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THE DEVELOPMENT OF THE COMMODITY
LINK SYSTEM IN JAPAN

By KICHIHIKO TANIGUCHI

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1. THE INEVITABILITY OF THE IMPOSITION
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The most characteristic development in Japan's international trade policies in the second year of the China Incident was probably the institution of the link system. This system must be considered as a feature peculiar to Japan's wartime foreign trade operations, the course of which is inevitably determined by historical features represented by wartime trade and certain national characteristics inherent in Japan's international trade.

Let us consider, in the first place, certain historical features of wartime international trade. In the first phase of foreign trade under wartime conditions, efforts are made for the promotion of the import of war supplies, the domestic production of which may be deficient. In our own situation, such efforts must be directed primarily to the import of munitions and particularly to the import of the raw materials required for their manufacture.¹⁾ The tendency in this direction manifested itself with the first organization of national economy on a quasi-wartime basis in February, 1936, but the object at this stage of trade activities was principally the import of the supplies necessary for the future expansion of productivity in the munitions industry. With the transition, however, from the quasi-wartime economy to the full wartime economy, it became necessary to increase the imports of raw materials substantially for the full mobilization of existing productivity and the provision of finished and semi-finished supplies to meet the immediate need. This development accounts for the fact that the trade results for the second half of 1937 failed to register a favorable trade balance to offset the excess of imports which amounted to 600 million yen as reported for the first half of that year. In view of the fact that there were in addition a considerable group of payments which were not reported in the foreign trade statistics and that the exports to the yen-bloc areas did not result in an increase in the trade balance receivable in foreign currencies, it was inevitable that there should follow a consistent deterioration in trade results and a consequent weakening of yen exchange.

With the beginning of the second phase of wartime trade, it was felt necessary to impose a more stringent control on imports than formerly in order to prevent any further deterioration in international trade results. Consequently, the central problem of wartime trade shifted from the promotion of the import of war supplies to the restriction

1) cf. Taniguchi: *Foreign Trade Policies of Japan*, Chap. IV. Various Problems of Wartime Trade Control.

of popular import demands. These problems ordinarily constitute two inseparable phases of foreign trade under wartime conditions, but in reality they made their appearance at different stages in the wartime economy.²⁾ Such restrictions on raw material imports to meet popular demand, with raw cotton as the principal commodity, together with the attendant speculative manoeuvres in the market, resulted in a serious decrease of the export trade paralleled by a rapid rise in the domestic prices of these raw materials and in the cost of production. Furthermore, the restrictions brought about a scarcity of raw materials for export commodities, thereby causing a further decline in the export trade. Such a decline in exports is conducive to a further deterioration in trade results and defeats the very purpose for which the import restrictions are enforced. The only solution to this dilemma is to be found in a moderation of import restrictions imposed upon raw materials for exports. Yet an immediate moderation of import restrictions in the absence of proper control measures for exports, such as items of foreign trade manufactory, is likely to result in an uncontrolled diversion of these exports to the domestic market. Here we find the social basis for the emergence of the commodity link system, for it is the most effective method of ensuring a continued importation of raw materials for export commodities and lowering their domestic price.

When we proceed to a consideration of the characteristic aspects of our foreign trade, we realize that our national economy, because of its peculiar features, inevitably requires the institution of some such trade control method as the commodity link system in conjunction with the establishment of wartime economic organization. Nearly 80% of our imports consist of raw materials without which our export trade could not exist. It is a well known fact that raw cotton and wool constitute the principal raw materials imported for the manufacture of exports. However, even if

2) cf. Taniguchi: *The Collective Link System*, The Keizai-Ronsô, November, 1938.

the importation of such materials is permitted, many instances have been found in which the production of export goods was not feasible because of the dearth of certain minor raw material supplies. This fact has so far escaped public attention and it was only after the imposition of the restrictions on imports to meet popular requirements that we came to realize to what extent our export trade was dependent upon our import trade. Consequently, it was considered essential for the promotion of the export trade that the import restrictions should be moderated not only as regards the principal raw materials but also in connection with the minor supplies required in the production of exports. Needless to say, in some cases the scarcity of such materials resulted not so much from import restrictions as from the domestic control of the commodities in question; and hence it was realized that these supplies ought to be placed under less restrictive control. However, as regards the scarcity resulting from import restrictions, the adoption of some corrective measures was considered necessary, and it was partly to meet this situation that the commodity link system was put into operation.

