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## A TRANSACTIONS COST APPROACH TO INTERNATIONAL TRADING STRUCTURES: THE CASE OF THE JAPANESE GENERAL TRADING COMPANIES\*

By THOMAS ROEHL

### I. *Introduction*

The introduction of transactions cost principles into the economics literature has provided an alternative framework for international economics scholars to use in their analysis of the international operations of the firm. Rugman has described the foreign market participation issue using the idea of 'internalization' of assets specific to the firm [Rugman (1981, p. 25)]. While such a firm-level explanation of the trade and investment decision has not met with universal acceptance among scholars [Kojima (1982, p. 11)], the approach forces the scholar to examine the decision-making of firm managers consistent with the micro-economic principles of firm behavior, and to consider markets, both factor and product, which are not by definition perfect in their operation.

This 'internalization' approach has not, however, yet examined in much detail the alternative structures firms can use to participate in foreign markets. At most, the writers have made distinctions among licensing, exporting and foreign investment [Rugman (1979, p. 55)]. The menu of alternatives open to a firm certainly includes more subtle variations in the means to serve these international markets [Roehl, Chee and Cho (1984)]. To get the full benefits from the use of this firm level analysis based on transactions costs, the researcher of foreign market participation decisions must examine the alternatives open to the firm in sufficient detail so that this wider choice set can be identified and evaluated.

Fortunately, some of the recent writings in this literature offer researchers the tools to begin such an analysis [Williamson (1975)]. While we are not yet to the point where we can form general principles which can explain the specific form chosen by firms when they enter foreign markets, the transactions cost principles enable us to go beyond mere description of a set of business decisions.

Attempts to apply these principles to specific forms of business operations can thus be one step in the process of further sharpening this analytical tool for use in the explanation of international operations of firms. In this paper, I will attempt to apply these transactions

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cost principles to the operations of the Japanese General Trading Companies (hereafter, GTC), and the patterns of their transactions.<sup>1</sup> By illustrating the ability of these transactions cost principles to systematically deal with the diverse operations of these Japanese firms, the potential benefits of the transactions cost approach in the analysis of international trade and investment decisions should, I hope, become clear.

This Japanese institution, often credited with aiding Japan's rapid economic growth and with enabling Japan's exports to enter international markets [Marubeni (1978, p. 16)], has frequently been the topic of study by Japanese and foreign scholars. Yet, for all its significance, these analysts have not been overly successful in explaining why the GTC, with its wide range of products and trade related activities, has continued to efficiently handle a large portion of the trade and domestic exchange of the Japanese economy. The firms, varying both the mix of products and the type of activity they offer to their customers, have been able to maintain export and import shares of around fifty percent throughout the post-war period.

Rather than focus on a single function of the companies, I will examine both product and function of the companies, as other writers have done [Yoshihara (1981)], but I will attempt to utilize the transactions cost principles to understand the mix of products and the forms of the transactions which the GTC offer to their customers. I will thus show that the level and the effectiveness of the GTC services are not only the result of the level of development of the Japanese economy, as some have suggested [Misono (1956)], but rather a result of changes in the characteristics of markets and transactions faced by the customers of the GTC.

The rest of the paper will review the necessary concepts from the economics literature on transactions costs (section II), introducing Williamson's concept of a governance structure for transactions. This will be followed (section III) with a discussion of the product characteristics of the goods handled by the GTC, explained with the use of the Williamson concepts. Section IV will discuss two specific functions often cited by writers as key to GTC effectiveness: information and financing. The final section is a concluding statement.

## II. *Governance Structures for Transactions*

Economists assume an entity called the firm. If our models of that entity were adequate, the model would help us understand why this type of firm, the general trading company, developed to handle these particular functions in the Japanese economy. The first step toward understanding that postulated entity called a firm came from Ronald Coase's article, "The Nature of the Firm" [Coase (1937)].

Coase suggested that different transactions costs between market and intra-firm channels for goods and resource transfer dictated the use of one of the two channels for exchange. Still, that analysis leaves us almost back where we started, albeit with a more defined focus, the cost of transferring goods. We still have to look at each situation and try to understand why this existing solution is "best". Writers on the GTC often suggest, in a similar vein,

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<sup>1</sup> The nine firms labelled general trading firms are Mitsubishi Corporation, Mitsui and Company, Itoh Chū Shōji, Marubeni Corporation, Sumitomo Shōji, Nissho-Iwai Nichimen, Kanematsu Gōshō and Tōyō Menka.

that GTC minimized the cost of trading in the complex international environment, thus freeing manufacturers' resources to develop the production process [Shioda (1973, p. 15)].

While this tells us that the costs are lower—what exists is lowest cost—the task is still before the analyst to define the situations which lead to lower costs.

