LATIN AMERICA'S PLACE IN JAPANESE EXPORT TRADE

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Of all major industrial countries, Japan has the fastest yearly rate of increase in the volume of manufactured goods it puts on the market, and every year these goods become relatively cheaper than those offered by its competitors.[1] As a result, its exports exhibit very high rates of growth: during 1955-65, for instance, they grew at an average rate of 15 per cent per year, with recent peaks of 22 per cent in 1964 and 27 per cent in 1965.[2]

In this context of rapidly expanding Japanese exports. it is of interest to try to ascertain whether Latin America's import patterns by origin have undergone any modifications which may be ascribable to, and commensurate with, the increase in the flow of Japanese goods to the world market. The speed at which various count-ries or regions increase their imports from a given country cannot of course be uniform, first of all because the rates of growth of their total imports are them-selves not uniform. This first reason, however, has no significance for our purpose. Differential rates of growth of total imports are independent of changes in the com-position of imports by origin, and, stemming as they do from deeply-rooted struc-tural causes, may be considered as given. Significant instead are differences in

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1   Between 1958 and 1965, taking the former as 100, manufacturing had risen to 267 in Japan, as against 178 in Italy, 162 in West Germany, 155 in the United States, 142 in France and 134 in the United Kingdom (United Nations, Monthly Bulletin of Statistics, February 1967, p. 18 ff.) The export price index, which remained largely constant at 100 in Japan dur-ing this period (surging briefly to 105 in 1962 and dipping to 97 two years later, to revert to 100 in 1965), had reached in 1965 a value of 106 in the United Kingdom, 107 in West Germany, 109 in the United States and 120 in France. All these increase were steady. Italy was the only major country to exhibit a more favourable trend, as its export price index declined steadily to 94 by 1965. It is worth noting that the above Japanese indexes are those computed by the Bank of Japan. Accord-ing to Japan's Ministry of Finance, Japan's export price index declined steadily from 100 in 1958 to 94 in 1965. (International Monetary Fund, International Financial Statistics, January 1967.)

2   Japan's total exports rose from $2,010 million in 1955 to $8,452 million in 1965. In 1963 and 1964 they amounted to $5,452 million and $6,673 million respectively. (United Nations, Monthly Bulletin of Statistics, February 1967.)

distance,[3] in settlement terms, in the supply of aftersales services, in good-will, in balance-of-payments constraints, in knowledge of the market and so forth, all of which, to the extent that they depart from a norm and are not compensated for by offsetting directions in their movements, make for a departure from the magnitude of trade that could be considered normal if competitiveness alone counted.

The purpose of this paper, therefore, is to analyse the extent to which Latin America deviates from just such a normal pattern in its imports from Japan, and to try to sort out the probable causes, as well as some consequences, of that deviation. The reason why trade in only one direction is taken up is the lack of symetry in trade in only one direction is taken up is the lack of symmetry in trade between both economies in terms of dynamism. Latin American exports to Japan simply follow the trends in Japan's import expansion associated with the growth in its national product, so that increases — some of them spectacular, as with iron ore, fuel, or, a few years ago, bananas — are not ascribable to changes in Latin American productivity, or technology, or salesmanship, but merely to increase in Japan's requirements. By contrast, increases in the proportion of goods that Latin America buys in Japan are not related to changes in requirements, but are the direct result of changes in Japan's competitive position, or to changes in Latin America's awareness of it.

The period analysed is the post-war generally in the introductory paragraphs, and 1962/65 in a second stage. This four year period was chosen mainly because in 1962 an important statistical series, the Commodity Trade Statistics published by the United Nations, underwent a substantial change of format that made it possible to undertake with ease this study. The period also has the advantage that it is sufficiently removed from Japan's reconstruction period, the Korean War and the distortions brought about by inconvertibility and bilateralism in the 1950's to make one feel confident that the patterns observed have solid foundations. Above all, the period has the added advantage that is well outside the time - reaching more or less

3   From an economic point of view, distance between geographical points
     need not be considered as given, owing to different possible combi-
     nations of freights.

into 1960 — when Japan's competitiveness in many products was still questionable. In a third stage, the year 1964 is singled out to examine trade at the level of four digits of the Standard International Trade Classification, Revised (SITC/Rev.). Finally, the importance of various factors that appear to cause a deviation from normality in Latin America's imports from Japan is examined.

The following definitions should be noted: Latin America refers to the 20 Latin American Republics. Latin American import data are f.o.b., and have been derived without any adjustment from the trading partner's custom clearance data — unless otherwise noted — as published in the United Nations' Commodity series.[4] The trading partners are the EEC and EFTA countries, the United States, Canada, Spain, Yugoslavia and Japan. Since our emphasis will be on manufactures, and especially on machinery and transport equipment, exports from these 18 countries are very near to total Latin American imports, as the value imported from Finland,[5] Australia, South Africa and the Socialist countries is rather small. The 18 countries will therefore be referred to as the world. Inter-Latin American trade is excluded throughout, as are Panamanian imports of ships from all countries. Values are in current United States dollars.

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4 The figures used in this paper, which are valid for analytical purposes only, differ from those given in other publication owing to the following causes: a) Exports of ships from 18 countries to Panama, which amounted to $96 million in 1965, of which $22 million were sold by Japan, are excluded. b) Exports from all countries to Puerto Rico and other territories of the Latin American area (including the Canal Zone) are excluded; exports from Japan alone to those destinations amounted in 1965 to $31 million and $49 million respectively. c) Since the Latin American import figures used in this paper emanate from the customs clearance data of its trading partners, a given year related to the exit of merchandise from the exporting countries rather than to its entry into Latin America. (Figures quoted from Japan External Trade Organization, Foreign Trade of Japan 1966, p. 155, and Commodity Trade Statistics, 1965 various countries.)

5 Finland's exports to Latin America are not negligible, amounting to $41 millions in 1965. However, only $4.8 million were accounted for by machinery and transport equipment — excluding ships sold to Panama (Commodity Trade Statistics 1965, p. 4648 ff.).

Exports from Japan to Latin America have grown spectacularly in the post-war years. Between 1953 and 1964 they grew at an average rate of 14.6 per cent per year, jumping from $81 million to $362 million, whereas total Latin American imports from all countries outside the region rose only at a rate of 2.6 per cent per year, from $6,120 million to $8,060 million. Japan thus secured an increasing share of the Latin American import market, which from 1.3 per cent of the total in 1953 rose to 4.5 per cent in 1964.

The high rate of growth of Japanese exports to Latin America was however exceeded by the rate of growth of Japanese exports to the world as a whole. Between the same years, these grew at the rate of 16.3 per cent per year, passing from $1,270 million to $6,674 million, and exports to certain important markets grew even more steeply: from $120 million to $867 million in Western Europe, and from $235 million to $1,842 million in the United States. As a result, the share of Japan's exports taken up by Latin America declined from 6.4 per cent of the total in 1953 to 5.4 per cent in 1964.

It must be pointed out that Japan's exports to different markets are not strictly comparable, from the aggregate figures, with those of other industrial countries. One characteristic of the Japanese export pattern is its dualism, or the tendency to produce on the one hand labour-intensive goods to be marketed mainly in the advanced countries, and on the other capital-intensive goods to be marketed mainly in the underdeveloped ones. [6] In 1965, for instance, Japan exported goods to the value of $4.3 billion to the developed countries, and to the value of $3.6 billion to the under-

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[6]   Among Japanese exports mainly destined for low-income markets are rolling-stock, chemical fertilizer, rayon yarn, textile machinery and parts, staple fibre yarn and fabrics, cements, enamelled iron-ware, cotton yarn, aluminium, woollen yarn, iron and steel, cotton fabrics, coppers, etc. Among Japanese exports mainly destined for high-income markets are ships, raw-silk, blouses, plywood, cultured pearls, silk fabrics, fish and shell-fish, fish and whale-oil, toys, linens, cameras, radios, etc. See S. Okita, "Post-War Structure of Japan's Foreign Trade" in _Economia Internazionale_, XII (1960), p. 97.

developed ones. Exports of machinery and transport equipment to the former, how-
ever, accounted for 26 per cent of the total, or $1.1 billion, whereas those shipped
to the latter accounted for 39 per cent of the total, or $1.4 billion. [7] Similarly,
there are differences in the structure of Latin America's imports by origin. In
1965, for example, out of a total value of Japanese exports of $386 million to Latin
America, only $6.5 million, or 1.7 per cent, was accounted for by primary products
— raw materials, foodstuffs and fuels.[7] In the case of the United States' exports to
Latin America, however, — which amounted to $3,691 million — $680 million, or 18
per cent, were accounted for by those products.[8] Other industrial exporters held
intermediate positions.