The concept of link trade was first formulated as an outgrowth of the suggestion imparted by the exchange clearing system adopted in the post-war Germany and again more recently in the Third Reich. As a result the first type of link trade was conceived as a collective link system.³⁾ However, as a consequence of the circumstances just described, the link system was first put into operation as an individual commodity link system. It was a system designed to link imports of raw materials specifically with exports manufactured therefrom, as a means of assuring the importation of raw materials for the manufacture of exports. A commodity link system of this nature has limitations of various kinds,⁴⁾ and accordingly, in order to

3) K. Shioya: *The Link Trade System*, P. 22.

4) cf. Taniguchi: *The Collective Link System*, *op. cit.*

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Designation ⁵⁾	Date enforced	Commodities linked		Types of system	Associations concerned
		Exports	Imports		
Soap link	October 1, 1937	Soap	Beef-tallow Spices ⁶⁾	Export obligation Individual link Quantity link ⁷⁾	Japan Soap Exporters' Association
Brush link	January 1, 1938	Brush	Bristles Natural ebony Mexican fibre Cow bones	Export obligation Group link Quantity link	Bristle Importers' Control Association Natural Ebony Importers' Control Ass'n Mexican Fibre Importers' Control Ass'n Cow Bone Importers' Control Association
Wool link	March 15, 1938	Woolen goods	Wool	Import privilege Export obligation Individual link Quantity link	Wool Importers' Control Association Japan Woolen Yarn Export Association Japan Woolen Textile Export Association Japan Hosiery Export Association Japan Philippine Hosiery Export Ass'n
Hat link	May 10, 1938	Felt hats Hat bodies	Noil and other waste wool	Import privilege Export obligation Individual link Value link	Japan Felt-hat Raw Material Importers' Control Association Japan Felt Hat Export Association
Japanese paper link	June 1, 1938	Japanese paper	Manila hemp	Export obligation Individual link Quantity link	Japanese Paper Export Promotion Ass'n
Cotton link	July 1, 1938	Cotton goods	Raw cotton	Import privilege Export obligation Individual link Quantity link	Japan Cotton Spinners' Association Federation of Japan Cotton-goods Export Associations
Rayon link	August 1, 1938	Rayon yarn and textiles	Rayon pulp	Import privilege Export obligation Individual link (yarns) Group link (textiles) Quantity link	Japan Rayon Ass'n Federation of Japan Rayon-goods Export Associations Federation of Japan Export Rayon Dealers' Associations

5) These designations represent improvised names adopted by the writer.

6) Enforced in February, 1938.

7) Spices are linked by a value system.

secure a general application of the link system, the system was necessarily designed to be replaced by a collective link system. The adoption of the proposed system, however, was retarded for political reasons, and it is anticipated that it will be superseded by the so-called specific link system. This latter system is in reality merely another variety of the commodity link system, the only difference between the two system consisting in certain legal and practical formalities. The commodity link system is now enforced with reference to seven commodities as described in the above table.

A detailed study of all these commodity link systems being beyond the scope of the present treatise, we shall study only some of the major aspects of the representative systems.

2. THE EXPORT OBLIGATION SYSTEM AND THE IMPORT PRIVILEGE SYSTEM

It has been pointed out already that the link system can be divided into an import privilege system and an export obligation system according to whether exports are linked with certain specific imports, or imports with specific exports.¹⁾ The former system is one which permits the import of raw materials in return for the export of manufactured goods, while the latter is one which permits the import of raw materials but makes the export of the resultant manufactures a compulsory requirement. As is shown by the foregoing table, the commodity link systems now in force are primarily those involving export obligations. Even where the import privilege system is recognized, it is operated jointly with an export obligation system.

