The Feasibility of Regional Economic Integration in the Far East

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CONTENTS

I. INTRODUCTION

This paper attempts to assess the possibility and economic rationale for the Far East Asian countries to achieve some measure of economic integration in the near future. The following points should be noted.

First, the study will be carried out mainly from the point of view, not of economic growth of developed countries, but of economic development of underdeveloped countries. Here industrialization is assumed to be a legitimate policy goal of underdeveloped countries(1).

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(1) C. A. Cooper and R. E. Massell; *Toward a General Theory of Customs Unions for Developing Countries*, May 1965, Rand Corporation.

Second, the analysis will be confined to theoretical aspects. Although it is highly recommended[2], cost-benefit analysis with the help of quantitative techniques is beyond the scope of this paper and is, in any case, not very well suited for evaluating the dynamic effects which are particularly important in economic development of underdeveloped countries[3].

Third, no distinction will be made between the various forms of economic integration; free trade area, customs union, common market and economic integration. The economic theory of all four has much in common and hence they are not defined in a clear-cut manner[4].

Fourth, we define the Far East as three sub-regional countries comprising the Republic of Korea (hereinafter referred to as Korea), the Republic of China (hereinafter referred to as Taiwan) and Japan[5], where no research has been conducted into the feasibility of economic integration, while for the ECAFE region as a whole, some preliminary studies are being made in the ECAFE secretariat and others[6].

Finally, we assume that the necessity of achieving some sort of economic intergration is fully recognised among policy-makers of the countries concerned[7].

II. THEORETICAL SETTING

The theory of regional economic integration is concerned with a combina-

(2) H.G. Johnson; "The Cost of protection and the scientific tariff." JPE, August 1960, p. 328.

(3) A.F. Mikesell; "The theory of common market as applied to regional arrangements among developing countries." *Int'l Trade Theory in a Developing World*, ed. by R.Harrod and D. C. Hague, pp. 205—230.

(4) B. Balassa; *Theory of Economic Integration*, p. 1. J. Tinbergen; *International Economic Integration*, p. 95.

(5) The Republic of Korea (South Korea) is the official name of Korea excluding, in a geographical sense, the northern part of Korea (North Korea). The Republic of China (Taiwan or Formosa) is the official name (in UN) of China excluding mainland China (Communist China).

(6) UNCTAD; *Trade Expansion and Economic Integration among Developing Countries.*
UNCTAD; *Trade Expansion and Regional Groupings*, Part I and II.
UN ECAFE; *Economic Bulletin for Asia and the Far East*, Dec. 1964, pp. 33—81, 1967, pp. 1—43. and Sept. 1967.
K. Kojima; "Pacific Free Trade Area and South East Asia". *Trade and Dvelopment of Underdeveloped Countries*, (Japanese edition) pp. 67—98.
N. Islam; "Regional Co-operation for Development: Pakistan, Iran and Turkey, Journal of Common Market Studies, pp. 283—301.

(7) Refer to 1st ministerial meeting of *ASPAC*(Asian and Pacific Council), Seoul, Korea, June 1966 & 2nd ministerial meeting, Bangkok, Thailand, July 1967.

tion of elements of free trade with elements of protection[8]. It is somewhat entangled with the whole free trade-protection issue and has never yet been properly disentangled[9].

In order to find the optimal combination, one may attempt, as a first approximation, to examine the pros and cons of both free trade and protection, and next, as H.B. Chenery has tried[10], to reconcile or harmonize the gains or losses arising from them. Here, it is important to recognize that, according to the level of economic development of the countries participating in the integration scheme, the point of reconciliation or harmonization is different. Generally speaking, the more developed the member countries are, the more gains may tend to accrue from free or more trade, and the fewer benefits from protection. On the contrary, the less developed the member countries are, the less gains may tend to arise from free or more trade and the more benefits from protection. Developed countries have already fulfilled the conditions of growth of industries(protection side) so that they are ready to enjoy greater opportunities from free or more trade than underdeveloped countries which, lacking those conditions, are not able to derive benefits from free trade readily.

