balances and by sale of foreign assets. But by the end of the reflation period these balances were almost exhausted, and in the following period the financial authorities were forced to resume shipment of gold. One fact, generally overlooked by students of the period was that in one year 1935 part of the deficit in the balance was met by shipment of silver to the extent of some ¥200

million, for silver was included as an item in the merchandise trade of the country.

The third period of the decade —— inflation —— proved most fateful for Japan. Imports for domestic consumption were almost completely stopped except for those absolutely vital for the maintenance of the population. Raw materials for industry were restricted to those necessary for military supplies or for export products which could be sold on world markets to pay for munitions not available domestically. Export totals appeared larger than they were in reality; for included in statistics were shipments to the Yen Bloc —— shipments which earned no urgently needed foreign exchange. Added to the difficulties of controlling trade to procure military supplies, the "China Incident" brought forth a wave of boycotts against Japanese products not only in China, but also in those countries the exports of which were vital to Japan. During the period such boycotts were noted in the United States, Great Britain, the Netherlands Indies, Malaya, and Australia. With all of this, the adverse balance of merchandise trade quickly assumed record proportions. Successive waves of direct and indirect control, discussed in Chapter IV, followed until even Japanese economists were forced to make the plea that:

> Due to over-anxiety about balancing international payments, there is danger of the authorities unbalancing them still further and thereby precipitating the very evil which they want to avert. The restriction of imports is liable undermine the competitive powers of Japan's industries and result in export movements being curtailed.

Notwithstanding this and other pleas the import excess continued to rise and restrictions to increase. Nor did the service accounts lessen the exchange difficulties. Merchant shipping as a source of revenue declined with withdrawals of ships from world trade routes to transport men and supplies to the continent. In fact, the shortage became so severe that Japan was faced with the necessity of going into the world charter market to secure additional vessels, thus further intensifying her exchange difficulties. Uncertainties as to the future of Japan

brought forth a shift of marine insurance underwriting from Japanese to foreign companies. And those persons who, with economic revival in other countries, might have become tourists in Japan hesitated to visit the region. Added to all this was continuing government expenditures overseas to develop new sources of supply and new markets.

The culmination of all these developments was that, with exhaustion of income potential from the capital accounts, beginning with the first year of the inflation period ——1937——Japan's only alternative was the resupmption of gold shipments, and on a previously unheard of scale. In that one year shipments amounted to more than total reserves existing in Japan at the beginning of the decade. The decision to resume shipment, followed almost immediately by large movements, gave rise to further questioning of the overall financial policy with the economists asking

> ……whether import demand could grow so overwhelmingly heavy that they would make this debit balance in international payments too large to be met by gold shipments. Such a situation is unthinkable except when the government is amiss in its fiscal policy, and if an unsound fiscal policy is the underlying cause of foreign exchange weakness, then any control system, however ingenious, will prove powerless to save the country from ultimate bankruptcy and ruin. However, such a devastating fiscal blunder could not be committed by a government because the mere working of economic laws would prevent it. This is especially the case with the Japanese Government which, as a matter of course, has announced that its guiding financial principle will be efforts to insure harmony in commodity demand-supply and a balance in international payments.

Yet notwithstanding the government's "guiding financial principle" shipments of gold continued at the unprecedented rate. These shipments, combined with anticipations of further tightening of controls, gave rise to additional demands for exchange to purchase commodities to stockpile; and this gave rise to the necessity for further gold exports and further controls. Thus, by the end of the decade the country became so enmeshed in controls over trade both direct and indirect as

to render maintenance of any semblance of free private international trade virtually an impossibility. And with the loss of virtually all international financial reserves in all forms the country was faced with what might be termed international bankruptcy though it seemed to be well prepared to undertake a great war.

One may wonder what course the financial leaders would have followed had Japan not become embroiled in World War II in the following year. But embroiled she was, and therefore the question must remain unanswered.

The foregoing article by professor Dr. Dowd is an extract of a much longer study entitled "Japanese Foreign Exchange Policy, 1930–1940". That study consisted of three parts divided into: I. A History of the Development of Japanese Exchange Policy in the 1930 Decade; II. The Impact of Exchange Policy on the International Economy of Japan; and III. Influences of Exchange Policy on the Domestic Economy. Because of space limitations only an extract of Part II has been published here; yet it is believed this will be of greatest interest for economists in Japan. Insufficient space has also necessitated deletion of all statistical tables and references. However, in the original study all statements have been documented statistically and numerous Japanese source references have been cited.

The Editor

A NOTE ON THE RECENT TRENDS OF JAPAN'S FOREIGN TRADE

Fukuo KAWATA

1. The expansion of Japan's foreign trade has of late years been very remarkable. Since 1953, when a severe deflationary policy was enforced to check the deficit of our international balance of payments, Japan's export has continued to rise and in 1956, it became about twice as large as in 1953. Japan's import also expanded, though with smaller pace, growing one and a half times during these years. (Table 1)

Table 1. Japan's Foreign Trade in Value

(in millions of U. S. dollars)

	Export	Import	Balance
1953	1,274.8	2,409.6	−1,134.8
1954	1,629.2	2,399.4	− 770.2
1955	2,010.6	2,471.4	− 460.8
1956	2,501.0	3,229.6	− 728.5

Source: Ministry of Finane, Customs Statistics.

When we compare the rate of growth of Japan's trade volume with those of principal trading nations, we realize how remarkable was the progress that had been achieved by Japan during the period under review. Look at the following table. (Table 2)

Table 2. Year to year changes of Trade Volume of Selected Countries (percentages of the previous year's figures)

Country	Export				Import			
	1954	1955	1956	1953–1956	1954	1955	1956	1953–1956
Japan	+33	+31	+20	+108	+ 4	+ 5	+25	+38
United States	+ 6	+10	+12	+ 31	− 7	+11	+ 8	+11
United Kingdom	+ 4	+ 8	+ 4	+ 16	+ 1	+12	− 1	+12
Germany	+24	+17	+15	+ 65	+26	+21	+12	+71
France	+16	+12	−10	+ 17	+ 8	+12	+14	+38
Italy	+ 8	+15	+12	+ 12	+ 2	+11	+ 8	+22

Source: Japan's figures are those published by the Ministry of Finance. Other figures are derived from those published by the IMF, International Financial Statistics.

Japan's rates of growth of export volume (as compared with the previous year's figure) were 33% in 1954, 31% in 1955, 20% in 1956, and 108% throughout the period from 1953 to 1956. While her rates of increase of import volume were 4% in 1954, 5% in 1955, 25% in 1956, and 38% throughout the period above mentioned.

It is noteworthy that the rate of growth of our export volume is diminishing year after year, while that of our import volume is increasing, especially in 1956, during the period under investigation.

As regards the international comparison of the growth rate, Japan ranks first in export and second to Germany in import growth during these years.

2. Now let us examine in what kinds of commodities and in what direction Japan has made such a remarkable expansion of trade.

In the first place, we classify our exports and imports into several commodity groups, and examine which groups have made rapid progress. According to table 3, we find that it is in such items as wood and wood products, machinery, and miscellaneous articles that Japan has made larger growth of export than the average rate during the period from 1953 to 1956.

Those commodity groups whose expansion of export were above

Table 3. Changes of Japan's Export Volume, classified by commodity groups (as percentages of the previons year's figures)

	1954	1955	1956	1956 as percentages of 1953	1956 as percentages of 1934–36
General	+ 33	+ 31	+ 20	208	86
Food and beverages	− 7	+ 13	+ 29	136	58
Textile manufactures	+ 49	+ 20	+ 14	204	58
Metals & metal manufactures	+ 48	+ 53	− 27	165	141
Non-Metallic minerals & products there of	+ 10	+ 25	+ 28	176	88
Oils & fats	+ 4	+ 34	+ 18	165	37
Chemicals & phermaceuticals	+ 26	+ 29	+ 27	207	111
Wood & wood products	+106	+ 33	+ 34	367	68
Machinery	+ 12	+ 41	+ 85	290	285
Miscellaneous articles	+ 30	+ 43	+ 29	239	100

Source: Ministry of Finance.

average, were, in 1954, wood and wood products, textiles, metals and metal manufactures; in 1955, metals and metal manufactures, machinery, miscellaneous articles, oils and fats, wood and wood products; in 1956, machinery, wood and wood products, food and beverages, and miscellaneous articles, non-metalic minerals and their products and chemicals and pharmaceuticals. It is to be noted that the export volume of metals and metal manufactures declined in 1956 by 27%; this is because of the brisk demand at home. It is also a matter of concern that rate of growth of the export volume of textiles, which are our traditional export commodities, are declining, although the export volume doubled during the period from 1953 to 1956.

If we compare the export volume in 1956 with that in 1934-1936, we find that the volume in 1956 is only 86% that of the pre-war years. Commodity groups whose export volume reached or exceeded the pre-war level were machinery, metals and metal manufactures and chemicals and pharmaceuticals. This tells us the industrial advance of Japan in post-war years.

Commodity groups whose import volume showed a more rapid growth than the average rate are food and beverages, metal ores, oils

and fats and machinery in 1954; oils and fats, chemicals and pharmaceuticals, miscellaneous articles, raw metrials other than those for textiles, mineral fuels, metal ores in 1955; metal ores, miscellaneous articles, textile raw materials, chemicals and pharmaceuticals and machinery in 1956.

Table 4. Year to year changes of Japan's Import Volume classified by commodity groups (percentages of the previous year's figures)

	1954	1955	1956	1956 as percentages of 1953	1956 as percentages of 1934-36
General	+ 4	+ 5	+27	138	114
Food and beverages	+17	− 0.3	− 8	107	101
Textile raw materials	−13	+ 1	+41	125	86
Metal ores	+14	+ 2	+81	211	148
Mineral fuels	+ 0.1	+ 7	+25	133	200
Other raw materials	0	+10	+22	134	84
Oils & fats	+14	+57	− 8	164	112
Chemicals & phamarcenticals	− 7	+57	+39	202	228
Machinery	+13	−18	+36	126	121
Miscellaneous arlicles	− 2	+16	+93	220	40

Source: Ministry of Finance.

When we compare the import volume of 1956 with that of 1934-36, the former is 114% of the latter. Commodity groups whose import volumes exceed prewar standard in 1956 are chemicals and pharmaecuticals, mineral fuels, metal ores, machinery, oils and fats, and food and beverages. Especially remarkable are the increases in the import volume of chemicals and pharmaceuticals, and of mineral fuels, both of which are twice as large as prewar figures.

3. Secondly, let us make an inquiry into the direction of Japan's trade development. During the period from 1953 to 1956, Japan's export (in value) as a whole increased by 96%. It is significant to mention that the rate of increase of export to Asia stands below this percentage. It is also noticeable that our export to Central America declined by 27% during this period in spite of the general expansion of our export trade.

Table 5. Year to year changes of Japan's Export in Value classified by area
(percentages of the previous year's figures)

Area	1954	1955	1956	1953–1956
Asia	+ 22	+ 6	+ 21	+ 56
Far East	− 11	+ 34	+ 55	+ 84
South & South-East Asia	+ 37	− 8	+ 9	+ 37
Middle East	+ 66	− 6	+ 0.5	+ 77
Europe	+ 28	+ 36	+ 19	+104
North America	+ 19	+ 53	+ 22	+122
U. S. & Canada	+ 23	+ 66	+ 25	+153
Central America	− 1	− 26	+ 2	− 27
South America	+173	− 6	− 10	+131
Africa	+ 5	+ 55	+ 91	+211
Australia & Ocecania	+ 92	+ 83	− 33	+136
Total	+ 28	+ 23	+ 24	+ 96

Source: Ministry of Finance, Customs Statistics.

Note: Far East includes South-Korea, China Mailand, Ryukyu, Taiwan, and Hong Kong.

South and South East Asia includes Indo-china, Thailand, Frederation of Malaya, Singapore, Philippines, British Borneo, Indonesia, Burma, India, Pakistan, Ceylon & Portuguese Asia.

Middle East includes Iran, Iraq, Saudi-Arabia, Kweit, and other countries in their neighbourhood.

In 1954, export to South America, Australia and Oceania, the Middle East, South and South-east Asia increased remarkably. In 1955, however, export to South America, the Middle East, South and South-east Asia declined slightly, while export to Central America decreased as much as by 26%. On the other hand, export to Australia and Oceania, United States and Canada, Africa, Europe and the Far East increased with more rapid pace than the average. In 1956, export to Australia and Oceania, which had kept increasing so considerably before, suddenly took a reverse turn declining sharply by 33%. Our export to South America continued to decline, while our sales to Africa increased further by 91%, following the previous year's increase of

55%. This sharp increase of our export to Africa is due to the export of vessels to Liberia. Export to the Far East also increased, owing to the expansion of trade with China Mainland.

Although our export during this period continued to increase, it is interesting to find that our sales to under-developed areas, except Africa, suffered fluctuations, increasing in some years and decreasing in others, while our export to industrial areas, such as United States and Canada, and Europe has steadily increased. This means how underdeveloped areas are unstable as our export market.

As to our import in value, the general rate of growth for the period under review is 34%. After a slight decline in 1954, our import increased by 3% in 1955, and in 1956 the rate of increase is so conspicuous as to reach 30%. Those areas from which we increased our purchases above average are Africa, North America, Australia & Oceania and the Far East. Particularly remarkable was the rate of increase of our import from Africa, which made a growth by 206%.

Table 6. Year to year Changes of Japan's Import in Value classified by area
(percentages of the psevious year's figures)

Area	1954	1955	1956	1953–1956
Asia	− 2	+ 15	+ 16	+ 31
Far East	− 0.4	+ 68	− 6	+ 58
South & South-east Asia	− 15	+ 19	+ 17	+ 17
Middle East	+ 18	− 24	+ 40	+ 26
Europe	− 5	− 11	+ 32	+ 12
North America	− 1	+ 1	+ 40	+ 40
U. S. & Canada	+ 10	− 9	+ 37	+ 37
Central America	− 5	+ 5	+ 52	+ 52
South America	+ 41	− 41	+ 22	+ 1
Africa	− 30	+171	+ 61	+206
Australia & Oceania	− 32	+ 49	+ 41	+ 42
Total	− 0.6	+ 3	+ 30	+ 34

Source: Ministry of Finance, Customs Statistics.

In 1954, our total import decreased by 0.6%, but our purchases

from South America, the Middle East, and the United States and Canada increased. In 1955, our total import increased by 3%. Our purchases from Africa, Australia and Oceania, the Far East, South and South-East Asia increased with the rate above average, but those from South America, the Middle East, and Europe declined. In 1956, our East, import increased by 30% in total, and almost all area, except the Far contributed to this rapid increase. Those areas from which our purchases increased more than the average rate are Africa, Australia and Oceania, the Middle East, North America and Europe. However, our import from the Far East declined by 6%.

4. Next we make an investigation into the causes of the growth of Japan's export. It is generally believed that the overseas industrial boom and the domestic deflationary policy are chiefly responsible for the expansion of Japan's trade. In addition to these factors, we should count the rise of labour productivity, especially in those branches of industry in which Japan enjoys comparative advantages.

Besides, owing to the relatively stable consumer prices, the wage rise has been slower than that of labour productivity. (Table 7) Therefore, the competitive power of Japan's manufacturing industries has largely increased.

Table 7. Productivity and Real Wage in Manufacturing Industries

(1953=100)

	Productivity (A)	Real Wage (B)	Reward-Efficiency Ratio $\frac{(B)}{(A)}$
1954	103.8	100.0	98.2
1955	114.6	106.2	92.6
1956	134.4	117.1	87.1

Source: Ministry of Labour, Labour Statistics.

On the other hand, the level of national cosumption lagging behind the rise of industrial production may be one of the causes of Japan's export expansion, because increased products can hardly be absorbed in domestic market and must find outlet in overseas

countries. (Table 8)

Table 8. Production in Manufacturing Industries and Level of National Consumption

(1953=100)

	Production (A)	Level of Consumption (B)	Domestic Absorption Ratio $\frac{(B)}{(A)}$
1954	108.9	100.0(1)	91.7
1955	118.6	105.1(1)	88.6
1956	144.8	109.1*	75.6

Note: (1) fiscal years, * estimate

Source: Economic Planning Board, Monthly Report.

Those pressures of export expansion are now diminishing in their strength, because prices and wages have been on the rising tendency since the latter part of 1956. Moreover, our imports are increasing now due to the replenishment of inventories, particularly of raw materials, to the investment for breaking the bottle-neck of our industrial production, and to the rise of import demand according to the general expansion of our economic activities. The following table (Table 9) shows us that the rate of increase of our export (in value) has been declining, while that of our import rising since the latter part of 1956.

Teble 9. Changes from the previous year's same period

(as percentages in the figures of the previous year's same period)

	Export				Import			
	1954	1955	1956	1957	1954	1955	1956	1957
I	+22	+26	+30	+17	+56	−26	+20	+54
II	+13	+22	+31	—	− 4	+10	+17	—
III	+32	+22	+21	—	−15	+18	+39	—
IV	+11	+23	+19	—	−26	+37	+37	—

Source: Ministry of Finance. Customs Statistics.

Owing to the rapid increase of imports especially since the beginning of 1957, our foreign exchange reserves which amounted to 1,435 million dollars at the end of December, 1956, fell down to 1,185 million dollars at the end of March, 1957, decreasing by 250 million

dollars in three months.

Although it is very difficult to decide the adequacy of foreign exchange reserves for Japan, it is roughly estimated that this limit may be 900 million dollars for the present situation.

If this estimate may be right, our reserves are coming nearer to this limit, because out of the total of 1,185 million dollars, about 270 million dollars are frozen credits to Korea, Indonesia and Argentina.

The amount of our reserves is expected to continue to decline in view of the large sum of letters of credit opened for import. It is necessary to take some import restricting measures, such as the raising of the official discount rate or other retrenchment policy, to prevent the heavy drain on our foreign exchange reserves.

By the following table, we can realize how large our imports and trade deficits are in the first quarter of 1957 as compared with those of the same period of the preceding years. (Table 10)

Table 10. Export, Import and Balance of Trade in the first quarter of each year

(in millions of U. S. dollars)

	Export	Import	Balance
1953 I	280	496	−216
1954 I	342	776	−434
1955 I	431	577	−146
1956 I	559	692	−133
1957 I	656	1066	−410

Source: Ministry of Finance, Customs Statistics.

5. It is true that Japan's trade expansion in recent years has been considerable, but the size of Japan's trade is not so large as compared with those of principal trading countries of the world. In 1956, Japan held the eighth position among the trading nations, following the United States, the United Kingdom, Western Germany, Canada, France, Netherlands and Belgium-Luxembourg. (Table 11)

Before World War II, Japan ranked fifth, coming after the United Kingdom, United States, Germany and France.

Table 11. Comparison of the Size of Trade of Principal Countries (in 1956)
(in millions of U. S. dollars)

Country	Export	Import	Total
1. United States	18,995	14,213	33,208
2. United Kingdom	9,292	10,890	20,182
3. West-Germany	7,357	6,616	13,973
4. Canada	5,252	6,262	11,514
5. France	4,541	5,553	10,094
6. Netherlands	2,862	3,712	6,574
7. Belgium-Luxembourg	3,150	3,261	6,411
8. Japan	2,501	3,230	5,731
9. Italy	2,158	3,170	5,328
10. Sweden	1,941	2,206	4,147

Source: IMF, International Financial Statistics.

Before the War, Japan took up about 4% of the world trade, but to-day Japan's share declined to about 2.5%. It is, therefore, desirable to expand our foreign trade at least to the prewar level.

THE DEVELOPMENT OF OVERSEAS BANKING SYSTEM IN JAPAN IN THE MEIJI ERA

Masahiro FUJITA

(I)

The banking history of Modern Japan, generally, is divided into three periods. The first period which served as the experimental stage, dates from the time of the *Restoration* (1868) to 1882 —— the age of national banks. The second period saw the foundation of the present banking system (1882—1900)—— the era of the central bank. The third period stretches from 1900 to the present time, witnesses the perfection of the financial machinary marking the ascendancy of the ordinary banks —— the reign of the ordinary banks.

With the formation and development of the capitalist mode of production, the banking system in Japan followed right after the *Restoration* —— the openning of the country.

However, the feature of Japan's capitalism consists in the strength of the government-given and official protective growth. Still, the rapid and extraordinary development of her economy absolutely resulted in the necessity of getting the colonial territory as natural

tendency of the expanding policy. We can see these facts as one chapter of banking history in the Meiji era, but it also is the history of development of colonial bank and overseas investment or capital export backed by the state power. The first plan of the advancement of Japan's capitalism to Manchuria and Mongoria and other Sourth-eastern area was the establishment of a branch of the Daiichi Bank in Korea in 1878. So the operation of this bank in Korea had to be emphasized beyond the simple general banking business, that is, had many political colours. This attempt had been connected with the *Amalgamation of Korea* and establishment of the Bank of Chosen. The extension of the Northern area of Japan's capitalism had been promoted by these banks or banking institutions, but the expanding plan of the Southern area also had been accomplished by the similar banks. These banks were the Japanese colonial banks in those days. In this paper, we intend to examine the activities of these colonial banks in the Meiji era. These colonial banks came into being after the time of Prince Matsukata and were, in view of territorial expansion of Japan, aimed at the colonial development. These banks can be classified in two categories the first, possessing every characteristic of a central bank, and second, of an agriculatural and industrial bank. They were established in order to provide long-term loans to the agriculture and industry in the colonies. To the first belong the Bank of Taiwan and the Bank of Chosen, established in 1899 and 1909 respectively. To the second belong the Chosen Industrial Bank. Besides these two groups of banks there existed also a semi-official institution known as the Formosa Development Company and the Oriental Development Company, whose activities were confined within their respective spheres, the first in Formosa and the latter in Manchuria and Korea.

All the colonial banks, like the official banks, were subject to strict government control, and consequently receive on special occasions effective financial aid from both the government and the Bank of Japan.

Now, we want to make clear the character of activities of the Bank of Chosen, the Bank of Taiwan, the Yokohana Specie Bank, in the following analysis.

(II)

(1) The Bank of Chosen

In June 1878, as the first Japanese bank in Korea the First National Bank (the Daiichi Ginko) established a branch offiice in Fusan. This was the first branch bank established overseas by any Japanese bank. In other words, it was also the first bank using western system (or business method) in Korea. The bank had made useful contribution to the formation and progress of the money market in this state, by handling the customs accounts of Chosen and by assisting in government finances. On account of the services thus rendered it was later allowed to issue bank notes. But since the success or failure of such notes issued by a Japanese bank would involve the power of Japan, the Imperial Government decided to supervise the issue in accordance with the law of Japan. In 1905, when the bank assumed the handling of the Treasury account of Korea, the notes of the bank were granted, by the Korean Government, the power of obligatory circulation.

In 1906 a treaty was signed between Japan and Korea by which the Residency General was instituted. Since then the scope of the govenment's activity was extented in economics and finance, and general situation of trade very much improved. Then, it was felt necessary to establish a central bank, to issue convertible notes, to render fiinancial assistance to the government, and to regulate the money market. An agreement was thus concluded between the Daiichi Bank and Korean government on June 18, 1909, with respect to the transfer of the note-issuing privilege, assets and liabilities to the new bank called the Bank of Korea. According to the Bank of Korea Act promulgated in the same month, the Bank of Korea was established[1] with a paid-up capital of 10 million yen, 3 million yen of which was subscribed by

the government (this bank is a joint stock company with an authorized capital of 10 million yen). The directorate of this bank also has a more or less similar composition to that of the Bank of Japan.

On its establishment the Bank of Korea took over the outstanding balance of the Daiichi Bank as on October 20. The latter bank also transferred all its branches, except the Keijo and Fusan offices, to the former.

The convertible Daiichi Bank notes outstanding then amounted to 11,830,000 yen. It was provided that out of this, 3,940,000 yen was to be taken over by the new bank, the balance of 7,880,000 yen to be reimbursed by instalments during a period of twenty years.

To stimulate public confidence in the bank the government undertook to guarantee a 5 per cent dividend on the bank's paid-up capital for the first five years, and also granted a loan of 1,200,000 yen, repayable by instalments during ten years, to be used as an operating fund.

On August 29, 1910, the annexation of Korea was proclaimed, which took effect on October 1 of the same year. The Bank of Chosen Act was then promulgated in February 1911, and the Bank of Chosen was established in August succeeding to the right and obligations formerly belonging to the Bank of Korea. The Bank of Korea was thus transformed into the Bank of Chosen. Besides its head office in Keijo (Seoul), Korea, it has twenty-nine branches chiefly located in its principal spheres of activities, that is, Korean Peninsula, Marchuria, Northern China and Siberia.

The principal business of the bank was as follows:——

(1) To discount bills of exchange and other commercial papers, (2) to deal in bills of exchange and documentary bills, (3) to collect bills for the companies and merchants having business connections with the Bank. (4) to make loans on securities of reliable nature. (5) to receive deposits of money and to make advances on current account, (6) to recive valuables such as gold, silver and other precious metals and documents for safe deposit, (7) to buy or sell gold and silver

bullion or foreign coins, (8) to engage in the secured debentures trust business, (9) to engage in the secured debentures trust business, (9) to purchase national or local loan bonds and other prime negotiable papers designated by the Gevernor General of Chosen, (10) to make unsecured loans to public corporations, or to act agents for other banks with the approval of the Governor General of Chosen.

The Bank had the privilege of issuing notes against gold coins, gold and silver bullion and Bank of Japan notes in reserve. In addition the Bank is authorized to issue the notes up to 50 million yen on the security of government bonds, other bonds and prime commercial bills. In case of necessity, the bank is further authorized to issue the notes beyond this limit, though subject to a minimum tax of 5 per cent. per annum.

Therfore, the system of issue is based on the flexible method that the notes issued by the Bank of Chosen are convertible into gold or the Bank of Japan notes. The specie reserve may be in gold or silver bullion, or Bank of Japan notes, but the silver must not exceed one-quarter of the whole amount of reserve. In 1910, the Bank of Korea was authorized to issue fiduciary note up to the limit of 20 million yen on the security of eligible bonds and bills, but in 1911 when the Bank of Chosen was organized in its place the fiduciary issue was increased to 30 million yen, again increased in 1918 to 50 million yen. The tax on the issue in excess of this limit was fixed at not less than 3 per cent from April 1, 1935, 4 per cent, being the rate in effect, which, however, was lowered to 3 per cent. in May 1936. This is a good contrast with the Bank of Japan which is obliged to contribute a certain amount of its profits to the government as excess tax, but, the Bank of Taiwan is exempted from this obligation.

But the Bank of Chosen was obligated in the following manner. After the deduction (1) of not lees than 8 per cent. as a reserve for making good any account, (2) of not less than 2 per cent. as a reserve for equalising dividends, (3) of not less than 10 per cent. as bonuses for the directors, auditors and staff, if the dividend still exceeds 12 per

cent. of the paid-up capital, one half had to be paid to the government. Apart from the privilege of note issue the Bank of Chosen functions as an exchange bank as well as an ordinary commercial bank. Not only does bank transact an extensive business in the peninsula of Korea, it also links up with the monopolistic capital in Japan and the colonial capitals. With the growth of Japanese influence in Manchuria, the business operations of the bank have been extended to this new sphere, haveing established there twelve branches and three sub-branches. Consequently the Bank of Chosen notes found their way into Manchuria, into Kwantung leased territory and into the South Manchurian Railway zone. Then, with the establishment of the central bank of Manchukuo, an agreement was concluded between the central bank of Chosen with a view to providing a uniform currency in Manchukuo. As a result of this agreement the Bank of Chosen notes were with drawn from Manchukuo in December 1935. Moreover as Japanese influence has extended to North China, the Bank of Chosen commenced to penetrate into this new field. Two branches have been opened, one in Tsingtao and other in Tientsin. With its branch in Shanghai and another in New York the Bank of Chosen maintained altogether twenty-eight branches and eleven sub-branches. Then, through the revision of the Bank of Chosen Act in 1924 the right of control and supervision of the bank has been transferred from Governor-General of Korea to the Minister of Finance in Tokyo.

The capital of the Bank of Chosen since its establishment has undergone the following changes:

¥	
10,000,000	Oct. 1909
20,000,000	Feb. 1917
40,000,000	Sept. 1918
80,000,000	Fec. 1920
40,000,000	Aug. 1925

The bank increased its capital stok on account of the positive policy adopted at the time of the boom period during the War of 1914—18.

However, the war and post-war prosperity ended all too soon, and reaction entailed a severe loss to the bank.

Table 1. Principal Accounts of the Bank of Chosen
(in thousand yen)

years	Paid-up Capital	Reserve	Note issued	Deposits	Borrowing	Loans	Invest-ment	Gold and Silver Bullion and Coin
1909	2,500	—	13,439	7,631	500	19,622	150	229
1910	2,500	3	20,163	5,960	—	22,192	1,865	116
1911	5,000	16	25,005	6,978	2,000	31,895	5,549	2,377
1912	7,500	57	25,550	14,169	3,000	32,505	5,342	1,786
1913	7,500	134	25,693	20,801	4,200	37,532	7,149	10,323
1914	10,000	240	21,850	17,598	6,152	37,075	7,383	8,837
1915	10,000	378	34,387	18,588	4,200	42,862	7,591	12,961
1916	10,000	518	46,627	33,033	4,200	58,386	10,078	18,869
1917	15,000	1,683	67,364	88,413	4,200	119,926	15,537	30,739
1918	25,000	2,333	115,523	218,960	4,200	241,515	16,720	57,498
1919	25,000	4,820	163,600	194,300	88,716	390,920	21,911	75,864
1920	50,000	7,650	114,034	171,734	71,570	298,475	27,579	70,168
1921	50,000	9,410	136,360	162,947	92,777	374,574	40,914	54,018
1922	50,000	10,540	100,540	160,557	105,485	322,472	54,275	40,963
1923	50,000	11,040	110,750	163,148	181,442	383,332	60,154	43,289
1924	50,000	11,422	129,564	204,623	140,876	396,152	72,647	49,827
1925	25,000	873	120,540	132,736	188,498	345,711	62,345	48,804

(2) The Chosen Industrial Bank

In the old regime there was industry worth mentioning in the Chosen peninsula, but after the annexation to Japan, the colonial policy of Japan aimed at the exploitation of natural resources and industrial development in Korea.

In March 1906 the Agricultural and Industrial Bank of Chosen Act was promulgated. For the purpose of diffusion banking facilities throughout Chosen, the banks established in conformity with the above Act were allowed to transact ordinary banking business as well.

The first bank of this kind was established in Keijo in June 1906, followed by eleven other banks with their forty branches. But, after-

there, by gradual annexation, the number of such banks decreased, for each of these banks were very small in its scope, the amount of the total autholized capital being no more than 2.6 million yen. It was thought appropriate to amalgamate them into a still larger and more powerful institution, and with the promulgation of the Law of the Industrial Bank of Chosen in October 1916 the Chosen Industrial Bank made its appearance with a paid-up capital of 10 million yen.

Meanwhile, this bank became the only institution in this peninsula for mortgage financing, and as a side line conducted ordinary banking business. There are, in fact, many points of resemblance in the scope of this institution and that of the Hokkaido Colonisation Bank.

As above mentioned the Bank of Chosen played large function in exploitation of rich natural resources in Korea, also the advancement of Japan's capitalism in Manchuria and Mongoria and fulfiled a remarkable part. After the victory of Russo-Japanese War, our advancement to Manchuria was very large in scale, and the most prominent vanguard in this movement was the Yokohama Specie Bank.

In contrast, the Bank of Chosen had only one branch in Anton. But with the extension of Manchurian trade the branches and agents were located all over Manchuria and the bank had got obligatory circulation of the bank note on the whole area. At last in 1917, the Bank of Chosen had taken the lead of our advancement to Manchria and Mongoria in place of the Yokohama Specie Bank, 1917.

(3) The Bank of Taiwan

As a result of the Sino-Japanese War, Formosa came into the possession of Japan in April 1895.

At that time, there existed only a few financial institutions of primitive type in this island, apart from the agents of foreign bankers. After the establishment of the office of Governor-General in June 1895 one Osaka bank opened a branch, and in the following year the Bank of Japan also established an office to handle the Treasury accounts and the clearing notes and silver. However, the inhabitants of the island, who had been accustomed to the silver coined money in circu-

lation, did not like the paper money issued by the Bank of Japan.

Under the circumstances, and also in view of the urgent need to assure[2] the financial independence of the island as well as to consolidate the currency system of Taiwan for the promotion of agriculture and industry, for the development of natural resources, and for the increase of foreign trade with China and the South Sea countries, the government promulgated the Bank of Taiwan Act in March 1897, and the Supplementary Act of Bank of Taiwan in March 1899. In accordance with these two measures, the Bank of Taiwan was created in June 1899 with a capital of 5 million yen, of which 1 million yen was subscribed by the government. The bank began business in September of the same year. It issued bank notes, the legal circulation of which was limited to within the island, and took over in October the function of the government fiscal agency. The head office of this bank was in Taipeh, Formosa, and its three branches were located chiefly in its principle spheres of activities, that was, Formosa, Sourthern China, Java and India. As in the case of other special banks with their headoffice outside of the capital city its Tokyo office, though merely a branch in name, was actually its business center on account of the city's vast importance as the nations financial center.