Theoretically, the import privilege system is the more rational and adequate system of the two, inasmuch as it grants the privilege to import in return for export already completed. The export obligation system, on the contrary, fails to remove the uncertainty as to whether the export

1) cf. Taniguchi: *The Link System*: *The Economic Review*, April, 1939, P. 51-2.

required on the basis of the import already permitted will be duly effected. In practice, however, the link system is employed as a means of moderating the shortage in imported raw materials resulting from the import restrictions already in force. Under these circumstances, it is practically impossible to anticipate the export of manufactured goods unless the importation of raw materials has first been permitted. It is as a pump-priming method, therefore, that the export obligation system is applied. It works by permitting the importation of raw materials on condition that the resultant products are exported within a specified period of time. Furthermore, the export shipment subsequently completed will provide the basis upon which the next import permit is issued. Thus, as a practical measure, the method that combines these two systems has proved the most expedient and it has been adopted extensively, as is shown in the foregoing table. Let us now discuss a few representative types of these link systems.

1. The wool link system establishes a link between wool (including goat wool and camel hair) and woollen products (such as top, woollen yarn, woollen piece-goods, worsted hosiery and its products, lap-robbs, shawls and other products containing other fibres up to 90% of the total weight). Under this link the importation of wool was first permitted against export obligations, and thereafter both the import privilege and the export obligation systems came jointly into force. Prior to the enforcement of this system, permits were issued for the importation of 60,000 bales of wool in February 1938 and 20,000 bales in May of the same year, on condition that the resultant products would be exported, before the end of 1938 and February 1939 respectively. The wool link system which was put into operation on March 15, 1938, made the following stipulations its primary requirement:

a. In case woollen goods are exported, importation of wool is permitted in the same quantity as contained in the exported woollen goods (import privilege system);

b. Wool imported in accordance with the foregoing provision shall be exported as manufactured goods within ten months (export obligation system).

This clearly is a dual link system. The first importation having been undertaken in connection with an export shipment previously completed, theoretically the importer is free from future obligation to export. However, the system provides that this import involves a further obligation to export. Such a system appears unreasonable to the extent that a certain import permitted in compensation for a previous export entails a future obligation for export. However, the export subsequently effected not only cancels the obligation attendant on the previous import but also derives the privilege to undertake further import. In other words one export transaction satisfies two obligations just as one import involves obligations to effect two export transactions, and hence the system, in its entirety, is by no means unreasonable. On the contrary, it works as a species of consecutive link system which connects each import and each export in a sequence in which each step is either the cause or the effect of the other steps.

2. The cotton link system is also a dual link system. It consists of (a) the import privilege system which permits the import of the same quantity of raw cotton as was contained in the cotton yarn, piece-goods and other products already exported, and (b) the export obligation system requiring the exporter to export the cotton goods that he has purchased within two months. Such export involves the privilege to import as set forth under (a), entailing in turn the obligation to export as described under (b), the system thus working as a series of consecutive links as in the case of the wool link system.

3. The rayon link system stipulates similarly that (a) import of rayon pulp is permitted in a definitely established proportion against rayon yarn and piece-goods already exported, and (b) that the obligatory export of the resultant products of such imports must be completed within one

month, in case of rayon yarn, and within two to three months, in case of rayon piece-goods. Like the wool and the cotton link systems previously discussed, this system is operated as a consecutive link system, each import or export being linked respectively with a previous and a future export or import. As will be pointed out later, the rayon link system establishes a quantitative link between imports and exports in such a manner that rayon pulp is imported in slightly larger quantity than would seem to be required by the relative exports. Other link systems involving sundry goods such as soap, brushes, Japanese paper, etc. are operated solely on the export obligation basis.