In other words, in developed countries, demand may have been an important limiting factor to growth and hence a widening of the market itself may contribute to economic growth considerably. In most underdeveloped countries, however, development has been mainly inhibited by the factors on the supply side so that free trade, while somewhat relieving demand deficiency, would hardly solve the problem of supply deficiency as well as internal immobility. Therefore, the theory of economic integration among underdeveloped countries has to pay attention to the relevance of an integrated market to such fundamental problems as mobilizing unemployed resources, increasing opportunities for profitable foreign and domestic investment, broadening the export base, etc. In this connection, it will be proper approach to assume, as Cooper and Massell did in their effort toward a general theory of customs unions for

(8) H. G. Johnson; "The economic theory of customs union" Money, *Trade and Economic Growth*, pp. 46—47.

(9) J. Viner; *The Customs Union Issue*, Chapter 4, p. 41.

(10) H. B. Chenery; "Comparative advantage and development policy," *Surveys of Economic Theory*, Vol. II, pp. 125—156.

underdeveloped countries[11], that underdeveloped countries may be willing to accept some reduction in national income to achieve an increase in industrial production.

This does not, of course, diminish the importance of studying the welfare gains or losses accruing out of a disturbance of the existing pattern of trade which is assumed to reflect comparative advantage in the commodities trade as determined by existing factor endowments[12]. On the other hand, to developed countries, the problem of welfare gains or losses derived from changes in intra-regional trade restrictions is important, but this, again, does not diminish the importance of dynamic effects, because plans for economic integration involve a relatively long time horizon.

III. STRUCTURE OF ECONOMY AND TRADE

Before going into details wih regard to the evaluation of the feasibility of economic integration in the Far East, it will be useful to throw some light on the economic structure and trade pattern of Korea, Taiwan and Japan.

(1) Economic Structure and Stage of Development

As can be seen in Table 1, per capita gross domestic products of Korea and Taiwan are widely different from those of Japan: $147, $172 and $585 respectively. This wide variation in the level of living standards relates to substantial wage differences and relative differences in factor supplies and costs. However, insofar as consideration is confined to Korea and Taiwan, the supply and cost of labour cannot be considered a dominant factor in development, since redundant agricultural zero-value labour is common to them. It should also be mentioned that, taking into account the combined regional incomes, population, trade, etc., economic integration among Korea, Taiwan and Japan would form a substantially larger unit than some existing regional groupings, while Korea and Taiwan would form a relatively small region.

In Table 2, the sectoral distribution of output shows considerable differences in the dependence on agriculture among Korea, Taiwan and Japan. While in the case of Korea and Taiwan, agriculture accounts for nearly one third

(11) C. A. Cooper and B. F. Massell; op. cit.
(12) R. F. Mikesell, ibid., pp. 205—230.

of the net domestic products, in Japan it contributes one tenth only. The review of the industrial structure of Korea and Taiwan suggsets a fair degree of uniformity in the pattern of their industrial development. Most consumer goods industries and some intermediate products industries are well developed, but in the case of heavy industries, dependence on imports from abroad is still heavy. This means that Korea and Taiwan have already achieved a considerable degree of self-sufficiency in some light manufacturing industries which can be exposed to outside competition. Heavy industries are relatively less developed in Korea and Taiwan but highly developed in Japan. As suggested in Tables 2, 3, 4 and 5, the contribution of heavy industries in Korea and Taiwan to manufacturing output is small. There are of course some important differences in the relative development of individual industries and a review of major ones would be helpful.

As shown in Table 4, the share of demand for heavy industries expanded while the share of demand for light industries such as textile and consumer goods (including food production) declined. This change of pattern accords well with the normal pattern derived from the experience of developed countries. Chenery and Maisels' regression analysis shows a fairly sharp fall in the relative importance of textile in total manufacturing output when per capita income rises from $100 to $250 (from 26% to 18%, growth elasticity from cross-country regression is 0.93 and that from time-series regression is 0.59)[13]. The experience of Korea and Taiwan, however, suggests that the share of textiles in total manufacturing output might decline at a slower rate in the early period of the transitional stage (at $150 to $250 level of per capita income) and that a sharp fall in the share of textiles might occur a little later in the transitional stage, as shown in Table 5.