For this reason, it is advisable to analyse only a given category of goods, so as
to have better comparability; and capital goods, or, specifically, machinery and
transport equipment (including some consumer durables) appear to be the best
choice, not only because they are the most representative and dynamic products of a
modern industrial economy, but because they have great weight in Latin American
imports and increasing weight in Japanese exports. Machinery and transport equip-
ment accounted during 1962/65 for about 44 per cent of total Latin American im-
ports, with little annual variation.[9]
In the case of Japan — where between 1960 and 1963 the export price index of machi-
nery declined from 108 to 94 [10] —the corresponding share in its total exports

7   Commodity Trade Statistics 1965, pp. 4719–4802.

8   Ibid., pp. 4012–4126.

9   The stagnation of the share of machinery and transport equipment in
total Latin American imports might seem logical, given its already high
value. Further growth of the share, however, is only prevented by
balance-of-payments constraints. Since consumer-goods imports tend to
be already fully compressed, Latin American governments, faced with in-
adequate holdings of gold and foreign exchange, have no choice but to
give first priority to "maintenance" imports, i.e., imports of interme-
diate goods and raw materials which are essential to maintain output and
employment. This choice is thus made at the expense of additional
imports of capital goods. See Latin American Institute of Economic and
Social Planning, Integración, sector externo y desarrollo eccnómico de
América Latina, Santiago, Chile, 1966, pp. 9 and 10.

10   Japan, Statistical Yearbook, 1964, p. 360.

increased steadily from 26 per cent in 1962 to 31 per cent in 1965. This increase was the result of an intensified drive in Japan to achieve greater international competitiveness, spurred by the imminent liberalization of trade in the early 1960's and by the earlier announcement of the Ten-Year Income - Doubling Plan, which also raised businessmen's expectations. Thus, the period 1960/62 witnessed the fastest increase in capital accumulation in Japan in ten years, and, within this trend, the rate of increase corresponding to manufacturing industries — particularly iron and steel, chemical and machinery — was twice as high (40 per cent per year) as the rate for other industries (18 per cent per year) between 1955 and 1962, in real terms. [11] Both the period we are focusing on — 1962/65, during which investment continued to be — and the type of goods we are examining thus appear to be well suited to a study in which Japanese international competitiveness is relevant.

Limiting then our analysis to Section 7 of the SITC/Rev, namely, Machinery and Equipment, exports from Japan to Latin America grew between 1954 and 1964 (figures for 1953 were not available) from $28 million to $122 million, or about 15.8 per cent per year, whereas total exports from Japan in the same category rose from $202 million to $1,958 million, or approximately 25 per cent per year. Again, its sales to advanced economies grew above that average: Japanese exports to the United States grew from $24 million to $377 million and to Western Europe from $3 million to $254 million between 1954 and 1964, or 31 and 56 per cent per year respectively. The West European rate naturally owes its high order to a low initial value, but the rate of increase was nevertheless very steep every year through 1957, when it reached $42 million. Between 1957 and 1964, the rate declined to 31 per cent per year. It is interesting to note that during the mid and late 1950's, when Japanese heavy industries were not yet internationally competitive, Latin America, the United States and Western Europe bought roughly comparable amounts of Japanese machinery and transport equipment, with Latin America tending to exceed in any one year one of the two other economies, and sometimes both. After 1959, however, the United States began to outdistance Latin America perceptibly, and Western Europe

11   Japan, Economic Planning Agency, Economic Survey of Japan, 1961-62 pp. 27 and 28.

did likewise after 1961.

The question naturally arises whether this low relative value during the 1960's in Latin American participation in the Japanese export trade was due to its dwindling participation in world trade in general, or whether it may not rather reflect to some unknown extent also a lack of response by the Latin American import market to the increasing competitiveness of Japanese export goods.

In order to look into this question, we may conveniently analyse the relations of four variables in this category of goods, namely, exports to the world from the world and from Japan, and exports to Latin America from the world and from Japan. If we employ several levelling assumptions, such as homogeneity of goods, perfect competition, equal freight costs irrespective of distance, perfect knowledge, no balance-of-payments constraints, equal credit facilities, etc., the ratio between the first two values ought to be the same as the ratio between the second two values, and the quotient between the latter and the former ratios ought to be unity. Thus, if Japan's share in world exports of machinery and transport equipment is one-twentieth then Japan's share in Latin American imports of the same category, given our assumptions, ought to be one-twentieth also, and the quotient—5 per cent over 5 per cent — would be unity. To the extent that the first ratio is larger or smaller than the second, the intensity of Japan's export trade is below or above a normal expectation. The quotient thus obtained — the coefficient of trade intensity — can be read off directly as the proportion of that normal expectation that is in fact realized, so that, for example, a coefficient of 0.50 means that Latin America has bought in proportion half as many imports from Japan as the world as a whole, and a coefficient of 2.00 means that it bought twice as much. This coefficient has the added advantage that it eliminates outright the effects of differential growth rates in total imports among various countries, since it relates to given years rather than to a sequence in time; so that the influence of a receding participation by Latin America in world trade is precluded.

It is also convenient to narrow down our time horizon to the four-year period 1962/65, and to bring in the United States import market as a point of reference and

comparison. This market possesses some remarkable features that ensure it against unwarranted deviations from the ideal norm in its choice of suppliers, so that its behaviour is indicative of how other import markets might behave if they were in a similar position. Chief among these features is the lack of constraints imposed by balance-of-payments difficulties. The United States is of course undergoing certain strains on its payments position, but they are of a totally different nature from those faced by the Latin American countries, and they impose no limitation whatsoever on the exchange of goods and services. A second feature is that the credit supply available at home to American consumers and investors is of such magnitude that it makes up for any lack of supplier's credit abroad. A third feature is that the American import market is endowed with a highly developed sensitivity to shifts in comparative advantage among alternative suppliers, whether domestic or foreign, thanks to the excellent information services that are readily available in the form of consumers' and investors' reports of various kinds. Decisions taken on the basis of this up-to-date information can be acted upon without inhibition owing to the above mentioned availability of credit and to the lack of payments constrainsts. Finally, in spite of some discrimination against Japanese goods, notably in the form of "voluntary" quotas at the origin, such discrimination is less severe than in other industrial countries.

Coming back to the analysis of trade intensity, Japan's exports of machinery and transport equipment to Latin America amounted in 1962 to $135 million, so that its share of the Latin American import market, which totalled $2,931, was 4.6 per cent. Japan's total exports of these goods amounted to $1,253 million, giving it a share of 4.4 per cent of the world import market, which totalled $28,324 million, f.o.b. Latin America's intensity coefficient in its imports from Japan was therefore 1.05, reflecting a better than normal position.

In the following years, however, in the face of a steady increase in Japanese competitiveness, the coefficient declined successively to 0.84, 0.74 and 0.65. The importance of this decline can be grasped more clearly by referring to the absolute figures for 1962 and 1965. In both years total exports of machinery and transport equipment from Japan to Latin America amounted to the same value, $135 million.

Similarly, total Latin American imports in this category remained roughly at the same level, approximately $3,000 million. Exports from all countries to all countries posted an average increase of 10 per cent per year, from $28,324 million to $38,891 million. And Japan's exports increased at an annual average rate of 29 per cent, climbing from $1,253 million to $2,643 million. As a result of these changes, Latin America's share in Japanese total exports in this category of goods was more than halved during the four-year period, declining from 10.7 to 5.1 per cent of the total. Part of this decline was naturally accounted for by a lower relative participation in world trade; but the declining coefficient of intensity unmistakably points to a package of causes unrelated to this lower participation. If Latin America's intensity coefficient with each of its trading partners has remained constant, its imports of machinery and transport equipment from Japan would have amounted in 1965 to $217 million dollars, [12] or nearly one half more than the actual figure, and its share in Japanese total exports in this category would accordingly have declined only from 10.7 to 8.4 per cent of the total; this decline would then have been ascribable in its entirety to Latin America's diminishing participation in world trade. It may be noted parenthetically that other developing areas, which have also seen their weight in international trade eroded in recent times, have absorbed relatively greater amounts of Japanese exports. Thus, Japanese exports of machinery and transport equipment to the underdeveloped world — excluding Latin America and excluding ships sold to Panama and Liberia — rose from $517 million in 1962 to $874 million in 1965, [13] at an average rate of 19 per cent per year.