The principal business of the Bank was as follows:——

(1) To discount bills of exchange and other commercial papers, (2) to deal in bills of exchange and documentary bills, (3) to collect bills for companies and merchants having business connection with the bank, (4) to make loans on securities of a reliable nature, (5) to receive deposits of money and to make advances on current accounts, (6) to receive valuables, such as gold, silver and other precious metals and documents for safe deposit, (7) to buy or sell gold and silver bullion or foreign coins, (8) to act as agents for other banks, (9) to engage in the secured debentures trust business, (10) to make unsecured loans to communities, cooperative societies or stock breeding associations, (11) to subscribe for, to underwrite the issue of, or to purchase national or local loan bonds, Hypothec Bank of Japan Debentures, Agricultural

and Industrial Bank Debentures, Industrial Bank of Japan Debentures and other securities approved by the Minister concerned, (12) to take charge of the instalment payment of the subscribers for the national or local loan bonds, bonds and shares of corporations, or of the payment of their principal, interest and dividends.

The Bank had the privilege of issuing its banks in denominations of one yen and upward and convertible into the gold yen. In addition to the notes issued against gold and silver coins and bullion in reserve, the Bank is authorized to issue the notes up to 20 million yen on the security of government bonds and Treasury certificates of indebtedness, Bank of Japan notes and other prime securities and commercial papers. Notes issued beyond this limit were subject to a minimum tax of five per cent. per annum.

Turning points of our analysis, the note-issuiog of the Bank of Taiwan was of the flexible system, under which the bank was required to hold gold and silver coin and bullion as specie reserves, its fiduclary issue being limited to 5 million yen. Any issue in excess of this limit was also allowed, but was subject to a tax of not less than 5 per cent. Although the Bank of Taiwan was permitted to hold its specie reserve either in gold or silver, its notes were made convertible into silver so as to conform to the age-old habit of the inhabitants of the island.

For this purpose, the bank borrowed 2 million yen worth of silver coin from the government, and at the same time adopted measures for the encouragement of the circulation of the silver notes. But notes could not remain unaffected by the constant fluctuations in the value of silver metal in China across the sea, so speculations ensued which interfered greatly with the business transactions between the island and the mainland of Japan, the former having the silver and the latter the gold standard. To meet this emergency the government authorized the Bank of Taiwan to issue notes convertible into gold, and the issue of silver notes was then stopped. Moreover, the loan from the government of 2 million yen of silver coin which fell due at that time was renewed till September 1907; after that year and for a period of five

years the bank was to make an annual reimbursement of 400,000 yen with 2 per cent. interest. The bank was also to redeem gradually all the silver notes in circulation. This redemption was completed in 1909. Since then the currency system of Formosa has conformed to the gold standard (of the capital).

Following the development of finance and industry in Formosa the limit of the fiduciary issue was raised to 10 million yen in 1910 and to 20 million yen in 1918; this limit stood until 1945 (the end of World War II) in spite of the desire of the bank to increase it to 50 million. The tax on the issue over the legal limit was lowered to "over 3 per cent." (instead of over 5 per cent.) in March 1921, the actual rate being 3 per cent.

Besides being an issuing institution, the Bank of Taiwan functions as an ordinary commercial bank as well as a colonial and exchange bank. The bank, as above-mentioned, had its head offiice in Formosa and branches in Japan proper and in foreign countries.

The total number of branches was thirty-two, and they were distributed as follows; 15 in Formosa, 4 in Japan proper (Tokyo, Yokohama, Osaka, Kobe), 13 abroad (6 in China, 4 South Seas, 1 each in India, Europe and U. S. A.). The amount of its capital at first was 5 million yen, but was raised to 10 million yen in 1912, 20 million yen in 1915, 30 million yen in 1918, 60 million yen in 1919.

Owing to its reckless business expansion during the War of 1914—18 the bank found itself with an enormous amount of frozen debts, and when the financial panic took place in 1920 the bank was compelled to reduce its capital from 60 to 45 million yen in order to write off bad debts. Again, following the difficulties experienced in the crisis of 1927, the bank had to write off its capital another 15 million. Since then it has made constant endeavours to restore itself, and the danger has been dispelled by the efficient help of the Bank of Japan. Thus, several decades of calm money and financial situation followed, and the circle of banking corporation in Formosa met the new changed epoch by the independence from Japan territory in August. 15, 1945.

Table 2. The Amount of Convertible Note of the Bank of Taiwan

Year	Silver note		Gold note		Silver and gold note total
	issued	circulated	issued	circulated	
1899	1,831	867	—	—	864
1901	3,199	2,678	—	—	2,678
1903	4,623	4,000	—	—	4,000
1905	1,031	660	6,783	7,014	6,651
1907	23	22	10,615	9,617	9,640
1909	19,927	19,927	13,007	11,207	11,207
1911	—	—	19,381	18,194	18,194

And the Bank of Taiwan was dissolved and disappeared.

The Bank of Taiwan aimed at the adjustment of currency system and the developmental loan of Taiwan industry depended chiefly upon our government support, so the government loan by the Taiwan indus-

Table 3. Deposit and Loan of the Bank of Taiwan
(Unit Thousand Yen)

Year	Deposit				Loan			
	inisland deposit	inland deposit	oversea deposit	total	inisland loan	inland loan	oversea loan	total
1899	794	171	—	965	2,604	—	770	3,374
1900	4,493	439	39	4,973	6,834	19	818	7,671
1901	4,151	287	110	4,548	6,425	158	445	7,029
1902	4,396	1,576	633	6,606	8,065	493	1,537	10,096
1903	2,247	994	357	5,599	5,477	1,149	2,880	9,507
1904	4,804	937	281	6,023	6,474	941	2,880	10,299
1905	5,131	1,492	211	6,835	5,241	553	4,860	10,655
1906	6,695	3,073	362	10,131	5,101	770	8,505	14,380
1907	6,565	4,695	674	11,935	8,668	915	8,728	18,373
1908	6,584	3,607	1,187	11,380	10,987	1,298	7,488	19,774
1909	14,350	2,203	1,018	17,572	17.528	1,052	7,760	26,341
1910	14,526	3,644	774	18,945	19,158	1,071	7,847	28,077
1911	16,251	4,574	3,159	23,985	22,045	2,286	11,141	35,473
1912	18,266	11,129	4,213	33,609	26,523	3,862	14,220	44,606
1913	20,727	15,981	6,578	43,286	33,395	10,316	13,342	57,054
1914	24,365	22,599	7,221	54,187	35,723	8,791	17,486	62,002

try bond law financed the fund of construction of railways and repair of harbours and investigation of the soil. However, beyond the government loan, the general loan of the Bank of Taiwan contributed to the colonial finance after 1905, then the spheres of the loan of this bank ranged over the business fund for sugar, rice, camphor, gold and coal. Indeed, the fund for rice, in this case, was the commercial fund for rice merchant, also the cultivating fund for agriculture surpassed the fund of the Nippon Kangyo Bank (*the Kangyo Shikin*)—— and this fund financed the reclaimed project and the fruitgrowing etc.

Table 4. Government Loan and General Loan of the Bank of Taiwan
(Unit Thousand Yen)

Year	Government loan	Debt by the Taiwan industry bond law	General loan
1899	2,500	3,200	104
1901	5,200	5,300	359
1903	3,978	3,349	1,499
1905	1,609	800	3,631
1907	—	—	8,668
1909	5,064	3,404	12,464
1911	4,749	3,289	17,295
1913	5,339	6,419	28,055
1914	5,767	8,269	29,956

Moreover, the important function of the Bank of Taiwan was promotion of the advancement to the Sourthern area of Japan's capitalism by means of various measures: (1) internal exchange free of charge (for the purpose of promotion between inland and Formosa trade), (2) the establishment of many branches and agents (in order to promote intermediate trade between the inland and the South Seas or direct trade between Formosa and the South Seas or the Sourh China), (3) this bank transatacted with main bank in these areas, (4) this bank loaned to the *Japan-China joint management enterprise.*

The most important event, by means of the ***special credit*** to China, this bank strengthened Japan's powerful position in China (so to speak, supported the advancement of Japan's *monopolistic finance capital*). The

first credit for China was the loan to Fujen local government in 1905. By 1918, independent credit amounted to 12 million yen, 3 million silver dollar, 0.7 million ryo, the joint credit among the Bank of Chosen, the Industrial Bank of Japan and other banks counted up to 182 million yen (total amount), of which the quotas of this bank was 49 million yen.

With regard to the import of foreign capital, the Bank of Taiwan received the credit (2 million yen) from the Purse Bank 1910.

Though the Bank of Taiwan had developed in favourable circumstances from its established period to the first half of 1910s performing the established object, after-there this bank generally advanced to inland Japan money market and this fact implied the overstepping of the initial plan.

(4) The Yokohama Specie Bank

The Yokohama Specie Bank, organized[3] in accordance with the Yokohama Specie Bank Act was a joint stock company with an authorized capital of 10 million yen, fully paid up in 1880. Its president and vice-president were appointed by the government. With its nominal head office in Yokohama and actual one in Tokyo (though it was called a branch), its activities covered the world through its thirty-nine branches, three sub-branches and several agents. According to the Yokohama Specie Bank Act Article 22, Branch offices shall be maintained in the following places, and in such other places as may be decided upon at a general meeting of shareholders:

Inland

Kobe, Tokyo Nagasaki, Osaka, Nagoya, Moji

Overseas

London (England), Rio de Janeiro (Brazil), San Francisco (U. S. A.), Calcutta (India), Honolulu (Territory of Hawaii), Rangoon (Burma), Shanghai (Republic of China), Singapore (Straits Settlements), Bombay (India), Batavia (Java), Hongkong, Sourabya (Java), Tientsin (Republic of China), Sydney (Australia), Peiping (Republic of China), Dairen (Kwantung Leared Territory), Hankow (Republic of China), Hamburg (Germany), New York (U.S. A.), Paris (France), Seattle (U. S. A.).

As above-mentioned, there were many powerful branches all over the world. The bank's principal busines was following :——

(1) To deal in domestic and foreign exchnges, (2) to make loans, (3) to receive deposits of money and accept the valuables for safe deposit, (4) to discount and to collect bills of exchange, promissory notes and other sucurities, (5) to exchange monies.

In addition to the above, the Bank was autholized to buy or sell public loan bonds, gold and silver bullion and foreign coins, it its business condition so requires. It entrusted with matters relative to foreign borrowing and with the handling of public money for international account.

The most important character of the Yokohama Specie Bank was the sole controlling institution of the movement of specie and faciliating foreign trade (this bank was created in 1880 in accordance with the policy of Marquis Ohkuma for the propose to accomplish such object). For, at that time the Bank of Japan had not come into being.

Above all this bank was the only special foreign exchange bank in Japan. However, in the bank's career various obstacles due to lack of experience presented themselves in the beginning, but the bank's officials were not discouraged, nor was the government. Every where the business of the bank increased year after year and the bank gradually commenced to manage foreign exchange. Branch offices were then opened in Lyons (1882), in London (1884) and San Francisco (1886). In 1887 the institution showed some efficiency, resulting in a rapid increase of the bank's business which called for an augmentation of its capital. An Imperial Ordinance was then promulgate regulating the business of the bank after the model of the chartered banks of Europe and America and the capital of the bank was accordingly raised for the first time in 1887 to 6 million yen.

As a result of the ultimate victory of the Sino-Japanese War (1894—5), the scope of activity of the bank naturally widened. In 1896 the bank was further strengthened by an increase of capital to 12 million yen. The bank was entrusted with the duty of collecting

from the Chinese government the war indemnity. The bank, in order to cope with the industrial and commercial development after the war, contributed a great service to the introduction of a large amount of foreign capital and also did its utmost in promoting trade with China. Thus the business of the bank was constantly enlarged, and in 1899 the capital was increased for the third time to 24 million yen. During the period of the Russo-Japanese War (1904—5) the bank was entrusted with the work of floating of government loans in foreign markets. In 1911 the capital was increased for the fourth time to 48 million yen, and again in 1919 to 100 million yen.

Now, our emphasizing points of the function of this bank are as follows :—

(1) Especially, we have to mention the fundamental function of the only one foreign exchange special bank[4] in Japan. (2) furthermore, the remarkable external activity in expanding the stages for Japan's capitalism.

As the short explanation of the external activities, there were besides colonial banking measures, but the Yokohama Specie Bank could not be classified or defined as a simple colonial bank. Not only that this bank acquired and promoted its confidence and power in foreign countries, but it also deposited the overseas fund of the Bank of Japan and Japanese government and took charge of the settlement of external credit and debit balance alone. So, in the Russo-Japanese War, this bank contributed to the state finance by overstepping its own position.

Thus, the Yokohama Specie Bank was important to be rather one of the colonial banks in Japan than the foreign exchange bank, but its most important function in these days were found the activities to be vanguard of the advancement to Manchuria and Mongoria area. This movement began in 1900 by the establishment of a branch in Niu Chuang and took the initiative in developing policy in Manchuria.

According to the Imperial Ordinance (issued on Oct. 15, 1906), the Yokohama Specie Bank acquired the prerogative qualification as

Table 5. The Business situation of the Yokohama Specie Bank
(Unit Thousand Yen)

Year	Authorised capital	Paid-up capital	Reserve	Deposit	Loan	Amount of bank-note issued
1893	6,000	4,500	3,688	7,531	8,311	—
1894	6,000	4,500	3,820	10,903	7,803	—
1895	6,000	4,500	4,020	12,982	8,681	—
1896	12,000	6,000	5,760	10,114	14,730	—
1897	12,000	9,000	6,360	36,065	14,225	—
1898	12,000	10,500	3,960	40,545	33,395	—
1899	24,000	12,000	7,500	73,491	33,905	—
1900	24,000	18,000	8,130	52,978	44,812	—
1901	24,000	18,000	8,510	46,510	34,518	—
1902	24,000	18,000	8,910	58,461	39,998	—
1903	24,000	18,000	9,210	72,871	49,884	—
1904	24,000	18,000	9,520	70,545	53,839	—
1905	24,000	18,000	9,940	110,295	74,556	—
1906	24,000	21,000	10,700	121,707	82,981	7,285
1907	24,000	24,000	11,550	124,090	99,379	6,070
1908	24,000	24,000	12,600	118,244	81,186	4,930
1909	24,000	24,000	13,400	146,052	69,032	3,569
1910	24,000	24,000	14,100	121,986	89,677	4,341
1911	48,000	30,000	14,650	141,223	116,599	7,901
1912	48,000	30,000	15,350	167,183	152,683	6,833
1913	48,000	30,000	16,050	191,101	158,070	8,131
1914	48,000	30,000	16,750	181,939	140,591	6,282

a central bank all over Manchuria (included Kwantung district). As our semi-colonial territory.

But, this measure was as follows:—

1) Supervision of the bank note issue in Kwantung district and China as our semi-colonial territory under the authority of the Foreign Minister and Finance Minister. 2) this bank note was convertible for silver. 3) the reserve of this bank note needed the same amount of issuing. 4) this bank note, in above-mentioned area, had to circulate unrestrainedly in official or private transaction.

Without establishment of special bank in Manchuria, government

appointed chiefly the Yokohama Specie Bank as the only colonial bank in these areas. For the purpose of the extension of Japanese-Manchuria trade and promotion of development in Manchuria and Mongoria, our government in May, 1910 ordered the extension and increasing of the low-interest development fund —— it was the mortgage loan (on real estate). So, this bank was financed 3 million yen (in pound-sterling) from Japanese government.

Thus, the Yokohama Specie Bank issued the silver note, but 1913 issued the gold note as the new bank note —— in this case, the reserve was the note of the Bank of Japan and gold-coin. In those days, the character of this bank existed in the foreign exchange bank, the issued bank of gold and silver note, the mortgage hypothec bank, but as the progamme(5) of the establishment of the special bank in Manchuria, our government took unification policy of the function of the special bank in Manchuria and Mongoria. As a result, the Yokohama Specie Bank in these fields was divided to several institutions, the colonial banking business transferred to Toyo Takushoku Co., Ltd (Oriental colonization Co., Ltd), the issue banking business transferred to the Chosen Bank, and this bank changed from monopolistic colonial bank to proper foreign exchange bank.

Besides, the Yokohama Specie Bank was the promoter of advancement for China in this period. After the Russo-Japanese War, the director of this bank was resident at Peiping to study over-sea investment. The actual Japanese investment in China, Manchuria, stood at 130 to 140 million and yields only 20 million yen per annum.

The British commercial investment in Malaya, Siam, and Dutch East India amounted to more than 1,000 million yen, whereas Japanese investment in these areas was estimated at 100 million yen only. This could be increased enormously, considering the wealth of mercantile community in this country. The reason for this insignificant figure was simply due to the lack of experience of the Japanese people in this sort of investment and the apathy towards this kind of enterprise.

Table 6. The Amount of Bank-note issued in Branch

Year	Tientsin	Shanghai	Peiping	Dairen
1906	546,274 (ryo)	1,037,137 (ryo)	—	4,486,093 (silver)
1907	558,501	963,642	—	4,905,573
1908	{ 25,450 { 452,992 (dollar)	810,964	—	2,856,630
1909	{ 825,875 { 425,250 (dollar)	666,668	147,036	7,198,176
1910	{ 271,140 { 927,112 (dollar)	1,327,209	520,053	3,439,255
1911	{ 148,445 { 779,754 (dollar)	1,526,459	975,440	4,049,181

(III)

In short, our analysis can be summarized as follows:——

(1) The Daiich Bank in Korea engaged in facilities of loan and foreign exchange, documentary bill and exchange for Korean currency, but afterward established the branch in Fusan, Genzan, Seoul (Keijo)., the business of this bank advanced toward more political character than commercial and monetary facilities. By the conclusion of the treaty of the treaty of the customs duties 1884, this bank occupied the position of the customs duties dealing Bank for twenty years, since 1908 the receipts and disbursements bank of Korea. And 1884 this bank loaned 240 million *Mexican silver dollars* to the Korean government and established the financial control on Korean government. Furthermore, with the disorder of Korean currency 1880—1890, the Daiichi Bank was appointed to the business of adjustment of monetary disorder, as if this bank were the central Bank of Korea. Consequently, the Bank-note of the Daiichi Bank came to be issued in Korea as a measure of the controlling policy of financial crisis. Therfore, the Daiichi Bank acquired a very powerful position in Korea. Such conditions of this bank continued till the establishment of the Bank of Chosen.

(2) The Bank of Chosen as the successor of the Daiichi Bank was the central Bank of Korea and industrial bank, foreign exchange bank, had issuing business and financial business and ordinary business.

Above all, this bank was the financial support of the advancement to to the Northern areas of Japan's capitalism.

(3) Since the possessing of Formosa, Japaness government planned the modernization of land property, driving away of foreign capital and importing Japanese or indigenous capitals for the construction of railways and harbours, these attempts focused upon the development of Formosa. So, the monopolistic enormous capitals (Mitsui, Mitsubishi, Fujiyama *Zaibatsu* etc.) entered the Formosa industries. The Bank of Taiwan, in accordance with government policy, supported directly or indirectly the advancement of these Japan's *Zaibatsu capitals*. On the other hand, by these *Zaibatsu capitals* and consequently economic development of Formosa, the Bank of Taiwan accomplished remarkable growth, financial centre of Japan's advancement for the Southern areas.

(4) The Yokohama Specie Bank was not simple foreign exchange bank, but the vanguard of Japan's advancement to Manchuria and Mongoria. And this bank gave the joint-credit with the Mitsui Bank and Japan Industrial Bank.(6)

Besides, we want to watch that these colonial banks were joint-credit financial institutions each other, for exanple, the Big four credit.

footnote

(1) The establishment of Bank of Korea was assigned to the committee of establishment of Bank of Korea. Korean government entrusted the establishment business to Japanese government, June 1909.

So, our government appointed the following member of committee.

Chairman Governnor of the Bank of Japan Shinzen Matsuo
Vice-minister of Korea Kentaro Arai.
other members 31.
Standing committee 5 Reijiro Wakatsuki
Kentaro Arai
Kazue Katsuda
Hideo Kodama
Morihiro Ichihara

Later, floating stock, general meeting of establishment
September 1909, nominated as follows
the Bank of Korea Governor Morihiro Ichihara

Director 3 (Riyo Mizukoshi
Yataro Mishima
Yuhzi Kimura)

Inspector 2 (Kichizaemon Hamaguchi
Chojiro Ito)

(2) With the Bank of Taiwan Act 1897, government appointed the members of establishment committee:

Masaki Nomura, Juichi Soeda, Takesada Kawaguchi, Eiichi Shibusawa, Rokuro Hara, Korekiyo Takahashi, Kihachiro Okura; Zenjiro Yasuda, Sadao Tsuruhara, Kenzo Ikeda, Kotetsu Hamamura, Shintaro Nishimura, Kahei Otani, Chubei Kihara

So, 1899 this bank was opened.

President Juichi Soeda

Vice-President Kazuyoshi Yagyu.

(3) February 1879, Finance Minister Shigenobu Ohkuma proposed the establishment of the Mexican dollar exchange, later in Nov. 1879, Michita Nakamura and 24 others were about to start the Yokohama Specie Bank, which with paid up capital of 3 million yen silver coin applied to the National Bank Act. The first foreign exchange bank in Japan was this bank.

(4) Before 1880, the situations of foreign exchange banking was as follows. The medium of exchange which bulked largest was paper money in the shape of government notes; but the bank deposit had already revealed their significance and had come to constitute another form of medium of exchange.

First, as the course of prices became sensive to the international movement of specie and manifested signs of being determined by that movement; second, as bank doposits and government notes were not the medium of exchange most sensive to specie movement, the necessity arose for the government to control the bank deposits. At that time, prior to the establishment of the Yokohama Specie Bank, no native banks played any significant part in foreign trade, nor did their bank deposits attain any degree of importance. But the existed many branches of foreign banks chiefly engaged in foreign exchange. The government was not in the position, but to control all these banks. Then, as stabilizing element with the ultimate aim of controlling specie movements and of proving a source of supply of funds to which other organizations could turn for cash, the Yokohama Specie Bank was started.

Another reason was that in 1880 there came a great depreciation of currency and violent fluctuation of the exchange rates, which gravely threatened the economic well-being of the entire nation. By this time some knowledge had been acquired by certain Japanese through cooperating with the foreign banks; so the government

at once decided upon the creation of an institution specially for the purpose of controlling specie movements and manipulating foreign exchange in order to bring the work under official surveillance. The Yokohama Specie Bank being chiefly engaged in international trade might accumulate specie holdings which would fluctuate with the conditions of international payments —— the foreign influx or the foreign drain.

So, the bank, within the extent of its specie reserve, might make it easy for other exchange banks to maintain or replenish their cash. In the absence of central institution the bank might use its rate of discount in bill accomodation as a means of regulating loans, so as to control thereby bank deposits and command of cash. Moreover, its discount rate would serve to regulate the general discount market.

The establishment of the Yokohama Specie Bank would supply the missing link and thereupon the connection would closed between the inflow and outflow of specie, the bank discount rates, the expansion or restriction of loans and deposits, the temper and spirit of the business community and the trend towards rising or falling prices.

(5) March 1909, Proposal to "the establishment of banking institution in Manchuria" declared on the 25th Imperial Diet. This implied that the Yokohama Specie Bank was a simple commercial bank, not a full colonial bank in Manchuria as new colony.

(6) The Japan Industrial Bank was a special bank of import of foreign capital in this period. Of the amount of import of foreign capital through the Japan Industrial Bank from 1902 to 1912, the fund of capital expcrt was about 44%, which was the debenture of South Manchurian Railway Co., Ltd, and advance loan to Korean government.

MORE ON THE STRUCTURE OF NATIONAL INCOME DISTRIBUTION IN JAPAN

Nobuko NOSÉ

INTRODUCTION

It is ambitious but interesting to examine the changing process of national dividend by deducing many re-distributive effects, i. e. adjustment by public finance and unproductive sectors from actual measures.

But this is our object, and we will this try to follow up the changes of surplus-value rate as the index of the way by which this redistribution goes on.

Previously, we tried to study the above subject.[1] Then we found that there is a large percentage of peti-producers' income (that is national income earned under the pre-capitalistic system). Here we meet a difficulty in the research of the Japanese national income structure. In the previous study, we divided this peti-producers' income into the wages of the proprietor's labor and his profit from the enterprise and then added up to the wage and profit. But this way of treatment has a grave fault that it, in the first place, does not actually show the structure of national income earned under the capitalistie system, and in

the second place, it introduces unreal elements into our income analysis.

Thus, we were obliged to modify our previous method. Our new method is devoted to analyse the structure of national income distribution as far as produced under the pure capitalistic mode. We try first to subtruct the peti-producers income and redistribution effect by public finance on them from the national income aggregates and the effect of public finance on all economy. Again we endeaver to estimate without hypothetical factor, as exact as possible, and to study the dual phases——the distribution side of national income and its utilization side.(2) We think that these points are new devices which improve the previous work.

The procedures of our analysis are as follows:

(I) Theoretical model of national income distribution from the view-point of Marxian economics.

(II) The memorandum about some procedures in application of the model.

(III) Data.

(IV) The analysis of Japanese national income according to data.

(V) Summary and conclusion.

Note. (1) N. Nosé, "On the Structure of National Income Distribution in Japan", Kobe Economic & Business Review, No. 2, 1954.

(2) As for this point, my previous article was not so clear.

§I. THE THEORETICAL MODEL OF NATIONAL INCOME DISTRIBUTION FROM THE VIEW-POINT OF MARXIAN ECONOMICS.

The original national income is the total sum of the new value created by productive labour in a year.

First, we suppose the pure capitalistic economy. The original national income in that economy is divided into the value of labour-power and the surplus-value. Thus, the dividing structure of the original national income Y^* is composed of wages of productive laborers in productive sectors(1) W^* and capitalists' profit R^* (sub-

stantially corresponds to the value of labor-power and to the surplus-value respectively),

$$W^* + R^* = Y^* \qquad (1.\ 1)$$

and, original surplus-value rate is $\frac{R^*}{W^*}$.

Such original structure of income distribution is subjected to transforming effects as follows.

A. The aggregate profit is redistributed by the introduction of unproductive circulating sectors,[2] i. e. the wages of laborers and the profit of capitalist in this sector come in for a share of R^* for their circulating service to capitalists in productive sectors. We denote W_1, W_2 and W_{21} as the wages of productive laborers, of unproductive laborers and of laborers in the circulating sectors and R_1, R_2 and R_{21} as the profit of capitalist in productive sectors, of capitalist in unproductive sectors[3] and in circulating sectors respectively. Then,

$$W_1 + W_{21} + R_1 + R_{21} = Y_1 \qquad (1.\ 2)$$

B. Next, we must notice the presence of unproductive laborers as clerical staffs in productive sectors, which come in for a share of the profit of productive sector, rendering clerical service. By denoting W_{12} as their wages,

$$W_1 + W_{12} + W_{21} + R_1 + R_{21} = Y_1 \qquad (1.\ 3)$$

The surplus-value rate in terms of money can be transformed into

$$\frac{W_{12} + W_{21} + R_1 + R_{21}}{W_1} \qquad \begin{pmatrix} i=1, 2 \\ j=1, 2 \end{pmatrix}$$

The surplus-value rate in productive sector, therefore, are varied to $\frac{W_{12} + R_1}{W_1}$, being lessened by $\frac{W_{21} + R_{21}}{W_1}$ compared with original rate.

C. By the entrance of consumption-cost sector, the original national income would be expanded. This sector is the so-called service sector and is composed of the service by private enterprise sector and by public service sector,[4] and this sector's income is a derivative one.

$$W_1 + W_2 + R_1 + R_2 = Y \qquad (1.\ 4)$$

D. Now, we take the structure of gross national expenditure. As

we mentioned, original structure of national expenditure being subjected to transformation effect by entrance of unproductive sector by the same manner as original national income, the structure of national expenditure D ——state of utilization of national products——, is

$$D=\sum_i C_{Wi}+\sum_i K_i+\sum_i I_i \qquad (i=1, 2) \tag{2. 1}$$

C_W, K and I are sum of consumption fund of labourers, of capitalists, and the investment fund by capitalists respectively. We presume that the aggregate wage is equal to consumption of all labourers' household. On the other hand, the profits are expended on capitalists' consumption and investment (accumulation). Then,

$$C_W=C_{W_1}+C_{W_2}=W_1+W_2 \tag{2. 2}$$

$$R_1+R_2=K_1+I_1+K_2+I_2 \tag{2. 3}$$

(If we denote, C_{W_1}, C_{W_2}, K_1, K_2, I_1 and I_2 as productive laborers consumption fund, unproductive laborers', productive capitalists', unproductive capitalists', and productive investment[6] and unproductive investment respectively). Now, we must take $\frac{C_{W_2}+\Sigma K+\Sigma I}{C_{W_1}}$ which substantially correspond to $\frac{W_2+\Sigma R}{W_1}$. This ratio means the ratio of 'aggregate expenditure by all persons except productive laborers in a society' to 'aggregate consumption of productive laborers' household' (the latter substantially correspond to reproduction-cost of the productive labour-power). By the entrance of consumption-cost sector, the surplus-value rate as the index of income distribution is not changed. But, since the entrance of this, we cannot find in the surplus-value rate the state of utilization of national products by poductive labourers and all other persons in a society of which the rate originally shows. Therefore, we must try to follow up the two rates——surplus-value rate and utilization rate of national products, $\frac{W_2+\Sigma R}{W_1}$.

E. The public finance (both sides of public revenue and public expenditure including local government's finance) adjusts the national

dividend and national expenditure finally. The public revenue F_r collects the value F_{rW_1}, F_{rW_2}, F_{rR_1} $(=F_{rK_1}+F_{rI_1})$, and F_{rR_2} $(=F_{rK_2}+F_{rI_2})$ from W_1, W_2, R_1 $(=K_1+I_1)$, $R_2(=K_2+I_2)$ respectively.

$$(3.\ 1)\qquad F_r=F_{rW_1}+F_{rW_2}+F_{rR_1}+F_{rR_2}$$

The contents of F_r are direct tax, indirect tax, transfer payment, etc. On the other side, public expediture F_e gives the allowance F_{eW_1}, F_{eW_2}, F_{rR_1} $(=F_{rK_1}+F_{rI_1})$, and F_{rR_2} $(=F_{rK_2}+F_{rI_2})$ from W_1, W_2, $R_1(=K_1+I_1)$, $R_2(=K_2+I_2)$ respectively.

$$(3.\ 2)\qquad F_e=F_{eW_1}+F_{eW_2}+F_{eR_1}+F_{eR_2}$$

The 'net effect of public finance', F, that is estimated by deduction of the payment to government (effect of public revenue) from the receipt from government (effect of public expenditure), is the value of effective finacial adjustment to national dividend.

$$(3.\ 3)\qquad F=F_e-F_r$$

$$(3.\ 4)\qquad F=F_{W_1}+F_{W_2}+F_{R_1}+F_{rR_2}$$

(If we denote, F_{W_1}, F_{W_2},$\cdots\cdots$=net effect of public finance on W_1, W_2,$\cdots\cdots=F_{eW_1}-F_{rW_1}$, $F_{eW_2}-F_{rW_2}$,$\cdots\cdots\cdots$.)

By this effect, on the one hand, the structure of national dividend is varied to $W_1+F_{W_1}$, $W_2+F_{W_2}$, $R_1+F_{R_1}$, and $R_2+F_{R_2}$. So, the surplus-value rate of economy as a whole is varied to $\dfrac{W_{12}+F_{W_{12}}+W_{21}+F_{W_{21}}+R_1+F_{R_1}+R_{21}+F_{R_{21}}}{W_1+F_{W_1}}$ and that of productive sector is varied to $\dfrac{R_1+F_{R_1}+W_{12}+F_{W_{12}}}{W_1+F_{W_1}}$. (If we denote $F_{W_{12}}$, $F_{W_{21}}$, $F_{R_{21}}$ are net effect on W_{12}, W_{21} and R_{21} by public finance respectively.) On the other hand, the structure of national expenditure is varied to $\Sigma C_{Wij}+\Sigma F_{Wij}$, $\Sigma K+\Sigma F_K$, $I_1+F_{I_1}$, and $I_1+F_{I_2}$. So, the utilization rate of national products are varied to $\dfrac{C_{W_2}+F_{W_2}+\Sigma K+F_K+\Sigma I+F_I}{C_{W_1}+F_{W_1}}$ equivalent to the value of $\dfrac{W_2+F_{W_2}+\Sigma R+\Sigma F_R}{W_1+F_{W_1}}$. This rate shows the final state of $\dfrac{\text{(expenditure by all persons except productive laborers)}}{\text{(reproduction cost of productive laborers)}}$ in the nation. Undoutedly, the real value represents the final one, which is adjusted by the above mentioned factors. Therefore, we can

represent the real value as the real measure in the following form, $\frac{W_{12}'+W_{21}'+R_1'+R_{21}'}{W_1'}$, $\frac{W_{12}'+R_1'}{W_1'}$, $\frac{W_2'+\Sigma R'}{W_1'}$. (by denoting for example as $X+F_X=X'$.)

Next, we must analyse the more complex economy which includes much of peti-producers' firm —— klein Betrieb ——. For such society, above model should be modified as follows. (If we denote, E is proprietors' income.)

(1. 1)' $W^*+R^*+E^*=Y^*$

(1. 2)' $W_i+W_{12}+{}_{21}W+R_i+R_{21}+E_i+E_{21}=Y_i$ $\begin{pmatrix} i=1,2 \\ j=1,2 \end{pmatrix}$

(If we denote, E_1, E_2 are productive proprietor and unproductive propietor respectively.)