The above data indicate that the economies of both Korea and Taiwan are at the transitional stage and progressing steadily towards the heavy industrial producing countries. This means also that the fairly small differences in the level of industrial development between Korea and Taiwan should be considered a positive factor in regional harmonization between them, since equal distribution of gains from integration can presumably be brought about

(13) H. B. Chenery; "Patterns of industrial growth". AER 1960. pp. 633—639 and the comment made by Maisels.

more essily than it could be if Korea, Taiwan and Japan were integrated.

(2) Trade Pattern

As shown in Tables 6—10, Japan exports mainly heavy industrial goods and imports foods, raw materials and light industrial goods. Korea and Taiwan, on the other hand, export light industrial goods, and import heavy capital goods. Recently, Korea and Taiwan have been exporting significant amounts of manufactured products and successfully escaped from the primary export structure as a whole. As we can see in Table 10, textiles and consumer goods constitute the dominant share of total manufactured exports; 54% in Korea and 67% in Taiwan. In Korea and Taiwan, the share of products other than textiles and consumer goods is about 33—46% and these countries are exporting significant amounts of electrical machinery and metal products. Korea and Taiwan are also exporting very large amounts of wood products, mainly plywoods.

Korea especially made impressive progress in its exports of manufactured goods in 1966 and later. On a customs clearance basis, some manufactured exports increased at the rate of over 50% in this period. In 1966, at least 145 new items of manufactured goods were produced and the number of exports increased from 379 items at the beginning of 1965 to 536 items at the end of June 1966. Taiwan also expanded its exports very rapidly. It showed rapid changes in the pattern of export trade, reflecting dynamic modification in its economic structure. The export figures clearly indicate the decreas ing degree of dependence on the traditional exports of sugar and rice, and the growing volume of manufactured goods in its export trade. Between 1961—1966, Taiwan nearly trebled its export of cement, more than trebled its export of chemicals and increased its exports of metals and machinery fourfold. Such a rapid expansion of exports of Korea and Taiwan suggests that the export sector is becoming more important in their industrialization endeavours and hence a larger market is becoming more important for their development.

(3) Intra-regional Trade

As can be seen in Tables 11 and 12, both Korea and Taiwan are heavily dependent on Japan as to exports as well as imports. Between 1960 and 1965, the average share of Taiwan exports and imports to and from Japan

amounted to more than 30% of Taiwan's total exports and imports. In the same period of time, the average share of Korea's exports and imports to and from Japan amounted to 40% and 26% respectively of Korea's total exports and imports. On the other hand, Korea's and Taiwan's combined share in Japan's total foreign trade is extremely small; on the average, import share 1.9% and export share 4.6%. The volume of trade between Korea and Taiwan is also very small. Korea's share in Taiwan's total imports and exports amounted on the average to 0.4% and 2.5% respectively, whilst Taiwan's share in Korea's total imports and exports amounted to 1.9% and 1.4% respectively.

If we examine the percentage shares more closely to include the type of goods exchanged, then the following interesting relations can be observed which make clear the special features of intra-regional trade in this area. Korea and Taiwan export to Japan almost exclusively raw materials and primary products whilst they import mainly capital goods from Japan. Thus the present trede structure between Japen on the one hand and Korea-Taiwan on the other reflects the traditional complementary nature of the exchange; that is raw materials and foodstuffs against industrial products. In contrast to this, the trade between Korea and Taiwan consists of competitive trade in primary products and this is of a very limited nature. In contrast to the trade structure between Japan and Korea-Taiwan which is the direct result of different levels of economic development, the structure of trade between Korea and Taiwan is determined by similar levels of economic development, which proceeds primarily by means of imports substitution and extension of the domestic market. These factors underlie the small volume of trade and will cause a slow growth of trade in the future between the two countries provided they remain unchanged.