Regardless of whether it is operated independently or jointly with the import privilege system, the export obligation system invariably raises a question as to the period of time within which export shipment is to be completed, that is, the length of time to be allowed before imported raw materials must be manufactured and exported. The wool link system mentioned above allows a period of ten months before the raw material imports must be exported in the form of manufactured goods. On the other hand, the cotton link system requires that export shipment be completed within two months from the time the cotton goods were delivered to the exporter, while the rayon link system allows similarly a period of one month for rayon yarn and two or three months for rayon piece-goods. The first-mentioned system makes due allowances for the time required for both manufacture and circulation of the manufactured goods. The other two systems, on the contrary, do not make any stipulation as to the time required for manufacture, but specify only the length of time allowed for circulation. In reality, therefore, they involve no time requirement. Despite this fact, the complaint is frequently heard that the exporter experiences considerable inconvenience because that the two month limit is too short and that it is conducive to dumping abroad. For these reasons an extension of the time limit is desired in some quarters.

How to determine the period within which obligatory export must be completed is a knotty question. The time required for the manufacture of exports involves no serious problem as it can be determined on technical grounds. On this basis, the time limit for exportation ought to be extended *pari passu* as the process of fabrication is extended from yarns to cloths and from cloths to finished products, and it is by no means adequate to fix as in the wool link system, a uniform period of ten months for woollen yarns and woollen fabrics. The question depends largely upon the period of time which ought to be allowed for the circulation of commodities. Even where the process of fabrication is comparatively so simple, as in the case of cotton, woollen and rayon yarns, a time allowance must be made for the period during which raw materials as well as manufactured goods are kept in stock by the importers, the manufacturers and the exporters respectively. Hence, in the case of commodities requiring a longer process of fabrication, a proportionately longer time allowance must be made for circulation. However, the basis for the estimation of such a time element is so indefinite that any slight difference in view point may lead to markedly different conclusions.

If the object is to encourage export trade, it seems desirable that the time limit in question should be made as short as possible so that those concerned may be stimulated to effect export shipment within the shortest possible period. However, if the limit is too short, it may induce the exporters to resort to the evil practice of dumping, or it may result in a gradual decrease in both imports and exports, to the detriment of the export trade, since only that quantity of goods that could be exported within the required time could provide a basis for future import.

3. THE INDIVIDUAL LINK SYSTEM AND THE GROUP LINK SYSTEM

It has been pointed out that the link trade system can

be divided into an individual link system and a group link system depending on whether the subject of link trade is designated as an individual or a group, or upon whether it is an individual or a group which acquires the right to import in return for completed export transactions.¹⁾ Most of the link systems now in operation in this country belong to the individual link system as shown in the foregoing table, the group link system being adopted only in the brush link system and the rayon piece-goods link system. Let us discuss, therefore, the *modus operandi* of these two types of link trade.

1. In the group system applied to the brush link trade, the importation and distribution of raw materials is controlled by the Import Control Association organized by the importers' association, the manufacturers' association and certain other organizations within this industry. As a pump-priming expedient to encourage export, an initial import of raw materials was allowed under the aegis of the aforesaid control association up to a quantity equivalent to the imports for the preceding three months, and these were placed under the control of the manufacturers' association. An exporter receiving an order from abroad obtains a certificate from the exporters' association, of which he is a member, and presents it to a manufacturer, who thereby obtains a supply of the relevant raw materials from the manufacturers' association. The total imports of raw materials for the subsequent three months are then to be determined by the total exports for the preceding three months.²⁾ Thus the system is operated by an Import Control Association organized in connection with each variety of raw materials.

2. Another example of the group link system is found in the system applied to rayon piece-goods. In contrast with the individual link system applied to rayon yarns, the

1) cf. Taniguchi: *The Link System*, *op. cit.*, P. 52.

2) *The Future of the Commodity Link System*, The Toyo Keizai Shimpo, July 30, 1938.