By contrast with Latin America, the share held by the United States in total Japanese exports of machinery and transport equipment rose steadily from 19 to 23 per cent of the total in the same four-year period, increasing in value from $224 million to $554 million. [14] The United States trade intensity

[12] $217 = \dfrac{1,045 \times 3,054 \times 2,643}{38,891}$

[13]   United Nations, Commodity Trade Statistics, 1962 and 1965.

[14]   These two figures relate to United States import data as reported by the United States Customs from its own clearance. The corresponding Japanese export figures are $239 million and $574 million respectively. Values are f.o.b. in both cases.

coefficient, [15] although exhibiting a slightly downward trend, was remarkably high, namely, 2.18 in 1962 and 2.06 in 1965. This country thus showed a preference for Japanese products in its imports of machinery and transport equipment more than twice as strong as that shown by the world as a whole, whereas Latin America showed a preference which in 1962 was slightly above that shown by the world as a whole, and later declined steadily to two thirds.

It is convenient finally to further narrow down the analysis to specific categories of goods, at the level of four digits of the SITC/Rev, and to limit the period to one year, 1964. This method permits a more precise separation of goods, although it is well to bear in mind that, even at this level, the definitions are not narrow enough, so that many different and not mutually substitutable articles enter into, say, Insulated Wire Cable. Even for apparently identical goods, each brand may present to the buyer differences that are not purely subjective. However, given the varied number of subgroups to be considered, the prevalence of a given tendency in most of them cannot but be taken as a probably valid indication of an abnormal trade pattern. Producers of given types of commodities, narrowly defined, tend to be equally competitive at the margin, since, if that were not the case, the more efficient ones would not forego the opportunity of adding to their own operations the products, similar to those they already produce, which other produce inefficiently. Also, variety within a given subgroup is found mostly in the case of producer goods; many consumer goods are fairly uniform, or close substitutes, so that if the same general trend is discernible in both categories, the reliability of the observation may be deemed to be greater.

Table IV contains all machinery and transport four-digit subgroups regarding which Latin American imports from, and Japanese exports to, the world had a value of more than $10 million, a figure which was chosen as being reasonably substan-

15 United States' own exports of machinery and transport equipment have been deducted from the world totals before obtaining the coefficient; which otherwise would be higher. The world, in the case of the United States import and export data, relates to all countries, including the Socialist ones.

tial.[16] There are 25 such subgroups, with median values of $34.8 million in the case of Latin America's total f.o.b. imports, and $31.7 million in the case of Japan's total exports.

Latin America had a coefficient below unity for eleven of the subgroups, and the United States for six of them. These roughly comparable figures conceal, however, greater differences. In terms of value, the eleven groups account in the case of Latin America for 28 per cent of the total listed in the table, whereas the six groups account in the case of the United States for only 2.5 per cent of its listed imports. It is this discrepancy of more than 10:1 in the values that is significant, rather than the discrepancy of 2:1 in the number of subgroups.

The significance to be attached to the six subgroups with low coefficients in the case of the United States must be further qualified by the following considerations: Two of the six subgroups — Metalworking Machinery NES, and Lorries and Trucks — relate to United States import markets of very low value: $4.6 million and $6.9 million respectively. This low value means not only low weight but also little reliability, given the year-to-year fluctuations to which relative values are exposed to in shallow markets. For a third group — Insulated Wire Cable — the coefficient is below, but very near to, unity (0.98). A fourth subgroup — Ship — yields a false result, as a large, although unknown proportion of American ship imports from Japan and elsewhere enter through Panama and Liberia.[17] Therefore, only two subgroups offer interest — Piston Engines Non Air and Textile Machinery — which relate to substantial import markets of $106 million and $61 million respectively. Their coefficients, 0.38 and 0.21, run counter to a normal expectation, and are even lower than

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16   There are two exceptions to this statement: a) In the case of Domestic Electric Equipment, only three digit groups are used because Japan does not report the four-digit breakdown in this particular case; b) Latin American imports of motorcycles and scooters were included even though total imports were only $7.6 million, owing to their comparability with imports of motor cars.

17   "As of June 30, 1960, 454 oceangoing vessels, representing 6,490,533 gross tons of shipping, were estimated by the Maritime Administration to be owned by United States companies and their affiliates and registered under foreign flags. ... Panama, Liberia and the United Kingdom each accounted for 100 or more of the vessels involved". United States, The Ocean Freight Industry, Report of the Antitrust Subcommittee (House Report N° 1419), Washington, 1962, p. 27-28.

the corresponding Latin American coefficients.

In the case of Latin America it is found instead that only three of the eleven subgroups have values below $30 million for total imports, with the lowest at $15 million. Only one subgroup — Sewing Machines — is near unity (0.98), but it is not as near as the above-noted subgroup in the United States. For the remaining 14 subgroups, where Latin America's coefficient is above unity, only in four cases does this coefficient surpass that of the United States, and the margin of difference is significant in only one case — Machine Parts and Accessories NES — where Latin America reached an intensity of 1.63 against 0.35 in the case of the United States. Of the ten above-unity coefficients where the United States surpasses Latin America, the margin tends to be quite wide, the most striking example being Switchgear (1.73 in Latin America and 7.11 in the United States), Telecommunications Equipment NES (1.03 and 4.15), and Electric Lamps, Bulbs (2.13 and 5.16). These discrepancies may be brought home more clearly if we compare coefficients above 2.00, rather than above unity. The United States has eleven subgroups at that high level, whereas Latin America has only three. If we exclude shallow markets — those below $15 million — then the United States has 9 subgroups and Latin America none. We might continue along this line by noting that, whereas Latin America does not reach a coefficient of 3.00 in any case, the United States has three subgroups above 3.00, one above 4.00, one above 5.00 and two above 7.00.

It is illuminating to consider Latin America's imports of two Japanese investor goods which are sometimes referred to in the economic and trade literature of Japan as "export been goods" or "star performers" owing to their high degree of international competitiveness. These are bearings and ships.

By 1964 bearings had become a highly valued export item, with a high degree of technology in their production. At the risk of encumbering the reader with a spate of figures, the absolute values and the growth rates for a succession of years will be given, so as to provide a more detailed indication of the position of these products in world markets. Between 1960 and 1964, Japanese exports of bearings

grew [18] from $7.5 million to $38 million, at annual rates of, successively, 100, 50, 21 and 39 per cent. Sales to the United States, which in 1960 had amounted to $2.7 million, increased in the following years to $4.0, $6.5, $9.6 and, in 1964, to $13.9 million; sales to West Germany, itself a major producer, increased similarly in the same period from $225,000 to $1.7, $3.5, $3.9 and, in 1964 to $5.1 million. By contrast, Japanese exports to Latin America declined slightly from $2.66 million to $2.57 million, in the face of an expansion of 10 per cent in the Latin American imports market for bearings, which from $34.6 million in 1964 increased to $38.1 million in the following year. As a result, Latin America's coefficient declined from 0.83 in 1963 [19] to 0.42 in 1964.

Regarding ships, Japanese yards were at the height of their competitiveness in 1964. They were quoting prices as much as 25 per cent below European shipbuilders. [20] Their share of world production had risen to 43 per cent of the total – from 28 per cent in 1963 – and their share of world exports was approximately 30 per cent. [21] Their sales included $121 million to Western Europe, $39 million to Panama, $186 million to Liberia and $43 million to Asia. By contrast, Latin America, excluding Panama, bought only $3 million, or slightly less than 10 per cent of its total imports, which amounted to $30.6 million. As·a result Latin America's coefficient was only 0.31 whereas in the previous year it had been 0.69 [22] which indicates that Latin America's preference for Japanese ships was not only quite low by any standards during the two years considered, but, as with bearings, it shows a

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[18] The figures are taken from Japan External Trade Organization, Foreign Trade of Japan, various issues.

[19] The other 1963 magnitudes used to derive the coefficient were: Total Japanese exports, $22.7 million; Total world exports, $247.0 million.

[20] The Economist, London, 28 November 1964, p. 1007.

[21] In 1964, total world exports of ships (by the 18 countries) amounted to $1,575 million, and Japanese total exports amounted to $481 million (Commodity Trade Statistics, 1964). Other figures in the above paragraph have been taken from Japan External Trade Organization, Foreign Trade of Japan 1965.

[22] The other 1963 magnitudes used to derive the coefficient were: Total Japanese exports, $331.0 million; Total world exports (18 countries): $1,450.6 million.

tendency to decline. A two-year span is of course very short to draw any firm con-
clusions, and these conclusions are only tentative. This tentativeness must however
be qualified by the observation that when a product is proven so successful, even a
short period suffices to draw rather valid conclusions, and, thus one cannot help
suspecting that trade was below the potential.