When GTC and a manufacturer enter into a long-term trading relationship, however, the cost of using GTC is not really equivalent to a market transaction. Both trader and manufacturer give up some freedom: the GTC, to vary the amount purchased more than some "fair amount;" the manufacturer, to take advantage of spot markets outside of the trading relationships with complete freedom. Neither the market nor internalization model fits this kind of relationship. A continuum of transactional structures has been suggested as an alternative to the Coase dichotomy [Richardson (1972, p. 883)].

The writer suggests firms need not internalize a transaction to structure an exchange outside the market. Various degrees of cooperation intermediate between Coase's poles of market and firm are clearly observed. While there is no control between GTC and its customers, the degree of cooperation and commitment to long-term trading relationships makes the usual market models unsatisfactory. For the typology to have use, however, we must have some definition of the transactional cost relationships which exist at various points along the continuum, as well as some way to measure the degree of cooperation at any point along the continuum, the size of the pooled activities. If we can define the characteristics of the various degrees of cooperation, then we will have the tools to proceed with a discussion of the 'general' nature of the trading companies. We will be able to say more than the journalistic lead, 'from missiles to instant ramen,' distinguishing the types of transactions for which GTC services are most cost effective [Shioda (1978, p. 154)]. In addition, we will be able to indicate what form the GTC uses from the continuum that Richardson offers. To do this analysis of GTC activity, we intend to use a typology of transactions structures developed by Oliver Williamson [Williamson (1979)].

#### *The Williamson Typology for Transactions Structures*

Williamson's contribution is to begin the specification process for transactions costing. Lack of that specification has been a barrier to the better use of these methods in economics research. He starts with the idea of a "governance structure (hereafter, gs)" defined as the "institutional matrix within which transactions are negotiated and executed [Williamson (1979, p. 239)]. The gs must, says Williamson, enable efficient processing of information about the transaction.<sup>2</sup> The gs must be able to reduce opportunism—the ability of one party to an exchange to change the distribution of benefits from the transactions after both sides have committed—on the part of both parties to the transaction. It must also recognize the importance of transaction-specific capital investments by the parties, that is, investments of human or physical capital which have much lower value if the transaction is not completed, or the relationship not continued. It is these factors, then, that influence the cost of transactional relationships in the typology.

Williamson then goes on to develop a three characteristic classification of transactions:

- |    |             |                                    |
|----|-------------|------------------------------------|
| a: | frequency   | occasional/recurrent               |
| b: | uncertainty | degree of uncertainty (continuous) |

<sup>2</sup> Williamson limits his analysis to intermediate products transacted between firms, but since almost all of GTC sales are of this type, this presents no difficulties in the use of his typology.

c: durability non-specific/mixed/idiosyncratic

[Williamson (1979, p. 241)]

The more frequent the transaction, the more likely the formation cost of a complex *gs* can be justified. Frequent cotton purchases would justify GTC membership in commodity markets, for instance. The greater the uncertainty, the more contingencies have to be specified and thus, the more complex the contractual structures. Since GTC explanations often focus on provision of information, this factor is important for the analysis of GTC operations.

The third factor, durability, is based on the degree of transactions specific human and physical capital committed by the trading partners. Durability is really a continuous factor, rather than the three part discrete variable Williamson defines. As usual, intermediate transactions are the hardest to describe. Durability also involves an acceptance by both firms of a bilateral bargaining position in the continuing transactional relationship.

The inability of firms to process all available information at sufficiently low cost would necessitate an incomplete contract. This would create a bargaining situation with the corresponding potential for opportunism—Williamson calls this “bounded rationality.”

Williamson presents three types of governance structures that will result from this typology of transaction characteristics: *market governance*, *trilateral governance*, and *relational contracting* [Williamson (1979, p. 253)]. For non-specific transactions, transactions where neither side makes any commitment of capital to the transactions relationship, market governance works, since the threat of transferred sales to alternative suppliers is a potent one.<sup>3</sup> If a GTC can call one of the many metals brokers to do a small volume transaction, then the threat to take one’s business elsewhere, even if the GTC does this transaction frequently, would avoid difficulties.

For occasional idiosyncratic transactions, trilateral governance—reliance on a third party to solve disputes, either through arbitration or via the legal process—lowers the cost of transactional governance. This is most effective because the lack of a recurrent transactional base makes it too costly to construct a complex agreement between the two parties. Those third party governance structures are necessary because the decision to contract creates opportunistic situations.

For mixed and non-specific transactions of a recurrent nature, Williamson defines two types of relational contracting: bilateral governance and internal governance. Either by vertical integration or via self-governing contracts, each unit keeps its autonomy; in this relational contracting, traders settle disputes among themselves. He admits these transactions are the hardest to define and have “only recently received the attention that they deserve and their operation is least well understood” [Williamson (1979, p. 250)].