Japan Rayon Association, which is composed of manufacturers of rayon yarns, enjoys under this system, the privilege of importing rayon pulp against rayon piece-goods exports. On the other hand, the Japan Rayon piece-goods Association, organized by manufacturers of rayon piece-goods, guarantees, jointly with the Japan Silk-and-Rayon Goods Exporters' Association and the Japan Rayon Export Merchants' Association, the export of rayon goods equivalent in quantity to the rayon yarns they had previously purchased from the yarn manufacturers.³⁾ Thus the privilege to import is acquired not individually by exporters but by the organization of rayon yarn manufacturers, while the export obligation resulting from the importation of raw materials is shared jointly by those associations not directly connected with such importation. The rayon piece-goods link system is thus an anomalous group link system.

Let us next proceed to analyse some of the individual systems.

1. In the wool link system the exporter who has exported woollen goods obtains an export certificate from the exporters' association to which he belongs, by presenting the export license issued by the custom house. It is this certificate that vouches for his import privilege. However, this privilege is not exercised directly by him, but must be transferred to a manufacturer or a woollen yarn spinner, with whom he has previously entered into contract.⁴⁾ The latter submits this certificate to the Government when applying for an import permit. Thus the import privilege is exercised by a different person from the one who first acquired it. Yet both are individuals and not groups or organizations. Incidentally, in case the import privilege is acquired and exercised by different persons in an individual link system, it is only natural that there should arise the question of premium. In the event that the exporter has

3) K. Shioya: *op. cit.*, P. 39.

4) K. Shioya: *opt. cit.*

no arrangement with manufacturers or spinners to turn over his export certificate, he is free to transfer it to any individual who is willing to pay a substantial premium for its acquisition, because he needs to replenish his stock of raw materials. It has been reported that such an export certificate has commanded a premium as high as ¥ 1.50 per pound of two-fold yarn of 60 counts.⁵⁾

2. The cotton link system has also been enforced as an individual link system contrary to the initial intention of confining it to a group system. This system, however, shows some striking differences when compared with the wool link system. According to its stipulations, import privilege is granted to and exercised by members of the Japan Cotton Spinners Association, while the export obligation is assigned to the exporter. It is stipulated, further, that the import privilege can be acquired merely by delivering export goods to an exporter, actual export shipment not being required.⁶⁾ It may now be regarded as common knowledge that the control measures enforced in the cotton industry are favour to large scale capitalization, being somewhat inimical to lesser organizations. The operation of the link system as just described provides another proof of the inequity of the control measures adopted in the cotton industry.

3. The rayon link system is also operated as an individual link system. The rayon yarn manufacturer who effects a direct export shipment can acquire and exercise the privilege to import rayon pulp. Those who export through the exporters acquire it upon delivery of goods to exporters, such delivery being construed as export. Exporters, on the other hand, have no connection whatsoever with the import privilege except that they are required to effect an export shipment within a period of one month. There

5) Y. Kobayashi: *Comment on the Collective Link System*, *The Economist*, October 21, 1938.

6) K. Shioya: *opt. cit.*

is, therefore, a close resemblance between the rayon link system and the cotton link system.

4. The soap link system is another individual link system. In this particular industry, most of the exporters are also-manufacturers, and hence the import privilege is granted to and exercised by these exporter-manufacturers. However, the allotment, the distribution and the control of imported raw material are handled by the export association to which these manufacturers belong. For example, those who desire to receive an allotment of beef-tallow are required to file petition for a three months' supply to the association, which in turn determines the import quantity on the basis of all the petitions submitted and arranges for importation through regular importers.⁷⁾