One observation that appears to suggest itself from Table IV is that, for similar
products, Latin America's trade coefficient in its imports from Japan tends to be
higher for consumer goods than for investor goods — although in any case it conti-
nues to be below that of the United States. In the case of Japanese exports of sewing
machines, for instance, the bulk of which are for household use, [23] Latin America
has a coefficient of 0.94, which is more than double the coefficient for textile machi-
nery, which is 0.37. The same observation can be made for radio broadcast receiv-
ers (1.43) as compared to telecommunications equipment NES (1.03) and, in the
motor industry, to passenger motor vehicles (1.67) and motorcycles (1.31) as
against lorries and trucks (0.55). One explanation may be that, on the one hand,
consumer goods are not limited by the same type of credit considerations as invest-
ment goods are, and, on the other, that, since the consumer's decision is a personal
one and, presumably, also a critical one — given the high absolute and relative value
of consumer durables in Latin American countries — it is more carefully weighed
and a larger amount of information is sifted before reaching it than in the case of
decisions taken by firms and governments.

The preceding observation might seem to be contradicted by the very low pre-
ference Latin American consumers attach to two consumer products, television re-
ceivers and bicycles. The former have a coefficient of only 0.35, inspite of their
well-known international competitiveness. In the United States, for instance, where
more than 99 per cent of all imported TV sets come from Japan, the corresponding
coefficient is 3.86. The disparity in this case is probably due to differences in
structure between both import markets. If, instead of comparing the import mar-
kets we were to compare the general market — import and domestic — it would be

23 Japan, Foreign Capital Research Society, Japanese Industry 1964 (Japan,
    1964), p. 82.

found that both in the United States and in Latin America consumers tend to favour American brands for a first set, and Japanese brands for a second, or even third set. Since the Latin American market is still in the process of acquiring first sets, the preference for American and other brands appears justified.

In the case of bicycles, the low preference given Japanese imports may be ascribable to a lower cross-elasticity of demand, as buyers of this product may have brand loyalties. The coefficient in this case is 0.60, as against 1.29 in the United States.

The observation holds true, however, for the most typical consumer durables, namely, domestic electric equipment, which includes washing machines, refrigerators, electric shavers, toasters, etc. This group has a coefficient of 1.85 for Latin America, the fourth highest in the table. The United States import market, however, has an even higher coefficient of 3.86, which again indicates that Latin America may not be taking full advantage of Japan's international competitiveness.

II

In this section we shall consider the various factors which appear to cause Latin American imports of Japanese manufactures to depart from an ideal norm.

All these factors, including any that may be omitted, are of a short-run nature. Some of them may seem indeed not to be so, having lasted, and presumably being about to last, for a long time. But the fact that they may persist for many years, even decades, does not alter the fact that they distort trade, and thus are the source of disequilibria which must properly be viewed as being of a short-run nature.

These factors may be roughly divided between those on the supply side and those on the demand side — although no hard-and-fast line exists and there is interplay between both. The first group comprises adequate settlement terms and lack of after-sales services. The second group comprises the buyers' imperfect knowledge — broadly defined — and payments imbalances.

Inadequate settlement terms are an important cause of lost opportunity in trade between the two economies. The problem might be stated thus: ever since international trade in capital goods switched from a sellers' to a buyers' market in the

mid-1950's, there has been intensive competition between the industrial countries as regards settlement terms, aggravated at the end of the decade by the balance-of-payments difficulties, of the key-reserve countries, which forced them to tie-in a substantial proportion of their development aid. Japan lagged behind in this competition, in the sense that its interest rate structure, maturity periods, proportional value of the down-payment requirements and periods of grace have been less favourable than those of other advanced countries. This causes Japan to disqualify itself occasionally from bids put out by Latin America which, if price, quality and delivery were alone decisive, might presumably be won. In 1962, for instance, the two following cases were reported: [24]

> "Recently, under Argentina's railway electricification programme (500 coaches, signal machines, transformer sub-stations and wiring materials totalling $80 million), Hitachi Tokyo Electric and Mitsubishi Electric are planning to put in a joint bid. Japan Export-Import Bank, however, will not consider 20 per cent deposit and ten-year deferred payment.

> "There is an enquiry for two 10,000-ton tankers, but Argentina wants to make 80-100 per cent deferred payment in 7 to 10 years on the construction costs. Against this, Western Europe is offering 80 per cent and 9 to 10 years deferred payment, while Japan's terms are 70 per cent and 6 to 7 years deferred payment."

Information on the comparative settlement terms offered by various countries is very scarce, but what little is available appears to indicate that Japan is making rapid progress. Thus, in 1962 interest rates charged by Japan for this type of export were in the vicinity of 7 per cent and maturities were about 5 to 7 years. [25] By 1967, however, its interest rates had gone down to 4.5 per cent for some loans linked to manufacturing industries, [26] or even to 4.0 per cent, [27] and maturities had gone up to 15 years. This trend is discernible from the composition of Japanese

24 The Oriental Economist, Tokyo, May 1962, p. 274.

25 Ibid.

26 Simposio Internacional sobre Desarrollo Industrial, Ayuda financiera oficial bilateral a la industria manufacturera de los países en desarrollo (ID/CONF. 1/1), (United Nations Document), 1967, Table 3.

27 United Nations, Export Credits and Development Financing, Part II (E/4274/Add. 1), 1967, p. 41.

official bilateral lending commitments by maturity and interest rate. Thus, between 1962 and 1964, Japanese commitments with maturities between 5 and 10 years were almost halved — from $149 million to $77 million — while those with maturities between 10 and 20 years increased more than eight-fold — from $13 million to $107 million. Commitments at a rate of interest of 6 to 7 per cent increased in the same period by one sixth only — from $54 million to $62 million — whereas those at a rate of interest of 5 to 6 per cent increased almost three-fold — from $65 million to $175 million — and those below 5 per cent increased from nought to $4.3 million. [28]

Despite this rapid progress, however, Japan cannot yet compete with other industrial countries, which are also improving their terms, although at a slower rate. It cannot for instance match some United States loans reimbursable in local currencies, nor the grace periods of some of the United Kingdom's and Canada's loans. Some countries are prepared to offer maturities up to 30 years (France, West Germany, the Netherlands), or even 40 years (United States, United Kingdom). Many countries offer interest rates well below 4 per cent. Since many buyers in Latin America, lacking ready cash, attach greater importance to settlement terms than to price or quality, some trade distortion results, depressing the quantum of Latin American imports of Japanese machinery and transport equipment.

After-sales services are very important in exports of industrial plants, heavy machinery and some consumer durables; here again Japan's inability to compete with Western firms is a handicap. Japan's backwardness in this respect stems from the nature of its distribution system. Whereas the European and American companies operating abroad usually have one agent in each country, the Japanese companies have tended until recently to rely solely on trading companies that market their products as independent intermediaries. Now, the thorough knowledge of foreign markets that these intermediaries have, and their willingness to act as financers, give them a positive role in Japan's export trade, but they are not as conducive to the durable penetration of foreign markets as the specialized distributor who can be

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28   OECD, DAC, Development Assistance Efforts and Policies, 1965, Review, Tables 8 and 9.

relied upon for after-sales services. [29]

On the demand side, the buyers' imperfect knowledge encompasses various phenomena. In the first place, the lag with which prospective customers in Latin America learn about Japan's increased competitiveness and capacity must be presumed to be greater than in, say, the United States, where, as was noted, consumers and investors are better and more promptly informed of such improvements. Similarly, the change of quality for any given good has been rapid in Japan, so that the reputation of bad quality that attaches to Japanese products must tend to linger more in Latin America than in more up-to-date markets.

Related to this point is the snob appeal of American and Western European brands. The Japanese are aware of this phenomenon in the import markets of Asia, exemplified by the following case. [30]

"Take Hong Kong, for instance. In purchasing elevators, Hong Kong enterprisers until recently depended solely on Otis products (United States), and Japanese elevators were beaten in many international tenders held in Hong Kong in the past. A certain Japanese elevator manufacturer had itself represented by a reputable British firm in a recent bidding for elevators held by the Hong Kong Government for Queen Elizabeth Hospital. The Japanese company won the contract. Japanese elevators installed under the contract proved excellent in performance, and led to the increase of elevator exports later."