He distinguishes between internal and bilateral governance by the degree of transaction-specific human capital involved. If the market provides some scale economies from purchase even for a product with idiosyncratic characteristics, the autonomous market transaction is still favored. Williamson cites both cost control and steady supply as benefits of continued market contracting via autonomous bilateral governance. Several GTC tin sup-

<sup>3</sup> Admitting that there are few transactions for which the assumptions of the market—many sellers, a fully identified product, full information, and an identifiable, homogeneous transaction—are fully satisfied, it still seems valuable to present this form of governance, since it will be shown that transactions which share some of these characteristics tend to have a different governance structure.

pliers, all active in a large international market, achieve these kinds of economies for Japanese steel firms without vertical integration [Roehl, Chee and Cho (1984)]. Williamson indicates the greater the uncertainty, the greater the complexity of the governance structures. Uncertainty makes market transactions less likely and increases the likelihood that standardized recurrent transactions will require bilateral governance. This indeed happens in the GTC case for such products as feed grains.

Having completed the discussion of Williamson's concepts, we can use them to analyze in more detail the GTC product portfolio in section III.

### III. *Explaining the Product Characteristics of the GTC*

In this section, the types of products GTC handle will be examined. The rationale used by Japanese writers to explain the structure of GTC transactions will be compared with the Williamson typology of 'transactions governance structures.'

Writers on the GTC focus on the benefits of the companies, accenting the characteristics mentioned by Williamson for bilateral governance regulation of transactions. GTC are said to reduce uncertainty and give stable supply, for instance. Thus, a review of the characteristics Japanese writers attribute to GTC products will benefit from the use of the typology just reviewed.

The following are product characteristics which enable GTC to handle transactions at low cost:

- 1) standardized products
- 2) the product is handled in large lots or repetitively
- 3) the GTC should be able to handle the product several times as it moves through the production cycle
- 4) the product should have economies of scale in trading, but require access to world markets for the achievement of those scale economies.

#### *Standardized Products*

The requirement for standardized products is usually explained by the lack of technical expertise on the part of the GTC managers [Shioda (1978, p. 154)], or the ability of manufacturers of differentiated products to achieve sales economies without sales through a GTC. Even if a firm has monopoly power, one could still purchase the services if costs were lower, taking the monopoly profits at the point of the sale to the distributor. Differentiated products have less economies of scale in trading, and it seems that this, rather than any monopoly power *per se*, is the cause of the internal governance found in Japanese manufacturers of these products. With consumer goods, the commitment made to the product by each consumer is important, and there is no way for the benefits of market competition through bilateral structures to benefit the manufacturing firm in this type of exchange.

The Williamson typology suggests that these standardized products have less idiosyncratic capital investment. Yet the GTC commits itself to handling the product over a period (recurrent) in a more complicated trading agreement which may require something more than the market governance trading structure. If the product is too technologically complicated, the creation of the structure may be too costly, and the GTC tend to avoid these

products. With a standardized product, quality disputes can be resolved via established norms. When quality norms are set, as in steel or basic chemicals, a sales person can easily check on opportunistic behavior of a manufacturing client or on the complaint of a purchaser, while similar disputes on a more complex product would strain that same *gs*. For those more differentiated products, the relationships with end users as well as with suppliers require complex technological transactions [Nishimura (1977, p. 15)] [Daito (1975, p. 237)], and this too argues for an internal governance structure [Williamson (1979, p. 253)].

How, then, do we explain the GTC role in certain types of commodities, usually machinery, which do not seem to fit the standardized product rule? Japanese writers offer two explanations. First, they argue what in effect is in Williamson's terms a wider 'transaction,' one in which the sale of the machine is part of a larger, synergistic ability of the GTC to structure all the equipment, raw material and final product transactions of the firm [Ooki (1978, p. 166)]. This is certainly a factor. A second factor, in foreign transactions and in sales to smaller companies [Shōsha Kinō Kenkyūkai (1975, p. 246)], is the high cost of development of market or firm-specific information for such an occasional transaction. This might lead to the use of the GTC *gs* in order to reduce uncertainty through their market and country information, while the contract gives all technical responsibility to the manufacturer. This fits with Williamson's assertion that uncertainty can lead to more complex *gs*, and is consistent with the real world transactions data, since GTC handle a very small percentage of the purchase by large, Japanese corporations in this machinery area.

I would suggest, however, that another of Williamson's categories of governance structures helps us characterize the functions performed by the GTC in this type of transaction, namely trilateral governance. These products are occasional purchases with a substantial amount of commitment by both parties. For example, once you design a plant for a given machine, costs of substitutions are high, and resale value by the seller to another firm may be low, exactly the characteristics Williamson suggests will lead to trilateral governance, since the occasional nature of the transaction is not sufficient for a complex *gs* between manufacturer and purchaser.

Thus, the GTC can perform that arbitration function, and can be paid, at least in part, through sales commissions on the output of the plant, a method which rewards the GTC for successful performance of this arbitrage function. Some have argued that GTC do not care about their sales after they get their commissions [Murobishi (1977, p. 20)]. In cases where such opportunism is present, one would expect the other contracting firms to write the *gs* so that the GTC return was partially in on-going commissions, to insure GTC contract performance, and this is indeed common. The other parties would not want to enter a transactions governance structure which permitted the GTC those sorts of opportunistic behavior.