(1. 4)' $W_1+W_2+R_1+R_2+E_1+E_2=Y$

(2. 1)' $D=C_W+K+C_E+I_1+I_2+I_E$

(If we denote, C_E and I_E are proprietors' consumption and investment respectively)

(3. 1)' $F_r=F_{rW_1}+F_{rW_2}+F_{rR_1}+F_{rR_2}+F_{rE}$

(3. 2)' $F_e=F_{eW_1}+F_{eW_2}+F_{eR_1}+F_{eR_2}+F_{eE}$

(3. 4)' $F=F_{W_1}+F_{W_2}+F_{R_1}+F_{R_2}+F_E$

When we seek for the surplus-value rate, the utilization rate of national product by labour and capital and their changing process in the complex economy, we need to use the last model and subtruct E and F_E from the aggregate volume of Y and F respectively. The Japanese economy is the best example to do so.

Note This model is founded on Marxian Economics.

Cf. Karl Marx, 'Capital', Vol. 1 and 3, and 'Theorien uber den Mehrwert'.

(1) The whole sectors concerning to production of material resources. In this sector th surplus-value is created.

Concretely speaking, collecting industories, agricure, manufacturing industries, construction and a part of transportation and communication industries —— so called 'eine vierte Sphare der materiellen Produktion' —— belong to this section.

(2) Taking the service for circulating process of wares or supplying the fund to the capitalists in productive sector, the circulating sector comming in for a share of R^*. (Strictly speaking, division of R^* by introduction of this sector, composed W_{12} and R_{12} and the value of depreciation of fixed asset in this sector.) This

sector is composed of commercial sector (wholesale and retail trade) and of financial intermediary, and these are one of unproductive sector respectively.

(3) The whole sector not concerned with production of material resources. Concretely speaking, circulation sector, and consumption-cost sectors belong to this.

(4) Of cause, the latter is distinguished from the former in its origin. This sector's income is generated and financed by government's current expenditure, i. e. purchase of service. So, this income is one of the re-distribution effect of public finance in wide sense by nature. Nevertheless, the public service sector is quite resemble to the service sector, because theses sectors belong to unproductive consumption cost sector, We define that W_{22} and R_{22} are wages and profit in this sector respectively. Then, $W_2=W_{12}+W_{21}+W_{22}$, $R_2=R_{21}+R_{22}$.

(5) This means that the labourers' propensity to consume is unity.

(6) Strictly speaking, even in productive sector, we must notice the presence of unproductive investment, i. e. office, accounting machine, etc.

§ II. THE MEMORANDUM ON SOME PROCEDURES IN THE APPLICATION OF THE MODEL.

In order to arrive at the original flow of national income, supported by the above model, we must take some complicated procedures and reasonable assumptions for the calculation, as we have many defects in the present Japanese national income statistical works. From the view-point of Marxian national income theory, the present national income statistics being very inadequate, we must first take some necessary adjustment to actual measures to construct the data in correspondence with the above model, these would be as follows;

A. We must first divide the national income into two categories, i. e. national income produced by capitalistic mode and by precapitalistic mode (i. e. peti-production), second, divide each categories into the income of productive labour and of unproductive one respectively. Then, peti-producer's income corresponds to 'proprietors' income' in Japanese national income statistics.(1) About all the industries, we must divide Japanese national income into productive and unproductive sectors, following to the classical standard by Marx. As for 'eine vierte Sphare der materiellen Produktion' —— transporting and communicat-

ing industory——, we are obliged to include all of them in the productive sector, being difficult to divide it.

B. Before estimating wages and profit, we must adjust 'earning income', which includes the directorates' salaries and social insurance funds contributed by employers, etc. Moreover, we must estimate the wages of unproductive staffs in the productive sector.

By above procedures, we can get W_1, W_2, R_1, R_2 in all the industories.

C. We must divide national expenditure D into labourer's consumption C_W, capitalists' consumption K, capitalists' investment (accumulation) I, peti-producers' investment and consumption. Then, the aggregate expenditure H in Japanese income statistics are unsuitable to this object, because (a) it shows only aggregate expenditure and (b) our national expenditure model (cf. (2. 1)) can correspond to actual national expenditure only after the consideration to some redistribution effect by public finance.(2) And that, the public effect which needs to be considered at this step is not all the effect of public finance, but except the taxation effect of indirect tax and the effect of subsidies.(3)

Then, we take following assumptions, (i) the available wages $=C_W$——laborers' propensity to consume is unity(4) as a whole——, (ii) the amount equivalent to proprietor's available wages$=C_E$. By using the index of wages in small firms and the numbers of the family workers, we get the proprietor's wages.(5) Extracting the proprietor's burdens from this figure, we get the amount, which is equivalent to proprietor's available wages and C_E.

Thus, by aggregate consumption C minus (C_E+C_W) we get capitalists' consumption K.

D. The changing effects by public finance have to be investigated from each side of public revenue and expenditure.

The contents of F_r are direct tax——personal income tax (sum of $t(W+K+E_W)$ and corporation tax (sum of $t'(R_1+R_2)$——, indirect tax (sum of $t(C_W+K+C_E)$), transfer payment——social insurance funds contributed by employees (sum of $T(W_1+W_2)$) and by em-

ployers (sum of $T(R_1+R_2)$), and surplus earned by public enterprises.

The contents of F_e are subsidies, transfer expenditure —— payment of national debt interest (sum of $r(R_1+R_2)$ and expenditure of social insurance funds to laborers (sum of $q(W_1+W_2)$), government's consumption (current goods and services) and government's saving.

As for the governmental consumptions, we only take account of the government's purchase to goods, considering that the purchase of service corresponds to the income of public service and the latter is already added to W_2 and R_2.(6) Above all, about F_e, we must make troublesom effort to divide subsidies; because the present Japanese subsidies include the prices control compensation and the loss compensation to productive enterprises, and the annual use of the latter is not constant.

As for the loss compensation to 'Special Account for Food Control,' belonging to the latter, we must divide it into the subsidies for agricultural capitalist and for farmers.

Above procedures are necessary to annalyse the Japanese national income structure.

Note. (1) This categorie is used in 'Japanese Economy and National Income' and other national income statistical works published by Council Board in Japan.

(2) So, the model (2. 1) changes to (2. 1).——
$D=C^{+W}+K^{+}+I^{+}$. C^{+W}, K^{+}, I^{+} are laborers consumption fund before tax, capitalists' consumption fund before tax, and capitalists' investment fund before tax respectively.

(3) As we know, the national expenditure in terms of market price (factor cost plus the amount of indirect tax minus subsidies) in comparison with national income in terms of factor cost.

(4) We assume that the propensity to consume of available income.

(5) When we research the proprietors' income, we must not forget that this income is composed of the wages of the proprietor and of his family workers and of his profit. This income is a mixture, so we must treat it carefully.

(6) See above § I and Data.

§ III. DATA.

I. Actual Distribution of National income

1949 million Yen

		E	W_1	W_2	R_1	R_2	Sub Total	Total
Productive Sector	Agricalture, Forestry & Fishery	653,240	86,730	8,578	2,611	0	97,919	751,159
	Mining	7,795	47,132	5,237	139,963	0	51,652	69,447
	Construction	47,844	37,106	9,276	7,430	0	53,812	101,656
	Manufacturing	235,271	277,815	56,902	138,544	0	473,261	708,532
	Transportation, Communication,etc.	7,789	132,480	39,572	22,024	0	194,076	201,865
	Sub Total	951,939	581,263	119,565	179,892		880,720	1,832,659
	%	52					48	100
Unproductive Sector — Circulating Sector	Commerce	234,332	0	60,639	0	72,228	132,867	367,199
	Finance & Real Estate	4,350	0	36,323	0	31,705	68,028	72,378
Unproductive Sector — Consumption-Cost Sector	Service	144,883	0	174,247	0	40,590	214,837	359,720
	Public Service	0	0	100,766	0	4,999	105,765	105,765
	Sub Total	383,565	0	371,975	0	149,522	521,497	90,5062
	%	42.5					57.5	100
Total		1,335,504	581,263	491,540	179,892	149,522	1,402,267	2,727,721
%		49					51	100

Cf. Eq. (1.4), (1.5)* & (1.5)′.

'Total' does not involve the net income from abroad.

As for the method of estimation in details, see Appendix.

Source: 'The Japanese Economy & National Income' (Nippon-Keizai to Kokumin-Shotoku), Published by Economic Council Board,Japan.

1950

		E	W_1	W_2	R_1	R_2	Sub Total	Total
Productive Sector	Agricultur, Forestry & Fishery	773,483	92,215	9,120	4,626	0	105,961	879,444
	Mining	9,098	61,836	6,871	20,717	0	89,424	98,522
	Construction	57,377	47,785	11,946	13,147	0	72,878	130.225
	Manufacturing	163,112	351,245	71,942	268,525	0	691,712	854,824
	Transportation, Communication etc.	10,607	157,525	47,053	35,888	0	240,466	251,073
	Sub Total	1,013,677	710,606	146,932	342,903	0	1,200,441	2,214,118
	%	45.8					54.2	100
Unproductive Sector (Circulating Sector)	Commerce	318,046	0	132,727	0	90,250	222,977	541,023
	Finance & Real Estate	3,807	0	54,980	0	60,177	115,157	118,964
Unproductive Sector (Consumption-Cost Sector)	Service	175,505	0	156,367	0	23,954	180,321	356,826
	Public Service	0	0	125,942	0	6,335	132,277	132,277
	Sub Total	497,358	0	470,016	0	180,716	650,732	1,149,090
	%	43.8					56.2	100
Total		1,511,035	710,606	616,948	342,903	180,716	1,851,173	3,363,208
	%	45					55	100

Source : ibid.

1951

Productive Sector	Agriculture, Forestry & Fishery	971,665	100,622	11,180	11,249	0	123,051	1,094,716
	Mining	22,711	74,828	10,204	36,407	0	121,439	144,150
	Construction	63,966	58,170	14,543	14,728	0	87,441	151,407
	Manufacturing	159,159	441,928	97,009	444,051	0	982,988	1,142,147
	Transportation, Communication, etc.	12,971	204,314	61,029	30,806	0	296,149	309,120
	Sub Total	1,230,472	879,862	193,965	537,241	0	1,611,068	2,841,540
	%	43.2					56.8	100

conti.

			E	W_1	W_2	R_1	R_2	Sub Total	Total
Unproductive Sector	Circulating Sector	Commerce	407,473	0	189,807	0	139,937	329,744	737,267
		Finance & RealEstate	4,785	0	71,477	0	77,793	419,270	154,145
	Consumption-Cost Sector	Service	206,332	0	213,125	0	28,346	241,471	447,803
		Public Service	0	0	166,428	0	7,814	174,242	174,242
		Sub Total	618,590	0	640,837	0	253,890	894,727	1,513,457
		%	41.1					58.9	100
Total			1,849,062	879,862	834,802	537,241	253,890	2,505,795	4,354,997
%			42.4					57.6	100

Source : ibid.

1952

			E	W_1	W_2	R_1	R_2	Sub Total	Total
Productive Sector		Agriculture, Forestry & Fishery	1,101,779	124,482	13,831	14,171	0	152,484	1,235,263
		Mining	29,509	107,444	22,007	34,805	0	169,256	198,765
		Construction	91,298	68,720	22,907	19,623	0	111,250	202,548
		Manufacturing	189,615	501,753	141,570	325,236	0	968,559	1,158,174
		Transportation, Communication, etc.	17,047	265,673	78,785	36,216	0	380,674	397,721
		Sub Total	1,428,248	1,068,072	279,100	435,051	0	1,782,223	3,192,471
		%	44.7					55.3	100
Unproductive Sector	Circulating Sector	Commerce	487,565	0	234,487	0	557,174	791,661	879,226
		Fiance & Real Estate	5,876	0	84,154	0	117,258	201,412	207,288
	Consumption-Cost Sector	Service	263,740	0	277,714	0	87,236	364,950	578,690
		Public Service	0	0	214,084	0	9,657	223,741	223,741
		Sub Total	757,181	0	810,439	0	771,325	1,581,764	1,888,945
		%	40.1					59.9	100
Total			2,185,429	1,068,072	1,089,539	435,051	771,325	3,363,987	5,081,436
%			43					57	100

1934 **II. Actual Distribution of National Income in Pre-war Japan**

		E	W_1	W_2	R_1	R_2	Sub Total	Total
Productive Sector		2,811	2,218	554	2,226	0	4,998	7,809
%		36					64	100
Unproductive Sector	Circulating Sector	981		724		1,593	2,317	3,298
	Comsumption-Cost Sector	297		1,279		475	1,754	2,051
	Sub Total	1,278		2,003		2,068	4,071	5,349
	%	25					75	100
Total		4,089	2,218	2,557	2,226	2,068	9,069	13,158
%		31					69	100

Cf. Eq. (1.4), (1.5) & (1.5)'. As for the method of Calculation in details, see Appendix.
Source: 'The Japanese Economy & National Income.' ibid.

III. The Structure of National Expenditure

	C_E	C_{W_1}	C_{W_2}	K_1	K_2			I_1	I_2	I_E
					K_2*	K_G	$K_2(=K_2+K_G)$			
1949	1,058,810	525,059	447,272	128,763	101,171	283,022	384,193	△100,080	347,375	212,329
1950	1,141,837	648,757	552,661	65,934	33,966	400,885	434,851	147,301	296,736	245,448
1951	1,346,880	810,148	768,770	38,800	18,259	387,751	406,010	286,860	598,212	377,062
1952	1,630,096	953,031	991,931	12,408	22,060	471,035	493,095	285,014	1,008,608	420,781

Cf. Eq. (2.1)' and § II.
As for the method of estimation, see. Appendix.
Source: 'The Japanese Economy & National Income', ibid.

Note. K_2* is consumption of unproductive capitalist, and
K_G is government's expenditure to current goods. So,
K_2 is capitalist's consumption fund in unproductive sector in wide sence. I_2 contains the government's investment fund in the same manner as K_2.

IV. a. Redistribution Effect by Public Finance

1949

Public Revenue	W_1	W_2	K_1^*	I_1^*	R_1 $(=K_1^*+I_1^*)$	K_2^*	I_2^*	R_2 $(=K_2^*+I_2^*)$
Personal Income Tax	73,059	62,361	17,788	0		13,977	0	
Indirect Tax	112,498	97,824	26,900	0		22,012	0	
Corporation Tax	0	0	0	52,642		0	41,361	
Surplus earned by Public Enterprises	0	0	0	63,867		0	0	
Social Insurance Fund contributed by Employees	13,197	11,242	0	0		0	0	
Social Insurance Fund contributed by Employers	0	0	0	16,489		0	12,956	
Totals	198,754	171,427	44,688	1329,98	177,686	35,989	54,317	90,306
Public Expenditure								
Current Goods & service	0	0	0	0		283,022	0	
Transfer Expenditure	31,237	26,610	0	176		0	1,390	
Subsidies	0	0	0	194,792		0	9,500	
Government Saving	0	0	0	0		0	366,580	
Totals	31,237	26,610	0	194,968	194,968	283,022	376,219	659,241
	△ 167,517	△ 144,817	△ 44,688	61,970	17,282	247,033	321,902	568,935

Cf. Eq. (3.1), (3.2) & (3.4). § II.

As for the method of estimation in details, see Appendix. Source: 'The Japanese Economy & National income', ibid.

1950

Public Revenue	W_1	W_2	K_1*	I_1*	R_1 $(=K_1^*+I_1^*)$	K_2*	I_2*	R_2 $(=K_2^*+I_2^*)$
Personal Income Tax	87,816	75,398	9,367	0		4,826	0	
Indirect Tax	108,836	92,939	10,006	0		6,299	0	
Corporation Tax	0	0	0	71,903		0	37,041	
Surplus earned by Public Enterprises	0	0	0	23,260		0	0	
Social Insurance Fund contributed by Employees	16,851	14,354	0	0		0	0	
Social Insurance Fund contributed by Employers	0	0	0	24,870		0	12,812	
Total	213,503	182,691	19,373	120,033	139,406	11,125	49,853	60,978
Public Expenditure								
Current Goods & services.	0	0	0	0		400,885	0	
Transfer Expeaditure	43,867	37,368	0	1,930		0	1,000	
Subsidies	0	0	0	63,919		0	2,360	
Govermennt Saving	0	0	0	0		0	214,943	
Total	43,867	37,368	0	64,112	64,112	400,885	217,403	618,288
	△ 169,636	△ 145,323	△ 19,373	△ 55,921	△ 75,294	389,760	167,550	557,310

Source : ibid.

1951

Public Revenue	W_1	W_2	K_1*	I_1*	R_1 $(=K_1^*+I_1^*)$	K_2*	I_2*	R_2 $(=K_2^*+I_2^*)$
Personal Income Tax	90,153	86,473	5,004	0		2,355	0	
Indirect Tax	133,537	128,554	6,722	0		3,243	0	
Corpration Tax	0	0	0	132,491		0	62,348	
Surplus earned by Public Enterprises	0	0	0	41,430		0	0	
Social Insurance Fuuds contributed by Employees	17,731	17,035	0	0		0	0	
Social Insurance Fund contributed by Employers	0	0	0	32,868		0	15,467	
Totals	241,421	232,062	11,726	206,789	218,565	5,598	77,815	83,413
Public Expenditure								
Current Goods & services	0	0	0	0		387,751	0	
Transfer Expenditure	48,830	46,915	0	188		0	89	
Subsidies	0	0	0	38,744		0	3,612	
Government Saving	0	0	0	0		0	442,686	
Totals	48,830	46,915	0	38,932	38,932	387,751	446,387	834,138
	△ 192,591	△ 185,147	△ 11,726	△ 167,857	△ 179,583	382,153	368,572	750,725

Source: ibid.

1952

Public Revenue	W_1	W_2	K_1^*	I_1^*	R_1 $(=K_1^*+I_1^*)$	K_2^*	I_2^*	R_2 $(=K_2^*+I_2^*)$
Personal Income Tax	85,020	88,562	1,275	0		2,267	0	
Indirect Tax	157,366	169,471	2,240	0		3,813	0	
Corporation Tax	0	0	0	88,687		0	157,665	
Surplus earned by Public Enterprises	0	0	0	26,524		0	0	
Social Insurance Fund contributed by Employees	21,274	22,143	0	0		0	0	
Social Insurance Fund contributed by Employers	0	0	0	21,640		0	38,472	
Total	263,660	280,176	3,515	136,851	140,366	6,080	196,137	202,217
Public Expenditure								
Current Goods & services	0	0	0	0		471,035	0	
Transfer Expenditure	68,525	71,322	0	140		0	202	
Subsidies	0	0	0	30,585		0	4,978	
Government Saving	0	0	0	0		0	447,929	
Total	68,525	71,322	0	30,699	30,699	471,035	453,109	924,144
	△ 195,135	△ 208,854	△ 3,515	△ 106,152	△ 109,667	464,955	256,472	721,927

Source : ibid.

b. Redistribution Effect by Public Finance in Detail

(1)

	1949	1950	1951	1952
F_rW_{12}	41,142	43,481	54,070	71,725
F_eW_{12}	6,386	8,893	10,931	18,258
FW_{12}	△ 34,756	△ 34,588	△ 43,139	△ 53,467

(2)

	1949	1950	1951	1952
F_rW_{12}	33,428	58,461	72,403	82,372
F_eW_{21}	5,189	11,958	14,637	20,969
FW_{21}	△ 28,239	△ 46,503	△ 57,766	△ 61,403

(3)

	1949	1950	1951	1952
F_rK_{21}	25,000	9,245	4,810	5,312
F_eK_{21}	0	0	0	0
FK_{21}	△ 25,000	△ 9,245	△ 4,810	△ 5,312
F_rI_{21}	37,750	41,378	66,921	171,424
F_eI_{21}	9,600	2,447	3,690	5,156
FI_{21}	△ 28,150	△ 38,931	△ 63,231	△ 166,268
FR_{21}	△ 53,150	△ 48,176	△ 68,041	△ 171,580

As for the method of estimation, see, Appendix.

Source : ibid.

V. The Changing Process of National Income Distribution. (Conclusion I)

1949

	W_1	W_2	R_1	R_2
Real Structure	413,746	346,723	197,174	718,457
Effect by Public Finance	△ 167,517	△ 144,817	17,282	568,935
Actual Measure	581,263	491,540	179,892	149,522
Consumption-Cost Sector		275,023		45,589
Circulating Sector		96,962		103,933
UnproductiveLabourer in Productive Sector		119,565		
Original Structure	581,263	500,352		

1950

	W_1	W_2	R_1	R_2
Real Structure	540,970	471,625	267,609	738,026
Effect by Public Finance	△ 169,636	△ 145,323	△ 75,294	557,310
Atual Measure	710,606	616,948	342,903	180,716
Consumption-Cost Sector		282,309		30,289
Circulating Secctor		187,707		150,427
Unproductive Labourer in Productive Sector		146,932	△ 179,583	
Original Structure	710,606	827,969		

1951

	W_1	W_2	R_1	R_2
Real Structure	687,271	649,655	357,658	1,004,615
Effect by Public Finance	△ 192,591	△ 185,147	△ 179,583	750,725
Actual Measure	879,862	834,802	537,241	253,890
Consumption-Cost Sector		379,553		36,160
Circulating Sector		261,284		217,730
Unproductve Labourer in Productive Sector		193,965		
Original Structure	879,862	1,210,220		

1952

	W_1	W_2	R_1	R_2
Real Structure	872,937	880,685	325,384	1,493,252
Effect by Public Finance	△ 195,135	△ 208,854	△ 109,667	721,927
Actual Measure	1,068,072	1,089,539	435,051	771,325
Consumption-Cost Sector		491,798		674,432
Circulating Sector		318,641		96,893
Unproductive Labourer in Productive Sector		279,100		
Original Structure	1,068,072	1,707,224		

These are derived from the above all table, 'Table I, II, III, & IV.'

VI. Changing Process of National Expenditure. (Conclusion II)

1949

	W_1	W_2	R_1		R_2	
Use of Fund	Consumption	Consumption	Consumption	Investment	Consumption	Investment
Fund	581,263	491,540	147,150	32,742	114,549	34,9733
Actual Expenditure	525,059	447,272	128,763	△ 100,080	384,193	347,3753
Real Purchase	412,561	349,339	101,863	94,712	362,281	356,875

1950

	W_1	W_2	R_1		R_2	
Use of Fund	Consumption	Consumption	Consumption	Investment	Consumption	Investment
Fund	710,606	616,948	75,760	267,143	49,170	131,546
Actual Expenditure	648,775	552,948	65,934	147,301	434,851	296,736
Real Purchase	539,939	459,722	55,928	63,919	428,552	299,096

1951

	W_1	W_2	R_1		R_2	
Use of Fund	Consumption	Consumption	Consumption	Investment	Consumption	Investment
Fund	879,862	834,802	43,780	493,461	20,638	233,252
Actual Expenditure	810,148	768,770	38,800	286,860	406,010	598,212
Real Purchase	676,611	640,216	32,078	325,604	402,767	601,824

1952

	W_1	W_2	R_1		R_2	
Use of Funds	Consumption	Consumption	Consumption	Investment	Consumption	Investment
Fund	1,068,072	1,089,539	23,300	411,751	24,327	746,998
Actual Expenditure	953,031	991,931	12,408	285,014	493,095	1,008,608
Real Purchase	795,665	822,460	10,168	215,599	489,282	1,013,586

These are derived from Table III & Table IV.

VII. The Changes of Surplus-Value rate and Utilization rate of National Products by Capital and Labour.

(Conclusion III)

Year	$\frac{R_1+R_{21}+W_{12}+W_{21}}{W_1}$ %	$\frac{R_1+W_{12}}{W_1}$ %	$\frac{R_1'+R_{21}'+W_{12}'+W_{21}'}{W_1'}$ %	$\frac{R_1'+W_{12}'}{W_1'}$ %	$\frac{W_2+\Sigma R_2}{W_1}$ %	$\frac{W_2'+\Sigma R_2'}{W_1'}$ %
1934	230	125.5			310	
1949	86	51.6	103	68	141	306
1950	118	69	115	70.2	158	245
1951	136	83.2	125.2	73	185	291
1952	160	67	150.2	63.5	213	309

These are derived from abave all tables.

Appendix of § III. Supplementary Data.

(1) Structure of Wage Income in Productive Sector.

1949

	Aggregate Wage Income	No. of Laborers / No. of Workers (%)	No. of Stuffs / No. of Workers (%)	W_1	W_{12}
Agriculture, Forestry & Fishery	95,308	90.5	9.5	86,730	8,578
Mining	52,369	89.5	10.5	47,132	5,237
Construction	46,382	82.6	17.4	37,106	9,276
Manufacturing Industries	334,717	80	20	277,815	56,902
Transportation & other Productive Industries	172,052	77	23	132,480	39,572
Totals	700,828			581,263	119,565

Cf. Eq. (1.3)

1950

	Aggregate Wage Income	No. of Laborers / No. of Workers (%)	No. of Stuffs / No. of Workers (%)	W_1	W_{12}
Agriculture, Forestry & Fishery	101,335	90.5	9.5	92,215	9,120
Mining	68,707	90	10	61,836	6,871
Construction	59,731	83	17	47,785	11,946
Manufacturing Industries	423,187	80	20	351,245	71,942
Transportation & other Productive Industries	204,578	77	23	157,525	47,053
Totals	857,538			710,606	146,932

1951

	Aggregate Wage Income	No. of Laborers / No. of Workers (%)	No. of Stuffs / No. of Workers (%)	W_1	W_{12}
Agriculture, Forestry & Fishery	111,802	90	10	100,622	11,180
Mining	85,032	88	12	74,828	10,204
Construction	72,713	82	18	58,170	14,543
Manufacturing Industries	538,937	80	20	441,928	97,009
Transportation & other Productive Sectors	265,343	77	13	204,314	61,029
Totals	1,073,827			879,862	193,965

1952

	Aggregate Wage Income	No. of Laborers / No. of Workers (%)	No. of Stuffs / No. of Workers (%)	W_1	W_{12}
Agriculture, Forestry & Fishery	138,313	90	10	124,482	13,831
Mining	129,451	83.3	16.7	107,444	22,007
Construction	91,627	78.4	21.6	68,720	22,907
Manufacturing Industries	643,273	76.3	23.7	501,753	141,570
Transportation & other Productive Sectors	344,458	77	23	265,674	78,785
Totals	1,347,172			1068,072	279,100

Note. $\frac{\text{No. of Laborers}}{\text{No. of Workers}}$ & $\frac{\text{No. of Stuffs}}{\text{No. of Workers}}$ in Agriculture, Forestory & Fishery derived from Mr. Uesugi & others' 'National Income Statistics in Postwar Japan', Series of Nippon-Shihonshugi-Koza, Vol. X, Appendix. Other rates except Transportation, derived from 'Annual Report of Labor Statistics' (Rodotokei-Nenpōsho) published by the Bureau of Labor Statistic office in Japan. The rate in Transportation is derived from 'Establishment Census of 1951' published by the Bureau of Statistics Office of the Prime Minister, Japan. We are obliged to use the 1951's rate of tansportation thorough all years in question, because we cannot get possible figure in these years. And as for the other rates of which we cannot obtain by missing etc., we are obliged to use the rate of precedent year.

(1.2) Structure of Propietors Income.

	Proprietor's Income	Income by Side-Works	Aggregate Proprietor's Income	E_W	E_P
1949	680,579	3,275	1,335,504	1,130,000	205,504
1950	736,432	2,281	1,511,035	1,267,300	243,735
1951	876,249	2,427	1,849,062	1,472,000	377,062
1952	1,083,122	3,071	2,185,429	1,768,000	417,429

This table is derived by the following procedures.

① Aggregate proprietors' income is the sum of proprietors' income and income from side-work. (In this connection, the aggregate proprietors' income in each industory as Table I, is derived from the proprietors' income in each industory plus income from side-work in each sector which is income from side work multiplied by $\left(\frac{\text{proprietors' income in each industory}}{\text{proprietors' income}}\right)$.

② E_W is derived from the average wages of laborers employed in small firm (which is derived from the index of wages by scale of establishments and average wage) and proprietors' volum of labor (which is derived from the numbers of proprietors and his family workers multiply by $\frac{\text{labor time of proprietors}}{\text{labor time of employers}}$ and by $\frac{\text{labour time of famiyl workers}}{\text{labour time of employers}}$ respectively).

③ E_P is derived from aggregate proprietors' minus E_W. In this connection, investment by proprietors', I_E, is derived from E_P +' Loss Compensation for Proprietors' in Agriculture. (Cf. Supplementary Table (4.4)).

(3) Structure of Consumption Expenditure.

	W	$1-u$	$C_W(=W(1-u))$	E_W	$1-u$	$C_E(=E_W(1-v))$	C	$K(=C-(C_E+C_W))$
1949	1,073,213	90.6	972,331	1,130,000	93.7	1,058,810	2,261,075	229,934
1950	1,327,554	90.6	1,201,436	1,267,300	90.1	1,141,837	2,443,173	99,900
1951	1,714,664	91.5	1,568,918	1,472,000	91.5	1,346,880	2,972,857	57,059
1952	2,157,561	90.1	1,943,962	1,768,000	92.2	1,630,096	3,608,526	34,468

Sec. § II, before.

	C_W	C_{W_1}	C_{W_2}	K	K_1	K_2
1946	972,331	525,059	447,272	229,934	128,763	101,171
1950	1,201,436	648,775	552,661	99,900	65,934	33,966
1911	1,568,918	810,148	768,770	57,059	38,800	18,259
1952	1,943,962	953,031	991,931	34,468	12,408	22,060

Note. 1. u is $\frac{\text{Non-living Expenditure, i. e. Taxes}}{\text{Wage Income}}$, and v is $\frac{\text{Non-living Expenditure. i. e. Taxes}}{\text{Farm 'Household' Income}}$.
These are derived from 'Family Income and Expenditure in Postwar Japan,' Published by Beaureau of Statistics Office of the Prime Minister, Japan.

2. C_{W_1}, C_{W_2} are derived from C_W by $\frac{W_1}{W}$, C_W by $\frac{W_2}{W}$ respectively.

3. K_1, K_2 are derived from K multiply by $\frac{R_1}{R}$ and by $\frac{R_2}{R}$ respectively.

(4.1) Data of Public Finance.

Public Revenue

	Personal Income Tax	Indirect Tax	Corporation Tax	Surplus earned by Public Enterprises	Social Insurance Funds contributed by Employees	Social Insurance Funds contributed by Employers
1949	327,985	489,912	94,003	63,867	24,439	29,445
1950	288,907	407,627	108,944	23,260	31,205	37,682
1951	325,416	498,271	194,839	41,430	34,766	48,335
1952	340,124	605,254	246,352	26,524	43,417	60,112

Source: 'Japanese Economy and National Income', ibid.

Public Expenditure

	Current Goods & Services		Transfer Expenditure		Subsidies		Government Saving
	Purchase of Public Service	Purchase of Current Consumption Goods	National Debt Interest	Expenditure of Social Insurance Fund	Price Control Compensation	Loss Compen-sation to 'Special Accounts'	
1949	105,765	283,022	315	57,847	179,284	31,838	366,580
1950	132,277	400,885	293	81,235	60,162	7,830	214,943
1951	174,242	387,751	277	95,745	35,384	6,972	442,686
1952	223,741	471,035	316	139,847	30,471	8,444	447,929

Source: ibid.

(4.2) Structure of Public Revenue.

X_i		From	W_1	W_2	K_1	K_2	I_1	I_2	E
Personal Income Tax	X_1		$X_1(1-\alpha)\frac{W_1}{\Sigma W+\Sigma K}$	$X_1(1-\alpha)\frac{W_2}{\Sigma W+\Sigma K}$	$X_1(1-\alpha)\frac{K_1}{\Sigma W+\Sigma K}$	$X_1(1-\alpha)\frac{K_2}{\Sigma W+\Sigma K}$			$X_1\cdot\alpha$
Indirect Tax	X_2		$X_2\frac{W_1}{\Sigma W+\Sigma K+C_E}$	$X_2\frac{W_2}{\Sigma W+\Sigma K+C_E}$	$X_2\frac{K_1}{\Sigma W+\Sigma K+C_E}$	$X_2\frac{K_2}{\Sigma W+\Sigma K+C_E}$			$X_2\frac{C_E}{\Sigma W+\Sigma K+C_E}$
Corporation Tax	X_3						$X_3\frac{R_1}{\Sigma R}$	$X_3\frac{R_2}{\Sigma R}$	
Surplus earned by Public Enterpriees	X_4						X_4		
Social Insurance Funds Contributed by Employees	X_5		$X_5\frac{W_1}{\Sigma W}$	$X_5\frac{W_2}{\Sigma W}$					
Social Insurance Funds Contributed by Employers	X_6						$X_6\frac{R_1}{\Sigma R}$	$X_6\frac{R_2}{\Sigma R}$	

Note. α is $\frac{\text{Personal Income Tax assesed by Taxpayers' Report}}{\text{Personal Income Tax.}}$

(4.3) Structure of Public Expenditure.

Z_i		To	W_1	W_2	K_1	K_2	I_1	I_2	E	remarks
Current Goods & Services	Z_1					Z_1^*				$Z_1^*=Z_1-Y_G$
Transfer Expenditure	Z_2		$(Z_2-Z_2^*)\frac{W_1}{\Sigma W}$	$(Z_2-Z_2^*)\frac{W_2}{\Sigma W}$			$Z_2^*\frac{R_1}{\Sigma R}$	$Z_2^*\frac{R_2}{\Sigma R}$		
Subsidies	Z_3						$Z_3^*+(z_1+z_2+z_3\cdot\beta)$	z_4	$z_3\cdot(1-\beta)$	
Govt. Saving	Z_4							Z_4		

(4.4) Structure of Subsidies.