Distance is a factor that, in the case of Japan, can be classified under imperfect knowledge. Many distances are of course involved in Japanese-Latin American trade, so that some products that are competitive on the West Coast may not be so on the East Coast. Two of the markets — Argentina and Uruguay — are the antipodes of Japan, whereas Mexico is relatively near. In the context of this paper, distance is of interest only to the extent that it relates to sales that are adversely affected by distance in the absence of adverse freight considerations. Hunsberger notes that "the greater the distance many Japanese imports must be carried is not as serious a disadvantage as many people suppose. Sea transportation is relatively cheap, and many Japanese goods can be profitably sold abroad despite the costs of two long sea

[29] The Oriental Economist, Tokyo, September 1964, p. 599-600.
[30] Ibid.

voyages, one for the raw materials, the other for the finished products".[31]   But the mere fact that many people suppose that there is a serious disadvantage is itself a serious disadvantage. Distance thus creates a psychological barrier to trade in the minds of prospective buyers — what Beckerman calls "psychic distance",[32]   which distorts trade.

Distance is also a trade deterrent because of the delays in delivery that may be involved. In this case there appears to be a clearer case of imperfect knowledge. The fulfilment of a typical order to a Latin American country by Japan, which used to require between six and nine weeks, takes now only a few days according to the Panamerican Union, thanks to the establishment in the Panama Canal Free Zone of a centre for sales and distribution to Latin America. Japan uses a combination of freights, with cheaper sea freights for the long haul from Japan and — once the orders are received — dearer air freights for the shorter distance within the region. The system has the added advantage that it allows customers to cut down their inventory costs, further increasing the competitive power of Japanese products.[33]

Finally, a very significant element must be considered: the trade and payments position. Bilateral trade balance is the most significant variable, because if a given Latin American country has repeated and substantial surpluses in its trade with Japan, one ought to expect a greater trade intensity than if the opposite were the case. Other interrelated variables which are also worth looking into are the general payments position, the importance of Japan as a customer, and the growth rate of Japan's purchases from its Latin American trading partner.

Taking up first the region as a whole, during the four years under consideration Latin America had an increasingly favourable trade balance with Japan, as the ratio

31   W.S. Hunsberger, op. cit., p. 156.

32   W. Beckerman, "Distance and the Pattern of Intra-European Trade", Review of Economics and Statistics, vol. 28, 1956, p. 38, quoted by H. Linnemann in An Econometric Study of International Trade Flows, North Holland, Amsterdam 1966, p. 28. See also the concept of "widened economic horizon" applied by Linnemann to preferential trading areas, Ibid., p. 32.

33   Unión Panamericana, Politicas e instituciones de promoción de las exportaciones de productos manufacturados (Washington, 1964) p. 33.

of imports from Japan to exports to Japan declined from 88 per cent in 1962 to 66 per cent in 1965. This was the result of a substantial increase during this period in Japanese purchases of Latin American products, which grew from $399 million in 1962 to $586 million in 1965, at an average rate of 14 per cent per year. Japanese participation in the Lation American export trade, however, was not very substantial, being only 4.2 per cent of the total in 1965; the total payments position in the region as a whole militated against greater freedom of choice, as so far in the 1960's there were deficits through 1963, and the surplus recorded in 1964/65 was achieved at the expense of curtailing imports.

The fact that the bilateral trade balance was so clearly in favour of Latin America ought to have led towards at least a stationary preference for Japanese goods, expecially as Japan was at the same time favouring Latin America more and more. Instead, Latin America's coefficient for imports of machinery and transport equipment from Japan declined steadily, as shown at the beginning, from 1.05 in 1962 to 0.65 in 1965. This indicates that other considerations, such as lack of credit ac-comodation, imperfect knowledge, etc., bolstered by the unfavourable payments situation, tended to have greater influence than the competitive price position of Japanese goods, bolstered by a sound bilateral trade position as well as by a good growth rate in Japan's orders from Latin America.

Bilateral positions must properly be examined country by country, however. Taking the seven main countries — Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela — which in any one year account for 60 to 65 per cent of total Latin American imports from Japan, it is found that Argentina in 1962 and Brazil in 1962/63 had very unfavourable trade balances with Japan. During these years, their intensity coefficients were substantially above unity, ranging between 1.13 and 1.44. The two countries may be said to have been on a "spending spree". Then came the time for reckoning, as their total balance-of-payments situations worsened — in 1962 the payments deficit in Argentina and Brazil reached $276 million and $294 million respectively.[34] As a result, both countries curtailed their imports in general, and

.   Economic Commission for Latin America, Estudio Económico de América Latina, 1965, (United Nations, New York, 1966), p. 81.

especially their imports from Japan, and the bilateral trade balance with this country was restored in their favour; their trade intensity coefficient, however, sank well below unity, going down in the case of Argentina to 0.88 in 1963, 0.25 in 1964 and 0.28 in 1965. (During this last year the trade balance with Japan was once again unfavourable, but that was due to an increase in imports of basic manufactures (Section 6 of the SITC/Rev.), which are of declining importance in Japan's export trade.) Similarly, in the case of Brazil the coefficient declined to 0.63 and 0.55 in 1964 and 1965.

The situation might have been different if Japan had been an important and dynamic customer of the two countries, but Japan's participation in the export trade of Argentina and Brazil was only 2.2 per cent and 1.9 per cent of the total, respectively. The growth rate of Japan's orders from both countries was not too low, averaging 9 per cent and 8 per cent respectively in 1962 - 65, but it was much lower than in other Latin American countries, since the regional rate, as noted, averaged 14 per cent.

Colombia and Venezuela are two countries whose trade balance with Japan is invariably very adverse, with ratios of 4:1 and 2:1 respectively. Growth and participation, taken together, are negligible. As a result their coefficients are low — ranging between 0.36 and 0.69 during the period under consideration.

Mexico and Chile show a clearer picture of by-passed opportunity. The export/import ratio is in favour of the two Latin American countries by about 4:1 in both cases (10:1 in the case of Chile in 1964). The growth rate of Japan's imports from Chile averaged 29 per cent per year during the four years, as Japan's purchases jumped from $52 million to $112 million between 1962 and 1965; the rate was slow in the case of Mexico — 4 per cent per year, from $109 million to $123 million — but this was made up for by' the size of the participation, which was substantial in both cases: 10.8 per cent of Chilean exports and 7.1 per cent of Mexican exports went

to Japan [35] in 1965.

Both countries are thus in a good position to buy more from Japan, yet their co-efficients of trade intensity are very low, ranging from 0.31 to 0.45 in both count-ries during the period under consideration — except for Chile in 1965, when the co-efficient rose to the more normal figure of 1.17 owing to an important purchase from Japanese shipyards.

Peru is perhaps the most illuminating case. It has all three conditions for freedom of choice: favourable bilateral balances with Japan (about 2:1), good growth rates in its exports to Japan (24 per cent per year during 1962/65) and above aver-age participation by Japan in its export trade (9 per cent of its exports). As might be expected, its trade intensity coefficients are steadily at unity or very near it.

It is thus in sharp contrast with neighbouring Chile, and the difference may be in part due to the different payments positions of both countries: Chile had four de-ficits in a row during 1960/63, and recorded surpluses in 1964/65, which may well have a correlation with the normalization of its coefficient, which shot up to 1.17 in 1965, as noted. Peru, on the other hand, had continual surpluses during 1960/65.

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35 In the case of Mexico, an additional reservation might be made in view
    of its proximity to the United States and the magnitude of American
    investment. Distance, however, should not include "psychic distance",
    which was defined to be part of imperfect knowledge. As to physical
    distance, there are indications that it may not be as important as it
    appears to be, since Mexico's trade intensity coefficient for goods
    imported from Japan with lower degrees of processing is higher than for
    machinery and transport equipment, which is cheaper to transport rela-
    tive to its worth.

    American investments are also not taken into account in this analysis
    because, from a conceptual standpoint, all firms must be considered
    autonomous as well as rational, and must be held to be in possession of
    perfect knowledge of the world market.

    Regarding Japanese participation in Mexican exports, it is worth noting
    that the 7.1 per cent figure probably understates the actual partici-
    pation. This percentage was derived from Mexican export figures, as
    reported to the IMF and the World Bank, and exports to Japan through
    American ports are probably not included.

The conclusion to be drawn from this analysis, therefore, is that the Latin American countries appear disinclined to buy from Japan except when there is a combination of favourable circumstances: favourable bilateral trade balances, surpluses in their total payments positions, and substantial and growing participation by Japan in their export trade.

Therefore, the fact that bilateral trade balance alone does not suffice to lift up the intensity of trade to a normal level must be construed as a distortion of trade brought about by a number of causes, including in particular, insufficient credit and imperfect knowledge of the market.