If the products are not too idiosyncratic, then the GTC has yet another option, that of purchasing, on an on-going basis, a large enough number of the machines to justify a more complex bilateral *gs*. Defenders of the use of traders in these machinery transactions emphasize that while a GTC does not have direct knowledge of technological points, it can readily access that information when necessary. Rather than access, the intermediation process may be just as important to the GTC's success in these commodities, with transactions that anticipate difficult arbitration problems and transactions of an occasional nature more likely to make use of the GTC. The following quote, illustrative of GTC thinking of their function in the machinery trade, is in line with the Williamson trilateral governance

model.

“As technology of products gets more complex, we expect the proportion of trades decided on technology and know-how to increase, and that will tend to decrease the dependence on the GTC for merchandising. However, this neglects the importance of GTC as a means for two powerful bargainers, the equipment manufacturer and the end user, to rationalize (*gōrika*) or short circuit the difficulties of such equipment purchases” [Shōsha Kinō Kenkyūkai (1975, p. 146)].

Writers often argue that the GTC is not capable of “after service” [Tsuda (1975, p. 183)], due to a lack of technical expertise. Even this assertion, however, depends on the type of governance structure the GTC is using. Under trilateral governance, the ‘transaction’ may not be completed immediately. The marketing literature has recognized the non-instantaneous nature of consumption costs, and thus the after-contract element in a transaction [Narver (1981, p. 25)]. The product may have to be installed, tested, or consumed in a production process before both sides can say the exchange is completed. When disagreements occur during this latter stage of the transaction process, GTC provide an important after-service, often including arrangements for the supply of necessary technical expertise. Thus, even after-service is consistent with the trilateral governance role of the GTC as contract arbitrator between two transacting firms.

If this trilateral governance structure of the GTC is widespread, then the GTC may be able to find more technology intensive products for which it is the low cost transactor, contrary to the *shayōron* thesis. The use of the same economic organization in several governance structures, however, indicates not only the GTC’s ability to search out a low cost *gs* that may vary by commodity or country, but also indicates that the empirical testing of models based on such a typology will have to be careful in using organizations as proxies for a given structure.

#### *Trading in Large Lots or Recurrent Lots*

The second characteristic of GTC transactions is that most are large lot, or smaller transactions, frequently repeated [Nishimura (1977b, p. 16)]. The small percentage commissions in very competitive markets are often cited as the reason for the GTC’s desire for large transactions, but that low commission may be more the result of the standardized product characteristics of products which trade in these large lots. The expenses for the use of the trader’s human capital may not change with the size of the transaction, but the same revenue could be earned on smaller volume and higher commissions. While the costs of administering the contract do not go up as fast as the volume of the transaction [Nishimura (1977b, p. 16)], it seems that further examination of the recurrent nature of these transactions will give us a more satisfactory explanation for this GTC product characteristic.

Alchian has proposed that cost be defined not only by output, but by the length of the run, with costs declining with the length of the run (International Encyclopedia). That same concept holds for the costs of transactions. The GTC requirement for volume transactions thus may more logically be interpreted as a desire for recurrent transactions that have long runs, preferably of large volume. The desire for GTC to structure repetitive transactions, which writers [Nishimura (1977b, p. 16)] have indicated is the core of GTC profitability, is thus seen as enhancing the GTC’s ability to decrease costs for the set of transactions by information gathered from successive transactions.



The development of a new mine, especially when it is not in the same country, involves a more complex transaction even though the output product is standardized. Long term contracting—which is undertaken by GTC's—in such cases can decrease the transactions cost of that development [Smith (1976)]. Again, the necessity of recurrent transactions, in Williamson's typology, becomes key in setting up the smooth functioning of the activities of the GTC.

Compared with the market governance alternative to these transactions in standardized goods, the bilateral governance of a long-term trading relationship with a GTC involves more potential for opportunism, since the manufacturer depends on the GTC for supply or marketing. The GTC has to persuade its potential partner of the benefits of the bilateral gs. Japanese writers focus on the GTC's ability to open up new markets, find and develop new sources of raw materials for that firm, and pass along information on technology [Shōsha Kinō Kenkyūkai (1975, p. 21)]. In Williamson's terminology, the GTC are investing a substantial amount of transaction-specific capital, for which they will only earn a return if the trade is successful. To the extent that such bilateral relationships have greater uncertainty for the manufacturing firm, due to this opportunism, the GTC is posting a 'performance bond' by its initial investment [Klein (1978, p. 298)], reducing that uncertainty of the governance structure.

#### *Handling Products at Several Stages of Production*

GTC usually handle raw materials, movement of intermediate products between processors and final output. The wider definition of the "transaction" has already been mentioned. A set of standardized product transactions (e.g. several stages of textile production), each more easily handled by market governance, are combined to form a pool of transactions that has more idiosyncratic characteristics [Nishimura (1977b, p. 15)]. These types of transactions are clearly valuable to GTC, since Itoh Chū, a firm weak in steel-related trading rights, was willing to assume some of Ataka Sangyō's trading rights after its "bankruptcy." The appeal of trades in ore, iron and specialized steel products was substantial.