Z_3		To	I_1	I_2	E
Price Control Compensation	Z_3^*		Z_3^*		
Loss Compensation to 'Special Account for Communication'	z_1		z_1		
Loss Compensation to Shipping Corporation	z_2		z_2		
Loss Compensation to 'Special Account for FoodControl'	z_3		$z_3(\beta)$		$z_3(1-\beta)$
Loss Compensation to 'Special Account for Postal Saving'	z_4			z_4	

Note. β is $\frac{\text{Income in Agriculture, Produced by capitalistic Mode}}{\text{Income in Agriculture}}$

(4.6) Composition of the Redistribution Effect by Pubic Finance in detail.

	W_{12}	W_{21}	K_{21}	I_{21}	$R_{21}(K_{21}+I_{21})$
Public Revenue F_r	$F_r W_2 \cdot \frac{W_{12}}{W_2}$	$F_r W_2 \cdot \frac{W_{21}}{W_2}$	$F_r K_2 \cdot \frac{R_{21}}{R_2}$	$F_r I_2 \cdot \frac{R_{21}}{R_2}$	$(F_r K_2 + F_r I_2) \cdot \frac{R_{21}}{R_2}$
Public Expenditure F_e	$(Z_2 - Z_2^*) \cdot \frac{W_{12}}{W}$	$(Z_2 - Z_2^*) \cdot \frac{W_{21}}{W}$	0	$Z_2^* \cdot \frac{R_2}{R} \cdot \frac{R_{21}}{R_{21}+R_{22}+} + z_4$	$Z_2^* \cdot \frac{R_2}{R} \cdot \frac{R_{21}}{5R_{21}+R_{22}+} + z_4$

(4.5) Division of Aggregate Loss Compensation to 'Special Account'.

	Loss Compensation to 'Special Account for Communciation'	Loss Compensation to 'Special Account for Shipping Corporation	Loss Compensation to 'Special Account forFood Control'	Loss Compensation to 'Special Account for Posatl Saving'
1949	——	15,258	7,080	9,500
1950	——	3,710	1,760	2,360
1951	3,360	——	——	3,612
1952	——	——	3,466	4,978

Cf. Supplementary Data, (4.4).

We derived this from 'Budget' (Kuni-no-Yosan) Published by Ministry of Finance, Japan.

In 'Budget', the figur is estimated by every fiscal year and we cannot get the figur in calendar year. So, Above date is estimated by the procedure—aggregate Loss Compensation in calendar year $\times \frac{\text{Each Loss Compensation in Fiscal year}}{\text{Aggregate Loss Compensation in Fiscal year.}}$

Source: 'Budget,' ibid.

'Japanese Economy and National Income,' ibid.

(5. 1) Rates for Estimation.

%

	$\frac{W_1}{\Sigma W}$	$\frac{W_2}{\Sigma W}$	$\frac{W_{12}}{W_2}$	$\frac{W_{21}}{W_2}$	$\frac{R_1}{\Sigma R}$	$\frac{R_2}{\Sigma R}$	$\frac{R_{21}}{R_2}$	$\frac{R_{22}}{R2}$
1949	54	46	24	19.5	56	44	69.5	30.5
1950	54	46	23.8	32	66	34	83.1	16.9
1951	51	49	23.3	31.2	68	32	86	14
1952	49	51	25.6	29.4	36	64	87.4	12.6

(5. 2) Rates for Esimation.

%

	α	$\frac{W_1}{\Sigma W+\Sigma K+C_E}$	$\frac{W_2}{\Sigma W+\Sigma K+C_E}$	$\frac{K_1}{\Sigma W+\Sigma K+C_E}$	$\frac{K_2}{\Sigma W+\Sigma K+C_E}$	$\frac{C_E}{\Sigma W+\Sigma K+C_E}$	$\frac{W_1}{\Sigma W+\Sigma K}$	$\frac{W_2}{\Sigma W+\Sigma K}$	$\frac{K_1}{\Sigma W+\Sigma K}$	$\frac{K_2}{\Sigma W+\Sigma K}$	β
1949	49.1	23	20	5.5	4.5	47	43.7	37.3	11	8	3.6
1950	38.6	26.7	22.8	2.7	1.3	46.5	49.5	42.5	5.3	2.7	2.64
1951	43.5	26.8	25.8	1.35	0.65	45.4	49	47	2.7	1.3	2.96
1952	47.9	26	28	0.37	0.63	45	48	50	0.7	1.3	3.28

Note. 1. α is derived from 'Report of Tax Survey', published by Tax Bureau, Ministry of Finance, Japan.

2. β is derived from 'Japanese Economy & National Income', ibid.

§IV. THE ANALYSIS OF JAPANESE NATIONAL INCOME ACCORDING DATA.

By the aid of the above data, now we try to investigate the Japanese income structure, through 1949~1952.

First, we look at the composition of national income. We find that national income produced by the capitalistic mode increases gradually, and on the contrary the peti-producers' income falls either in the aggregate or in each sector. Of course, the present income of the latter is not so very low, and maintains above 40% of national income. Originally, the peti-producers' income has occupied a considerable in amount Japanese national income, and was 31% of 1934th' national income. In postwar Japan, the giant capital, i. e. *ZAIBATSU*, was dissolved and reduced to small scale, this tendency has been accentuated. But, since comming back of some giant capital after Korean war boom, we find the fact that the gradual decline of medium and small business, that is the returning tendency to prewar level. By the fact that about 90% of national product in agriculture, fishery and forestry by small firm, the peti-producers' income in productive sector is considerably high. But even this percent tends to fall and returns to prewar level.

Second, let us investigate the structure of Japanese national income produced by capitalistic mode and its changing process.

As Table 'V' and 'VI' show, by substruction of the effect of public finance (Cf. Table 'IV') and of all unproductive sector from the actual measure of national income (Cf. Table 'V'), we can reach at the original structure of National Dividend produced by capitalistic mode in the years 1949, 50, 51 and 52.

We find the close relationship of the advance of re-distibution to the movement of surplus-value rate, as Table 'VII' cleary shows. First, the original surplus-value rate $\frac{R^*}{W^*}$ being 86%, 118%, 136%, 160% in the year 1494, 50, 51 and 52 respectively, we can recognize

its gradual rise year by year. Second, by the entrance of the circulating sector, above figures are lessend to 51.6%, 69%, 83.2% and 67% respectively. Of course, these new figures annually rise, and in 1951, the year of boom in the Korean War, it shows the peak. In 1952, the year of recession, it falls again. But we must notice that the original surplus-value rate in that year shows the highest.

Third, we must investigate the effect of public finance on each years' surplus-value rate. By this effect, the original surplus-value rates $\frac{R_1+R_{21}+W_{12}+W_{21}}{W_1}$ were varied to 103%, 115%, 125.5% and 150.2% respectively and surplus-value rates in productive sector varied to 68%, 70. 2%, 73% and 63.3% respectively. Looking at this data, we can find that distribution effects by public finance in each year are not so uniform. For instance, we look at the public effect in 1949 of which surplus-value rate is the lowest. In this year, much subsidies were given for productive sector, the rate is raised so much. In 1950, according to Mr. Dodge's suggestion, subsidies for Japanese industries were decreased and the re-distribution effect of all public expenditure is also diminished. Since 1951, not only this subsidies but also all other public expenditures increases again gradually. On the other side, in accordance with the recovery of Japanese economy, the surplus-value rate goes up annually the effect of public revenue, i. e. taxation effect, expanded and exceeded the effect of public expenditure. Consequently, surplus-value rates after adjustment by public finance in 1951, 1952 diminished slightly. From the above consideration, we can guess that the function of public finance on income redistribution is to maintain the surplus-value rate at a certain level and for this purpose the government makes much contribution to capitalist in the hard times, and takes somewhat from capitalist in prosperity.

Fourth, we must take the consumption-cost secotr's income which is composed of service sector's income and public service sector's in Japan. This sector's income tends to rise year by year, as Table 'I' shows. As the result of the increment of these derivative income, the rates of national income produced by capitalistic mode $\frac{\Sigma R+\Sigma W_2}{W_1}$ show

141%, 158%, 185%, 213% in each year. $\frac{\Sigma R+W_2}{W_1}$ is equivalent to $\frac{C_{W_2}+\Sigma K+\Sigma I}{C_W}$ which is the most concrete rate of the utilization of national products in the sense that shows the ratio of the aggregate expenditure of all others to the reproduction cost of the productive laborers. This rate are also raise year, by year, but even after this, it is not yet to reach the prewar level, 310%. Considering that these dirivative incomes are subject to the distribution effect of public finance, i. e. taxation, $\frac{\Sigma R+W_2}{W_1}$ is varied to $\frac{\Sigma R'+W_2'}{W_1'}$ and raised to 306%, 245%, 291% and 309% in 1949, 50, 51, and 52 respectively (Cf. ' VII '). This rates show the final state of utilization of national product by labor and capital in Japan. Fifth, we must consider how the public expenditure, especially the subsidies transforms the nation's investment fund.

As for the effect to I_2, apparently I_2' is larger than I_2^+, as table ' VI ' shows. Of course, this phenomena is natural, considering that it is the fundamental effect of public finance. But, changes of I_1^+ induced by public finance, is of more interest. First, we will research the effect of public finance except for subsidies on I_1^+. I_1^+ is transformed to I_1, which is expenditure to capital goods by productive capitalist. Of course, I_1 is far below I_1^+, for example, I_1 in 1949 shows a large deficit. Then, if we consider the subsides, I_1 fund is fairly raised in 1949, which turned to blackink and exceeded the original investment fund I^+, typically shows the truth of our contention. Since 1950, where the surplus-value rate is so high, subsidies for I_1 have decrease. This means that when the surplus-value rate is so high, the public finance redistribute the I_1^+ and makesfree the capital goods for productive sector to the unproductive sector to stabilize the latter.

At any rate, before 1953, both of the surplus-value rate and utilization rate were not so high as to reach the prewar level, as Table ' VII ' shows. But, on the other side, we must notice the fact that the national income produced by capitalistic mode gradually

expands annually, by the aid of the public finance and unproductive sector which timely reinforce and adjust the surplus-value rate.

§ V. CONCLUSIONS

The above inquiry enables us to form some conclusions, which are summarised as follows:

I. (Cf. Table 'V')

Actual measures of the structure of Japanese national income produced by capitalistic mode, and its original form would be made clear.

II. (Cf. Table 'VII')

Concerning with the movement of surplus-value rate, we can get the changing structure of national income in Japan.

III. (Cf. Table 'VI')

The utilization of national products, and the changing process to final stage are made clear. The final one are considerably high, expecially this in 1952.

IV. Concerning with I, II and III (and Table V, VII, VI), it could be argued that Japanese economy in four years shows the return to her prewar level.

V. As for the effect of public finance, we can understand that the Japanese government's policy to productive sector is considerably flexible to maintain both of the surplus-value rate and the rate of utilization of national products at a certain level. But, for the unproductive sectors, its effect is always very expanding.

VI. Our inquiry have not yet touched to the 'Special Accounts,' so we could not analyse the surplus-value rate in each industory and its transformation by 'Special Accounts.' Effort shall be made to study this phase in details in the future.

RECONSTRUCTION OF THE THEORY OF PURCHASING POWER PARITY

Hikoji KATANO

1.

In my preceeding paper,[1] I showed the essential nature of an exchange rate. The argument was divided into two parts; the determination of exchange rate under the gold standard and the determination under the suspension of the gold standard. In this paper, the subject is concerned with the latter. So far, the exchange rate under the suspension of the gold standard has been explained theoretically by the theory of purchasing power parity. However, this theory has some weakness in actual approximation owing to its assumption. Especially, the weakness was remarkable after the re-collapse of the gold standard closing on the heels of the crisis of 1929. In such a case, what is the criterion to be taken up for the determination of an exchange rate? This is the subject in this paper.

2.

This paper is started from the confirmation of the weakness in

(1) Hikoji Katano, Econometric Determination of Foreign Exchange Rate of Japan for 1926–1935, Kobe Economic & Business Review, 3. 1956.

real approximation of the theory of purchasing power parity apart from the estimation in my preceeding paper.

Before starting, I will examine the theoretical characteristics of purchasing power parity. Exchange rate (price of foreign money in terms of home money or price of home money in terms of foreign money) is determined by relative purchasing power of moneies in different countries. This is the first and most elementary ground of the theory of purchasing power parity. Therefore, in this theory, it is assumed that, if the purchasing power of money in different countries changes in proportion to inflation or deflation, new exchange rate is determined by the relative change. However, under the strong influence of the quantity theory of money, this theory assumes that any change in quantity of money determines the value or the purchasing power of money, and is reflected on price level. For this reason, any relative change in a purchasing power of money is reflected on the relative change in price level.

For the construction of such a theory, the following assumptions must be fulfilled. To the end that the new exchange rate is an equiliburim rate, any rate in base year must be of course an equilibrium rate. Moreover, there must be an ***ceteris paribus*** assumption except the change of quantity of money. This means that there is not any change in relative price of commodities for the period in question, and that there is a proportional change in prices. If this assumption is fulfilled and if only, relative change in quanitity of money is represented by relative change in prices.(2)

(2) Someone argues, as a critique on the theory of purchasing power parity, that of relative prices of commodities are constant, when a terms of trade changes, new exchange rate diverges from the purchasing power parity. (Cf, J. M. Keynes, A Tract on Monetary Reform, 1923; ditto, A Treatise on Money, 1930; C. Bresciani-Turroni, The Economics of Inflation, 1953). However, this argument is true only in the most specialized situation, and is beneath my notice. The reason is the following. If international transaction is concerned only with consumption goods, the above-mentioned argument is true. In such a case, keeping relative price of home commodlities constant, there may be discussed the changes in terms of trade and in the purchasing power parity in proportion to it. But if the international

However, in actual economy, this requirement is not almost always fulfilled. Actually, relative prices of commodities change in almost all moments. Moreover, some other elements make divergence of purchasing power parity from actual exchange rate remarkable; these elements consist of control on trade, expectation of future values of money, exchange speculation etc.

Then, in what degree does the purchasing power parity show propriety in actual approximation? This subject is examined by the estimates based on some materials of Japan and the U. S. A. for 1921—1936.

In this estimation, I use the gold parity of dollar to yen (¥100= $49.845) as a base of the purchasing power parity, which passes internationally at that time. For the price indexes to be used in the calculation of the purchasing power parity, I use the wholesale price index for principal commodities in Tokyo by the Bank of Japan (Table 1) and the wholesale price index by groups of commodity by the U. S. Department of Labor (Table 2) respectively.

During the period of 1926—1936, 1930 and 1931 were the year of a return to the gold standard from a stand point of Japan,(3) and I take the year 1930 as a base year for calculation of the purchasing prower parity.

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transaction contains production goods, changes in terms of trade makes relative prices of home commodities change immediately. Therefore, keeping the relative prices of home commodities constant, it is impossible to discuss the effect based on some changes in terms of trade, and, as an international transaction almost always contains production goods, the argument of Keynes and Bresciani-Turroni is not true in that condition. Nevertheless, I can not completely deny the effect pointed out by them, because there may also be contained consumption goods in international transaction. In what degree the effect has influence depends on a ratio of consumption goods to all internationally traded goods and a ratio of international transaction to all transaction of the country.

(3) The first prohibition of gold export in Japan carried out on Sept. 12, 1917. This prohibition was removed on Jan. 11, 1930, and it was prohibited again from, Dec. 13, 1931, to this time. For the U. S. A. the first prohibition carried out on Sept. 7, 1917, and was removed on July 13, 1919, and it was prohibited again from April 19, 1933, to the present.

Table 1

Indexes of Wholesale Prices for Principal Commodities in Tokyo, 1921–1936.

(1930 : 100)

	All Commodities (A)	Rice (B)	Wheat (C)	Silk (D)	Cotton yarn (E)	Steel (F)	Coal (G)
1921	146.6	93.9	136.0	183.8	176.6	198.7	122.5
1922	143.2	138.1	120.0	229.2	167.3	177.5	120.9
1923	145.6	128.8	117.1	253.9	179.7	187.4	120.1
1924	151.0	152.1	133.3	217.5	230.1	161.2	128.9
1925	147.5	164.1	165.3	229.2	222.2	153.6	115.9
1926	130.8	148.4	144.1	188.3	159.5	132.5	111.2
1927	124.1	138.6	130.3	159.1	150.2	126.2	119.3
1928	125.0	121.8	127.5	152.7	160.7	135.0	100.0
1929	121.5	114.4	125.2	152.0	157.6	137.5	111.2
1930	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1931	84.6	72.5	69.7	69.1	85.0	81.2	91.5
1932	89.1	83.2	93.8	78.1	96.0	101.2	85.8
1933	99.2	84.7	105.8	84.6	126.8	152.4	100.0
1934	98.2	102.7	101.7	59.1	133.6	156.2	108.9
1935	102.5	116.6	117.7	80.0	128.1	131.3	110.9
1936	109.2	120.5	144.7	85.5	128.7	136.2	108.1

Source: Statistics of Bank of Japan. (from The Eleventh Annual Bulletin of the Financial and Economic Statistics of Nippon, The Institute for Commercial Research, The Kobe University of Commerce, 1938.)

Note: Original data are based on 1900.

Calculation of the purchasing power parity assumes that, based on the gold parity of dollar to yen, relative change in price level in Japan and the U. S. A. changes the basic rate of exchange. The result of this calculation is shown in Table 3 (E). In contrast with this, an actual rate of exchange (Yokohama-New York T. T. Selling Rate) for the same period is shown in Table 3 (F). Comparing these two series as a whole in each other, I examine the propriety of the purchasing power parity. Correlation between these two series is −0.0620. This means that these two series have not any connection with

Table 2

Indexes of Wholesale Prices by Group of Commodities, 1921–1936.

(1930 : 100)

	All Commodities (A)	Farm Products (B)	Foods (C)	Textile Products (D)	Metal & Metal Products (E)	Building Materials (F)	Chemicals & Allied Products (G)
1921	113.0	100.1	100.1	117.7	127.6	108.3	129.6
1922	111.9	106.2	96.8	124.8	111.7	108.2	113.1
1923	116.4	111.7	102.4	138.6	118.7	120.1	114.0
1924	113.5	113.3	100.6	132.9	115.4	113.8	111.5
1925	119.8	124.3	110.7	134.9	112.1	113.1	114.8
1926	115.7	113.3	110.5	124.5	108.6	111.2	112.7
1927	110.4	112.6	106.9	119.1	104.6	105.3	108.3
1928	111.9	119.9	111.6	118.9	105.3	104.7	107.1
1929	110.3	118.8	110.4	112.6	109.1	106.1	106.0
1930	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1931	84.5	72.8	82.4	82.6	91.7	88.1	89.4
1932	75.0	54.6	67.4	68.4	87.1	79.4	81.3
1933	76.3	58.2	66.9	80.7	86.6	85.7	84.9
1934	86.7	74.0	77.9	90.8	94.5	95.9	89.1
1935	92.6	89.2	92.5	88.3	93.8	94.9	88.7
1936	93.5	91.6	90.7	89.0	94.5	96.4	93.1

Source : Statistics of Department of Labor, Bureau of Labor Statistics.
(from Statistical Abstract of the United States.)
Note : Original data are based on 1926.

each other. However, partly examining, these two series have rather high correlation of 0.9277 for the period of 1925—1929. This correlation coefficient is very high compared with one as a whole. The situation concerned with this is more clearly shown in Figure 1.

What caused this situation to happen? Is this caused by the assumption of "constant relative prices," which is the fundamental assumption of the theory of purchasing power parity as is shown above? To answer this question, I examined some changes in relative prices of principal commodities in Japan and the U. S. A.

Table 3

Estimation of the Purchasing Power Parity.

	Wholesale Price Index in the U. S. A. (A)	Wholesale Price Index in Japan. (B)	$\frac{(A)}{(B)}$ (C)	Gold Parity of $ to ¥. (¥100=$?) (D)	(C).(D) (E)	Yokohama-New York T. T. Selling Rate. (F)
1921	113.0	146.6	0.771		38.430	48.050
1922	111.9	143.2	0.781		38.928	47.918
1923	116.4	145.6	0.799		39.826	48.816
1924	113.5	151.0	0.752		37.483	41.978
1925	119.8	147.5	0.812		40.474	40.801
1926	115.7	130.8	0.885		44.112	46.856
1927	110.4	124.1	0.890		44.362	47.425
1928	111.9	125.0	0.895		44.611	46.457
1929	110.3	121.5	0.907		45.209	46.069
1930	100.0	100.0	1.000	49.845	49.845	49.367
1931	84.5	84.6	0.999		49.795	48.871
1932	75.0	89.1	0.842		41.969	28.099
1933	76.3	99.2	0.769		38.331	25.220
1934	86.7	98.2	0.883		44.013	29.511
1935	92.6	102.5	0.903		45.010	28.570
1936	93.5	109.2	0.856		42.667	28.959

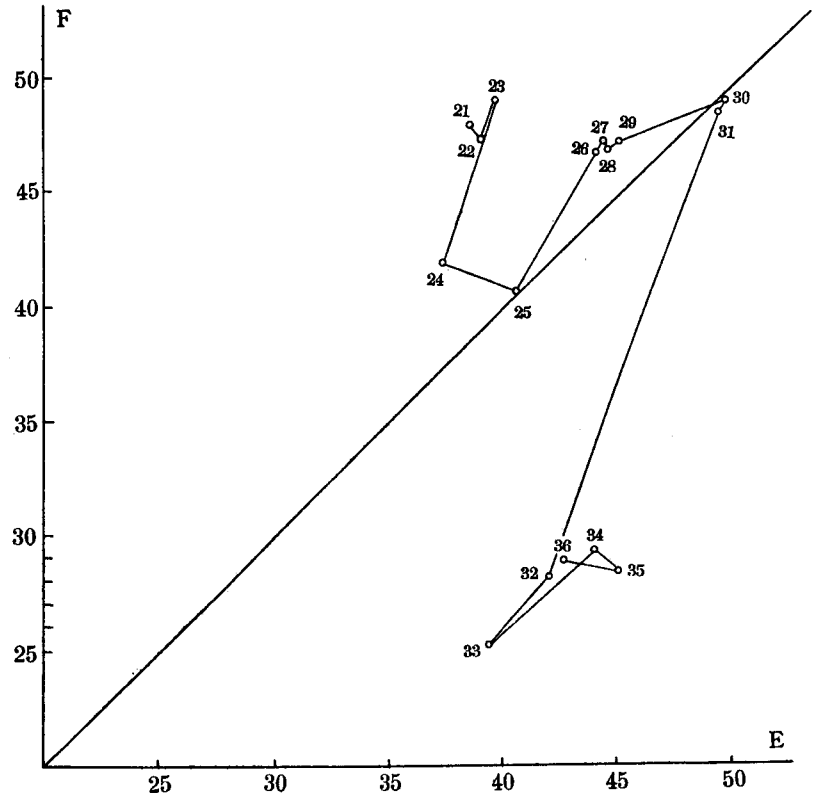
Source: (A); Table 2 (A).

(B); Table 1 (A).

(F); The Eleventh Annual Bulletin of the Financial and Economic Statistics of Nippon, The Institute for Commercial Research, The Kobe University of Commerce, 1938.

For Japan, I took six commodities, rice, wheat, silk, cotton yarn, steel, and coal, and for the U. S. A., six commodity groups, farm products, foods, textile products, metal and metal products, building materials, and chemicals and allied products. These commodities and commodity groups have great weights in the price changes in respective countries (Table 1 and 2), and I took index of the change of relative price in a form of a ratio of separate index to indexes of all commodities, which must be taken for the same year. This index means

Figure 1. Relation of Purchasing Power Parity to Actual Exchange Rate.



that, in any country, p_o^t/p_o^o stands for an index of all commodities and p_i^t/p_i^o for separate i-th commodity groups, the defined indexis

$$\frac{p_i^t/p_i^o}{p_o^t/p_o^o}=\frac{p_i^t/p_o^t}{p_i^o/p_o^o},$$

this is an index of relative prices. Therefore, if a relative price at period t is not changed compared with one in the base year, the defined index values always unit. And actually, if the six indexes scatter in the neighbourhood of unit, I regard the year having almost constant relative prices compared with the base year, and *vice versa.*

Then I calculate the index using the values in Table 1 and 2. The result is shown in Table 4 and 5. And this result is figured out on Figure 2 and 3.

Table 4

Changes in Relative Prices.

(Japan)

	All Commodities (A)	Rice (B)	Wheat (C)	Silk (D)	Cotton Yarn (E)	Steel (F)	Coal (G)
1921	1.000	0.641	0.928	1.254	1.205	1.355	0.835
1922	1.000	0.964	0.837	1.601	1.168	1.239	0.844
1923	1.000	0.885	0.804	1.743	1.234	1.287	0.824
1924	1.000	1.007	0.883	1.440	1.523	1.067	0.853
1925	1.000	1.112	1.121	1.553	1.506	1.041	0.786
1926	1.000	1.134	1.101	1.439	1.219	1.021	0.850
1927	1.000	1.116	1.050	1.282	1.210	1.012	0.961
1928	1.000	0.974	1.020	1.221	1.286	1.080	0.800
1929	1.000	0.941	1.030	1.251	1.297	1.131	0.915
1930	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1931	1.000	0.856	0.824	0.817	1.004	0.959	1.081
1932	1.000	0.933	1.052	0.876	1.077	1.135	0.963
1933	1.000	0.853	1.066	0.852	1.278	1.536	1.010
1934	1.000	1.045	1.035	0.601	1.360	1.590	1.108
1935	1.000	1.136	1.147	0.780	1.248	1.280	1.081
1936	1.000	1.102	1.324	0.782	1.177	1.246	0.989

$$(X)=\frac{(B, C, D, E, F, G) \text{ in Table 1}}{(A) \text{ in Table 1}}$$

From these calculated index, I see that there is not any large divergence in relative prices for 1926—1929 compared with one of 1930. This mainly causes high correlation the purchasing power parity and the actual rate of exchange for the same year. In contrast with this, there is a remarkable change in relative prices for the period of 1932—1936, and, for the same period, there is a remarkable divergence between the purchasing power parity and the actual rate of exchange.

Table 5

Changes in Relative Prices.

(the U. S. A.)

	All Commodities (A)	Farm Products (B)	Foods (C)	Textile Products (D)	Metal & Metal Products (E)	Building Materials (F)	Chemicals & Allied Products (G)
1921	1.000	0.886	0.886	1.041	1.129	0.958	1.147
1922	1.000	0.949	0.865	1.115	0.998	0.967	1.011
1923	1.000	0.959	0.879	1.191	1.019	1.031	0.979
1924	1.000	0.998	0.886	1.171	1.017	1.002	0.982
1925	1.000	1.037	0.924	1.126	0.935	0.944	0.958
1926	1.000	0.979	0.955	1.076	0.938	0.961	0.974
1927	1.000	1.019	0.968	1.082	0.947	0.953	0.981
1928	1.000	1.071	0.997	1.062	0.941	0.936	0.957
1929	1.000	1.077	1.001	1.021	0.989	0.962	0.961
1930	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1931	1.000	0.861	0.975	0.977	1.085	1.042	1.058
1932	1.000	0.727	0.898	0.912	1.161	1.058	1.084
1933	1.000	0.762	0.877	1.057	1.134	1.123	1.112
1934	1.000	0.853	0.898	1.047	1.089	1.106	1.027
1935	1.000	0.963	0.999	0.953	1.021	1.024	0.958
1936	1.000	0.980	0.970	0.952	1.010	1.031	0.996

$$(X)=\frac{(B, C, D, E, F, G) \text{ in Table 2}}{(A) \text{ in Table 2}}$$

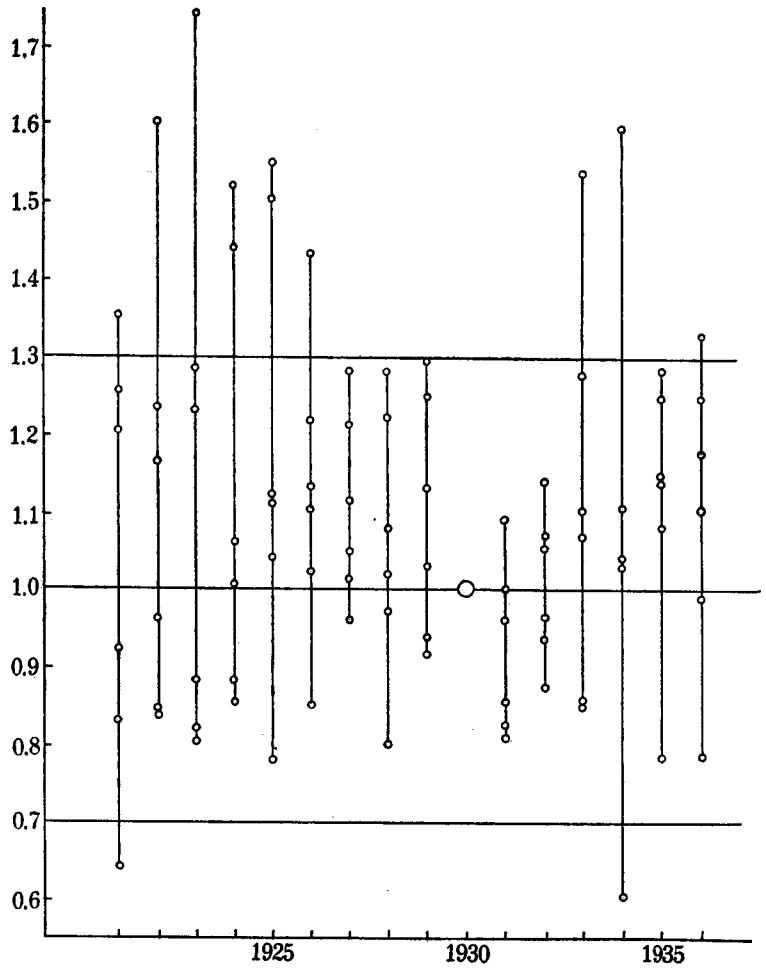
This is caused by the fundamental nature of the theory of purchasing power parity, and shows the weakness in actual approximation of it for such a bad period.

Now, what is it to be effective in the actual approximation for such a period?

3.

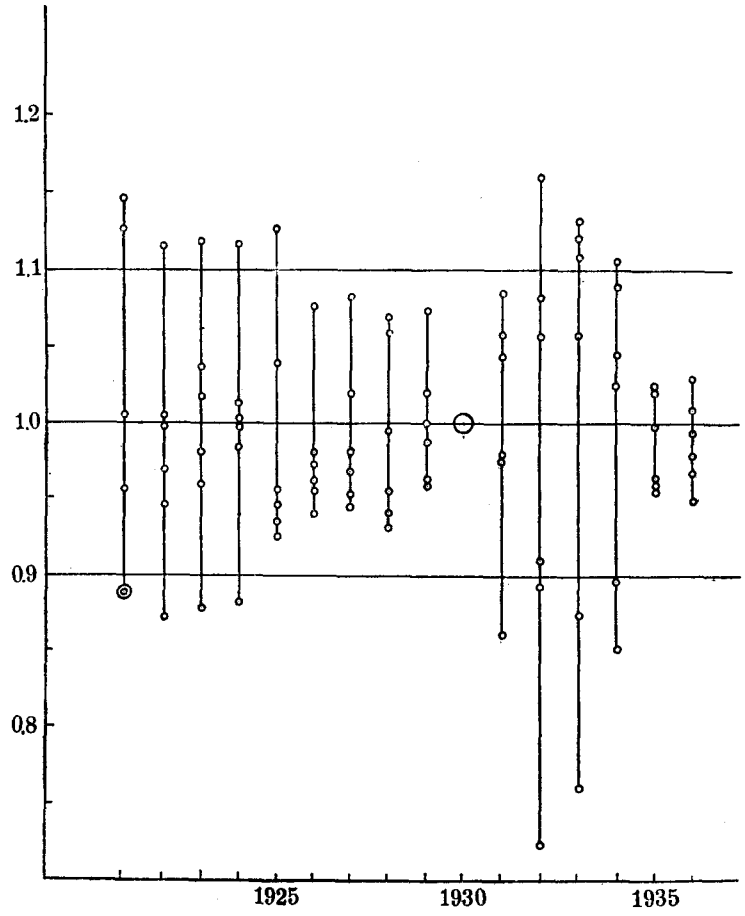
In order to correspond with such a requirement, in what way shall I take the theoretical expression of exchange rate and the method of calculation. I return to the starting part of this paper.

Figure 2. Changes in Relative Prices in Japan.



There I showed that the first and most elmentary ground in the idea that the exchange rate (the purchasing power parity) is determined by a relative purchasing power of moneies in different countries. This is a right ground. However, in the theory of purchasing power

Figure 3. Changes of Relative Prices in the USA.



parity, it was wrong to combine a change in purchasing power of money immediately with a change in price level, though it was through a change in quantity of money. For that, I abolished such a method, and devise the other method to measure a change in purchasing power.

Value of money is expressed by the quanitity of gold representing a unit of money. So that, a change in quanitity of money changes

the quantity of gold to represent a unit of money and its purchasing power. Therefore it is possible to express a change of purchasing power of money by a change of money price for a constant unit of gold. In this case, I should not assume that a relative price of different commodities are all constant, and may escape from almost all other conditions. There is, in part, an attempt to calculate the exchange rate accoding to such an idea.(4)

Actually this method shows more effectiveness in actual approximation compared with the purchasing power parity.