These correlations between ratios should not obscure the magnitude of the trade distortion revealed by the absolute figures. Thus, Argentina's total imports of machinery and transport equipment from all countries declined to roughly one half between 1962 and 1965, from $729 million to $298 million, whereas its imports of the same category from Japan declined to one-eighth, from $46 million to less than $6 million. The disparity was much less pronounced in Brazil, but even so it exceeded proportional expectations: Brazil's total imports of machinery and transport equipment declined 41 per cent in the same period ($433 million to $255 million) whereas imports from Japan declined 55 per cent ($22 million to $10 million).

This would have been the token of a substantial trade distortion even if everything else had held constant. What is remarkable, however, is that other things were changing in the opposite direction. As those two countries, and, indeed, all of Latin America, reduced their preference for Japanese machinery and transport equipment, Japan substantially improved its competitive and capacity position precisely in that line of goods. During that period, the share of machinery and transport equipment in total exports grew much faster in Japan than in any other country, expanding from 26 per cent to 31 per cent of the total, as against stationary and even declining shares in the United States, Great Britain and West Germany. At the same time, Japan's total exports were growing much faster than those of any other country, at rates of 20 per cent per year during 1962/65, as against 8 per cent per year in West Germany, the second fastest. As a result, Japan's exports of

machinery and transport equipment during these four years more than doubled, passing from $1,253 million to $2,643 million. [36]

It must be borne in mind that this distortion must be acknowledged independently of the phenomena that may cause it. Is it possible to assess the consequences of this distortion? Further analysis would be necessary to evaluate the departure of Japan's exports to Latin America from a normal level, but it may be useful to attempt a rough approximation, using the figures for 1964, in what might be called a projection into the recent past.

Assuming that a normal intensity of trade of machinery and transport equipment from Japan to Latin America should have a coefficient of unity, and knowing that Japan's share of world exports in this category in 1964 was 5.65 per cent, Japan's share in the Latin American import market ought to have been also 5.65 per cent. Therefore, Latin America's imports from Japan in this category ought to have amounted to $163 million, instead of $122 million — ignoring the movements in the other variables.

If we further assume that the ratio of this category in total imports from Japan would remain at one third, total imports from Japan during that year would have amounted to $489 million, instead of $362 million.

That figure we can confidently advance as a minimum. There is however no reason why one should consider unity as the best coefficient of trade intensity. Unity is the weighted average of all the intensity coefficients of Japan's trading

[36] Exports from Japan and the three main industrial countries increased as follows between 1962 and 1965: (In millions of dollars, f.o.b. values taken from Customs Clearance Data:

	1962		1963		1964		1965	
	Total	Mach & Transp.	Total	Mach & Transp.	Total	Mach & Transp.	Total	Mach & Transp.
Japan	4,917	1,253	5,453	1,496	6,674	1,958	8,452	2,643
United States	21,359	8,010	22,922	8,179	26,086	9,350	27,003	10,016
United Kingdom	10,610	4,653	11,424	5,058	11,912	5,113	13,227	5,598
West Germany	13,264	6,127	14,616	6,817	16,215	7,531	17,892	8,269

Source: Commodity Trade Statistics, various issues.

partners, and it entails the downward drag of those — including Latin America itself — that buy less than one might expect on the basis of competitiveness alone. If we place Latin America's import market decisions at the same level of freedom from constraint that the United States import market enjoys, we should give Latin America a coefficient of 2, in which case imports of machinery and transport equipment alone would amount to $391 million, and total Latin American imports from Japan would amount to three times that figure, or $1,173 million. The real potential figure lies between the two extremes.

Although the distortion has little direct importance for Latin America's suppliers, including Japan, it is by no means negligible for Latin America. The elimination of this distortion would not only increase the quantum obtainable with a given amount of foreign currency, but would reduce the need to use foreign currency itself, as there is every reason to believe — judging from present patterns — that Japan would match, or more than match, any increase, out of bilateral balancing as well as out of policy considerations. [37] If, then, the trade potential for 1964 is assumed to lie half-way between the two extremes mentioned above, total Japanese exports to Latin America in 1964 would have amounted to $711 million, or $349 million more than their actual value. Latin American total exports would have increased by at least that same figure, [38] and a large proportion of that increment would have helped to keep down Latin America's payments deficit, which rose to $821 million in that year. [39]

[37] Many Japanese economists hold that Japan's future lines in strengthening its commercial ties with the under-developed countries (The Oriental Economist, Japan, September 1964, p. 599), and Hunsberger notes that "the Japanese seem to feel that Japan's exports to the United States and other high-income countries are less advantageous to Japan's economic progress, while the exports to the under-developed countries represent the wave of the future" (W.S. Hunsberger, op. cit., p. 180).

[38] It is not likely that the increment in Japanese purchases of Latin American products might be offset by a decline in purchases by other industrial countries, as losses to the latter would be spread too thinly to have any significance.

[39] Economic Commission for Latin America, op. cit., p. 82.

Summary and Conclusions

In this article an attempt has been made to show that the amount of machinery and transport equipment that Latin America buys from Japan does not tally with the amounts one might expect to be actually traded if one judged the matter from the standpoint of gains in Japan's international competitiveness, increased capacity and the behaviour of other buyers of the same goods. Measured in terms of this behaviour, the share held by Japan in Latin America's import market of machinery and transport equipment is divided by its share in the world as a whole, and a coefficient of trade intensity is obtained that quantifies the departure from a "normal" pattern, which, under certain simplifying assumptions, ought to be unity. Thus, whereas Japan's share in the world import market for this category of goods rose from 4.4 to 6.8 per cent between 1962 and 1965, its share in the Latin American import market fell in the same period from 4.6 to 4.4 per cent. Consequently, the trade intensity coefficient declined from 1.04 to 0.65. An analysis of 25 selected commodities exported by Japan, including some fiercely competitive ones, confirms that the pattern in Latin America is abnormal.

Several explanations are offered to explain the phenomena, two of which appear to stand out as the most important: lack of credit on the supplier's side, and imperfect knowledge on the demand side. A brief sketch is made of the consequences of the resulting distortion of trade, and it is suggested that, although they might be unimportant for Japan, they are significant for Latin America.

While the period chosen for detailed study, 1962-65, is too short for firm conclusions to be drawn, a longer period cannot yet be used owing, among other things, to the fact that only after 1960 did Japan's international competitiveness in the heavy industries assert itself sufficiently to make this problem meaningful. The rate of advance of the Japanese economy is so rapid, however, that a four-year period is equivalent to a longer period in Europe or North America.

Table I

JAPAN'S EXPORTS TO LATIN AMERICA AND OTHER DESTINATIONS, 1953-1964

(F.o.b. values, millions of dollars, Customs clearance basis)

Year	World	Latin America[a]	United States	Western Europe
1953	1,270	81	235	120
1954	1,629	209	277	150
1955	2,010	176	455	200
1956	2,500	165	550	250
1957	2,860	133	605	315
1958	2,880	162	695	325
1959	3,460	201	1,050	365
1960	4,050	281	1,110	475
1961	4,240	333	1,070	550
1962	4,920	352	1,410	690
1963	5,450	330	1,510	710
1964	6,674	362	1,842	867

Sources: United Nations, Statistical Yearbook (New York, various issues);
Japan, MITI, Foreign Trade of Japan, various issues.

[a] Excluding ships sold to Panama.

Table II

EXPORTS[a] TO LATIN AMERICA FROM ALL THE WORLD, 1953-1964

(F.o.b. values, millions of dollars, Customs clearance basis)

Year	Value
1953	5,285
1954	6,120
1955	6,155
1956	6,715
1957	7,970
1958	7,400
1959	6,825
1960	7,135
1961	7,615
1962	7,475
1963	7,220
1964	8,060

Sources: United Nations, Statistical Yearbook (New York, various issues).
           United Nations, Commodity Trade Statistics (New York, various issues).

[a]   Inter-Latin American exports are excluded. All exports of ships to Panama are included. The world refers to all countries.