The assembling of these transactions may have a gain of reductions in price and product availability variation for the firms. When a portion of the goods is sourced from or sent to less developed countries—or more generally, countries for which the manufacturer cannot acquire information easily—that greater uncertainty would lead the manufacturer to accept the more complicated gs. In such product areas as textiles, there are a large number of exchanges between producing units. In Japan, these involve exchanges between firms [Shōsha Kinō Kenkyūkai (1975, pp. 159–179)]. Exchanges within a firm would be one way to reduce opportunism on the part of the exchange participants, especially when transactions have some idiosyncratic characteristics due to product specification, quality differences in the product specific to the purchaser, or timing of delivery. A firm would have to compare the administrative costs of internal governance with contracting alternatives. If all transactions could funnel through a GTC who 1) is known by all participants; and 2) depends on continued flow of goods through the production process for the return on its resources, then the GTC functions similarly to a market. Firms do not have to be as concerned with the identity of the seller of the product, since failure or delay would lead to lowered GTC commissions on later transactions in the production process. Thus, the GTC has reduced the number of exchangers for whom the buyer and seller must accumulate information and monitor per-

formance to one—or a few—GTC competitors. There are obvious benefits in utilizing a transactions structure where you must only consider the commodity in exchange, and not the identity of the person on the other side of the transactions [Telser (1981)].

The GTC thus provides this characteristic people value in a market, without requirements of market governance, such as a homogeneous product. The specifications of the production process may not lead to product homogeneity. Most of the consumer goods the GTC handle are of this stage of production type, further indication that it is the transactions characteristics rather than the product characteristics that are central to choosing the form of the exchange. Many of these bilateral governance relationships enable adjustment in the quantity provided, with the price remaining relatively stable over the cycle. While I can cite no study to back up this impression, interview information concerning the contracts in the steel industry give some indication this may be not uncommon in GTC transactions. The coal and iron ore contracts with Australia have flexibility to vary the quantity in a given year as long as the average stays at the contracted level over the life of the contract. GTC handle a varying amount of the total production of the steel industry under fixed price and quantity contracts, with each given some flexibility on the sales of the remainder of the production [Stuckey (1981)].

The ability to make such a quantity adjustment at several margins should enable the bilateral governance to resolve disputes without falling into the zero sum alternatives Williamson suggests result when price is the adjustment margin (Williamson (1979, p. 251)).

#### *Products with Economies of Scale in Trading*

Most of the GTC products, at one stage or another, are world market products [Daito (1975, p. 237)]. Those markets are of two types, some with few sellers (e.g. aluminum) and others for which access to the world marketplace is restricted, often by membership requirements (e.g. tin). In the first case, GTC enable firms to pool purchases to create a better bargaining position as a long term purchaser, creating an ideosyncratic transaction where bargaining relationships are easier to protect against the opportunism of the seller. Many of the raw materials GTC handle are traded by large specialized trading companies in other countries, further evidence that raw materials meet Williamson's criteria for this type of governance structure. In the second case, GTC access and operate as members of a market. While this does not answer the question of why a central purchasing unit could not become a member, the fact that in these situations a manufacturer purchases from several GTC indicates that competitive sources still have a value in this type of market.

When products have these above characteristics, GTC will compete for those markets. This can be seen from the GTC response to the changes in Japanese and world market structure. The *shayoron* writers suggested that the 1960's change in industrial structure would make the GTC obsolete [Misono (1956, p. 15)], but they failed to recognize the ability of the GTC to add steel and chemicals to their base of textiles and food products. Each of these product classes had the requisite characteristics [Daito (1975, p. 237)]. In the 1970's, the move toward energy product handling, first in natural gas for utilities, and later, in direct deal transactions to replace oil previously handled by the oil majors, indicates continuing attention by GTC for products which fit this set of characteristics.

### *The Set of GTC Functions*

In addition to being general in the sense that they handle a wide variety of commodities, GTC are general in the sense that they have a set of trade related functions which are offered in various combinations as part of the trading activity. Those would include, but not be limited to warehousing and shipping, information on markets, trade financing and services to set up complex trading transactions. The importance of each of these functions has varied across products and across countries, and the importance of the various functions has changed over time [Shōsha Kinō Kenkyūkai (1975, pp. 21–28)], and across firms. Articles [Kyū Daishōsha (1979)] often indicate different company attitudes toward both country risk and toward financing. Before turning to an examination of two of these functions, the information and financial functions, this section will discuss the benefits of these sets of functional activities for the GTC and its customers.