Obstructed by a shortage of original materials about the price of gold, I investigate only the period from 1932 to 1936.

Purchasing price by government of gold, which is the only available one in Japan, and the gold price in the U. S. A. for the corresponding period is shown in Table 6. According to these original materials, I can calculate the exchange rate by gold price for the period in question. This result is shown in Table 7.

Table 7 is arranged for each year of the period. This is Table 8. In this calculation, I use the counting by month. Relation between this result and the actual exchange rate (Table 8 (B)) is shown in Figure 4.

In view of such a result, I can calculate the correlation coefficient between the exchange rate determined by gold price and the actual exchange rate; its value is 0.8482. Nevertheless, I can not say that this method is well effective to fulfill the actual approximation, why?

I can fundamentally accept the attempt to calculate a change in purchasing power of money according to a change of price of constant quantity of gold. But, in this case, there must be kept the gold standard in the economy, and the value of gold have to exactly reflect the value of money. For the period in question in this paper, the gold standard was stopped. There was a situation in which the

(4) See, W. Kimura, Kokumin no tachiba yori suru Kawaserēto no Kettei, (Determination of the exchange rate from the stand point of the people), Keizai Hyoron, Vol. 4, No. 4, (April 1949).

Table 6
Price of Gold

	Japan		the U. S. A.
	Purchasing Price by Government (A) (¥ per gr.)	Wholesale Price by Government (B) (¥ pre gr.)	Purchasing Price by Govenment (C) ($ per ounce)
1932. 3	1.933		20.67
12	2.517		20.67
1933. 1	2.488		20.67
3	2.466		20.67
11	2.650		20.67
1934. 1	2.650		35.00
4	2.950		35.00
1935. 1	3.090		35.00
1936. 5	3.500		35.00
1937. 5	3.770		35.00
1938. 5	3.850		35.00
1946. 1	17.000	17.270	35.00
1947. 7	75.000	76.125	35.00
9	150.000	152.250	35.00
1948. 8	326.000	328.000	35.00
1949. 7	385.000	389.000	35.00
1950. 3	401.000	409.000	35.00
1953. 2	405.000	515.000	35.00
8		570.000	35.00
10		580.000	35.00

Source: (A), (B) Diamond-sha ed, Tōkei Yoran, 1956.
(C) Histoical Statistics of the U. S.
Series N. 166–171 (foot-note). p. 276.

value of money was not exactly reflected by the value of gold. There may be divergence of market price of gold from official price. This market price of gold reflects the value of money better than the official price. For this reason, some people say that the gold price as a calculating standard is not the official price but the market price. However this idea is true, but there may be some difficulties. The market price of gold is not available as an original material. This

Table 7

Calculation of Exchange Rate according to the Gold Price.

	Gold price in Japan (¥ per gr.)	Gold price in Japan (¥ per ounce)	Gold price in the U. S. A. ($ per ounce)	Exchange rate (¥ per $)	Exchange rate ($ per ¥)
1932. 3	1.933	60.123	20.67	2.909	34.380
12	2.517	78.288	20.67	3.787	26.403
1923. 1	2.488	77.386	20.67	3.743	26.710
3	2.466	76.701	20.67	3.711	26.949
11	2.650	82.424	20.67	3.987	25.078
1934. 1	2.650	82.424	35.00	2.355	42.463
4	2.950	91.755	35.00	2.621	38.145
1935. 1	3.090	96.110	35.00	2.741	36.417
1936. 5	3.500	108.862	35.00	3.110	32.151
1937. 5	3.770	117.260	35.00	3.350	29.848

Note: 1 troy ounce=31.1035 gr.

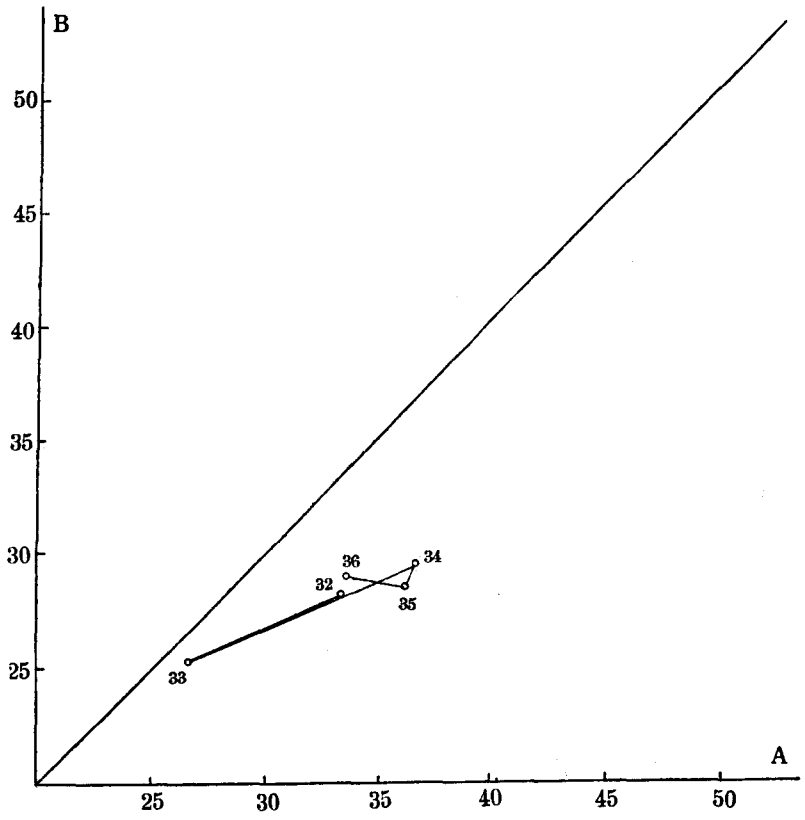
Table 8

Calculation of Exchange Rate according to the Gold Price. (arranged)

	(¥ per $ 1)	($ per ¥ 100) (A)	Yokohama-N. Y. T. T. Selling Rate ($ per ¥ 100) (B)
1932	2.997	33.366	28.099
1933	3.739	26.745	25.220
1934	2.715	36.832	29.511
1935	2.746	36.417	28.570
1936	2.987	33.478	28.959

is inevitable according to its nature. However it can be available under the prohibition of the gold standard and in the situation that there is divergence between the market price of gold and the offiicial price, gold is not the standard commodity but only a general one. If a change of gold price level presented in such a situation can be an index of a change of money value, a change of price level of any other commodities can be the index. But the changing way of commodity is irregular of all commodities. Therefore, the change in

Figure 4. Relation of Exchange Rate caluculated by Gold Price to Actual Exchange Rate.



money value expressed by the change of market price of gold expresses only the change in money value for a commodity gold, and not for all other commodities. However, even under the prohibition of the gold standard, there still be actually the gold standard without gold circulation, in which situation there is stopped gold circulation at home but gold still be a standard commodity for a settlement of international interaction. In such a situation, I think, it may be possible that the market price of gold reflects better the value of

money than any other prices of commodities. However, here I am compelled to give up the investigation of such a situation, because the material of the market price of gold is not available.

4.

Now again, I have to design an index exactlly reflecting a change of purchasing power of money from the new point.(5)

Let us now understand

$$(a_{i1}, \cdots, a_{in}) \qquad i=1, \cdots, n$$

stands for an average method of production in industry i, in which only one kind of commodity is produced. In this condition, a ratio of an added value to lalor

$$\rho_i = \frac{p_i - \Sigma a_{ij} p_j}{\tau_i}, \quad i=1, \cdots, n$$

is called an average income rate, where a_{ij} stands for the quantity of production goods j required for the production of a unit of commodity i, τ_i for the direct labor for the same production, p_i for the price of commodity i.

Change in an average income rate reflects the purchasing power of money, if an average method of production is constant.

Total sum of the added value in different sectors of production is called the net national product. Ratio of the net national product to the total labor is equal to an average income rate,if average income rates in different sectors of production are equal.

$$\rho = \frac{p_i^* - \Sigma a_{ij} p_j^*}{\tau_i} = \frac{\Sigma(p_i^* - \Sigma a_{ij} p_j^*)}{\tau_i} = \frac{Y}{N} \qquad i=1, \cdots, n$$

In a situation that the average income rates is different sectors are all equal, the price system fulfills the relation

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(5) For discussion in this section, see N. Okishio, National Income and Labor, The Kokumin-Keizai Zasshi (Journal of Economics & Business Administration). Vol. 94, No. 4, Oct. 1956.

$$p_i^* = \Sigma a_{ij} p_j^* + \rho\tau_i, \quad i=1, \cdots, n$$

And, under the same average method of production, an average labor hour expended for a unit of production in different sectors fulfills the relation

$$t_i = \Sigma a_{ij} t_j + \tau_i, \quad i=1, \cdots, n.$$

Fron these relations, I have

$$p_i^* = \rho t_i,$$

and there fore

$$\frac{p_i^*}{p_j^*} = \frac{t_i}{t_j}.$$

In short, I see that the price ratio to make an average income rate in different sectors equal must be equal to the corresponding ratio of an average labor hour expended. This situation is called that price is according to value.

Therefore, if prices is according to value, so for as the method of production in different sectors are constant (productivity of labor is constant) and the value of money commodity (gold) is constant, ρ is determined as follows. When a specie and a convertible note are circulated, ρ is an inverse of a constant quanitity of money commodity called the price standard. When a inconvertible note is circulated and prices are expressed by the inconvertible note, ρ is the ratio of a price of standard commodity expressed by the inconvertible note to the value of it. Therefore, when a specie and a convertible note are circulated, if a productivity of labor and a value of money are constant, ρ is constant. And when an inconvertible note is circulated, even if a value of money is constant, ρ is variable, because the price of money commodity expressed by an inconvertible note is variable according to any change of quantity of money. Such a change in ρ reflects naturally a change in the purchasing power of money.

In the capitalist economy, that prices are according to the value are rather exception. The causes are (1) the tendency of the profit to approximate the average and (2) the monopoly. The tendency profit to approximate the arerage makes the price of a commodity of the with higher organic composition of capital higher than the

value-price (price according to value), and ***vice versa***.[6] Prices of commodities in the monopolistic sectors are higher than the production price. And, generally speaking, it is natural that there is a monopoly in the sector with higher organic composition of capital. Therefore, prices in monopolistic sectors is, in many case, higher than the value prices.[7] Demand-supply relations causes temporarily a divegence between the price and the value price.

If prices are not according to values, the average income rate in different sectors is not equal. Therefore the relation betwcen the net national product and the total labor is

$$\bar{\rho} Y = N,$$

$$\bar{\rho} = \frac{\Sigma \rho_i \tau_i}{\Sigma \tau_i}.$$

$\bar{\rho}$ is called a social income rate. This rate is a weighted average of the average income rate in different sectors. The weight is labor-time in each sector.

Social income rate depends on an average income rate in different sections and an allocation of labor into each sector. Average income rate depends on the amount of bias of price from value-price, the value of money commodity and the price of it expressed by a note. Therefore social income rate is determined by (1) divergence of prices of value price, (2) value of money commodity expressed by the note unit, and (3) allocation of labor into different sectors. The dependence is as follows. When prices are not according to value and prices are higher than value-price, the more the labor are allocated to the sectors with higher average income rate, the higher the social income rate. And the lower the purchasing power of monery, the higher the social income rate.

I intend to show the change in purchasing power of money by the change in social income rate. However, as above-mentioned, this social income rate represents exactly the change in purchasing power

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(6) N. Okishio, Value and Price, Keizaigaku-Kenkyu Nempō, I. Kobe University.
(7) ditto, Monoply and the Rate of Profit, Kobe University Econonic Review, 1.

Table 9

Estimation of Rate of Exchange according to the Social Rate of Income.

	Private production income (in $ mil.) (A)	the U. S. A.			Japan					Gold parity at 1930 ($ per ¥100) (J)	(I).(J) (K)	Yok=N. Y. T. T.Selling Rete ($ per ¥100) (L)
		Gainful workers (in 1,000 persons) (B)	(A)/(B) (C)	(C)/(C)'30 (D)	Net national product (in ¥ mil.) (E)	Workers (in 1,000 persons) (F)	(E)/(F) (G)	(G)/(G)'30 (H)	(D)/(H) (I)			
1921	48,763	42,445	1.149	0.909	12,055	27,497	0.438	1.152	0.789		39.327	48.050
1922	49,036	42,966	1.141	0.903	12,107	27,733	0.437	1.150	0.785		39.128	47.918
1923	57,213	43,760	1.307	1.034	12,117	27,969	0.433	1.140	0.907		45.207	48.816
1924	58,178	44,549	1.306	1.033	13,702	28,205	0.486	1.279	0.808		40.274	41.978
1925	60,949	45,009	1.354	1.071	14,304	28,441	0.503	1.323	0.810		40.374	40.801
1926	63,857	45,962	1.389	1.099	13,344	28,676	0.465	1.224	0.898		44.761	46.856
1927	63,942	46,939	1.362	1.077	13,051	28,912	0.451	1.187	0.907		45.209	47.425
1928	65,653	47,914	1.370	1.084	13,464	29,148	0.462	1.215	0.892		44.461	46.457
1929	58,872	48,354	1.217	0.963	13,941	29,384	0.474	1.247	0.772		38.480	46.069
1930	61,968	49,006	1.264	1.000	11,245	29,620	0.380	1.000	1.000	49.845	49.845	49.367
1931	50,066	49,597	1.009	0.798	10,678	28,990	0.368	0.968	0.824		41.072	48.871
1932	37,132	50,132	0.741	0.586	11,591	29,176	0.397	1.045	0.561		27.963	28.099
1933	35,074	50,691	0.692	0.547	12,963	29,777	0.435	1.145	0.478		23.825	25.220
1934	40,205	51,267	0.778	0.615	13,670	30,794	0.444	1.169	0.526		26.218	29.511
1935	44,037	51,769	0.851	0.673	14,952	31,400	0.476	1.253	0.537		26.767	28.570
1936	49,852	52,237	0.954	0.755	16,645	30,859	0.539	1.418	0.532		26.517	28.959

Source: (A); Historical Statistics of the United States, Series A. 154.
(B); Historical Statistics of the United States, Series D. 62.
(E); Y. Yamada ed., Nippon Kokumin-shotoku Suikei Shiryo, Table 18-2.
(F); Y. Yamada ed., Nippon Kokumin-shotoku Suikei Shiryo, Supplementary table 1.

of money, if and only if prices are according to value and the productivity of labor is constant. But, in the capitalist economy, that prices are equal to value-prices is very rare. And, for a long time, constant productivity of labor is not common. Then I will examine how much effectiveness the index has in actual approximation according to the actual estimates.

In order to compare the result with the effectiveness by the purchasing power parity, here I take the same period, 1921—1936. Data for the U. S. A. are the estimates of realized private production

Figure 5. Relation of Exchange Rate calculated by Social Income Rate to Actual Exchang Rate.

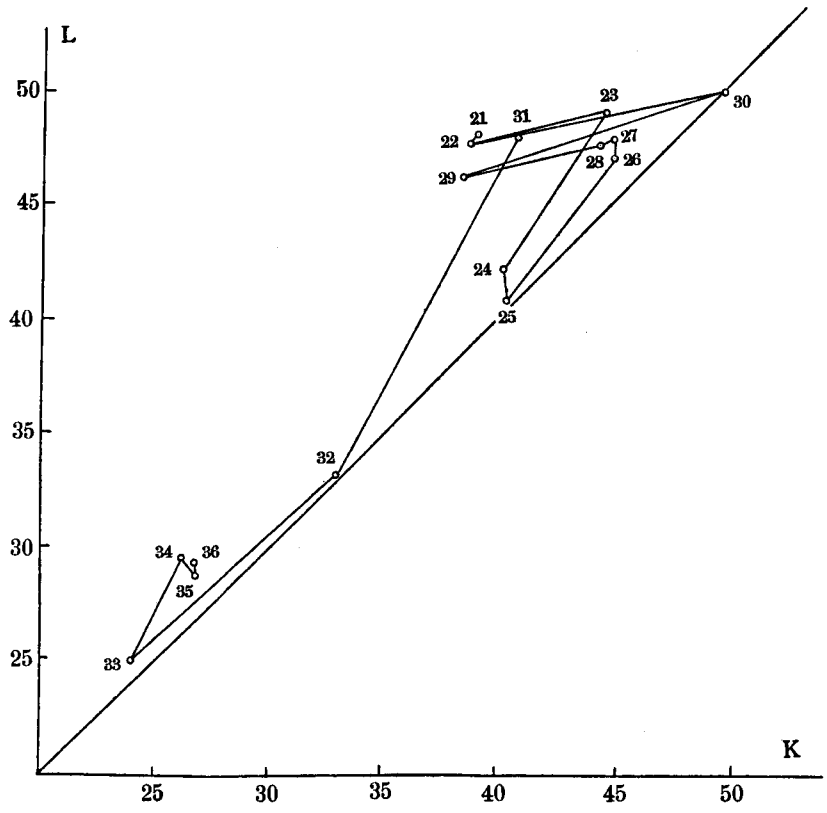


Table 10

Estimation of Rate of Exchange according to the Social Rate of Income.

	the U. S. A.				Japan					Gold parity at 1930	(I).(J)	(¥ per $ 1)
	Net national product (in $ mil.) (A)	Workers (in 1,000 persons) (B)	(A)/(B) (C)	(C)/(C)'30 (D)	Net national product (in ¥ mil.) (E)	Workers (in 1,000 persons) (F)	(E)/(F) (G)	(G)/(G)'30 (H)	(D)/(H) (I)	(J)	($ per ¥100) (K)	(L)
1930	82,564	45,480	1.815	1.000	10,992	29,341	0.375	1.000	1.000	49.845	49.845	2.006
1946	197,580	55,250	3.576	1.970	360,900	30,345	11.893	31.714	0.0621		3.095	32.310
1947	218,110	58,027	3.759	2.071	968,000	33,329	29.044	77.449	0.0267		1.331	75.131
1948	240,831	59,378	4.056	2.235	1,961,600	34,600	56.694	151.180	0.0147		0.733	136.426
1949	238,870	58,710	4.069	2.242	2,737,300	36,060	75.910	202.422	0.0110		0.548	182.482
1950	264,551	59,957	4.412	2.431	3,361,000	35,720	94.092	250.906	0.0096		0.478	209.205
1951	304,763	61,005	4.996	2.753	4,353,200	36,220	120.188	320.493	0.0085		0.424	235.849
1952	321,555	61,293	5.246	2.890	5,027,200	37,290	134.814	359.495	0.0080		0.399	250.627
1953	336,732	62,213	5.416	2.984	5,718,300	39,250	145.689	388.494	0.0076		0.379	263.852
1954	331,894	61,238	5.420	2.986	6,080,400	39,580	153.623	409.651	0.0072		0.359	278.552
1955	359,522	63,193	5.689	3.134	6,623,500	41,120	161.077	429.528	0.0072		0.359	278.552

Source: (A); Survey of the Current Business.

(B); Statistical Abstract of the United States.

(E); Keizai Tokei, Institute of Economics of Hitotubashi University ed., A-2. (for 1930)
Kokumin-shotoku Hakusho, Economic Planning Board ed., (for 1946–1950).

(F); Keizai Tokei, Institute of Economics of Hitotubashi University ed., B-3.

income (estimates by the National Industrial Conference Board) as the net national product and the gainful workers (estimates by the same Board) as the labor. Data for Japan the net national product and the workers in Nippon Kokumin-shotoku Suikei Shiryo (the Estimates of National Income in Japan) edited by Prof. Y. Yamada.

Using these data, I calculated the time series of social income rate in both countries. (Table 9 (C) and (G)), and made them indexes based on 1930. (Table 9 (D) and (H)). These indexes play

Table 11

Estimates of Purchasing Power Parity.

	Wholesale price index in Japan		Wholesale price index in the U. S. A.		(D)/(B)	(E)×49.845	(¥ per $ 1)
	1934~36=100 (A)	1930=100 (B)	1947~49=100 (C)	1930=100 (D)	(E)	($ per ¥100) (F)	(H)
1930	88.5	1.000	56.1	1.000	1.000	49.845	2.006
1946	1,627.1	18.37	78.7	1.40	0.076	3.788	26.399
1947	4,815.2	54.36	96.4	1.72	0.031	1.545	64.725
1948	12,792.6	144.43	104.4	1.86	0.013	0.648	154.321
1949	20,876.4	235.69	99.2	1.77	0.008	0.399	250.626
1950	24,680.7	278·65	103.1	1.84	0.007	0.349	286.533
1951	34,253.1	386.72	114.8	2.04	0.005	0.249	401.606
1952	34,921.5	394.26	111.6	1.99	0.005	0.249	401.606
1953	35,157.3	396.92	110.1	1.96	0.005	0.249	401.606
1954	34,920.8	394·25	110.3	1.97	0.005	0.249	401.606
1955	34,293.1	387.17	110.7	1.97	0.005	0.249	401.606

Source: (A); Statistics of the Bank of Japan.
(C); Statistics of the U. S. Dept. of Labor.

the same role as the price indexes in the case of the purchasing power parity So that, I can estimate the exchange rate by a change in social income rate (Table 9 (K)). Correlation shows 0.9404 between the estimates and the actual exchange rate (Table 9 (L)). This coefficient is much higher than that of the purchasing power parity. Relation of the actual exchange rate to the estimates is shown on Figure 5.

This result is better than the one in the exchange rate by the

gold price.

This means that a change in social income rate reflects substantially a change in value of money in the period in question, even if prices are not according to value and the productivity of labor is not constant.

5.

So for, I compared and examined some kinds of calculation of the

Table 12

Estimates of Exchange Rate according to the Gold Price.

(A)

	Japan		the U. S. A.		
	Wholesale price by government		Purchasing price by government	¥ per $ 1	$ per ¥100
	(¥ per gr.)	(¥ per ounce)	($ per ounce)		
1946. 1	17.270	537.157	35.00	15.347	6.516
1947. 7	76.125	2,367.754	35.00	67.647	1.478
9	152.250	4,735.508	35.00	135.293	0.739
1948. 8	328.000	10,201.948	35.00	291.470	0.343
1949. 7	389.000	12,099.262	35.00	345.676	0.289
1950. 3	409.000	12,721.332	35.00	363.448	0.275
1953. 2	515.000	16,018.303	35.00	457.643	0.219
8	570.000	17,728.995	35.00	506.517	0.197
10	580.000	18,040.030	35.00	515.404	0.194

(B)

	¥ per $ 1	$ per ¥100
1946	15.347	6.561
1947	64.047	1.561
1948	142.254	0.703
1949	314.055	0·318
1950	360.486	0.277
1951	363.448	0.275
1952	363.448	0.275
1953	467.560	0.214
1954	515.404	0.194
1955	515.404	0.194

exchange rate for the period from 1921—1936. In this result, accepting that the exchange rate is determined by the relative changes in purchasing power of money in different countries, I showed that the method of a social income rate has actually the propriety.

Lastly, according to this method, I will estimate the exchange rate for the period of 1946—1955.

Fundamental materials are as follows: for the U. S. A., the net nationl product (the U. S. Dept. of Commerce) and the workers (the U. S. Dept. of Labor) are used; for Japan, the net national product (the Economic Planning Board) and the workers (Prime Minister's Office, Statistics Bureau) are used. The result is shown in Table 10 (K). However, I am afraid that there may not be as good result as for the period of 1921—1936, because the period in question is far from 1930, which is the basic year in this calculation. But I think that this is better, to a certain degree, than the purchasing power parity (Table 11) and the exchange rate by the gold price (Table 12), which are calculated for reference.

TRAMP SHIPPING FREIGHTS AND INTERNATIONAL TRADE

Ginjiro SHIBATA

The basic standard of the freight rate of commodities for sea carriage is determined by the cost of transportation just as the price of commodities is determined on the basis of their cost of production. The actual price of commodities in a free market fluctuates by the balance of demand and supply. Similarly the freight rate for sea carriage fluctuates with the demand for the tonnage of the available ships, provided that foreign trade is carried on freely and that there is no artificial restriction placed on marine transportation. This is theoretical as it ought to be. As to the amount of tonnage, ship building is the most time-consuming industry of all the manufacturing industries, and while the tonnage cannot be increased on short notice it also does not decrease abruply except in the case of war. And its fluctuation is very gradual and slow. In consequence, under free economy, the cause of the short term fluctuation of the freight rate for marine transportation is the movement of foreign trade. Consequently, the tendency of the fluctuation of the freight rate for marine transportation may be mostly predicted by looking at the prosperity or sluggishness of foreign trade. Conversely, it would be theoretically possible to think of such a

process in which the fluctuation of the freight rate for marine transportation increases or decreases foreign trade. But actually, the price of commodities has a much heavier weight as the cause that governs the volume of the foreign trade. Compared with the price, the freight rate exerts a far smaller influence on the volume of the foreign trade, because the freight rate, excepting such goods as coal or ore which are of low value relative to weight, constitutes but a small portion of the value of the transported goods. Consequently, its fluctuation exerts but a small influence on the whole.

The question is whether there is perfectly free competition in marine transportation and foreign trade. Speaking of marine transportation, the greatest factor that restricts free competition is the existence of the "conference" and other international cartels. But these restrictions on marine transportation are almost limited to the liners, which however do not completely do away with competition, and a certain amount of competition exists even within the conference so that competition against the ships outside the conferences is inevitable. As to the trampers, on the other hand, their owners have no common ground internationally or domestically as so to make it difficult to conclude a conference, and even when a conference is concluded it is almost impossible to exert a restraining power. Thus the means of restraint on free competition in this field is believed not to be effective. The actual occurence of really free competition is possible of appearing among the trampers. But even with the trampers, they do not always operate under perfect freedom. For instance, under a war condition or international animosity and other abnormal conditions, one country may be subjected to discriminative treatment in navigation or in loading, or free navigation may be restricted. But in peace time under normal conditions trampers may operate and compete freely.

Trade, in contradistinction with marine transportation, enjoyed no such perfect freedom since early days. As it means to bring into the country foreign produced goods, it may exert a derogatory influence against the state policy of protecting domestic production. Besides, it may be

related to the problem of international payments. In any case, it is directly connected with the livelihood of the people. For these reasons, every country since early days placed restrictions on the freedom of trade more or less. Of the means of this restriction the most primitive or elementary is the custom tariff. So long as the tariff is not prohibitive or extremely protective, it leaves room for the commodities to compete in the market with tariff woven into the price. It is not impossible to break through the tariff wall, if the cost of production is reducible. Especially as each country since early days is quite sensitive about the level of the tariff imposed by other countries, international relations will not permit any one country to raise the wall arbitrarily. Thus we may say that the protective tariff so far as it is not excessive does not restrict free competition. Custom tariff, therefore, may be said to be the normal means of protection. But since the year of the worldwide panic (1930) it has become something like a worldwide vogue to restrict directly the imports and control the money exchange. These two measures obstruct trade incomparably stronger than any tariff wall. So long as and wherever these two measures continue to exist it may be said that the freedom of trade is completely obstructed. The direct restriction of imports may be understood only as a temporary measure, because some countries to-day under the provision of GATT have abolished or mitigated the rigor of the measure. But as to the control of money exchange, the measure has been made almost permanent and continues to restrict trade. The restriction of trade is not the primary object of the money exchange control. Its primary object is to improve the state of international account so as to facilitate the import of the necessary goods. It is possible, therefore, by changing and adapting the measure from time to time to the economic conditions to increase the international accounts and maintain the balance, that is to increase the volume of trade and to balance international payments alike. Actually, all countries are aiming at this goal. But at times the control of money exchange may obstruct the trade considerably and may lead to the

shrinkage of international trade. In any case, the quota system on imports and money exchange control are both potent measures originally meant to restrict the freedom of trade. In this sense the two measures are not different at all as trade obstructions.

It may be said that marine transportation and international trade both enjoyed great freedom in the two periods, (1) about 1890 to the outbreak of World War I and (2) from the end of World War I to the outbreak of the world crisis in 1930. Theoretically speaking the amount of the foreign trade and the freight rate for sea carriage, for these two periods, should correlate closely. Consequently, provided that there are no errors in the statistical data, the quotient obtained by dividing the amount of world trade by world tonnage, that is, the fluctuation of the freight amount carried per ton of space should correlate with the fluctuation of the actual freight rate. Under free competition, the relative amount of freight carried per ton of space is the determining factor of the shipping freight rate. The former may be called "theoretical freight."

In treating the freight rates of the trampers statistically, the data of actual freight rates are almost infinitely numerous. But the indices of the trampers' freight rates compiled by the Chamber of Shipping of the United Kingdom are not only the most highly renowned in the world but the various freight rates used as the basis of compilation of these indices are also taken as the standard freight rates of the world. The trampers' freight rates of all countries are more or less affected by these figures and determined accordingly.

As to world tonnage, Lloyd's statistics are most reliable. Some people insist that the factor that actually affects the freight rate for sea carriage is the active tonnage. But even the idle tonnage standing by waiting to fall into action on demand must be added to the tonnage to express the entire capacity of supply. Furthermore, the tonnage used in comparison with the foreign trade should be limited to foreign trade ships. But in practice it is difficult to extract these from Lloyd's statistics.

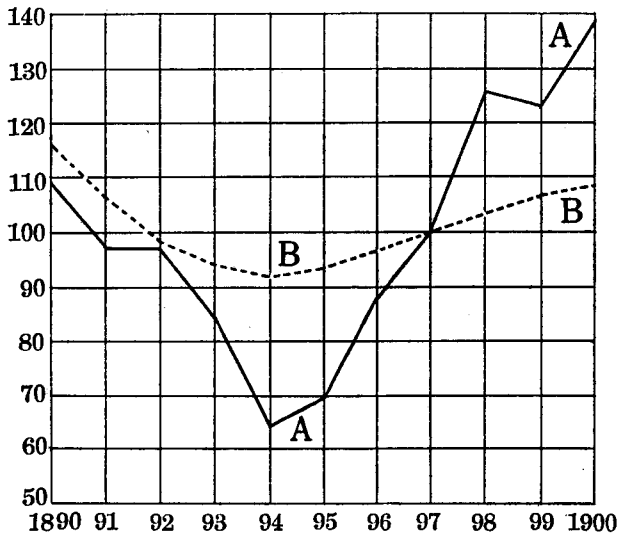
To compare statistically with the shipping activity, the figures for world trade may be considered theoretically as the physical volume of world trade. It is not only quite difficult, however, to seek precision and correctness in the statistics expressing the world total showing the fluctuation in physical volume of the foreign trade for the past long series, but, as will be stated later, the result of an examination into a correlation between the actual freight index and theoretical freight index which was computed by the United Nations' quantum index of world exports since 1947 is quite insufficient as compared with those computed by the U. S. $ value index of world exports. Therefore, for the computation of a theoretical freight index, the value-in-gold for pre-war times and the value in U. S. $ for post-war times are used.

Fig. 1 compares the fluctuations of the index number of tramp shipping freights compiled by the Chamber of Shipping of the United

Figure I

A···Actual Freight

B···Theoretical Freight

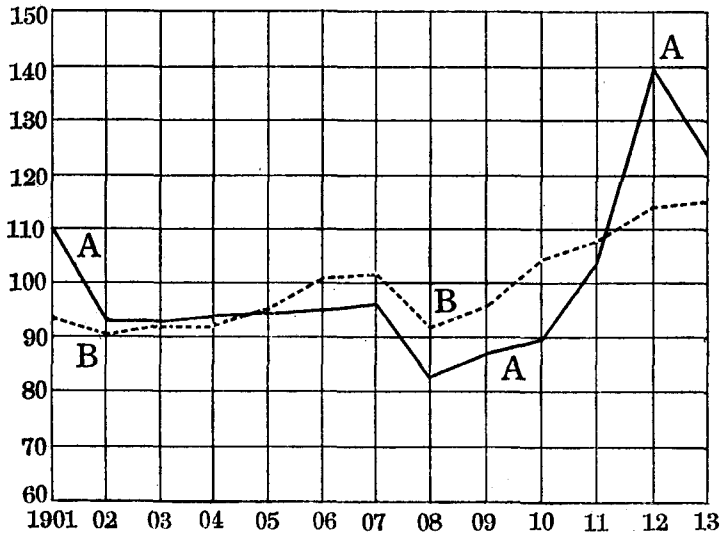


Kingdom for the years 1890—1900 and those of the quotients obtained by dividing the index number of the total value of world exports (in gold German Mark, compiled by the Statistisches Reichsamt.) by the index number of world tonnage, that is, the theoretical freights index numbers, as have been above described. Fig. II also shows a similar comparison obtained by treating the similar data by the same method for the years 1901—1913. The index number is calculated by taking the 11 years average as 100 for the former, and that of the latter with the 13 years average as 100.