IV. POSSIBILITY OF ECONOMIC INTEGRATION AMONG KOREA, TAIWAN AND JAPAN

Is there any possibility for future economic integration in the Far East? In order to investigate such a possibility, we must study the long-term and dynamic connections of integration with the economic development of individual countries in this region.

Let us first consider the development of foreign trade in Japan with regard to structural changes here. As can be seen in Table 13, Japanese foreign trade has been subject to a considerable structural transformation in the last 10 years. The export of light industrial products which amounted to 56.7% of Japanese total exports in 1955 amounted only to 33.9% of its total exports in 1965 while the proportion of heavy industry has risen from 43.3% to 66.2 %. Even more interesting is the fact that the rate of growth of the total product of light industry has decreased particularly rapidly after 1960. The export of capital intensive light industrial products whose rate of growth amounted to 15.2% annually between 1956—1966 increased by 8.4% annually between 1961—1965, while the annual rate of growth of exports of labor intensive light industrial products decreased from 10.3% to 2.9% in a similar period of time. Two factors in particular have brought this about: firstly the rise in the level of wages in Japanese economy as the result of a changing industrial structure and secondly penetration of cheap products from underdeveloped countries into industrial countries. As is shown in Table 14, the Japanese share of American imports of light consumer goods has dropped in almost all products since 1962 whereas the share of those of underdeveloped countries has risen considerably. In this connection, it is noteworthy that Korea and Taiwan have become serious export competitors of Japan in some products such as cotton goods, plywoods, cutlery, table crockery, rubber shoes and transistor radios.

The rapidly diminishing rate of growth of Japanese exports of light industrial products and the rising exports of the same products in Korea and Taiwan appear of particular importance for our study. The slowing down of the growth of exports of light industrial products in Japan is, as indicated above, an unavoidable consequence of the structural change in Japan's industrial economy. In spite of the still prevailing dualistic character of its industrial structure, the significance of light industry in Japan's industrial economy will therefore diminish. The rise in productivity in the labor intensive light industries shows an annual rate of growth of 6.9%in the year 1961 to 1965 in comparison to 10.3% in the capital intensive heavy industries, while wage costs have risen annually by 6.1% as compared with 0.4% in those of heavy industries (compare Table 15). The relatively slight rise in productivity and rapid rise in wage standards in the light industries will not only limit

their possibility of expansion in the home market but also endanger their competitive capacity in the world market. In addition, this fact offers a starting point for future ecnomic integration in the Far East and this makes possible an international division of blaor in this region.

V. LIMIT OF THE POSSIBILITY

Countries, be they developed or underdeveloped, will envisage the establishment of a unified market only if they can expect that the benefits of the integration process will be distributed among them in an equitable manner. But, unfortunately, integration may not be advantageous for all the participating countries, particularly not if one country is at a relatively lower level of economic development(14). In economic integration among the countries whose levels of economic development are different, a process of cumulative causation might occur. These agglomerative factors include economies of scale, advantages resulting from close association of a number of different production units such as provision of skilled labor force, supply of related materials, availability of marketing factors and savings in general overhead costs. If things are left to market forces unhampered by any policy interferences, then industrial production and almost all those economic activities which tend to give a higher than average return will tend to cluster in certain countries. In addition, inequality of opportunities may contribute to preserving high quality of the factors of production and high effectiveness of their productive efforts in those countries. The movements of labor, capital, goods and services do not by themselves counteract the natural tendency to international inequality, rather they are media through which the cumulative process evolves(15). Historical experiences in Brazil and Italy as well as in the West African Common Market indicate these tendencies.

As to underdeveloped countries, the following disadvantages may emerge:

(a) No longer are they free to grant to their infant industries, the necessary

(14) A. Hazlewood: "The East African Common Market: Importance and Effect"
"The shiftability of industry and the measurement of gains and losses in the East African Common Karket" BOUIS, 1966 and 1967.
B. N. Wood: "Comment on Hazlewood" op. cit., 1967.
D. P. Ghai: "The East African Common Market: A comment" op. cit.