The foregoing discussion reveals that the nature of the individual link system in each trade is at variance with the devices adopted in every other industries. Such variation arises primarily from the differences in the constitution of the original negotiators who occupy a controlling position in the various industries. For example, where large-scale modern industrial production is predominant, as in the cotton and the rayon industries, manufacturing concerns occupy a controlling position, with importers, exporters, fabricators and distributors in a subordinate position. Consequently, the import privilege is monopolized by the large-scale industrial concerns. On the other hand, in an industry like the manufacture of woolen goods, wherein production is carried on by a large number of relatively small manufacturers, exporters enjoy a dominant position and acquire import privilege, although its exercise is left in the hands of the large spinning concerns. Again, in such industries as the manufacture of brushes and Japanese paper where manufacturers are for the most part petty industrialists, importers and exporters dominate the situation, enjoying the

7) The Toyo Keizai Shimpō, *op. cit.*

sole disposition of import privileges individually, or jointly through their organizations.

From a theoretical point of view, it is our contention that so long as the individual link system is adopted, the exporter should be the beneficiary of the import privilege and the importer the party for its exercise. This is desirable not only from a theoretical view-point, but also in order to secure the effective operation of the system as an export promotion measure. Since the exporter who acquires this privilege is unable to exercise it, so long as he remains an exporter, he must transfer it to an importer. However, such transfers, when left to the unrestricted activities of the parties concerned, are apt to be negotiated at exorbitant premiums. In order to prevent these abusive practices, it is desired that exporters and importers, respectively, be brought together into an exporters' association and an importers' association, and that these two organizations be united a joint association to be granted the right to acquire and exercise import privilege under a group link system. In this connection, the group link system operated in the brush industry, although relatively small in scale, can be regarded as a reasonable type of link trade, even though it may seem necessary that a number of group link system operated in various classes of raw materials should be brought together into one large single link system. It is also necessary for the promotion of the export trade that where the group link system is employed, some measures ought to be instituted within the organization which are designed to encourage exporters to increase their volume of trade.

It must be admitted that both the individual link system and the group link system have advantages and disadvantages. However, a group link system organized along the lines just described, can incorporate with in its system the merits of the individual system, preserving at the same time any advantages of its own. Where the link system is so designed as to care for an increasingly wider application in the future,

it is clear that we ought not to adhere merely to individual link systems.

4. THE QUANTITY LINK SYSTEM AND THE VALUE LINK SYSTEM

We have shown elsewhere that the link system can be separated into a quantity link system and a value link system, according to the quantitative basis of linking selected.¹⁾ While the collective link system is technically possible only as a value system, the commodity link system can comprehend both of these systems, since it is designed to establish a link between the import of a certain quantity of raw material and the export of the relevant products. As is apparent from the table presented above, all the commodity link systems now in force, except the hat link system, are operated as quantity link systems.

A decision as to which of these two systems is preferable is a question which involves many theoretical and practical problems. Before entering into any further discussion of this topic, let us study the modes of operation of the respective systems.

1. The hat link system is the only value link system now in force. The waste wool imported as raw materials for hats consists of a large proportion of noil, woolen rags, and other basic materials, while the product is exported as hats and hat bodies. In return for an export shipment, the import of raw materials is permitted up to 35% of the value of the hats (f. o. b.) or 50% of the value of hat bodies.²⁾ Against these imports, it is required that the corresponding products be exported within eight months, either as hats at three times the value of imports or as hat bodies at twice the value of the imports. The reason why the hat link system alone has been operated as a value link system is

1) Taniguchi: *The Link System*, *op. cit.*, P. 52.

2) *The Toyo Keizai Shimpō*, July 30, 1938, P. 46.

unknown, but it is probably due to the technical difficulties involved in establishing a quantitative link between waste wool and its products. At any rate, if the abovementioned relation in value between imports and exports has been represented in its true proportions, then the hat link system will be seen to have produced a considerable amount of export surplus. Actually this amounted in 1937 to a surplus balance of some 8 million yen out of a total export value of hats and hat bodies amounting to some 12.6 million yen.