Figure II

A···Actual Freight

B···Theoretical Freight



Looking at these two figures, we learn that the actual freights are fluctuating with the theoretical freights as the axis with the same tendency. But we find that there is a prominent difference between the two series: the actual freights always fluctuate with greater amplitude than that of the theoretical freights. This tendency was especially great before 1900. This is explained by the fact

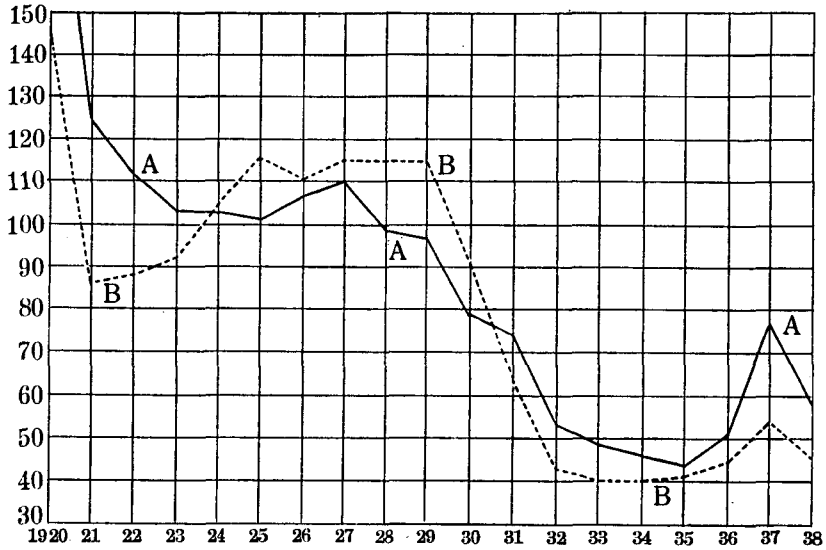
that when a war breaks out the actual freights rise suddenly implying a speculative factor, and when the war is over the sudden decrease of cargoes and surplus of tonnage also implying a speculative factor, tend to make freight go down lower than the actual situation justifies. The coefficient of correlation between the actual freight index number and the theoretical freight index number is **0.77** for the years 1890—1900 and is **0.76** for the years 1901—1913, that is, mathematically speaking we may say that these two curves are fairly closely correlated.

The above correlative relation can be seen during the post world I War-years, 1920—1938. Fig. III is the outcome of a similar treatment of the similar data as those for the two previous diagrams. Looking at these diagrams we learn that the fluctuations of the actual freights and that of the theoretical freights come closer to coincidence, and the two series are found to be correlated closely. The coefficient of correlation is calculated to be **0.74**, from which we may judge an almost same degree of correlation as that which existed between the two series of the Pre-World I War years. If we examine closely the movement of the two curves in Fig. III we find that the two curves for post-1st War years are rather more alike than those two curves for pre-1st War years.

From this we can conclude that in the years before World War II, excepting the years during War I, the actual freights generally fluctuated along the level of theoretical freights. In other words, generally speaking we may say that the actual freights of trampers were influenced strongly both by the volume of world trade and by world tonnage.

This similar tendency is seen in the post World II War years, which is shown in Fig. IV. Of the data used for Fig. IV the world total of exports are expressed, differing from those used in Fig.'s I, II, III, in American dollars which have been furnished by the United Nations and converted into the index number, calculated relatively to 1948 as a common base. If we closely examine the two curves in

Figure III
A···Actual Freight
B···Theoretical Freight



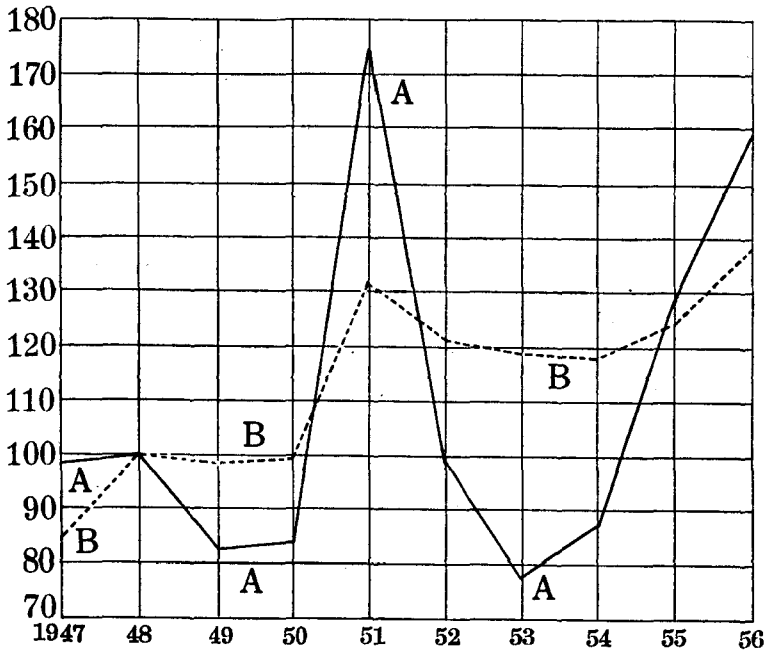
this Fig., the curve of the actual freights (the basis of calculating the index number of the tramp shipping freights compiled by the Chamber of Shipping of the United Kingdom has undergone alteration since 1952, but here the old basis has been followed and the index number for 1948 is taken as 100) rises and falls almost with the same tendency with the theoretical freights' curve as the axis. This is similar to the movement before the Wars. In this sense, these two curves may be said to be correlated in general, but in amplitude there is a large difference; whereas the amplitude in the theoretical freights is relatively small and gradual, the amplitude in the actual freights is quite large and extreme. The coefficient of correlation for the two curves in Fig. IV is **0.66** which is somewhat lower than that before the Wars which was nearly **0.75**. This means that the correlativity between the actual freights and theoretical freights has been somewhat lessened.

The Statistical Office of the United Nations is compiling and pub-

Figure IV

A···Actual Freight

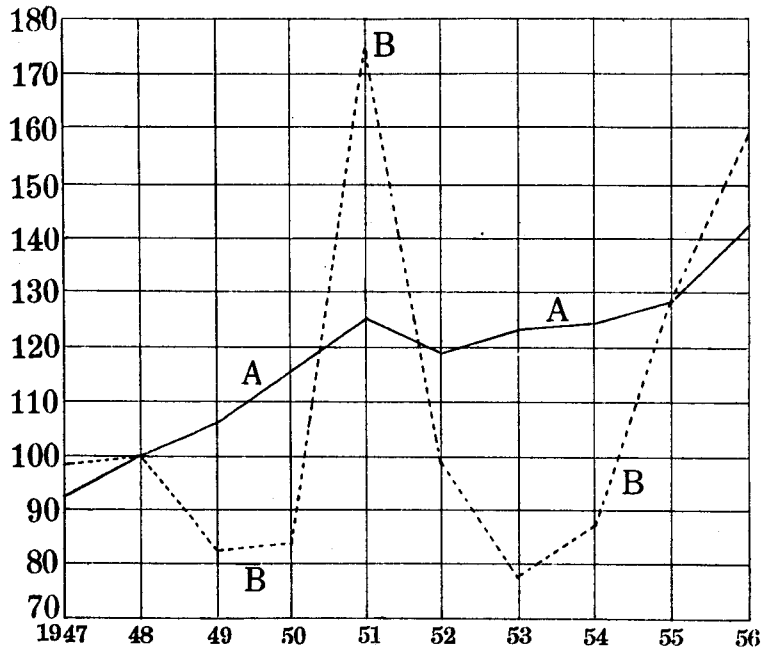
B···Theoretical Freight



lishing the quantum index of world exports for the post-war period. As demand for shipping tonnage would be shown by the physical volume of sea-borne trade, the theoretical freight index shall be made by using the quantum index of exports in its calculation. Comparison between the actual freight index and the theoretical freight index which is computed by the quantum index of world exports compiled by the U. N. and the index of world tonnage is shown in Fig. V. The coefficient of correlation of these two indices is worked out to be **0.55** which means about 17% lower than that of the curves shown in Fig. IV.

This tendency can be seen also by test in the series relating to the pre-war period, using the index of physical volume of world exports which is compiled in a tentative way, that is, dividing the index of

Figure V
A···Actual Freight
B···Theoretical Freight (computed by the U. N. quantum index of world trade)



the gold value of world exports which is used in Fig. I—III by the average of wholesale price index numbers of the principal countries. And in this case the theoretical freight index correlates in a lower degree by far with actual freight index than is shown in Fig. I—III.

This tendency means that an actual shipping freight rate is affected not only by the variation in quantum of carriage but also by the price fluctuation of goods carried.

From these investigations we may say that there exists a fairly high grade of correlativity between actual tramp shipping freights and theoretical freights. Expressed in other words, the theoretical freight shows the degree of demand for tonnage. The demand for tonnage,

according to the experience of the past, increases suddenly by the outbreak of a war and a numerous number of vessels are constructed. And this amount of tonnage is retained even after the war is over and the demand is suddenly decreased, and a surplus of tonnage is the result. This is the ordinary situation. There were two periods in the past that experienced a surplus of tonnage, the first is the period before 1912, and the 2nd 1930—1938. Against these two surplus periods, a tonnage shortage was experienced in the periods of, excepting war times, six years up to 1929 and six years from 1951 to 1956.

These facts viewed contrasted with the correlation between actual freights and theoretical freights show that during the periods of surplus tonnage the curves of the two kinds of freights moved close together, and in the periods of shortage the fluctuation of the actual freight is far more violent in tendency than that of the theoretical freights. That is to say, in the latter case though the tendency may be the same, the amplitude of fluctuation of the actual freights is quite large in tendency. By these facts, as is seen in Fig. IV, up to quite a recent date since World War II, the actual freights fluctuated with theoretical freights as an axis, but the amplitude which is quite great may be said to be related to the remarkable shortage of tonnage. That is to say, when tonnage is generally short, the shipping market loses elasticity and a little increase of cargoes gives rise to excessive tension to the freights market and a more or less surplus of tonnage causes sudden slackness in the freights rate.

Next, the fact that the coefficient of correlation is lower in the post-war days than that for pre-war days makes us suspect that the index number of the Chamber of Shipping of the United Kingdom is somewhat lower in its importance as an indicator of the tramp ship freights of the world. Before the War the U. S. A. had enjoyed 15% of the world trade which increased to 20% in post-war days. In contrast, Great Britain's 17% of pre-war days decreased to 11% in post-war days. As to the mercantile marine, the U. S. A. owned only 8.7% of the whole tonnage of the world before the war, which

Figure VI
A···World Tonnage
B···World External Trade

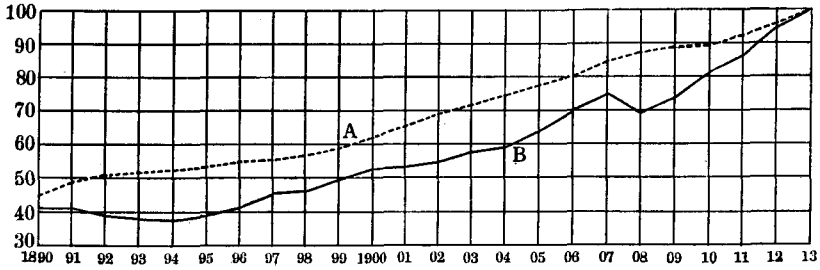
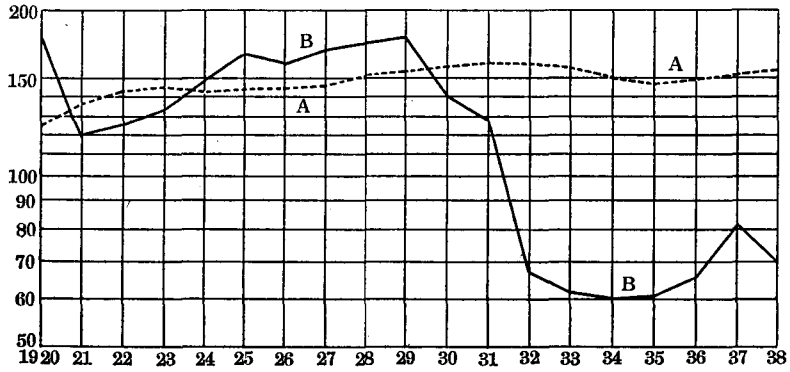


Figure VII
A···World Tonnage
B···World External Trade

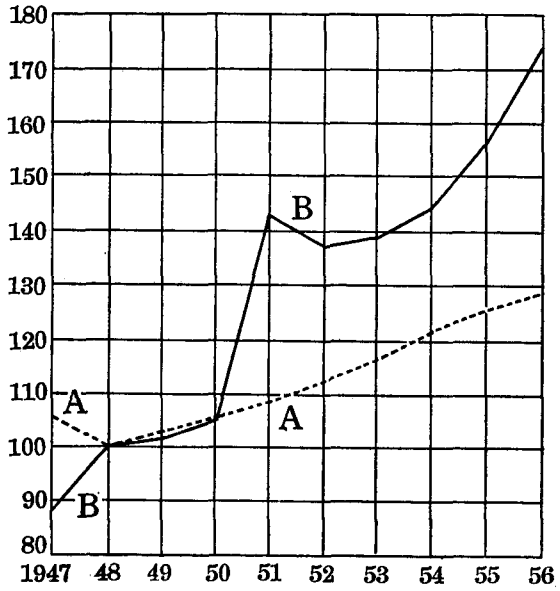


increased to 22.6% in post-war days. Whereas Great Britain in 1938, owned 22.8%, it decreased to 20.4% in post-war days. This is to say, both in the sphere of trade and in the sphere of marine transport, the U. S. A. occupies first rank. Especially in the export of coal, which is the most important item of tramp ship cargoes, Great Britain exported 38,150 thousand tons in 1938 and stood second only to Germany in list of world coal export countries. This amount was reduced by more than one half to 15,500 thousand tons. In contrast, the U. S. A. exported 34 million tons in 1954 and came to the first

Figure VIII

A···World Tonnage

B···World External Trade



rank, and though she had hardly exported any of this item of export before the war to Europe, she now exports about 30% to Europe and 9% to the Far East. From this we must say that the position occupied by the U. S. A. in the tramp ship market has become very high and has come to surpass that of Great Britain.

Lastly, for the reason that the coefficient of correlation between the actual and theoretical freights for tramp ships in post-war days has become lower, we must indicate the advance of liners in taking on board merchandise of trade. After the war, the tendency for all the shipping countries to build excellent ships and use them as liners has become strong and the tonnage of the tramp ships has relatively decreased. As a consequence, the recent tendency is believed to be that the importance of liners in carrying merchandise is remarkably

increasing compared to what it was before the war. The data showing the proportion of tramper tonnage to liner tonnage in the world can not be obtained. But, speaking of pre-war Great Britain, the vessels employed in the liner services, according to "the Shipping World and World Ship Building," was 72% in 1939, but in post-war 1951 it rose to 75%, in 1954 to 76%, and in 1955 to 77% —— showing a yearly increase. But the passenger traffic by the liners, affected by the development of airlines, is clearly decreasing remarkably compared with what it was before the war. So it is certain that the ratio of increase in carrying cargoes by the liners is higher than the percentage of the tonnage employed in the liner services. Speaking of Japan, the percentage of carrying cargoes by liners is guessed to have been less than 20% in pre-war days. According to the investigation of the Transport Department of the Japanese Government, this percentage rose to 34—40.

STATISTICAL DATA

Year	World Exports		World Tonnage (Lake vessels included)		Theoretical Freights	Actual Freights
	in 1 Billion Gold Marks	Average =100.0 (A)	1,000 G. T.	Average =100.0 (B)	$\frac{(A)}{(B)} \times 100$	Converted to average=100 from original
For Figure I						
1890	29.4	97.3	21,118	84.1	115.7	109.1
1891	29.3	97.0	22,913	91.3	106.2	97.1
1892	28.0	92.7	23,673	94.3	98.3	97.1
1893	27.4	90.7	24,237	96.5	94.0	85.1
1894	27.1	89.8	24,548	97.8	91.8	65.4
1895	28.2	93.4	25,086	99.9	93.5	69.7
1896	29.7	98.4	25,593	101.9	96.6	88.4
1897	31.2	103.1	25,889	103.1	100.0	100.4
1898	33.1	109.6	26,543	105.7	103.7	125.8
1899	35.6	117.8	27,612	110.0	107.1	123.3
1900	37.7	124.8	28,957	115.3	108.2	139.0

For Figure II

1901	38.1	73.3	30,480	78.8	93.0	109.5
1902	39.1	75.2	32,302	83.5	90.0	92.5
1903	41.2	79.2	33,502	86.6	91.5	92.7
1904	42.8	82.3	34,784	89.9	91.5	93.7
1905	45.9	88.3	35,998	93.0	94.9	94.4
1906	50.6	97.3	37,550	97.0	100.3	95.1
1907	53.6	103.1	39,436	101.9	101.2	96.5
1908	50.1	96.4	40,920	105.7	91.2	83.2
1909	53.1	102.1	41,448	107.1	95.3	87.2
1910	58.7	112.8	41,912	108.3	104.2	89.8
1911	62.0	119.2	43,145	111.5	106.9	103.0
1912	68.1	131.2	44,601	115.3	113.8	139.2
1913	72.3	139.0	46,970	121.4	114.5	123.6

For Figure III

Year	World Exports & Imports*		World Tonnage (Sea-going vessels)		Theoretical Freights	Actual Freights
	in 1 Billion Gold Marks	1913=100.0 (A)	1,000 G. T.	1913=100.0 (B)	$\frac{(A)}{(B)}\times 100$	Converted to 1913 base
1920	290.1	181.1	51,355	124.5	145.5	328
1921	188.9	117.9	56,234	136.4	86.4	124
1922	201.0	125.5	58,740	142.4	88.1	111
1923	213.1	133.0	59,680	144.7	91.9	103
1924	239.0	149.1	58,844	142.7	104.5	103
1925	268.0	167.3	59,743	144.8	115.5	101
1926	257.7	160.8	59,985	145.4	110.6	107
1927	271.0	169.2	60,516	146.7	115.3	110
1928	278.9	174.0	62,392	151.3	115.0	99
1929	284.1	177.3	63,639	154.3	114.9	97
1930	228.8	142.8	65,253	158.2	90.3	79
1931	164.1	102.4	65,971	160.0	64.0	74
1932	109.8	68.5	65,605	159.1	43.1	54
1933	99.7	62.2	63,831	154.8	40.2	49
1934	95.8	59.8	61,522	149.2	40.1	46
1935	97.1	60.6	60,895	147.7	41.0	44
1936	105.6	65.9	61,162	148.3	44.4	51
1937	130.5	81.4	62,442	151.4	53.8	77
1938	114.2	71.2	64,081	155.4	45.5	58

*Figures of world exports are not available for this period at hand.

For Figure IV

Year	World Exports		World Tonnage (Sea-going vessels)		Theoretical Freights	Actual Freights
	in U. S. $ 1 Million	1948=100.0 (A)	1,000 G. T.	1948=100.0 (B)	$\frac{(A)}{(B)}\times 100$	Converted to 1948 base from original
1947	46.9	88.8	82,044	105.1	84.5	98.1
1948	52.8	100.0	78,027	100.0	100.0	100.0
1949	53.7	101.7	80,315	102.9	98.8	82.3
1950	55.4	104.9	82,294	105.5	99.4	84.0
1951	75.2	142.4	84,949	108.8	130.9	173.7
1952	72.3	136.9	87,809	112.5	121.7	99.4
1953	73.3	138.8	90,933	116.5	119.1	77.9
1954	76.1	144.1	94,958	121.7	118.4	86.6
1955	82.7	156.6	98,074	125.7	124.6	128.5
1956	93.1	176.3	100,000*	128.2	137.5	157.9

*Estimated.

Source : World Exports ; for Fig. I–III, Statistishes Reichsamt, Statistisches Jahrbuch 1939; for Fig. IV, U. N. Monthly Bulletin of Statistics.

World Tonnage ; Lloyd's Register of Shipping.

Actual Freights ; Weighted Index Number of Tramp Shipping Freights, by Chamber of Shipping of the U. K.

A LITTLE STUDY ON THE TRANSITION FROM SAILING VESSEL TO STEAMER IN JAPAN

Seiji SASAKI

1) The modern Japanese shipping industry developed so quickly since the Meiji-Restoration that two of the strongest trust-organizations were early formed as the Nippon Yusen Kaisha and the Osaka Shosen Kaisha in 1884—5. It must be recognized that such two steamship companies or the earlier monopolistic firm, the Mitubishi Kaisha (the original of the N. Y. K.), led always the expansion of the modern steamship business and rendered a great service to the Japanese shipping industry. They were, however, extraordinary, selected and privileged companies to which the Japanese government gave a great aid or protection for the purpose of dealing with an urgent un-economic necessity. On the other hand, there was a general stagnation in the modern steamship business, especially in the cargo traffic. The Japanese cargo-steamers started originally in the right direction since about 1887—1892 as a development of "Shagaisen" (it had meant the steamers outside of the vessels ("Shasen") which were owned by the N. Y. K. and the O. S. K.). Most owners of those cargo-steamers had

been the sea-carriers or shipowners from generation to generation and were employing their sailing-vessels in various cargo traffics; for there were still such trades in which the sailing vessels could successfully compete with the steamers, especially in the carriage of low-grade cargoes on the coasting voyages. We must first recognize them as the historically much stronger carriers who had sufficient experience and their own foundation in the goods trafic along the Japanese coasts.

Such older and more traditional shipowners, however, adhered to their infant sailing vessels and could not easily adopt the modern large steamships before about 1890, when the other progressive but rather amateurish steamship companies developed so rapidly by aid of the governmental protective policy that their activities were enlarged just from the Mail and passenger traffic to the cargo traffic. In the history of the world's shipping industry, the steamers obtained first a practical monopoly of the carriage of mails, passengers and fine cargoes, and the development of the cargo-steamer or tramp steamer was much later than that of the mail-passenger steamer or liner services. This was a general rule. But, in Europe, there were such many great and older shipowners, as they could early perceive an advantage of steamship and owned or operated spontaneously the new ships and exchanged them for the old sailing vessels. On the other hand, most of the Japanese traditional shipowners hesitated to set about the operation of the steamer in spite of the real development of some privileged steamship companies, like the Nippon-koku Yubin Jokisen Kaisha, Mitsubishi Kaisha, Nippon Yusen Kaisha and Osaka Shosen Kaisha. What were the main reasons of those stagnation? And why did the general shipowners begin altogether to own and operate the steamer since about the 20th year of Meiji (1887)?

2) In early Meiji era, an insufficient growth of Japanese capitalistic economy considerably restricted a vast sea-transportation of the various industrial products, materials and fuels, but there was a good deal of coasting commerce carried to each port even in that days.

Rice, wine, salt, timber, fish, maures and other bulky goods were carried between the domestic ports. This demanded vast tonnage and gave an important stimulus to the development of the Japanese shipping since the Tokugawa era. The volume of the coasting traffic, which, in those times of no railways and bad roads, was far more important than it is to-day. The volume had not diminished in the Meiji era. It rather became much greater with the growth of the modern industries and trades. Thus, in a theoretical view there was a reasonable ground or possibility of development of the modern steamer as cargo-boat. In fact, we can realize the great development of the Mitsubishi Kaisha, the establishment of the Kyodo Unyu Kaisha (1882), or the remarkable increasing tendency of the sailing vessels tonnage during 1877—1885.

Nevertheless, at least, before 1886, we can hardly recognize a real rise of the cargo-steamer. Although many shipowners had advanced their ships from the infant Japanese-type sailing vessels to the more progressive European-type sailing vessels, they could not easily adopt the steamer and replace their sailing vessels. Their business itself remained still in the old condition. What reasons did hinder their progress?

First, it must be recognized that an invisible pressure of the monopolistic strength exerted by the above-said Mitsubishi, N. Y. K. and O. S. K.. By aid of the special relation to the government and of the resultant protective policy which gave a just dramatic support of subsidy to this single company, the Mitsubishi Kaisha governed not only the shipping circles of those days and had the stage all to themselves, but guarded oversensitively against the growth and development of other steamship companies. This had no-change also in the N. Y. K. which started directly as a descendant of the Mitsubishi. The Osaka Shosen Kaisha was likewise afraid of the competitive steamship companies in the west coast which was their main controlling sphere, because this company was just a combined organization which had been brought after the severe competition between many

smaller passenger-steamer companies. Thus the oppressive policy of those "big-two" against the new-comers, especially the so-called "Tsuke Fune" (fighting ships) system, restricted fairly the transition to the steamer of the general shipowners.

S. Asano, an earliest steamship owner and the founder of the famous Toyo Kisen Kaisha —— established in 1896 and opened immediately a trans-pacific liner service ——, told us a vivid example in his life-stories. We can imagine a difficult condition of the early cargo-steamer business as follows; As he had entered into the business of coal-sale and the production of cement, he had to use the ships in any case. At first he depended upon the steamers of the Mitsubishi or N. Y. K. at such a high freight that he decided at last to buy and own a steamship. The Hinode-maru (1,136 G/T) which was his first steamer, however, sufferd constantly from the severe competition of the steamers of the N. Y. K. which attempted to make Asano surrender. Another steamship firm, the Tokuyama Kyoeisha (established in 1884 as a native steamship company) challenged also so bravely against the O. S. K. in the west coasting routes, but the result was defeat. It ended in 1897 and was united into the Tosa Yusen Kaisha which was another new competitor against the O. S. K.

The secondary but most noticeable difficulty in the transition from sail to steam was the problem, whether the cargoes to be carried were able to bear such a heavy freight that increased necessarily in the steamer than in the sailing vessel, or, even when that was possible, there was a grave doubt whether many shipowners could own enough capital in order to set about the new steamship business which needed as a matter of course so much fixed and running expenses. It was obvious that those difficulties checked the transition to the steamer. Although it is still insufficient to describe the former problem, what the cargo will bear, there are found some valuable materials on those problems in the author's recent research. The author regrets that space prevents him from translating the whole passage in this short article, but we will prove some important and characteristic items.

It will help us to understand a difference of the expenditures between the steamer and the sailing vessel in the middle age of Meiji.

3) The Mitsui Bussan Kaisha (established in 1874) —— the Mitsui Steamship Company of to-day had originally started as a department of this firm since 1903 —— had presented to the government an estimation-letter for the purpose of borrowing the fund in 1879. This fund was necessary for them to purchase the ships and the store-place of coal which the firm had taken up to carry for Shanghai under the contract with the Japanese government. In this letter, the purchasing cost of a steamer (1,000 D/W) was estimated at 80,000 yen in comparison to 25,000 yen of a sailing vessel which had the same cargo-capacity, and the various expenses, incomes or net-profits of both were calculated as follows.

	steamer	sailing vessel
monthly operating cost	4,435 yen	1,773 yen
annual total expenses	51,452 〃	20,300 〃
annual freight income	60,000 〃	26,250 〃
annual net profit	8,548 〃	5,950 〃

The sailing vessel engages in 15 round-voyages a year and gains 1.75 yen per ton of coal. On the other hand, the steamer can navigate double round-voyages (30 rounds) and gains consequently 2 yen per ton. By the way, it must be also remembered that both ships had to employ the foreign captain or officiers, and that the salalies of those captains were estimated at 250 yen a month in the steamer and 200 yen in the sailing vessel in comparison with 50 yen of Japanese first-mate in the steamer.

With this data, we can roughly guess that the carriage of the goods by steamer was, at least in about 1880—1885, not only difficult, but unprofitable. The Mitsui Bussan had distinctly an advantageous position in such transportation, for they could always preserve a vast volume of the entrusted coal for their ships to carry. The Shipping

business was not their only purpose, for they could complement the insufficient profit in the carrying trade by other business commerce. The estimated annual net-profit of the steamer was, as we have seen, only 8,500 yen in comparison with 6,000 yen of the sailing vessel —— this proportion of increase was less than 50 percent ——, but the cost of purchasing the steamer was much more than threefold. Such results might reflect this firm's character. The above calculation, especially that of the freight, however, reflected fairly a real condition of the market. Thus the cargo-steamer, even in such guaranteed route and load condition, was not yet enouth to attract the people. It would be safe to say that such insufficient revenue hindered the general shipowners to undertake the steamship business.

Moreover, the purchasing expense and operating cost of the steamer were far much more than those of the sailing vessel. The general unprivileged shipowners could hardly bear such heavy investments. Even the above-said Mitsui Bussan Kaisha, if their received aid had been smaller than the vast subsidy for the Mitsubishi Kaisha, the firm would never be enabled to engage in the cargo-steamer service without the governmental support.

4) The war of 1877 and the inflation after this war gave a great impetus to the Japanese shipping industry. As we have seen, it gave rise to a monopolistic development of the Mitsubishi Kaisha, or to a splendid growth of the small passenger steamers in the coasting routes, and was also a cause of the transition from Japanese-type sailing vessel to European-type sailing vessel. Then, the most modern shipping business spread itself slowly but steadily and inevitably in this country, though the above-said difficulties restricted considerably the progress to the steamer. This period of about five years during 1881 —1886 was the dawn of the Japanese steamship business.

The development of the Mitsubishi Kaisha or N. Y. K. and O. S. K. gave, good or bad, a great stimulation to the other shipowners. Some successful small steamship enterprises, that owned one or two small

steamers of less than 100 gross ton and carried on the transport of the passenger in the short distance coasting route or in a bay, were another impetus. Many owners of such small-steamships began step by step to grow all over this country, though most of them engaged still in the little scale of the cargo traffic, as well as the carriage of the passenger. We must above all pay attention to a new and powerful tendency in the Hokuriku ports —— situated in the middle coast of the Japan Sea.

The shipping of those Hokuriku ports had been well-known as "Kitamaesen" since Tokugawa era and were playing an important part even in the early Meiji period. Their fleet were still largely composed of sailing vessels before the middle of Meiji, but even in the earliest decade of Meiji there were seen such noticeable movements as some commercial navigations of the steamers which belonged to the Maeda-clan or beginning of the steamship services along the Japan Sea coast by the Mitsubishi Kaisha. Under such conditions, Kan Maeda, a native shipowner of Mikuni-port, bought two small steamers —— the "Mikuni-maru" and another —— and operated the similar regular service between Kanaiwa and Tsuruga as that of the Mitsubishi. This was perhaps an earliest native steamship enterprise in Hokuriku provinces.

An overbearing arbitrariness of the Mitsubishi had already called forth violent outcry of the public opinion and led at last to the establishment of the strongest competitive steamship company, Kyodo Unyu Kaisha, in 1882. This company and its antecedent firms had a very close connection with the Hokuriku shipping. Nozo Fujii who had been a man of distinction, at first tried to develop the steamship business in this part of the country by depending upon the Mitsubishi Kaisha, became soon an opponent against the Mitsubishi and established the Tokyo Fuhansen Kaisha in 1880 together with T. Masuda, E. Shibusawa, S. Moroto and S. Kagitomi. Although this company did not succeed to develop their real business owing to the obstructive tactics of the Mitsubishi, another company, the Etchu Fuhansen Kaisha,

which was found in 1881 by N. Fujii under the partnership with S. Shiota, M. Washimi, etc., bought a comparatively large steamer "Sukune-maru" (1) (640 tons) and began to operate a round Japan voyage,(2) as well as the carriage of passengers and cargoes between Etchu ports by the sailing vessel "Kaetsu-maru" (92 tons). We must pay attention to the fact that the Sukune-maru was a fairly large steamer and engaged mainly in the cargo traffic, and that this company carried on consequently the modern steamship services in spite of its name "Fuhansen" which meant the sailing vessel in Japanese. These two companies and the Hokkaido Unyu Kaisha united together and formed the Kyodo Unyu Kaisha, a most competitive steamship company against the Mitsubishi.

Such a tendency was not only valuable as one of the distinct characteristic features in the early development of Hokuriku steamship business, but those pioneering enterprises exerted a great influence to other shipowners, whether in Hokuriku ports or all over the Japanese ports. These companies, however, were soon combined to a new company, the Kyodo Unyu Kaisha, and in fact they did not yet prove much satisfactory in their modern businesses. A most direct and successful impetus was given by the smaller steamship company, "the Hokuriku Tsusen Kaisha" which was established in January 1881 by N. Fujii, K. Kuchiki and other supporters. An old book "Sanshu Senpaku Tsusen" gives an astonishingly clear and vivid picture of their successful practice and important influence;

> ..... In those days, the Hokuriku Tsusen Kaisha was established in Fushiki, and carried many passengers and cargoes between Fushiki and Naoetsu. Railway did not yet operate in these provinces. So many passengers and various goods had to depend on the service of this company. It had been said that a small steamer less than 50 or 60 tons had gained the net-profit 1,000

Note (1) This was an English Steamer "Arzentine".
(2) This round itinerary was from Fushiki to Hakodate, Otaru, Tokyo, Yokohama, Osaka, Kobe, Shimonoseki and back to Fushiki.

yen in a single voyage between the above-said two ports. Suppose its great revenue! Under such condition many new steamship companies sprang into existence, attempted to set about each own navigation line along the Hokuriku coast, and competed one another violently……

In addition to such short-haul coasting routes, they carried also the vast volume of rice or general goods to Hokkaido or Osaka by their small steamers less than 100 tons.……

Including this company, most of the early small-steamer enterprises disappeared during the further competitive process. They played, however, evidently a great part for the development to the modern shipping industry. Especially, this Hokuriku Tsusen and the other successive companies in Hokuriku gave just directly an impetus to the transition from sailing vessel to steamer in this province, which had been a most important ground in Japanese shipping circle. Such many owners and operators of the steamers appeared in great members, like the Chuetsu Kisen Kaisha (established in 1886), the Fushiki Kisen Kaisha (1886) ——changed its name to the Fushiki Koun Kaisha in 1888 and further to the famous Etchu Shosen Kaisha in 1897——, or like most typical shipowners in the earliest Japanese tramp business (so-called "Shagaisen"), H. Hiroumi, M. Baba, H. Oya, etc. They were on the whole given a direct and strong influence by those small-steamship companies. Then we must study in more detail the real actions of the Hokuriku Tsusen Kaisha and look over a possibility of the growth of the cargo steamer business.