The sets of functions have sometimes been cited by critics of the companies as evidence that GTC have lost their original mission, providing a smooth flow of goods to their customers as commission merchants [Misono (1974, p. 10)]. The implication is that each of these functions can best be performed by separate structures. If all the GTC provided were services equal to market governance, as these critics imply, the assertion would be true, but GTC, in order to develop and maintain markets, make substantial transactions-specific investments, and these investments have an effect on the cost curves of providing these other functions. The efficient production of these services depends on the large volume of transactions for risk reduction, and on the information accumulated by the GTC in market development. The other functions cannot stand alone. GTC will, of course, in its calculation of the return from any new venture, include any returns to these functions. If the transaction-specific capital investments are necessary to develop a given market, such returns to these other functions may permit a *general* trading company to develop a market not possible for a specialized trader and not feasible for a manufacturer because of economies of scale in trading.

The set of functions and commodities enable the firms to decrease risk in the transactions, and to the extent that their customers are risk averse, the companies may be able to purchase risk reduction at a lower cost through the GTC. GTC bear the risk of market development for small firms for instance, by investing in several different commodity or country areas [Ooki (1975, p. 166)]. Exchange risk is decreased for a GTC as it balances raw materials purchases and final product sales from different companies [Misono (1956, p. 196)]. Similarly, lowered risks of half-full ships or warehouses enable the stable transaction volume to lower these transportation costs to users. In each of these cases, commitment to trading structures, another type of Williamson's transaction-specific investment, makes the GTC better able to provide these other services as well.

## IV. *Two Important Functions*

Two of the GTC's non-transaction functions have gotten more attention from the analysts, thus the information and financing areas will be discussed separately, acknowledging the danger of looking at one element of the pool of services in isolation.

### *Information*

The GTC emphasize their ability to get the right information to their customers to have the most profit on a given sale [Marubeni (1978, p. 19)]. Many writers see this function as a key to the understanding of the role of the GTC [Shimura (1981, pp. 16-17)]. That information could be on prices in different markets, techniques of production or new marketing possibilities.

The economic question this raises is again the cost of supplying this information via different structures. Japanese writers assume costs of manufacturer assembly of such information is higher. Certain types of information—international information about other industry areas of importance to the marketing of a manufacturer's product—are more likely to be supplied at lower cost by the GTC [Shioda (1975, p. 112)]. The GTC must surmount these same barriers. Just as in trading, an analyst has to show how the economies of scale in information gathering take place using the GTC.

Much of the GTC information is of a public good nature. It is hard to sell the information, which is seldom patented and may have value for several firms, for two reasons. First, it is difficult to assess the value without actual transfer; second, it is hard to police resales. Goto, in a recent article, examined the role of industrial groups in transfer of technology. He suggests that we think of the groups as information clubs, where each member pledges to share information with others of the group and not to divulge that information to outsiders. The GTC and its clients could create similar arrangements, with the GTC serving as a clearing house [Peck and Goto (1978, p. 239)]. The return on investment in information gathering activities is not totally predictable for the trading company. Thus, if we define information as yet another of the resources of the firm, a la Penrose, then the GTC will be likely to have under-utilized information resources at any given time, stemming from the variable, less than totally predictable supply of this resource the firm has generated. This too will produce growth into new areas to fully utilize these firm-specific information resources.

The GTC, if it invests in information gathering, has the likelihood that several client firms will use the information generated. This implies that very specific technology might not be handled by the GTC, since the GTC would provide no services a firm could not match internally. GTC can also gain from the expected commissions of output which the new technology would generate, and this too would increase the likelihood of such information gathering activity [Daito (1975, p. 238)]. GTC can in effect promise, "This is good information. To prove it, we will not take profits on the transactions until you make use of the information in production or sales." The investment in this type of information-gathering may not pay for each firm separately, assuming they cannot sell it for full value to one another without a more complex governance structure to look after the opportunism dangers of such a transaction. Since that GTC governance structure already exists—or if developed can serve other transactions as well—the use of the GTC governance structures for information gathering may be cost effective.

There is another rationale for this same dependence on GTC information, however. If, as we asserted earlier, the GTC make substantial transaction-specific investments to show "good faith" at the start of a trading relationship, then it would be rational for them to include information-gathering as a part of that investment, since it would benefit both parties in the transaction. The expected commissions on product sales can also provide a means for payment for the information. In addition, the sales also provide an insurance against

opportunism of a different sort. If information is passed on to outsiders, the GTC could cut off the flow of goods, causing a loss of the manufacturer's transaction-specific capital.

Several writers have questioned whether the simultaneous development of information by nine competing traders is efficient [Misono (1974, pp. 13–14)] [Shioda (1975, p. 118)]. There are at least two difficulties with such an approach. We have stressed that the firms don't provide the various functions in isolation, so Misono's desire to separate functions will have additional effects on the whole governance structure. Information has to be gathered anyway to perform the other parts of the GTC role—Shioda suggests that if this is the case information be made public by companies. Second, the information may not reduce risk to zero, in which case the firms and society may be willing to pay for a system which generates alternative information sources. Firms generally hire at least a second GTC to handle a small portion of their transactions, since this enables a gathering of more information and provides a check on the main GTC service and information quality. In Williamson's terms, there are problems of opportunism in the exchange of information, and these firms are responding by increasing their ability to take business elsewhere if the trading company threatens to change the distribution of the gains from this information transaction.