Table III

TRADE IN MACHINERY AND TRANSPORT EQUIPMENT, SELECTED
ORIGINS AND DESTINATIONS, 1954 AND 1959-1965

(F.o.b. values, millions of dollars, Customs clearance basis)

Exports from	1954	1959	1960	1961	1962	1963	1964	1965
Japan to Latin America [a]	28	70	107	140	135	109	122	135
Japan to United States	24	134	158	193	239	285	377	574
Japan to Western Europe	3	48	104	163	179	173	254	328
Japan to the world	202	810	939	1,135	1,253	1,496	1,958	2,643
World to Latin America	-	-	-	-	2,931	2,646	2,885	3,052
World to the world	-	-	-	-	28,324	30,508	34,599	38,891
World to the United States	-	-	-	-	1,664	1,788	2,201	2,940
Latin America's trade intensity coefficient as regards Japan [b]	-	-	-	-	1.04	0.84	0.74	0.65
United States trade intensity coefficient as regards Japan [c]	-	-	-	-	2.18	2.18	2.08	2.06

Sources: The data for 1962-1965 were computed from United Nations, Commodity Trade Statistics, various issues; world exports to Latin America and to the world in general were aggregated from the 1962-1965 export data for the following eighteen countries: Austria, Belgium, Canada, Denmark, France, Holland, Italy, Japan, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States, West Germany and Yugoslavia.

[a] Excluding ships sold by Japan to Latin America.

[b] $\dfrac{\text{Exports from Japan to Latin America}}{\text{Exports from Japan to the world}} \div \dfrac{\text{Exports from Japan to the world}}{\text{Exports from the world to the world}}$

[c] Formula similar to that of b. Instead of Japanese-exports-to-US data, data on US imports from Japan have been used. In 1962-1965, these data, f.o.b. were $224, $260, $354 and $554 million, respectively. See also footnote 15 in text. United States' own exports of machinery and transport equipment during this period totalled $8,010, $8,179, $9,350 and $10,016 million respectively.

Table IV

TRADE INTENSITY COEFFICIENTS FOR EXPORTS OF SELECTED MACHINERY AND TRANSPORT EQUIPMENT FROM JAPAN TO LATIN AMERICA AND THE UNITED STATES, 1964

(F.o.b. basis, millions of dollars, customs clearance basis) [a]

SITC Rev.	Item	(1) World exports	(2) U.S. exports	(3) World exports net of U.S. exports	(4) U.S. imports	(5) U.S. imports from Japan	(6) Japan's exports	(7) L.A. imports [b]	(8) L.A. imports from Japan [b]	(9) Japan's share in L.A. (8)÷(7)	(10) Japan's world share (6)÷(1)	(11) Japan's share in the U.S. (5)÷(4)	(12) Japan's world share of U.S. exports (6)÷(3)	(13) T.I.C. for L.A. (9)÷(10)	(14) T.I.C. for U.S. (11)÷(12) [c]
711.5	Piston engines non-air	1,032.9	276.6	756.3	106.7	1.5	27.8	104.4	1.8	1.70	2.69	1.41	3.67	.63	.38
715.1	Machine tools for metal	1,071.2	267.3	803.9	36.4	2.0	23.6	107.6	.4	.40	2.20	5.49	2.93	.18	1.87
715.2	Metalworking machinery NES	399.4	173.2	226.2	4.6	.23	11.4	53.7	.7	1.30	2.85	5.00	5.03	.46	.99
717.1	Textile machinery	1,170.1	180.3	989.8	61.4	1.1	83.3	106.2	2.8	2.60	7.12	1.79	8.41	.37	.21
717.3	Sewing machines	277.0	38.6	238.4	61.0	36.6	79.1	19.0 *	5.1	26.84	28.55	60.0	33.17	.94	1.81
719.7	Ball, roller, etc. bearings	314.1	81.3	232.8	24.3	13.8	37.6	38.1 *	2.6	6.8	11.97	56.7	16.15	.42	3.51
719.9	Machine parts, acceer. NES	814.6	156.1	658.5	19.9	2.5	18.5	56.5	2.1	3.7	2.27	12.6	3.56	1.63	.35
722.1	Elec. power machine, switchgear	873.0	227.1	645.9	23.7	9.8	36.3	88.3	2.0	2.26	4.15	41.4	5.62	.48	7.36
722.2	Switchgear, etc.	678.7	129.4	549.3	.17.2	4.1	22.3	63.4	3.6	5.67	3.28	23.83	4.05	1.73	7.11
723.1	Insulated wire, cable	331.8	24.1	307.7	16.1	2.0	39.1	16.9	2.2	13.0	11.8	12.4	12.70	1.10	.98
724.1	Television receivers	197.6	33.7	163.9	39.2	38.9	57.9 *	22.5	2.3	10.22	29.30	99.2	35.32	.35	2.81
724.2	Radio broadcast receivers	397.7	8.1	389.6	111.9	84.7	213.7	34.8	26.7	76.70	53.70	75.69	54.8	1.43	1.38
724.9	Telecommunication equipment NES	1,462.9	462.9	1,000.0	73.3	23.6	77.2	88.0	4.8	5.45	5.28	32.10	7.72	1.03	4.15
725	Domestic electric equipment	641.4	117.0	524.4	21.6	4.4	27.7	41.3	3.3	7.99	4.32	20.4	5.28	1.85	3.86
729.1	Batteries, accumulators	136.6	12.5	124.1	13.1	6.2	25.0	11.8	4.4	37.3	18.3	47.3	20.1	2.04	2.35
729.2	Electric lamps, bulbs	160.0	27.9	132.1	10.4	7.0	15.8	10.9	2.3	21.1	9.9	67.3	12.0	2.13	5.61
729.3	Transistors, valves, etc.	411.7	109.1	302.6	34.4	13.2	31.7	14.5	3.3	22.8	7.69	38.3	10.5	2.96	3.65
729.4	Automotive electric equipment	199.4	63.1	136.3	6.1	.6	11.4	23.1	1.6	6.92	5.71	9.83	8.36	1.21	1.18
729.5	Elec. measuring, control equip.	470.6	192.4	278.2	17.9	2.4	16.6	28.4	1.5	5.28	3.52	13.40	5.96	1.50	2.24
729.9	Other electric machinery	621.7	185.2	436.5	41.2	11.0	45.6	40.3	3.3	8.18	7.33	26.60	10.44	1.12	2.55
732.1	Pass motor vehicle excl. buses	3,736.3	337.8	3,398.5	598.1	17.1	76.9	212.7	7.3	3.43	2.06	2.85	2.26	1.67	1.26
732.3	Lorries, trucks	1,113.9	317.8	796.1	6.9	.4	76.8	208.1	7.9	3.80	6.89	5.79	9.64	.55	.60
732.9	Motorcycles, etc. parts	220.1	1.4	218.7	72.8	46.2	95.2	7.6	4.3	56.6	43.3	63.4	43.5	1.31	1.46
733.1	Bicycles non-motor, parts	119.3	.4	118.9	29.7	6.1	19.0	14.5	1.4	9.6	15.9	20.5	15.9	.60	1.29
735.3	Ships and boats non-war [h]	1,576.4	41.9	1,534.5	10.8	1.3	480.7 *	30.6	2.9	9.47	30.49	12.03	31.32	.31	.38

Source: United Nations, Commodity Trade Statistics, 1964.

* United States imports correspond to United States clearance data, f.o.b., but Latin America's imports have been derived without any adjustment from trading partners' clearance data. Re-exports not included. World exports are the sum of exports in this category from 17 main industrial countries.

b Ships sold by Japan to Panama are not included.

c United States' own exports of machinery and transport equipment have been deducted from world exports in computing the United States' trade intensity coefficient.

Table V

TRADE BETWEEN JAPAN AND SELECTED LATIN AMERICAN COUNTRIES

(F.o.b. values,[a] millions of dollars, Japanese Customs Clearance)

		Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Latin America [b]
1962	Exports to	72	44	11	13	23	25	32	352
	Imports from	29	34	52	2.6	109	49	15	399
	Export/import ratio	2.48	1.29	0.21	5.00	0.21	0.51	2.13	0.88
	Trade intensity coefficient (mach. and transp. equip.)	1.44	1.13	0.45	0.60	0.44	1.00	0.53	1.05
1963	Exports to	25	56	12	17	25	28	39	330
	Imports from	37	32	53	3.4	114	59	20	472
	Export/import ratio	0.67	1.75	0.23	5.00	0.22	0.47	1.95	0.70
	Trade intensity coefficient (mach. and transp. equip.)	0.88	1.34	0.33	0.69	0.43	0.85	0.54	0.84
1964	Exports to	26	29	7	24	34	32	62	362
	Imports from	48	32	81	4.3	122	84	24	562
	Export/import ratio	0.54	0.91	0.09	5.58	0.28	0.38	2.58	0.64
	Trade intensity coefficient (mach. and transp. equip.)	0.25	0.63	0.33	0.64	0.42	1.10	0.61	0.74
1965	Exports to	44	27	26	13	41	48	56	386
	Imports from	41	43	112	3.4	123	94	26	586
	Export/import ratio	1.07	0.63	0.23	3.82	0.33	0.51	2.15	0.66
	Trade intensity coefficient (mach. and transp. equip.)	0.28	0.55	1.17	0.39	0.31	0.84	0.36	0.65
	Japan's share of export trade, 1965 [c]	2.2	1.9	10.8	0.7	7.1	9.0	1.0	4.2

Source: United Nations, Commodity Trade Statistics, various issues.