2. The wool link system makes detailed stipulations as to the rate of conversion of a given quantity of wool of various kinds into corresponding manufactured articles. Thus a bale (containing 300 lbs. of unbleached wool) is considered as equivalent to 165 lbs. of bleached wool, 140 lbs. of top, 130 lbs. of carded yarn, 520 lbs. of worsted yarn, 105 lbs. of carded yarn fabrics, 210 lbs. of worsted yarn fabrics, or 95 lbs. of worsted hosiery, etc.³⁾ These regulations regarding quantitative relations between the basic wool and its products are determined technically on the basis of the contents of a bale of wool.

3. The quantitative regulations in the cotton link system are stated in greater detail in view of the wider range of cotton products. (a) The quantity of raw cotton required for the production of yarn is computed on the basis of the standard weight of the various counts of yarn and the proportions of various kinds of raw cotton to be mixed. (b) As for cotton piece-goods the quantity is first computed in terms of the cotton yarn consumed in production. The articles manufactured by members of the Cotton Spinners' Association are estimated by the quantity of yarn registered with the Association plus the quantity consumed for the goods discarded as unfit for exports, the articles manufactured by sub-contractors being calculated by the inspection committee. The quantity of cotton yarn thus determined is subsequently converted into a quantity of raw cotton, in

3) K. Shioya: *op. cit.*, P. 24.

accordance with the process described under (a). (c) The quantity of raw cotton consumed for the production of other cotton goods is computed in accordance with the two processes above described.⁴⁾ Thus the cotton link system is similar to the wool link system in that the importation of raw materials is permitted in the same quantity as was technically estimated to have been consumed for the production of the relevant exports.

4. The regulations adopted by the rayon link system for the quantitative relations between rayon yarns or piece-goods and rayon pulp, are relatively simple. It is determined that (a) 100 lbs. of rayon yarn is equivalent to 140 lbs. of pulp and that (b) 100 lbs. of yarn contained in rayon piece-goods is equivalent to 150 lbs. of pulp. It is apparent that these regulations have been determined, not solely by technical methods, but partly in consideration of matters of policy. Thus it is seen that, while only 120 lbs. of pulp is required for the production of 100 lbs. of rayon yarn, 20 additional pounds of pulp are permitted against the export of 100 lbs. of yarn, and a still larger quantity of raw material is computed in the case of export of rayon piece-goods. These stipulations are calculated to encourage a brisk export trade in finished rayon goods rather than in yarns.⁵⁾

As to the choice between the value link system and the quantity link system, the decision depends largely upon the condition prevailing in the respective commodity markets. In some cases the quantity link system may not be practicable, while in others it can be enforced with little difficulty. In the present studies, however, the merits and demerits of these two system will be discussed only in their theoretical aspects, without reference to concrete situations.

1. One of the criticisms that has been raised against the quantity link system is the fact that it tends to increase

4) K. Shioya: *op. cit.* P. 34-35.

5) K. Shioya: *op. cit.* P. 39.

the export of bulky unfinished goods at the expense of costly finished articles. In the wool link system, for example, the application of the quantity link system results in an increase in the export volume of yarn, which requires fewer manufacturing processes and discourages the export of such finished goods as woollen piece-goods and blankets. In the cotton link system also, there is a tendency to increase the export of yarn and grey cloth, while decreasing the export volume of bleached or dyed textiles. This is a tendency which has been proved statistically to be a logical outcome of the system. In order to obtain a more abundant and prompt supply of raw materials, it is advantageous to export unfinished goods that require a more limited fabricating process. Such a practice, however, is definitely in conflict with the interests of the national economy, for it is common knowledge that the profit derived from the re-exportation of imported raw materials increases in proportion to the increase in the complexity of the processes of manufacture. The value link system is effective in removing these evils and promoting export trade in the more high-priced finished goods. It is of course possible to remedy these evils of the quantity link system by establishing a quantitative link between imports and exports not only on a mere technical basis, but also inclusive of a policy embodying corrective measures. For example, the undesirable practices can be eliminated to a certain extent by allowing a relatively small quantity of import against export of unfinished goods, and a proportionally larger quantity for finished goods. Such measures would, however, deprive the quantity method of its present merits of ease and precision in establishing the quantitative link between imports and exports.