The efficiency of the GTC information function has been increasingly challenged by both business people and by academics [*Shōsha no Jidai* (1980)] [Makino (1980)]. The articles describe situations where GTC are not effective in providing market information to consumer product firms and where the cost of transferring information internally in the GTC to get the full use of the information, as Goto stresses, is high. Without disagreeing with these writers' specific criticisms, the information function of the GTC seems easily defensible if we remember that the focus of information gathering depends on the type of governance structure used. In market-making transactions, where GTC create repetitive transactions by identifying new customers for the manufacturing firms, information on changing markets is the key. In areas where an established market exists, and GTC provide easy access to that market via membership or physical presence, as in raw materials, a different kind of information flow is important. In areas where the GTC handle a trilateral governance structure, the ability to anticipate changes in environment that might cause difficulties leads to yet another type of information gathering focus, country rather than product specific—sometimes firm specific as well.

To analyze the efficiency of the GTC information function, one must identify the type of transaction the GTC is undertaking. Only then can we evaluate the appropriateness of the GTC as an efficient information gatherer. In the case of the consumer goods industry, the lack of an organized market for brand-specific products makes the GTC market maker or market connecting information less valuable, so its information may never have been appropriate in this area.

### *Financing*

The GTC provision of financial resources to its trading customers, usually in the form of trade credit, has sometimes been interpreted by foreign authors as the main reason for the GTC existence [Drucker (1975, p. 236)], but few Japanese writers make this assertion [Nishimura (1977a, p. 121)]. The connection to the trading relationship is clear, and the ability of the GTC to handle some transactions with no financing and the changing importance of GTC trade credit in the GTC pool of functions over time is further evidence of the

direction of the relationship.

The Shōsha Kinō Kenkyūkai book ends its chapter on GTC financing with a statement that if cost considerations change so that bank supply of the trade credit becomes more economical, the GTC would transfer that function to the banks without losing its basic corporate rationale [Shōsha Kinō Kenkyūkai (1975, p. 43)].

Two factors are central to most explanations of the financial function, one external and one internal to the companies. First, the lack of a price-determined allocation system for credit is asserted to encourage firms to establish ties with firms, like the GTC, with good credit access. Second, the GTC commitment to a complex governance structure developed for trading generates information on the quality of the firm as a credit risk. The development of the textile traders illustrates this pattern, as the GTC provided financing to small firms from raw material to final good stages of production.

Trade credit, both for GTC and for other Japanese firms, is due to segmentation in the capital markets in Japan rather than a result of the inflexible interest rate structure *per se* [Teranishi (1974)]. The key is the inability of smaller firms to access credit.

He documents rules which make it difficult for smaller firms to access alternative markets for funds, and thus the bank is in a monopoly position for these smaller firms but not for larger ones [Teranishi (1974, p. 222)]. In such a market, the GTC, which has alternative points for access, would be in a bilateral monopoly position when it negotiates with the bank for funds. Thus, use of that acquired GTC capital by smaller firms may be the best alternatives available for additions to their working capital. Without such an alternative for small firms, and for elements of the distribution system which also were denied direct access under credit rationing, the ability to effectively utilize the human capital in these sectors would have been even more distorted.

The second rationale for GTC trade credit, lower risk premiums for the loans, has a more clear connection with the governance structures sketched earlier, and is not subject to changes in government policies in the financial sector. Some have argued that the risk reduction benefits come from the GTC's ability to lend to a large number of firms [Shioda (1977, p. 405)], but the banks could duplicate that diversification. Thus, the gains must come from some other source.

Writers often mention that the banks do not want to take the risk of loans to small firms. If the banks can charge a risk premium to compensate and the firm is not barred from access by MOF rules, the larger risk would not necessitate another financial intermediary. An explanation must show the cost of the risk bearing is lower for the GTC than for the bank.

This is where the GTC's long-term trading commitment becomes important. The evaluation of the credit risks of medium-sized firms—or at times the marginal loan for a large firm—must involve an evaluation of their position in product markets and the quality of management. Since the GTC, in forming its *gs* to handle the flow of goods to the firm, must acquire the basic information to make such a credit evaluation, and since, in allocating its trading resources, the GTC must decide on the future profitability of the firm—its output will be the source of the GTC's commissions—the GTC already has accumulated the information a bank would have to acquire to attach a risk premium to the loan. Thus, the bank prefers, other things equal, to let the GTC assign the credit to these firms. For very small firms, the commissions from an on-going trading relationship do not permit these complex

bilateral governance structures that are the basis of the GTC financial functions. Thus, general trading companies do not normally trade directly with cottage industries, and thus cannot evaluate their risk, so the GTC deal with firms which do go to the commercial banks for some credit, and the banks have some information to check the GTC credit evaluation [Nishimura (1977a, p. 120)].