[a]   F.o.b. values for Japan's imports from Latin America have been arrived at by deducting 15 per cent from the c.i.f. values reported by Japan.

[b]   Excluding ships sold to Panama.

[c]   This row is based on the Latin American partner's data, as reported in IMF/IBRD Direction of Trade, 1961-1965.

要約とコメント　　　　（水　野　　一）

<center>I</center>

近年，日本経済の高度成長に対して先進国からだけでなく，発展途上国からも強い関心が示されている。何故非西欧世界において日本のみが短期間にこのような高度成長を達成できたのか，その原因はどこにあるのか — といった質問を外国人から受けることが多くなった。そして特に，最近の傾向として，開発の遅れた国々において日本の経済発展に注目し始め，われわれの経験に学ぼうとするものがふえている。この点，ラテン・アメリカも例外ではなく，日本に対する関心はしだいに高まりつつあるようである。筆者も去年4月，上智大学で行なわれた「ラテン・アメリカと日本」と題するシンポジウムにおいて，ラテン・アメリカ側の参加者が日本に対して意外に強い関心をもっているのに驚いたほどである。

ところが，これまで日本とラテン・アメリカの関係を論じた文献はきわめて少なく，外国語で書かれたものといえば，わが国では大原美範氏の著書（注1）や，前記の上智大学のシンポジウム報告書（注2）ぐらいのものであろう。一方，ラテン・アメリカ側の文献は雑誌記事を除くとほとんどなかったといってもよい。したがって，Ciancaglini 氏の「日本の輸出貿易におけるラテン・アメリカの地位」はまとまったものとしては初めての論文といえよう。

同氏によると，この論文の目的は，「日本の工業品輸出が先進工業国中もっとも急速な増加をみせ，しかも年々競争力が相対的に高まっているなかで，ラテン・アメリカの日本からの輸入があまりふえていないのはどうしてだろうか」という問題意識にもとずいて，「ラテン・アメリカの日本からの輸入が正常なパターンから逸脱している程度を分析するとともに，そうしたdeviationを起こした理由とそれがもたらした結果を明らかにすること」にある。何故ラテン・アメリカの日本からの輸入のみを取り上げるかというと，ラテン・アメリカの日本への輸出が伸びたのは日本経済の高度成長に伴って日本の需要がふえたため，ラテン・アメリカ側の生産性や技術水準ないしは販売方法の変化に帰因するものではない。それに対して，ラテン・アメリカの日本からの輸入の増加は，需要の増加とは関係なく，日本側の競争力の変化ないしはそれに対するラテン・アメリカ側の認識の変化に直接的に帰因するとしている。

Ⅱ

　この論文は２つの部分からなっている。第１部は工業製品を代表するものとして「機械および輸送設備」をとりあげ，日本および世界のラテン・アメリカ向け輸出について貿易結合度係数（Coefficient of trade intensity）を算出している。ここでいう貿易結合度係数とは次式で表わされている。

$$\text{ラ米の対日貿易結合度} = \frac{\text{日本からラ米への輸出}}{\text{日本から世界への輸出}} \div \frac{\text{日本から世界への輸出}}{\text{世界から世界への輸出}}$$

つまり，この係数が１であれば，"正常の状態"とみ，１を下回れば結合度が稀薄となり，一方１を上回れば結合度が緊密になるとしている。

　そこでラテン・アメリカの対日貿易結合度をみると，Table Ⅲ に明らかなように，1962年の1.04というよい状態から１９６３年0.84，１９６４年0.74，１９６５年0.65と係数が漸減している。これに対し，米国の対日貿易結合度はこの間2.18から2.06に徴波しているにすぎない。さらに「機械および輸送設備」を構成する２５品目についても貿易結合度を算出している（Table Ⅳ）。それによると，ラテン・アメリカの対日貿易結合度は投資財より消費財の方が高いことが示されている。たとえば，ミシンの係数は0.94に対し，繊維機械は0.37，また乗用車の1.67，オートバイの1.31に対してトラックは0.55といったぐあいである。これについては，消費財の場合は投資財の場合ほど輸出信用を考慮しないでよいからだろうとしている。結局，著者は以上の数字から日本の対ラテン・アメリカ輸出は正常のパターンから逸脱しているとみるわけである。

　次いで第２部では，このようなdeviation を生じた要因を供給サイドと需要サイドに分けて説明している。供給サイドの要因としては，まず日本の決済条件が西欧諸国に比べて不利になっていることをあげ，現金に乏しいラテン・アメリカの多くのバイヤーは価格や品質よりも決済条件をより重要視しているので，これが貿易地の若干の distortion を生じ，日本からの機械および輸送設備の輸入を減少させているとしている。さらに重工業品や耐久消費財の輸出については，アフター・サービスがきわめて重要だが，この面で日本が立ち遅れているのはその流通システムに原因があるとし，商社への依存態勢にやや疑問を投げかけている。

　一方，需要サイドの要因としては，バイヤーの不完全な知識を第一にあげている。日本製

品の競争力と輸出能力の増大に関する情報が米国などに比べて遅れていること，また日本製品の品質の変化が急だったため，先進国市場に比べてラテン・アメリカではまだ日本製品は低級品だという評判が残っていることなどが指摘されている。このほか，地理的距離も1つの要因としているが，著者はこれも不完全な知識に含むべきだとしている。なぜなら遠いから不利だと思い込んでいる心理的な面があるからで，実際はコンビネーション輸送などで海上運賃は安くなっているからである。

もう1つの重要な要素は2国間の貿易バランスと対外収支ポジションである。これに関しては，アルゼンチン，ブラジル，チリ，コロンビア，メキシコ，ペルー，ベネズエラの主要7ヵ国（ラテン・アメリカの対日輸入の60～65%を占める）について国別の分析を行なっているが，それからえられた結論は「ラテン・アメリカ諸国は，①2国間の貿易バランスが黒字，②対外収支全体も黒字，③日本向けの輸出が伸びているという好条件が重なった場合を除いては，あまり日本から買いたがらないようだ」ということである。

しかし，これらの要因も貿易の絶対額によって示されている貿易のゆがみ（distor－tion）をおおいかくすことはできないとしている。そしてもしこうしたdistortionがなかったとすると，ラテン・アメリカ諸国は一定額の外貨でもっと多くの輸入をなしえただけでなく，それによって対日輸出もふえただろうから，外貨自体の使用も減ったろうと指摘している。Ciancaglini 氏の計算によると，1964年の日本の対ラテン・アメリカ輸出は711百万ドルと実績より349百万ドルもふえただろうし，一方ラテン・アメリカの対日輸出も少なくともこれと同額だけふえたはずたという。

<center>Ⅲ</center>

周知の通り，日本の対ラテン・アメリカ貿易は毎年，大幅な入超となっている。通商白書によると，1967年の日本の対ラテン・アメリカ輸出は612百万ドル，輸入は855百万ドルで，差引243百万ドルの輸入超過であった。しかもこの入超幅は1965年219百万ドル，1966年224百万ドル，1967年243百万ドルと年々拡大の方向にある。これは日本の対東南アジア貿易が年々大幅な輸出超過となっているのと対照的である（1967年の出超幅は1145百万ドル）。

従来，わが国の対ラテン・アメリカ輸出が伸び悩んでいる原因は，日本製品の競争力が

欧米製品に比べて劣っていることにあると一般にみられてきた。したがって，特に劣っているとされている決済条件の改善を求める声が民間では強かったのである。しかし，Cian-caglini 論文を読むと，こうした日本側の認識は間違っていたのではないかと思われる。つまり，同氏のいう deviation ないしは distortion を生ぜしめている原因は，日本経済ならびに製品についてのＰＲ不足にあるということである。これはわれわれとしても（特に外務省や通産省当局が大いに反省すべき点であり，日本とラテン・アメリカ諸国の間のいっそうの対話の必要性が痛感させられる次第である。

（注1） Ohara, Yoshinori : Japan and Latin America, Rand
Corporation, 1967

（注2） Lorscheiter, Vendelino & Andrade, Gustavo, ed. :
Latin America and Japan ; Proceedings of a sympo-
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