5) The Hokuriku Tsusen Kaisha was, as we have seen, a native enterprise under the joint stock system and its capital was prepared by Fujii, Kuchiki and other rich men in the provinces. The main purpose of this company was to give facilities for the country people who wished to travel or carry their goods. Thus the company bought two small steamers —— "Shitoku-maru" (50 tons) and "Akitsu-maru" (130 tons?) —— and operated them mainly in a regular route between

Fushiki and Naoetsu, calling at Iwase and Uotsu. It was one of the earliest liner services in the Hokuriku coast. The company carried on, however, such other regular services as the lines between Udetsu and Nanao, or between Tsuruga and Wajima. Furthermore, it placed often the steamers even on a long route to Tokyo, calling at Niigata, Sakata and Hakodate. This was perhaps a tramp navigation.

According to a report, which was printed in 1883 by the company and are in a local library's keeping, the company depended first upon the liner service between Fushiki and Naoetsu, but the importance of the long tramp route itself could not be ignored. The freight incomes for each route in this year were calculated as follows;

Fushiki / Naoetsu route	14,567 yen
Noshu route	803 〃
Tsuruga / Wajima route	874 〃
Niigata / Hakodate / Tokyo route	7,298 〃

When we compare the income of the Fushiki / Naoetsu ruote with that of the Niigata / Hakodate / Tokyo route —— both were the most important revenue-sources of this company ——, we can find out an evident difference. The former is analyzed;

	passenger	cargo	other incomes
Shitoku-maru	8,365	3,018	—
Akitsu-maru	2,375	683	—
total	10,740	3,701	126
(100%)	(73.7%)	(25.4%)	(0.9%)

This was typical of such small-steamer business which carried on the short-haul coasting trade, and their dependency on the passenger traffic was very clear.

	passenger	cargo
Shitoku-maru	259	1,515
Akitsu-maru	670	4,854
total	929	6,369
(100%)	(12.7%)	(87.3%)

But there was quite a different condition in the Niigata / Tokyo route. Its income is divided as follows;
Almost all of the income was made up of the cargo traffic and the passengers' fee or the carriage charges of the passengers had only a secondary or additional importance. Although it is not clear to-day what cargoes were carried in this route, this navigation depended mainly on the transport of the various goods, just like the modern tramp steamer of to-day. The fact must also be noted that the smaller steamer "Shitoku-maru" was more advantageous in the short and regular route between Fushiki and Naoetsu which aimed chiefly at the carriage of the passengers and on the other hand the larger steamer "Akitsu-maru" was superior to the other in the cargo traffic between Niigata and Tokyo. Moreover, we find practically that the later steamship had only operated in the navigation to Tokyo in this year.

From such single comparison of each freight income which those comparatively still small steamers gained in only one year we can not hastily decide either the cargo traffic or the passenger traffic was more profitable for the steamer. It left no room for doubt, however, that such an advantageous income of carrying goods in the Akitsu-maru gave, in fact, an impetus to the old shipping business in Hokuriku provinces. Many shipowners or rich merchants began to buy one after another the steamship and follow in the wake of the Hokuriku Tsusen Kaisha. In the next year the company itself decided to strengthen their cargo traffic; for the company aimed at the navigating between Miyako and Tokyo during winter season, placing the ship 15 round voyages on the long coasting trade from Tsuruga to Hakodate, and estimated the net-profit 6,000 yen in the allocation schedule of the Akitsu-maru.

These data proved, at least, a possibility of the paying in the long-haul cargo traffic. Though such an early steamer was still smaller than "Shagaisen" or Japanese modern tramps and the later needed naturally much more building, buying or operating costs, the steamer became no longer unfamiliar for the general shipowners. Even a long

distance cargo traffic of steamer was gradually more profitable than that of the sailing vessel which were in a dilemma under the competition with such new ships. Thus the possibility of the business and the demand for the steamship tonnage in the coasting trade gave a great stimulus to the Hokuriku shipping circle, and there were many shipowners who had made their living by owning and running the ships from generation to generation.

The Hokuriku shipowners who could now buy a single steamer by their own efforts or in partnership with others, operated it at first in the old and similiar routes which they had cultivated so long by their sailing vessels, but step by step they began to march out toward a new or unopened route and give necessarily a great impetus to every shipowner all over this country, most of whom remained still as the owners of the sailing vessel. Here the Japanese tramps took, on the whole, gradually the sailing vessel's place and began to start in the right direction.

ON THE REGULATING POLICY OF JAPAN AGAINST THE SHIPPING CONFERENCE

—*ESPECIALLY IN RELATION TO THE REFUSAL OF THE ENTRY TO NEW COMERS*

Hiromasa YAMAMOTO

(1) Japanese Shipping Policies relating to the Shipping Conference before the World War II.

We could not find the regulating policies against shipping conferences before the war. Before the war monopolistic evils of shipping conference did not play the part of impeding the development of Japanese shipping and trade. Rather we may properly consider that a few Japanese shipping companies backed up by nationalistic policy made use of the monopolistic power of the conference for the development of Japanese shipping and trade. Since prewar Japanese shipping policies aimed to strengthen the Japanese shipping companies in the conferences and to enlarge the qualification to use the ships of Japanese shipping companies on the main trade routes. In those circumstances monopolistic evils of shipping conferences were not realized in Japan before the war, and so there was neither experience

of the inquiry into shipping cartels nor movement to enact the law regulating conferences. Then it seems right to say that prewar Japan had no policies for the control of shipping conferences. However, to make clear the difference between the shipping policies of Japan before and after the war, it is useful to get a glimpse of the prewar shipping policies, especially the route subsidy policies intending to extend Japanese shipping companies' influence in the conferences, and its economic background.

It is said that modern Japan began from the Meiji Revolution of 1865 and thereafter Japanese economy capitalized rapidly, while European nations had already matured their capitalist economy and sought new markets for the raw materials and goods in the various parts of the world. Accordingly when Japan came in the contact with the world economy, British shipping had already dominated the main trade routes and there shipping conferences had been created. For the purpose to operate the liner service on the foreign trade routes, Japanese shipping had to compete with the advanced shipping nations. Of cource Japanese shipping companies lacked sufficient competing power which was necessary to get admitted into conferences. In many cases underdeveloped countries adopted and also adopt now nationalistic assistance policies to foster their domestic industries, and prewar Japan was not an exception.

In 1875 Japanese government sold government-owned vessels to the predecessor of Nihon Yusen Kaisha, and fostered it by means of large operating subsidies. In 1896 the Navigation Encouragement Act(1) and the Shipbuilding Promotion Act(2) were carried out with the intention to march Japanese vessels on the international trade routes. Nihon Yusen Kaisha (N. Y. K.) succeeded for the first time to maintain the liner service on the ocean route and to be a member of the conference after the severe struggle which began in 1893 when

(1) Law No. 15 of 1896.
(2) Law No. 16 of 1896.

N. Y. K. applied for the entry into the Bombay/Japan/Conference and ended in 1896 with the admission of the entry of N. Y. K. The success of N. Y. K. was of course due partly to the support of the Japan Spinning Association that shipped cotton, main cargo of the route, exclusively to N. Y. K., but we can not overlook the effect of the strongly protective shipping policies of the Japanese government.

Moreover, in 1910 Ocean Routes Assistance Act(3) was enforced. Only liner services were fostered by this Act which prescribed to give voyage subsidies to the shipping companies operating liner services on the four trade routes from Japan to Europe, North America, South America and Australia. The act also prescribed that the shipping companies should acquire the sanction of the minister when they decided the tariff and concluded the agreements. By means of this system Japanese government could keep the controlling power substantially over the tariff rates and other agreements of the conference which included Japanese vessels. As a matter of fact Japanese government gave route subsidies exclusively to two largest shipping companies, N. Y. K. and O. S. K. (Osaka Shosen Kaisha). This method was of use to prevent the wasteful competition among Japanese shipping companies.

In 1936 the government enforced the Route Control Law(4) for the purpose to prevent the undue competition among Japanese lines operating in foreign trade routes, and on the basis of this act the government could advise and order to conclude the route agreement or the tariff agreement among Japanese lines. At the same time the act had the effect to foster the limited and a few shipping companies in its applications. By this act we can see the aim of prewar Japanese government to support the existence of the conference and to strengthen its monopolistic power.

In short, the concentration of the subsidies to the limited, a few

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(3) Law No. 15 of 1910.
(4) Law No. 35 of 1936.

and large shipping companies, and the existence of the governmental supervision of such companies, these were the reasons why Japanese lines become the ringleader, at least to have the strong influence in the conference.

(2) The Regulation against the Shipping Conference in post-war Japan and the Relating Problems.

During the World War II Japanese shipping industry lost almost all of its vessels, and the survivals were only 1.3 million gross tons which were composed of the war-standard type vessels and worn-out vessels. Moreover the occupation policy of the earlier period prohibited Japanese vessels to engage in ocean voyage and the construction of ocean-going vessels. On the trade routes where Japanese vessels had maintained liner services we could not see any Japanese vessel after the war. Japanese shipping was entirely destroyed by the war. The movement toward economic democracy refused the prewar economic policies of Japan which were characterized by the government's patronage to the few special firms and the intense nationalistic protectionism. The circumstances were also the same in the shipping industry, and all of the prewar shipping policies and acts were abandoned.

On the other side a series of the occupation policies intending to democratize the economy of Japan were proceeded. In company with the agrarian reform and the destruction of Zaibatsu (financial combines), the Law concerning the Prohibition of Private Monopoly and Methods of preserving Fair Trade[5], so-called the Anti-monopoly Law, was enforced in April 1947. The Anti-Monopoly Law, following the Anti-Trust Act of the United States, aimed to promote the welfare of citizens through the maintenance and the promotion of free and fair competition among firms, and also by the prohibition of market monopoly and the elimination of the undue competitive methods. The Fair Trade Commission was established in accordance with the

(5) Law No. 54 of 1947.

act, and endeavored to realize the aim of the act. However, the minimum actions to restrict competitions that is necessary to maintain the normal economic activities were excluded from the application of the act. But there was no prescription for the shipping industry not to apply the act, when it was enforced. Consequently in April 1949 the Fair Trade Commission decided to inquire into the practices of the Far Eastern Freight Conference with the suspicion that the conference had violated the Anti-Monopoly Act.(6) However, considering the need of a shipping conference to stabilize shipping market, the Marine Transportation Law(7) which allowed the existence of shipping conference was rapidly legislated and enforced in June of that year. This law, like the shipping act of 1916 of the United States, took the position of the special legislation to the Anti-Monopoly Law for the purpose not to apply the latter to the shipping industry and contained the articles which prescribed the approval of shipping conference and the restriction of the practices of conference.

The contents of the Marine Transportation Law relating to the regulation of the conference are as follows.

(Exception to the Application of the Private Monopoly Law and Trade Association Law)

Article 28. An agreement, contract or conference activity (hereinafter referred to as the "conference activity, etc.") on the transportation conditions such as freight, passenger rates and charges, sea route, ship's assignment or shipment of cargoes as is made between the ship-operator and other ship-operator, and not falling under either of the following items, shall be exempted from the application of the provisions of the Law concerning the Prohibition of Private Monopoly and Methods of Preserving Fair Trade (Law No. 54 of 1947) and the Trade Association Law (Law No. 191 of

(6) Even after the enforcement of the Marine Transportation Law the judgement of the case continued. Since the contract rate system and the system of the penalty against shippers were suspected of the violation of the law.
But considering the circumstance of Japan under the occupation of the allied powers and the international response of the case, the Fair Trade Commission negotiated unofficially with the conference and discontinued the judgement with the result that the conference improved the agreement clauses spontaneously.

(7) Law No. 187 of 1947.

1948). However, this shall not apply to the cases where the unfair competitive method is adopted or the substantial restriction on competition in the specified transaction field tends to cause the unjust raising of freight rates, passenger fares and charges.

(1) To restrict a shipper's liberty by means of deferred rebate system.…

(2) To use a fighting ship.…

(3) To retaliate upon a shipper by way of unfairly or unjustly refusing to transport his cargoes, restricting them and making a similiar discrimination on the ground that he entrusted his cargoes to a ship-operator not engaged in the said conference activity, etc.

(Report on Agreement on Transportation)

Article 29. The ship-operator shall, in case be intends to make the conference activity, etc. as referred to in the preceding Article, make in advance a report to that effect to the Minister of Transportation. The same shall apply to the case of change of the conference activity, etc.

(Acts to be Prohibited)

Acticle 30. It shall be unlawful for any ship-operator:

(1) To make any unfair or unjustly discriminatory contract with any shipper based on the volume of freight offered, or unfairly treat or unjustly discriminate against any shipper in the matter of cargo space accommodations or other facilities; the loading and landing of freight in proper conditions; or the adjustment and settlement of claims;

(2) To make or give any undue or unreasonable preference or advantage to any particular person, locality or description of traffic in any respect whatsoever, or to subject any particular person, locality or description of traffic to any undue or unreasonable prejudice or disadvantage in any respect whatsoever.

(3) To allow any shipper to obtain transportation for property at more or less than the rates or charges fixed in the tariffs which have been reported in accordance with the provisions of Article 19-(3) (including the case of mutatis mutandis application of the said Article under Article 19-(4)), by means of false billing, false classification, false weighing, or any other unjust or unfair device or means;

(4) To be a party to any combination, agreement, or understanding, express or implied, with respect to transportation of persons or proper-

ty, that admits only upon unjustly discriminative terms as compared with other parties thereto or excludes, except for just and reasonable cause, any ship operator who has applied for admision thereto:

(5) To enter into any combination, agreement, or understanding, express or implied, with respect to transportation of persons or property, that attempts to fix any rate, fare, or charge which is unjustly discriminative between shippers or ports, or unjustly discriminative to Japanese exporters as compared with their foreign competitors or which is otherwise unjust or unreasonable.

(Authority of the Fair Trade Commission)

Article 31. No finding or action on the part of the Minister of Transportation under the provisions of this Law shall be construed as binding on the Fair Trade Commission whether or not, a conference activity, etc. on transportation conditions falls under any item of Article 28 or of Article 30 (including the case of mutatis mutandis application of the respective item under Article 30-(2) paragraph 2), or as preventing the Fair Trade Commission from issuing a notice of hearing or exercising authority under the Law concerning Prohibition of Private Monopoly and Methods of Preserving Fair Trade on the ground that such conference activity, etc. allegedly violates the said Law.

By the enactment of the Marine Transportation Law together with the abandonment of the prewar shipping policies, Japan adopted the policy which, though admitting the existence of shipping cartels, intended to control its monopolistic evils. When the law was enforced, the shipping conferences had already been formed on the routes to and from the ports of Japan. Therefore the nations concerned in the shipping paid attention to what regulation against conference would be drawn up by the Commission.

Hereafter we shall consider the postwar regulating policy against shipping conference only regarding to the problem of the refusal of the entry to newcomers and point out the difficulty of the problem.

(3) Regarding to the Refusal of the Entry to New Comers

When the Marine Transportation Law was legislated, the closed membership of the conference was regarded as unlawful. Since by

the provision of article 30-(3) any ship-operator was prohibited to enter into any combination, with respect to transportation of persons or property, that did not admit the entry of new comers without same terms as other members when any ship-operator applied for entry. We could consider that the law prohibited absolutely both the refusal of entry by conference to new comers and the admission by conference of the entry with unjustly discriminative terms.

But by the amendment in May 1950, the law was amended as we see the provision of article 30-(4) of the present law. Considering the actual conditions that the shipping conferences, which were organized on the trade routes under no jurisdiction of the Federal Maritime Board of the United States, adopted the closed membership, this revision was performed to approve the refusal of the entry to newcomers if the conference had the due and reasonable causes to do. However, we can not find the established judgement even at present to show what should be regarded as the due and reasonable causes. Because the accusers withdrew its appeal to the Fair Trade Commission for the reason that they could enter into conferences before the Commission would have delivered final decision. But it is possible to recognize the basic attitude of the Commission regarding this problem in the development of cases. The Commission, it seemed, did not wish to solve the problem positively according to the law. Rather the Commission inquired the state of the affairs on the one hand, and made an effort to solve the question by the negotiation between the conference members and the outsider on the other hand. This attitude of the Commission is very interesting as compared with the Federal Maritime Board of the United States which did not approve the refusal of the entry at all according as the almost same prescription as that of the Marine Transportation Law of Japan. We shall give a glance at the development of the case of the Shinnihon Line v. Japan/Persian Gulf/Japan Conference, as the leading case of the refusal of the entry under the jurisdiction of the Fain Trade Commission.

On the trade route between Japan and India, Pakistan and Persian Gulf the conference was organized before the war by N. Y. K. and O. S. K. lines of Japan and B. I. and P. O. lines of the United Kingdom. In April 1951, for the first time after the war Japanese shipping placed vessels on this route with the permission of the occupation forces. At that time there was no conference on the route. Based on the understanding between the occupation forces and British lines (B. I. and P. O. lines), Japanese shipping decided the schedule of vessel operation, and according to which the Japanese shipping companies would perform eight voyages a year with three groups, that is, N. Y. K. and Mitsui lines group, O. S. K., Yamasita and Shinnihon lines group, and Kokusai group which was organized by Iino, Mitsubishi, Toho and Nissan lines. Meanwhile the move to organize the conference became clear, because the controlling power of the occupation forces over the Japanese economy would have been lost by coming into effect of the peace treaty between Japan and allied nations in May 1952. At that time Everett and A. P. L. lines of the United States and Marsk line of Denmark in addition to the lines mentioned above maintained the liner services on the route, and B. I. line took the position of the ringleader of the lines, other lines following B. I. line's tariff rates. In November 1952 the Colombo Meeting was held for the preparation to organize shipping conference, and Shinnihon line and Kokusai line were not invited to the meeting in spite of their wishes to enter the conference if it would be formed in future. In consequence of the meeting the establishment of the Japan/Persian Gulf/Japan Conference was made public in December of the year, and the conference announced to shippers to put in operation the contract freight system. Shinnihon line and Kokusai line were omitted from conference members as was expected, though the conference admitted the entry of Maersk line and Everett line as regular members and Mitsui line and Yamashita line as associated members notwithstanding the fact that they were not conference members before the war.

Shinnihon line appealed to the Fair Trade Commission that the conference was unlawful because it had refused entry to the accuser, and at the same time it applied to the Commission of the injunction by court against the dual contract system that would be carried out from February of the next year. The Commission invited the conference and advised to put off the performance of the dual contract system and to solve the question by negotition with outsiders. But the conference did not change its attitude to exclude the applicants, and then at last the Commission decided to begin the judgement. Meanwhile almost all of the shippers withheld to contract with the conference regarding the dual rate system by the time of the solution of the case, and some of them hoped the entering of the outsiders to the conference. The conference persuaded shippers to contract with the dual rate system from summer of 1953 on the one hand, and made effort to win in the rate competition on the other hand. The conference cut down the rates on a larger scale in September 1953 and at last made the tariff open except a few items. Then severe competition began between the conference and the outsiders.

Thenafter, in June 1954 Toho Kai-un line abandoned the liner service of the route, dropping from Kokusai line because of the loss of the operation, and then the newly created J. I. P. line, of which members were Shinnihon line and three lines formerly organized the Kokusai line, made joint service of the route. J. I. P. line gave the conference the notice that J. I. P. line hoped entry into the conference and prepared to withdraw its appeal to the Commission if admitted to be a conference member. Because of such conditions the Commission once postponed the judgement indefinitely. In November 1954 J. I. P. line succeeded to join the conference and consequently the procedure of the judgement came to an end without clear conclusion.

The delay of the judgement about this case was due basically to the attitude of the Commission that restrained to show its positive opinion, wishing to solve the problem by the negotiation of the parties

concerned as far as possible. So the case came to end by admitting outsiders into the conference before the Commission gave judgement. However, we can draw out several problems in relation to the regulation against shipping conference in the process of the case.

It is better for us to remember that the Fair Trade Commission has not delivered a decision to any case regarding shipping cartels as yet. Of course we may count many reasons why the Commission did not decide on cases, nevertheless we can not always remark that the object of the Marine Transportation Act was attained because the Commission did not exert the positive actions according to the act to prevent the monopolistic evils of the conference and the rate war. For example in the case we saw above the Commission did not use the means to prevent the rate competition, and consequently both conference members and outsiders suffered from the loss of the operation of liner boats, and foreign trade of Japan was obstructed because of the unstability of the rates.

Then, why did the Commission hesitate to exert the positive regulation? At first we may guess that the Commission faced the difficulty what condition should be regarded as the due and reasonable causes of the refusal of the entry to newcomers. In addition, many troubles may be expected to occur when the Fair Trade Commission of Japan, not of the international judicial organization, regulated against international shipping cartels. For the shipping conferences, one of the international cartels, had the long tradition from the early time and there are nations uninclined to regulate against this organization. Therefore the Commission, we guess, considered desirable to solve the problem not by the judicial order but by the negotiations among the parties concerned, warning the conferences not to continue the monopolistic practices if the abuse of monopolistic power of the conference was found.

Thus, notwithstanding the fact that Japan has the act of the same nature as the Shipping Act of 1916 of the United States, Japan shows different attitude from that of the United States that regards unlawful

the refusal by the conference of the entry of a new comer. The difference of the attitudes toward the problem between Japan and the United States must be sought in the difference of the economic conditions between them.

The trade routes to and from the ports of the United States flourish with vast cargoes of import and export of the United States, and there they maintain main liner services most important in the world. Because the United States had and has also now interest in foreign trade rather as shippers than as carriers by water, it has become very nervous with the monopolistic evils of the shipping cartels, and also has the power to control the shipping cartels unilaterally with no consideration to other shipping nations. And the United States has taken the positive regulating policy against shipping conferences and forbade the closed membership of the conference, taking no notice of the traditional freedom of the shipping industry. And we may also regard the regulating policy of the United States as the powerful tools to foster its old but under-developed shipping industry.

The economic conditions of postwar Japan was in contrast with that of the United States. Post-war Japan had to endeavor after the favorable balance of payment by means of the development of foreign trade and shipping. Therefore it was very important for Japan to open liner services of Japanese vessels on the trade routes to and from Japan. But the recovery of the Japanese shipping industry after the war was very slow. When Japanese shipping began its activities, foreign shipping companies had already made up the system of conference in the main trade routes around Japan. Japanese shipping companies, as new comers, had to beg for the admission to the conference, to be its member or to compete with the conference. Regarding the trade route which had the terminal ports in the United States, Japanese lines could easily become conference members, since the conferences were under the jurisdiction of the Federal Maritime Board. In contrast with the above cases, on the routes where the sovereinty

of the United States could not reach, Japanese lines experienced the refusal against the application to be conference members for the reasons of overtonnage or others. On such routes the lines, such as N. Y. K. and O. S. K., which had the experience to place vessels on the routes concerned before the war, could enter to the conference with less difficulty than on other lines which had no experience of the liner service on those routes. However N. Y. K. and O. S. K. lines also damaged by the war, for they had to submit to the far fewer voyages a year compared with the prewar period. In those circumstances the standing was quite unfavorable to the lines which intended to begin liner service newly after the war. In this place we ought to consider briefly the programmed shipbuilding after the war for the understanding for new liner operators of Japan. In Japan the occupation forces forbade the compensation by the government for the loss of the vessels caused by war, and shipping companies had no fund to build vessels. Therefore the vessels necessary for Japanese shipping and trade were built partly with the governmental loans. At the time of shipbuilding liner boats were favored from the point of view to encourage the foreign trade of Japan and to increase the earning of the shipping. However, the qualification to build liner boats was not confined to the prewar liner operators. The vessels were allotted to shipping companies indifferently whether they had the experience of liner services or not, because the shipping circle demanded the another method to compensate for the war damages instead of the wartime special compensating system in relation to the vessels. (In addition we can not deny the positive role of the post-war economic policy which checked the concentrated allotment of liner boats to the special shipping companies.) Consequently there were several shipping companies which possessed liner boats for the first time and began liner service. Such companies were not regarded as the qualified operators by the conference, so they were necessarily refused the entry to the conference when they wished to place the vessels on the routes where the conference adopted the closed mem-

bership. Then new liner operators of Japan were unsatisfied with the closed conference system. Though Japanese shipping companies coincided in their interests in the fact that they had to set themselves against foreign shipping companies which restored the liner operation soon after the war, there were much difference of interests among them regarding to the entry into the conference. N. Y. K. and O. S. K. lines gained advantage from the closed membership of the conference, and at this point their interests coincided with the interests of the British lines. But the new comers of Japanese shipping hoped to enforce the regulating act against shipping conference as strictly as was seen in the United States.

As is wellknown, the United Kingdom has not regulated shipping cartels traditionally, admitting the autonomy of the conference. This British policy toward shipping cartels is of course due to the superiority of British shipping and is useful to maintain its actual results. British lines are dominant not only on the routes to and from the United Kingdom but also on the routes between foreign ports, and take the leading position in the conferences. For the purpose to protect and maintain their position in the world shipping, the United Kingdom need the very system of closed membership of a conference and need not check the practices that shipping cartels adopt. Rather it will oppose regulating policy of other nations against that system. The refusal of the entry to Japanese lines showed the clash between British shipping which had already completed its position and Japanese shipping in the process of recovery, especially the lines newly begun liner services after the war.

Of course we can not answer easily to the question which is better for the public welfare to leave the self-governing of conferences or to regulate them by the law. If the exclusionism of conference is very intense, many monopolistic evils may occur and then it is necessary to eliminate the evils. On the other side a severe rate competition, often seen where there is no conference, makes dangerous the existence of shipping companies and injures the enlargement of foreign trade

through the unstability of rates. Therefore it seems necessary to have the co-operating organization of shipping companies employed on the same route. Indeed it is very difficult to eliminate the disadvantage of the shipping conference leaving its advantage. In addition the regulation against conferences by one nation has the great possibility to conflict with other countries' interest, differing from the regulation on domestic industries. Then we may expect that the regulation of one nation against the conference will become the child of the compromise between the interests of its own shipping and trade and the consideration for other nations' interests. May we not say that the attitude of the Fair Trade Commission of Japan toward shipping cartels has been produced from the very conditions mentioned above? The Commission should prevent the monopolistic evils of the conference by means of warning not to exert its monopolistic power, but still for the development of Japanese shipping it is better, we guess, for the Commission to approve the closed system of conference and give the autonomy to the hand of the conference, respecting the long tradition of the shipping industry, than to compel the conference to adopt the open membership. Because the latter method has the possibility to produce the conflicts among the nations concerned.

We have seen the economic background of the problem regarding to which the Fair Trade Commission wished to solve the question through the negotiation of the parties concerned. The Commission showed the different attitude from the Federal Maritime Board of U. S. regarding the method how to eliminate the monopolistic evils of the shipping cartels.(8) Which is more reasonable for the development of the shipping and foreign trade of the world? We wish to investigate this point.

May we regard that the object has been attained to exclude the faults of the conference leaving the merits, by the judicial precedents

(8) With regards to the Unite States regulation of the conference membership, see the next book.
Marx, D. Jr.: International Shipping Cartels, 1953. pp. 122–125.

of the United States, according to which the conference was forced to admit the joining of an applicant, if he has the ability and the will to maintain liner service, and overtonnage on the route cannot be considered as the due and reasonable causes of the refusal?

In liner services the firms are few because of the nature of the service, consequently there we find the condition either of a hard rate war or of the combination of the firms to prevent competition. The rate war among liner operators is not desirable because foreign trade is injured by the unstability of the rates and also by the great rise of rates when the rate war is over. Only by the existence of shipping conference the stability of the freights can be maintained. It was due to the conditions mentioned above that the Shipping Act of 1916 of U. S. was enforced for the purpose not to apply the Anti-Trust Act to the shipping conference and that the conference was regarded as legal by the former.

And then the shipping conference is useful to the rate stability only in the case when its monopolistic power is strong enough. Mere existence of the conference can not have the advantage of the rate stability if the conference admits free entry to all applicants, because it will result in the supply of vessels over the demand for tonnage in the route, and consequently the revenues gained from liner service fall down gradually and at last reach the point under the operating cost. In such a condition the object to organize the shipping conference is lost for the shipping companies, and we may expect the drop of the weak firm from the conference members or the destruction of the cartel itself. The conference admitting the free entry to new comers contain in its nature the danger to be overtonnage in the route where the conferences are organized, and to destroy itself. Then, is it not right to consider that conferences may refuse the entry with the reason of the redundant tonnage on the route where the overtonnage is clear, so far as admitting the existence of shipping cartels to be useful because of the rate stability? To consider that the overtonnage can not be the reasonable reason of the refusal of entry, the writer is convin-

ced, contradicts theoretically with the attitude to admit the advantage of the shipping conference system.

However, to admit "overtonnage" as "the due and reasonable causes" of the refusal has the possibility to produce many difficult problems when it applies to the actual regulation. Because it is very difficult to show the objective indications that the route is overtonnaged. In addition conferences often use the overtonnage as an excuse of the refusal of entry so as to assure the monopolistic gains. For example the Japan/European Homeward Conference had refused the entry of the Mitsui line for the reason of overtonnage in the route, but afterwards it changed the reason of the refusal to that the applicant had the nature of private carrier when the outsider could have the support of shippers. In this connection the overtonnage was a mere pretext. And a more difficult problem will arise, that is the problem of the rates level, even when considering the optimum tonnage on the route. When the conference asserts that the present tonnage matches with the demand for vessels and that the addition of vessels will result oversupply of vessels, its assertion is based on the premise that the tariff rates are given and unchanged. But the tariff rates adopted by the conference is not always adequate, and the cut down of the tariff rates may induce new demands for vessels. Then we need the examination of tariff rates whether it is reasonable or not even when we are to consider the problem of overtonnage. We may hear the opinion of shippers with regard to present tariff for that purpose, but we have no warrent that their opinion is due and reasonable. In short we can not find the objective criteria to decide what are the due and reasonable causes of the refusal of entry. In the case of the monopolistic firms in domestic industry the government can determine the price level and the number of the firms in consideration of its influence to the whole domestic economic activities. But in the case of the international cartels the criteria of economic policy can not decided because of the difference of the interest of nations concerned. Therefore we cannot answer which is better, the regulating

policy of Japan, or of the United States. Or we may say that both of them are undesirable.

The writer also consider that the regulation of shipping conference by one nation has much disadvantage, since the shipping conferences are organized by members of many countries, and the regulation against it by the domestic law may cause the conflicts among the nations concerned. European nations including the United Kingdom hold the critical opinions against the regulation towards shipping conferences on the one side, and Japan and the United States have the regulating act of the same nature on the other side, though latter two have the possibility to show another interpretation of the law each other. Every nation has the interests in shipping conference, and the interests of one nation may be different frome those of another. Therefore the establishment of the international organization which deals with the shipping conference is the shortest way to harmonize the interests of nations and the advantage and disadvantage of the shipping cartels, though we cannot expect much from it.

THE PRICE FLUCTUATION RESERVE SYSTEM IN JAPAN

Susumu WATANABE

I

Within the pages the author proposes to observe the economic needs that have called into being the price fluctuation system in Japan and the defects ascribed to it, and then to investigate from a theoretical point of view a desirable improvement on the existing system.

A cry was raised for the recognition of that system in tax law in business circles in the latter half of 1950, when prices were on the increase under the influence of the Korean War. It was because they feared immeasurable losses consequent on a subsequent decline in prices.

The Japan Tax Association published 'Proposals on the Valuation of Inventories' in August 1951 and demanded that an inventory reserve system be established. The following quotation from its preamble will throw light on the importance and urgency of establishing a price fluctuation reserve system:

"An ordinary accounting procedure will figure out an immense profit in such a period of rising prices by matching the past cost of an inventory against the current revenue. Such a profit, however,

will be swept away as soon as prices begin to decline. Such an "inventory profit", or a profit caused by rising cost, if taxed or disposed of, will cause great distress or even failure to business enterprises when prices decline. The present price level of Japan is far above those of other countries, and, because of the weakness of the Japanese economic foundations after the War, prices show violent fluctuations, affected by price fluctuations abroad. Under these circumstances, a future price decline will deal a serious blow at Japanese enterprises, especially because they have lost their hidden reserves as a result of the inflation during and after the War. It is, therefore, necessary that the Government should allow the enterprises to set up inventory reserves in order to mitigate the adverse effects of price declines."

In the above referred to 'Proposals' the Association urges the need of inventory reserves from this point of view and goes on to show in concrete terms the method of calculating them. For want of space we cannot go into its details here. But it must be pointed out that the opinion was theoretically well based in that it recognized an 'inventory profit' as one to be properly excluded in measuring a business income.

It was not until December 8, 1951 that a price fluctuation reserve system was introduced into the Special Tax Treatment Act. As for corporations, the system was applicable as from the accounting period ending on or after January 1, 1952. The newly-born price fluctuation reserve system may be outlined as follows:

Corporations filing tax returns on blue forms (no mention is made here of the price fluctuation reserves allowable to individual businessmen filing their returns on blue forms) may set up price fluctuation reserves to provide for possible losses consequent on the price decline of inventories and securities, and may deduct the amounts of the reserves subject to the following limitations:

(1) The excess of the total book value of inventories over 90% of the total market value of the same at the end of the period.

(2) The excess of the total book value of securities over 90% of

the total market value of stocks or 95% of that of other kinds of securities at the end of the period. The market value here is the average of daily final quotations for one month ending on the closing date.

The amount credited to the price fluctuation reserve account is allowed as a deduction, and the amount thus deducted will be added to the income in the following period.