2. The main demerits of the value link system consists in the inconveniences experienced in administration. In the first place, it is not an easy task to determine the exact value of exports, and where the supply of raw materials is in such urgent demand as it is today, exporters tend to report an excessively overvalued amount of export. Such a

practice, however, does not present a serious problem unless carried to an extreme since it is antithetical to the legal enactments restricting flight of capital or exportation without the negotiation of the relative export bills.

Another problem involved is the method by which the value ratio between imports and exports is to be established. This ratio must first be established technically on a quantitative basis and then converted into a value ratio. The value ratio thus established must of necessity undergo frequent revision whenever there occur serious fluctuations in the prices of the commodities involved. The quantity link system also is not entirely free from this inconvenience. On the other hand, the value link system does not require such a cumbersome method as that adopted by the cotton link system in maintaining a quantitative relation between imports and exports. At any rate each system will be seen to have its own practical merits and demerits.

3. In order to achieve the true objects of the link system, namely, the promotion of the export trade and an improvement of the trade balance, preference should be given to the value link system since both of these desiderata involve the value, rather than the quantity, of international trade. Whether the system is truly effective in balancing trade results or in increasing exports must be estimated finally in terms of money value. Quantitative improvement in trade results is meaningless when it is achieved through dumping with its inevitable concomitant disturbance of the balance of trade. Theoretically speaking, therefore, it is beyond dispute that the value link system is the only feasible system in link trade. Furthermore, it can be operated effectively so as to prevent the export of unfinished goods and to increase the export of finished commodities.

4. The permit issued under the link system for the importation of raw materials is granted in the form of a license to settle foreign exchange for imports, and consequently it is expressed in terms of money, not as a quantity

of commodities. Therefore, even if the quantity of raw material import is determined in accordance with the quantity link system, an import exchange permit can only be applied for if the quantity is stated in terms of money value. For this conversion of a quantity into an amount of money, each system adopts certain definite methods. The wool link system, for example, bases this conversion on a specified unit price for the commodity in question, while the cotton link system adopts the New York quotation as a standard for raw cotton. The rayon link system in turn relies upon a standard price of 19 sen per pound of pulp. Thus the quantity of imports determined by the quantity link system is by no means definitely expressible in terms of money and is subject, moreover, to change *pari passu* with fluctuations in market prices. This constitutes a further defect in the quantity link system. The value link system, on the contrary, does not give rise to such problems although it entails certain difficulties in the determination of the value of exports.

Another important factor remains to be taken into consideration. When the value link system is effectively enforced, it enables us to anticipate the probable amount of import on the basis of the actual amount of export, and thereby provides us with a more or less definite outlook upon the balance of trade and upon the future movements of exchange. For the reasons just enumerated, we are of the opinion that the value link system is a more effective system of link trade than the quantity link system.

So far we have attempted to analyze three cardinal features of the commodity link system as revealed in the process of its development. With reference to the question of choice between the export obligation system and import privilege system, we give preference to the latter, which we consider should be operated as a consecutive link system. In this connection, we do not recommend any substantial modification of the present system. As to the choice between the individual and the group link systems, we prefer the

group link system, in spite of the present prevalence of the individual link system. Should the individual link system be allowed to remain in force, it would have to undergo drastic revision before it could serve effectively as an export promotion measure. Thirdly, as between the quantity link system and the value link system, we prefer the value link system because of its theoretical validity as well as its effectiveness as a control measure. Inasmuch as many of the quantity link systems now in force have revealed inherent weaknesses, they will either have to be replaced by the value link system or revised in such a manner as to embody the essentials of the value link system.

The commodity link system involves a number of important problems that have not been considered in the present treatise, particularly in connection with certain results that have already been achieved by this foreign trade control method. These and related problems will be dealt with at the next available opportunity. (1938—11—20)