There are gains for both the bank and the smaller firms receiving the credit. In the case of the bank, the risk evaluation benefits were and continue to be important. This benefit was supplemented by the increased loan volume which the pass-through loans generated in the 1950–1970 period when bank credit levels depended on the deposit level of a bank. Since the restrictions on GTC overseas financing were effectively relaxed earlier than for the banks, the ability to circumvent MOF restrictions via GTC borrowing abroad for the bank customers may have had some value [Shōsha Kinō Kenkyūkai (1975, p. 43)]. The bank's commissions on the foreign exchange transactions generated by these trade credit extensions led to additional bank profit opportunities. While most of these structural factors had disappeared by the 1970's, they were important considerations which supplemented the basic appeal for the bank, the GTC's risk evaluation services.

The benefits to the firm cannot be so easily determined. A bank has monopoly power vis a vis the small borrower, and the GTC may have similar ability to, by a combination of charges, take almost all the returns from the additional capital provided. Misono has argued that this extension of capital leads to an increase in GTC control over the firms [Misono (1974, p. 12)]. But since firms can return to the banks for funds at the same monopoly rate, given the worst case where all gains from trade credit accrue to the GTC, there seems to be no increase in control, only a transfer from bank to GTC.

It is thus the possible monopoly in short term financing sources, rather than the cost of an additional middleman, as some have suggested [Umezū (1971, p. 68)], that creates the problem. The extra services, from society's point of view, are compensated by the lower costs of risk evaluation and/or efficient allocation of capital resources. It is only the distribution of that gain that depends on the bargaining between GTC and the firm. The GTC would seem to have ample number of margins for taking the gain if it possessed that power, given the large number of transactions it has with the firms. A firm depending on only one GTC for trade credit would leave the GTC with an opportunistic situation. It would thus seem to be important for the firms to diversify their sources of trade credit, just as they do for trading services, and indeed we do find such diversification.

Depending on which source of GTC trade financing is more important, the source of higher firm value will be a bit different, but the gain in firm value is clear. If the gain comes in a lowered risk premium, then the lower interest cost will make the firm receiving the trade credit more profitable. If the system is operated by non-price rationing, then the firm's return from the additional unit of capital will be greater than the cost of that capital, and again a gain will accrue.

In addition, there are a number of other possible gains from the use of that credit in the development of new markets. GTC may take the risk of that development through provision of trade credit which otherwise would require access to long term markets for capital for such an investment. The repayment for much of the initial set of GTC services to develop the market is in a delayed form, via commissions, and this also is a form of long term finance from the GTC.

The difficulty of separating returns for any one of the functions would make testing rather difficult. We cannot, for instance, look at the returns to the GTC trade credit and conclude that the return alone indicates either the importance or the magnitude of the profit from that function. Misato suggests that money is central to the GTC and cites as evidence the fact that some firms make more from this than from trading [Misato (1977, p. 138)]. As a GTC manager, one would be indifferent to receiving trading profit or interest income, and that combination may well vary over time and by product and market characteristic.

Provision of trade credit, or any other function, has an effect on the other functions as well. There is thus a danger of constructing a model for only one element of the GTC behavior if there is to be a measure of profits in the model. Testing of the returns on any one of the factors thus immediately gets the researcher involved in modeling the interrelationships of the functions of the GTC. It is not surprising that few have ventured into this area.

## V. *Summary*

The Williamson typology of governance structures has clear explanatory power in aiding researchers in their analysis of the trading structures used by the Japanese general trading companies. This is true whether we examine individual GTC functions, or consider the structures the companies create to handle transactions in specific products. An article of this length does not permit a full discussion of all aspects of GTC activity where the governance structure ideas are an aid to understanding. The foreign investment activities of the GTC can easily be interpreted within this framework, reading Yoshihara's excellent review article with the Williamson ideas in mind [Yoshihara (1981)]. The discussion of 'unfair' GTC activities in the domestic economy by the Japan Fair Trade Commission also becomes more clear when viewed in light of the Williamsonian ideas [Roehl (1982, p. 93)].

In many ways, exploratory studies of this type leave us less than fully satisfied. The data is by definition anecdotal, though each instance documents actual exchange structures rather than opinions or industry or firm averages. The next step is to find ways to systematize the data collection without losing the focus on the individual transaction characteristics, so that more precise data analysis methods can be used. Comparisons of firms operating in different locations [Korean and Japanese trading companies (Cho, 1980)], and firms trading similar products in the same location, but with different firm-specific assets (specialty and general trading companies in Japan) should enable us to further test the robustness of the Williamson typology. Still, this exploratory study has demonstrated the potential for this line of analysis. The examination of and the more detailed specification of the individual activities of a firm is a source of substantial information. We can use this analysis to deepen our understanding of both the costs of exchange and the forms of international exchange of goods and services.



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