At its initial stage the price fluctuation reserve system allowed as a deduction the excess of the total book value over 90% of the total current price (95% in the case of securities other than stocks) at the end of the period.

This system is, in its essence, one which allows inventories and securities to be valued at 90% of their total current price at the end of the period (at 95% in the case of securities other than stocks). It permits the setting-up of the reserve in periods of falling prices, but not in periods of rising prices. When prices are declining, the earnings of an enterprise are too low for it really to avail itself of the benefit of the system.

II

It is proper to assume that, on the contrary, a price fluctuation reserve should be so devised as to be credited in periods of rising prices and debited in periods of falling prices, since it is intended to provide for possible losses consequent on a price decline. Criticism was levelled at this point.

In June 1952 the Business Accounting Standards Council, in its 'Proposals for a Reconciliation of Tax Law and Business Accounting Principles', states as follows concerning the price fluctuation reserve system:

"A price fluctuation reserve is, in its nature, not a valuation account like a reserve for bad debts, but without doubt belongs to earned surplus. In the light of its accounting nature, therefore, it should be charged to earned surplus instead of being debited in the income statement at the time of its setting-up. This kind of reserve

should be conceptually distinguished from a reserve for bad debts, reserve for repairs, etc. It does not harm to alleviate a tax burden by allowing this kind of reserve to be set up in periods of falling prices, but it is more desirable to push the idea a step farther to make possible its setting-up in periods of rising prices."

The 'Proposals' merit peculiar notice in that it regards the price fluctuation reserve system provided in the Special Tax Treatment Act as the outcome of tax policy and defines the reserve as of the nature of earned surplus.

The Taxation System Inquiry Committee appointed by the Prime Minister submitted its report in November 1953, recommending the price fluctuation reserve system to be reformed as follows:

"The excess of the book value of inventories (including securities held by securities dealers) over 90% (95% in the case of securities other than stocks) of their acquisition cost or of the market value at the end of the period, whichever is the lower, should be allowed to be credited to the reserve account in order to make it possible to set it up in periods of rising prices as well. But the existing system should continue to apply to inventories to which the Lifo method is applied and to securities held by any persons other than securities dealers."

The Committee had in mind a price fluctuation reserve system under which it is possible to set up the reserve in periods of rising prices as well, but the reserve was not such as to be automatically reduced according to price declines. This view of the reserve was also open to criticism as will be seen later.

III

On the recommendation of the said Committee, the price fluctuation reserve system was reformed in 1954, and the new Act as outlined below took effect as from April 1, 1954:

The amount creditied to the reserve not exceeding the total of the amounts calulated as follows to provide for possible losses consequent on the price decline of inventories and securities may be deducted for

purposes of income determination:

(1) The total of (a) and (b) below in the case of inventories and securities to be inventoried valued on the Lifo basis:

(a) The excess of the total book value of inventories over 90% of their total market value at the end of the period.

(b) The excess of the total book value of securities to be inventoried over 95% (90% in the case of stocks) of their total market value. The market value here is the average of daily final quotations for one month ending on the closing date.

(2) The total of (a) and (b) below in the case of inventories and securities to be inventoried valued on a basis other than Lifo.

(a) The excess of the total book value of inventories over 90% of the said total book value or of the total market value at the end of the period, whichever is the lower.

(b) The excess of the total book value of securities to be inventoried over 95% (90% in the case of stocks) of the said total book value or of the total market value at the end of the period, whichever is the lower.

(3) The excess of the total book value of securities other than those to be inventoried over 95% (90% in the case of stocks) of their market value at the end of the period.

The amount credited to the price fluctuation reserve account is allowed as a deduction, and the amount thus deducted will be added to the income in the following period, as was the case under the old Act.

The new provisions distinguish among (1) inventories and securities to be inventoried valued on the Lifo basis, (2) inventories and securities to be inventoried valued on a basis other than Lifo, and (3) securities other than those to be inventoried, and apply a common standard to (1) and (3) and another standard to (2) in calculating the limit of the reserve. If, therefore, this reserve system is utilized to the fullest extent, the book value minus the amount of the reserve set up, that is, the net valuation of the inventories or the securities to

be inventoried may be practically lowered to 90% (95% in the case of securities other than stocks) of their market value with regard to (1) and (3), and to 90% (95% in the case of securities other than stocks) of their cost or market, whichever is the lower, with regard to (2). The result is that inventories and securities under (1), because of being valued on the Lifo basis, and securities under (3), because of not being securities to be inventoried, are subjected to unfavorable treatment in comparison with those under (2).

IV

The present price fluctuation reserve system is open to criticisms as mentioned below:

(1) Because of the unfavorable treatment of the Lifo method as compared with other methods in connection with the setting up of the reserve, many enterprises have given up their Lifo method in favor of some other method.

Such unfavorable treatment of the Lifo method is accounted for in some quarters of the tax administration:

"We have kept preserved the system unchanged with regard to assets valued on the Lifo basis on the ground that enterprises will have unduly large reserves with regard to such Lifo assets if the benefit of the reform is extended to them, seeing that the purpose of the Lifo method is to keep low the book value of inventories in periods of rising prices."

The real purpose of the Lifo method is to charge properly the current cost of sales against the current revenue but, from the standpoint of the valuation of ending inventories, Lifo valuation must in theory be lower than valuation by any other method in periods of rising prices. But it is true only when the Lifo method has in fact achieved its real purpose. The Lifo method does not necessarily achieve its purpose when inventory holdings change at the end of each period. It frequently happens that the Lifo method falls short of achieving its purpose in Japan where the dollar value method is not recognized in tax law. Lifo valuation is not always lower than valuation by

other methods.

If a common standard is applied in calculating the limit of the price fluctuation reserve with regard to inventories and securities under (1), (2) and (3) mentioned in a preceding section, and if the reserve that can be set up with regard to Lifo assets by applying that common standard is found to be small, this result is a matter of course and is not blameworthy. It is not proper that inventories and securities under (1) and (3) should be discriminated against by introducing a different standard ('percentage of cost' basis) into those under (2).

(2) The valuation of the inventories and securities to be inventoried valued on a basis other than Lifo is practically able to be lowered to 90% (95% in the case of securities other than stocks) of their cost or market, whichever is the lower.

Here the question is that enterprises can hold a price fluctuation reserve at all times (both in periods of rising and falling prices) by having at their disposal the 'percentage of cost' basis and the 'percentage of market' basis as a standard for calculating the limit of the reserve. The amount of the reserve thus set up will be added to the income in the following period and the reserve will disappear as a matter of course in tax law. So long as, however, an enterprise has inventories and securities to be inventoried at the end of a period, it will be allowed to set up a new reserve, with the result that it can always hold a reserve equivalent to 10% of their cost or market, whichever is the lower. (That an enterprise is prevented from setting up a price fluctuation reserve by its low earnings in periods of falling prices is irrelevant here.) It has thus become possible to set up a price fluctuation reserve "in periods of rising prices as well" as recommended by the Taxation System Inquiry Committee. But the reserve was not such as to be automatically reduced according to price declines. The taxation authorities criticize this point as follows in connection with a reform in the Special Tax Treatment Act:

"This price fluctuation reserve system, as compared with other

reserve systems, is strongly characterized by its nature as a general reserve made out of business income. An enterprise, for instance, can still hold the reserve even when in periods of falling prices the reserve must be reduced for the equalization of its profit or loss."

Properly speaking, a price fluctuation reserve should not be one that can be set up in periods of rising prices *as well*, but one that can be set up in periods of rising prices *alone*. It should be a reserve that must be automatically reduced in periods of falling prices, since it is intended to provide for possible losses consequent on a price decline.

V

Moreover, the existing price fluctuation reserve system is questioned by the tax authorities. For instance,

(1) The reserve is not regarded as a deduction, but as belonging to earned surplus from the point of view of business accounting principles with an inherent tendency to conservatism.

(2) Is there any reason for being of such a reserve system inspite of the fact tax law recognizes the cost or market, whichever is lower basis in addition to various methods of valuation that can be chosen according to the peculiar circumstances of an enterprise?

The writer is of the opinion that the solution of these questions depends on the interpretation of the reserve as earned surplus or as an adjustment account. If it is to be interpreted as earned surplus, then it is obviously a matter of favor in tax law to allow it to be set up as a deduction, with the logical consequence that its necessity depends solely on the economic situation at a given time. An enterprise has its financial foundations fortified by having a reserve with regard to its inventories and securities, and increases to that extent its ability to stand losses consequent on a price decline. It solely depends, therefore, on the view one takes of the existing economic conditions in Japan whether and how far such a tax law favor is needed besides the regular methods of valuation. A price fluctuation reserve system of this nature should be abolished when enterprises in

general have recovered their financial strength.

A price fluctuation reserve is generally held to be of the nature of earned surplus. But this view should be subjected to examination. It is justifiable on the sole presupposition that business income should properly be measured by traditional methods such as Fifo and others. But the business income so determined includes an 'inventory profit or loss,' which is in reality an apparent or fictitious profit or loss.

For simplicity's sake, let us assume that the quantity of inventories at the end of the period is equal to that of inventories at its beginning. If, for example, the Fifo method is applied in periods of rising prices, the valuation of the same quantity of inventories will gradually increase as a result of inventories being successively replaced by those of higher costs, and the ending inventories will be valued higher than the beginning by the following amount (inspite of both the quantities being the same):

begnning quantity × (cost at the end of the period − cost at its beginning)

This amount is identified with what is called 'inventory profit'. To value the ending inventories higher than the beginning inventories of the same quantity really means to raise the value of the same quantity of inventories by revaluation, and, on the other hand, to overstate the profit for the period by understating the cost of sales by that amount. The 'net income for the period' determined by ordinary accounting methods like Fifo or average cost methods inevitably includes an 'inventory profit' in this sense.

Therefore, to set up a price fluctuation reserve by charging to the revenue the amount equivalent to the inventory profit signifies the correction of the understated cost of sales, and the price fluctuation reserve account may be considered as an adjustment to straighten the distorted profit or loss calculation caused by the revaluation of the ending inventories. Through this procedure it becomes possible to determine a profit or loss in the truest sense by excluding inventory profit from the stated profit or taxable income determined by ordinary accounting methods. In the writer's opinion, a price fluctuation

reserve with this meaning is an adjustment, not earned surplus. And such a price fluctuation reserve is the only reserve justifiable from the point of view of accounting theory.

A price fluctuation reserve based on such a theoretical foundation can be set up in period of rising prices and automatically be reduced according to price declines. The amount to be credited to the reserve can be accurately calculated in conformity to a definite formula. It is because its object is not to allow an enterprise to have a general reserve with regard to its inventories, but to properly determine its business profit. A price fluctuation reserve system founded on this theory will be free from all criticisms levelled at its predecessors.

Additional Remarks:

The price fluctuation reserve system above discussed has recently been revised, the new provisions taking effect as from April 1, 1957. Main points of the reform are as follows:

(1) 90% in the preceding pages should read 92%, and 95% should read 96%. This means a reduction of the extent of price fluctuation reserve allowance by 20%.

(2) Where the amount as determined by the method above described as the maximum limit of the reserve is greater than the amount of income as determined without including as a deduction the amount to be debited to the reserve, the maximum limit should be reduced to the amount of income so calculated. In other words, a deduction is allowed to the extent of the amount of income before debiting any amount to the reserve.

LOCATIONAL PROBLEM IN THE NEW MAJOR BRANCHES OF JAPANESE INDUSTRIES FROM 1954 TO 1956

Minoru BEIKA

(1)

Our present prosperity is said to be caused by the abundance of industrial investment as well as the prosperity of export trade. Apart from the latter, the former, the recent vigorous additional investment in the industries seems to have been mostly due to the so-called technical innovation which has remarkably progressed over the world. The representative progress is found in the adoption of automation. Many industrial firms in Japan also, have invested additional capital in machines, equipments and plants following modern technology.

Such increasing investments for the physical equipments are actually to be found in the renewal of the old-type machines in the plants on the one hand, and in the establishments of the new plants on the other. The latter are necessarily related to the problems of the plant location. Moreover, as the result of these new establishments, the industrial regional structure in our country has changed to some degree. In this article, the writer intends to enquire into the regional develop-

ment in our industries for the last three years, from 1954 to 1956, and to get some materials for the locational study.

But as the writer could not collect the detailed data of all the new establishments of our industrial plants, he was compelled to restrict his research to the principal new plants which have been reported in some major economic papers. Even these materials could give the characteristic outline of our late regional industrial development.

(2)

In our country, most of the industrial activities have concentrated in a few central districts, Keihin (Tokyo and Yokohama), Hanshin (Osaka and Kobe), and Chukyo (Nagoya), where especially many classes of industries have accumulated. These three districts have occupied 43% of all our industrial workers in 1954, and 58% of the metallurgical and engineering workers, 38% of the textile industrial workers, 27% of the food and drink industrial workers, and 37% of the other workers. But recently a considerable number of the new plants have been developed in the several local regions besides the above-stated industrial districts.

The new plants found in the last three years are about 81, 29 plants (35%) out of these are located in the three central industrial districts and 52 plants (65%) in the other local regions. This is the evidence that the industrialization of the local regions has progressed to some degree. These industries chiefly consist of the chemical industry, chemical and synthetic fibre industry, cement and its products industry, pulp industry, and some other industries. It is noteworthy that most of these industries belong to the apparatus industry. Needless to say, each of them has respectively some particular locational characteristics, which will be described later in more detail.

It is a noteworthy fact that 75% of the new plants are situated on the central region (including Nagoya), the Kinki region (including Shikoku and Kyushu), while the eastern and northern (including Tokyo and Yokohama) have less number of the new plants. Never-

theless, the last region, Tohoku and Hokkaido, is the one important object of the unified regional development policies in Japan. So, it seems to be a difficult problem to proceed with the policy in regard to the regional industrialization at least. The policy maker should reinvestigate the conditions which make it possible to reallize the industrialization policy, relating to both the regional location factors and the business features of the concerned industrial plants.

(3)

Thirty-two plants of the representative firms were closed in the last three years, which correspond to about 40% of the new establishments. But they chiefly belong to the apparatus industries as above stated, which consist of relatively large-sized plants. Moreover, most of them have developed as modern factories of the new industries. On the contrary, 70% of the closed plants, belong to the textile industries using traditional materials; especially 80% of them belong to the silk industry. These plants of the silk industry were closed because of the lack of their materials and markets. They are small or medium sized and were located scatteredly on various rural parts of our country. These silk industry locations are very different from the newly industrialized regions.

The other closed plants are about 10, which belong to the metallurgical, engineering, chemical and paper industries. But these are exceptional in each industry, and closed by their own respective economic or administrative causes.

Therefore, the weight of the closed plants are very small in comparison to the new establishments of the developing industries. But the regional structure of our industries has changed to some degree; the coastal districts in our central and western regions have been industrialized gradually, but several inner districts in the whole country were deprived some of their industrial activities by these closed plants.

(4)

In our textile industries, about 15 new representative plants have been constructed or are under construction for three years. Most of them do not belong to the industry using the traditional fibre materials, but to the chemical or new synthetic fibre industry. Hitherto, the productive capacity of the latter new textile industry had been enlarged in the existing plants, because the industry has the characteristics of the apparatus industry, of which our most firms have relatively fewer number of plants than our cotton spinning multi-plant firms, and some of their plants have been under their tests in a part of their existing plants. Recently, the firms of these new textile industry have remarkably developed, and necessarily have been required to have other plants of more productive capacity or have the new proper plants. Accordingly, these new plants have been constructed mostly in suitable locations as the coastal districts in our western region; Chugoku, Shikoku, and Kyushu.

On the other hand, the some cotton spinning multi-plant firms, which are representative in our country, have constructed newly a few cotton and staple-fibre spinning plants in several districts where they have found their alternative markets. But since these cases are only a few, the regional structure of our cotton textile industry has not been changed so much. Half of our cotton industry are located on Chukyo (suburbs of Nagoya) region and Kinki (suburbs of Osaka) region, and the other half are scattered on the other rural districts, chiefly Chugoku and Shikoku.

Therefore, although 15 plants have been newly established and 22 plants closed from the view point of the number of plants only, the former are larger-sized by the newly developed technology, and the latter are medium or smaller-sized ones using traditional materials, and necessarily we could find any of the changing regional structure in our industries by their respective locational characteristics.

(5)

Cement and related products industries have also developed considerably and about 20 plants have been constructed in these periods. These plants consist of three types of business feature, which are the multi-plant firms producing chiefly the portland cement, the iron and steel or chemical firms producing the cement as their by-products, and and the cement products (concrete pole etc.) firms.

The first type, the 5 original cement firms, of which the representatives have many plants in several districts, chiefly material-oriented, partly market-oriented, have constructed 5 plants respectively, for the purpose of making better their locational situation about their markets or material districts on enlarging their productive capacity. Therefore, these 5 new plants are located on different local districts. Moreover, two competitive representatives of those firms have established several service-stations about storing and packing in some local market centers, where they have not yet any plant.

The second type, the iron and steel firm, the chemical firms and the other industrial firm, have constructed 4 cement plants as their subsidiary businesses, for the purpose of utilizing their by-products. The representative iron and steel firm has constructed a new cement plant in the firm's ground of Hokkaido plant for covering the insufficient supply in Hokkaido and utilizing the coke waste broken out from the furnaces. The representative chemical firms also have established their cement plants at Kyushu and Hokuriku in the same way. Each of them has been controled formaly by each independent firm, but actually by its parent firm above stated.

The third type, the cement products (concrete pole etc.) firms have constructed 8 new plants in our central industrial districts; Tokyo, Osaka, and Nagoya. Most of them belong to the two representative and competing cement firms, which have respectively tried to integrate vertically and to secure their markets more firmly.

The new plants of the first and second type have been found

chiefly in our several local districts, and the ones of the third type in our three central districts. Moreover, it is remarkable that each representative cement firm has integrated the cement products fields verticaly, and the other some industrial firms have gradually invaded into the cement industry for their many sides development policy.

(6)

The features of development in the chemical industry are often above all found not only in the type of adding the new plants to the original plants, but also in the type of enlarging the existing plants, since the industry has tended to develop to many-sides associatedly by the technological characteristics. Accordingly, it is particularly necessary to see the both sides in the regional development of such industry.

About 20 and a little over new plants have been newly established in our chemical industry, for these periods. These plants belong chiefly to the newly developing classes in the industry; the petroleum chemical products industry, the natural gas chemical industry, the new salt making industry are the representatives.

The former two industries have recently appeared before the footlight and become one of the topics in our business world. Therefore, most of these new plants are situated in several local districts, especially Chubu and Kanto regions, utilizing the material resources there, in other words, material oriented. But we could not always expect some development of such new industries only by the existence of the materials there. There have not yet been any such new plants in Hokkaido and Tohoku, where there are found considerable coalfields and natural gas resources. Not to say, such new development requires more locational factors together with the material resources.

The new salt making plants have been constructed on several districts from the north (Hokkaido) to the south (Kyushu) in our country, utilizing the lower grade coal or the surplus electric power, by the leading coal mining firms and some local public bodies.

The other new plants belong to the chemical-fertilizer, plastics,

caustic soda, carbide, sulphuric acid, liquid oxygen, agricultural medicine and the other industries. One staple-fibre firm has planned to establish the cellophane plant near by the existing plant, and moreover adjoining it, the chemical fertilizer firm has prepared to establish the caustic soda plant, and then both firms have planned to integrate each other for utilizing these new and old plants more efficiently. Such case is found in Shikoku region. One chemical fertilizer firm has constructed the sulphuric acid plant in the coastal district near by the existing fertilizer plant. The other two chemical fertilizer firms decided to set up the synthetic resin plant by their joint investment near by the existing plant of the one firm. One oxygen multi-plant firm, in which the market is one of the important location factors, has constructed one plant for liquid oxygen in Kyushu, one of our heavy industrial districts. Therefore, most of the new plants above stated, are located on several local districts having any one of their proper locational advantages.

On the other hand, the remarkable development of the existing plants has been found chiefly in the central industrial districts, which mostly belong to the chemical fertilizer and synthetic resin industries. These enlarging development of the existing plants seems to aim at advancing to the new fields rather than increasing the productive capacity of their old products. It is reasonable to advance following such expanding processes in the chemical industry.

In short, the industrial development in the chemical industry has been advanced by the technological relativity and synthesis. And the new establishments which are found chiefly in the new fields, are one of the principal factors for industrialization in our local districts.

(7)

The metallurgical and engineering industries in Japan had remarkably developed during the War time, and encountered the severe depression by the war damage and the compulsory limitation of production after the war. Naturally a considerable number of the broken

and idle plants were found in the industries. Therefore, the recent recovery and development of these industries could have been realized mostly in their existing plants by the repair and renewals of their machines and equipments. Moreover, these recent development has been found chiefly in our representative firms of iron and steel industry.

Thus the establishment of the new plants for these three years, have been relatively few in these industries in spite of their remarkable development at these periods. Accordingly, we can find less characteristic changes in the regional structure of these industries, although several new steel plants and engineering plants have appeared in some districts.

(8)

Our pulp and paper industries have encountered the misfortune that we have been forced to be deprived of half or over of the material resources by our defeat in the 2nd War. For the last ten years, these industries have endeavoured to recover the balance between the demand and supply. As one of the results of such efforts, a considerable number of plants have been newly constructed in the western part of Japan by the wood resources in the innerpart of our country. For these three years, the same tendency has continued. 7 out of the 8 new plants have been found in these regions, Chugoku, Shikoku and Kyushu. These plants chiefly have been controled by the middle class firms in these industries, while the representatives have already reconstructed or enlarged their productive capacity before these periods.

(9)

In the food and drink industries, about 9 new plants, which belong to the relatively larger firms, have been constructed as follows.

(a)	beer breweries	4
(b)	milk products plants	2
(c)	other plants	3

Our beer industry has been controlled by only 3 large firms, in

which one medium sized firm is about to be added recently. Each firm, excluding the last new firm, has already distributed five or six beer breweries in several market centers in our country. These four competing firms have decided to construct the new breweries respectively in the districts, where they had not any before.

Our two representative multi-plant milk products firms, also have established the new plants in Tokyo and Osaka, for obtaining their superior positions in the competing markets.

The other three are a fruit juice extract plant, a sugar refining plant and an edible oil plant, and the former two are situated in Kobe and the suburb, since they are market-oriented.

(10)

To sum up. We could find the remarkable development of our chemical industries, including the chemical and synthetic fibre industries, for the last three years, from the view point of the establishment of the new plants. Especially they belong to the newly developing classes in these industries. These new plants, which are chiefly local material-oriented, have been helpful enough to develop industrially several local districts outside the central districts.

Some new plants have been established to penetrate into the new markets, where their firms have not as yet their own plants. They belong to the cotton and staple-fibre spinning industries, cement and its products industries, and food and drink industries. Therefore, their locations have been found chiefly in the central market districts and partly in several local market districts.

Some of the other plants have been constructed in several local districts for aiming at tapping their material resources. These belong to the pulp industry and cement industry.

Thus, the regional structure in our industries has been changed gradually to some degree, by our industrial development which consist of the enlargement of the existing industries and the new construction of the new industries. At the same time, the writer must indicate the

one important point in the locational problems of the industry, at the end of this article. Namely, that is the relation between the plant location and its business feature. The industrial firm is to decide the location of its plant not only by its locational factors, but also by the consideration of the relation with the other many factors which affect the business feature and business policy. The locational problems in recent industrial development above stated, seem to show us several facts relating to these points on other occasions more in detail.

BUSINESS PROBLEMS IN AN INTERNATIONAL SITUATION

Tadakatsu INOUE

I

In many of their features, the business problems which arise in an international situation necessarily differ from those in an internal situation. The business activities played in an international setting frequently face the peculiar problems which the interstate business activities do in no way experience. Therefore, it is necessary for a business man whose activities will be international to take seriously into account the nature of the business problems in an international situation. If he is lacking in this understanding, he will never succeed in his project. In fact, we can easily obtain such cases from a long and broad business experience. One of the chief examples is the unsuccessful venture of the International Mercantile Marine Company commonly known as the Morgan Shipping Combine.* Tracing the history of one of Morgan's great failures, this article aims to indicate the complexity of the business problems in an international situation.

II

The I. M. M. was incorporated in October, 1902, as the result of a plan which was formulated by John Pierpont Morgan to consolidate

the varions steamship lines running between the United States and Europe. The basic unit in the combination was the International Navigation Co. popularly known as the American Line. This American corporation had one Belgian subsidiary company, the Red Star Line. At the same time, the I. M. M. acquired complete ownership in the Atlantic Transport Line, an American-owned company, and the White Star and Dominion lines, and part ownership in another British company, the Leyland Line. Thus the I. M. M. controlled about forty per cent of all the Atlantic lines. The authorized capital stock of the I. M. M. was $60,000,000 6% cumulative preferred and $60,000,000 common stock. The authorized bonds consisted of $ 75,000,000 collateral trust 4½% gold bonds and $2,000,000 5% gold bonds inherited from the International Navigation Co.

Shortly after the I. M. M. was organized, a great shrinkage in values of the securities took place. On December 31, 1903, the preferred stock was quoted at $18 and the common stock at $5. It seems to us that the stock quotations indicated a general conviction that the success of the shipping combine was problematical.

The average of net earnings of the I. M. M. for its first decade as a going concern was about $5,000,000 —— this average does not allow any deduction of steamship properties. To show whether the average was satisfactory to the combination, we may compare the corresponding figures of the subsidiary companies for four years prior to the consolidation. They were as follows:

White Star Line	$2,063,675
American Line, International Navigation Co.	1,116,000
Leyland Line	1,565,000
Dominion Steamship Company	628,000
Atlantic Transport Company	735,000
Total net earnings	$6,107,675

It thus appears that the average of the net earnings of the I. M. M. was rather lower than the aggregate average of the net earnings of the individual lines. This fact seems to indate that the shipping combine had hardly enjoyed the advantage common to most combi-

nations.

It was more unfortunate, however, that the I. M. M. announced, on September, 1914, its intention to defer payment of interest due in October 1 on its collateral trust 4½% gold bonds. The bond-indentures provided for a six months' lapse in time after any deferred interest payment before default could be confirmed legally. But default become legal on April 1, 1915, when the company had not met the interest payment on its bonds. The I. M. M. then had to be taken over by a receiver. Now, it would not be going too far to say that the shipping combine was a failure.

III

One of the chief causes leading to receivership of the I. M. M. in 1915 was its watered or inflated capitalization. Just how excessive its capitalization was is apparent at a glance. The individual lines which went into and made up the combination had an aggregate capitalization of about $29,000,000. In the new company, it outstanding securities in the fall of 1915 was $175,591,000, of which $73,992,545 was bonds, and $51,726,300 6% cumulative preferred stock. This total imposed upon the I. M. M. an unusually heavy burden of fixed charges. It is hardly to be wondered at that the company promoted by the great American financier could not meet its obligations in 1915.

For the explanation of the chief reasons of this over-capitalization, we turn back again to the formation of the I. M. M. On February, 1902, an agreement was entered into by Morgan with representatives of the various steamship companies, English and American. This agreement provided capitalization of the new company, properties to be acquired, valuations placed on the several properties, method of payment, and sale to a syndicate of the securities. By the agreement, the purchase price of most of the companies was based on the profits of 1900. For example, in the venders' agreement between Morgan and the White Star Line, it was stated that "the valuation of the said shares hereunder and under said principal contract shall, provided, be a sum equal to ten times the net

profits of the company of the year 1900, subject to the following exceptions……." The year 1900, however, was one of abnormal profits. The "boom figures" as a basis of purchase calculations naturally gave the capitalization of the proposed steamship corporation a highly inflated aspect.

Of course, most things have their prices. But, in organizing a big company, there are usually many conflicting interests to be brought into harmony. And each seller naturally holds out for all he thinks it possible to get. It is, therefore, a matter of bargaining and the final price is likely to be high. In the same way, Morgan had to pay too much for his lines.

It seems, however, that the amount of purchase prices was not a serious matter to Morgan. Tho financier, encouraged by the immediate success of the United States Steel Corporation, expected the profits of the combination to carry high fixed charges. In this connection it is related that, when Morgan was asked what had been the price paid for one of his recent puchases, he replied that he did not know. However, the monopoly advantage which Morgan supposed was never gained.

IV

Over-capitalization, from which the I. M. M. suffered, was not peculiar to the combination. In forming combinations of all kinds, so called "watered" stock is usually issued. For instance, such was the case in the formation of the United States Steel Corporation in 1901. Herbert Knox Smith, Commissioner of Corporation, estimated that substantially half of the corporation's total issue of securities amounting to $1,400,000,000 in round figures was not based on any tangible property assets. Nevertheless, the formation of the Steel Corporation was a great success. By the outbreak of the World War I, the watered capital of the corporation had been squeezed out by devoting profits to additions and improvement of its plants. Further, it was said that the corporation's properties in October, 1919, were actually worth about $2,200,000,000, or well over $700,000,000 more

than its entire funded and stock capital. Like the I. M. M., the Steel Corporation was heavily over-capitalized from the start. Unlike I. M. M., the Steel Corporation has attained unusual success. What factors led the Steel Corporation to a success and the I. M. M. to a failure? The general consensus of opinion is that while the Steel Corporation enjoyed a monopoly advantage, the I. M. M. did not. The entire trouble with the shipping combination undoubtedly originated in its total lack of monopoly elements.

V

The original intention of Morgan, presumably or perhaps, was to absorb all lines, if possible, including the Cunard Line, a large British concern in the North atlantic shipping business. And if the whole lots of the lines could be obtained, the Cunard included, the passenger fares could be so advanced as to produce greatly improved profits. If this project was in fact more or less at the back of his mind, it must have been considerably upset by the refusal of the Cunard Company to come into the combination. Why did Morgan fail to acquire this British company?

In a important respect, the shipping combination differed from the United States Steel Corporation. All of the corporations which came into the Steel Corporation were American-chartered institutions; all were operated in the United States and were subject to State and Federal laws. But the shipping combination had to be created through the assimilation of corporations flying the British flag and the flags of some of the Continental nations, as well as steamship companies chartered in the United States. As its title indicates the International Mercantile Marine Co. was an international corporation, and the first one of its kined ever proposed. The formation of the shipping combination, thus, necessarily involved complicated business problems which would reflect international relations.

As has been stated, Morgan acquired several of British great shipping companies, including the famous White Star Line, with its magnificent fleet, containing some of the finest ocean liners. This

purchase, however, produced a deep impression upon the British public who was naturally jealous of everything that would affect the position and interest of the British mercantile marine. From the naval point of view, it also caused grave uneasiness. It was natural that the British public should look to the Government and should expect the Government to take some action in the matter.

As an outcome, the Government entered into an agreement with the Cunard Company, which was still left out of the Morgan combination. The Cunard Company pledged themselves to remain in every respect a British company, managed by British directors, with the shares not to be transferred to anybody but British subjects. The agreement also placed the entire Cunard fleet at the disposal of the Admiralty. The Government agreed to give Cunard Company a subsidy of $750,000 annually, and to lend the money for the constraction of two vessels of 24 to 25 knots, charging interest at the rate of 2¾% per annum. Now, Morgan had to give up his original plan to acquire the Cunard Line, without which he could not possess the dominance necessary to control the entire Atlantic trade.

Shortly after this, the British Government also made an agreement with Morgan. The intention of the Government was to secure that the British companies in the combination should remain British, not merely nominally, but in reality. The agreement provided that: the majority of the directors of the British subsidiary companies should be of British nominality; the vessels should fly the British flag; they should be officered by British officers, and manned in reasonable portion by British crews. As has already been stated, Morgan had already acquired all the shares of the White Star and Dominion lines, and a majority of the shares of the Leyland line. By the agreement, however, any amount of ownership would no longer give him safe control over the British subsidary companies.

VI

We have outlined the experience of the I. M. M. which fell far short of success. One of the chief reasons for this failure was the

terrific fixed charges resulting from heavy capitalization. Overcapitalization, however, was not peculiar to the present case. It was an usual accompaniment of all kinds of combination. Moreover, there were many successful combinations capitalized on a basis similiar to that of the I. M. M.

The more important reason for the failure of the I. M. M. was its total lack of a monopoly advantage. If the combination had possessed the dominance necessary to control the entire Atlantic trade, it would have produced greatly improved profits fully sufficient to carry high fixed charges, and thus would have not been taken over by the court in 1915.

As has been indicated, the lack of a monopoly advantage in the I. M. M. was apparently caused by the failure of the acquisition of the Cunard Line. The original intention of Morgan was to absorb all lines, including the Cunard Line. But, this comprehensive scheme was considerably upset by the refusal of this British line to join the combination.

The formation of the North Atlantic shipping combination was that of an international corporation. Morgan had to buy up foreign companies as well as American chartered companies. But the purchase of a considerable portion of British shipping in the Atlantic greatly exercised the British public. Much agitation was carried on in England in reference to the effect of the combination on English trade. As a outcome, the British Government entered into an agreement with the Cunard Company. This agreement provided that the Cunard Company should remain in every respect a British company. Thus Morgan's efforts to acquire the Cunard Line was blocked. It is pertinent to ask whether he should have foreseen the national pride and prestige of foreign peoples which frustrated his project.

* On the history of the I. M. M., this paper mainly used the following: N. S. B. Gras and H. M. Larson, *Casebook in American Business History*, 1939; E. D. Meade, *The Capitabzation of the International Mercantile Marine Company*, Political Science Quarterly, Vol. XIX, No. 1; J. Moody, *The Truth about the Trusts*, 1904; E.

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

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