(15) G. Myrdal: *Economic Theory and Underdeveloped Regions.*

protection against imports from the more advanced areas of the same group.

(b) Since the goods from more advanced partner countries may cost more than those which could have been bought from third countries, and since the more advanced countries also tend to have greater opportunities for additional exports towards weaker partner than inversely, the underdeveloped countries' balance of payments is subject to additional strain.

(c) If the freeing of trade within the region is accompanied by an increase of barriers against third countries, there is at least the risk of a rise in the cost of living.

(d) The international operation of demonstration effects may occur.

(e) A secular deterioration in the terms of trade may be produced.

Unhappily, the existence of the channels, in an integrated area, by which development may spread to the less developed countries, does not by any means guarantee that the spread will exceed the backwash of resources towards the richer countries. Whether it does so necessarily depends largely upon political consideration(16). Generally speaking, the less developed the economies of the member countries are, the greater are the disparities of income between the partner countries and the regional inequalities tend to increase after integration rather than to diminish(17). This means that it is difficult to balance the long-run spread effects and the backwash effects of prosperity between the member countries, if their levels of economic development are relatively low. These tendencies may appear more clearly provided their economic levels are different from each other.

We have already seen that the structure of foreign trade between Japan and Korea-Taiwan shows a traditional complementary pattern which can be ascribed to the different level of economic development between these countries. Considering the present structure of these three countries, it can be stated without difficulty that comprehensive liberalization of trade would lead neither to a mutual increase in the volume of trade nor to the economic development of Korea and Taiwan. This is because exports of primary products would only increase to a limited extent due to inelastic demands

(16) A. J. Brown: "Economic separation versus common market". Yorkshire Bulletin. 1961, Part I and II (specially Part II).

(17) G. Myrdal: op. cit., p. 33.
UN: *Economic surveys of Europe*. 1954. pp. 136—171.

in the Japanese market and often also excessive price fluctuations, while Korea and Taiwan are importing capital goods and consumer goods from Japan in increasing quantities for their industrialization process. This would not only lead to the supplanting of existing industries but would prevent the building up of new industries, which, as mentioned in the previous section, are heavy industries now emerging in these countries. Light industrial goods also may have limited opportunities for exports to Japan, since the competitive power of Japanese light industrial goods in general is not weaker than those of Korea and Taiwan in Japanese market, except for the small number of labor intensive light industrial goods mentioned above. In comparison with the situation prior to the integration, prospects after the integration may not be brighter as far as rates of increase in exports of primary and light industrial goods to Japan are concerned. (This requires of course a precise mathematical calculation based on tariff rate and characteristics of individual commodities).

As regards the factor movements also, we have some doubts (in an economic as well as a political sense) on the nature of the capital and technology flowing from Japan into Korea and Taiwan, and also on the migration of labour from Korea and Taiwan to Japan, when taking into consideration the past historical experience and the present economic structure of Japan(18). In addition, there are dangers that demonstration effects may tend to stimulate "the propensity to consume" more than "the aspiration to consume" in the case of Korea and Taiwan, and that, due to the insufficient flexibility of internal resource mobility, the commodity terms of trade between Korea-Taiwan and Japan may tend to shift in favour of Japan.

These limited advantages and predominating disadvantages of a comprehensive liberalization of trade and production factors among these, and their further effects on the future development of Korea and Taiwan greatly limit the possibility for economic integration in the Far East. Under present conditions, the liberalization of trade and economic integration with Japan are therefore not desirable for Korea and Taiwan. On this account, a free trade

(18) This is a very controversial issue. For general interpretation about the adverse effects of foreign capital, refer to "*International Trade and Development*". G.M. Meier. Chapter 5 and pp. 165—173.

zone similar to LAFTA and a common market similar to CACM and EEC are neither acceptable nor realistic.

VI. POSSIBILITY IN THE CASE OF KOREA AND TAIWAN

So far, we have discussed the feasibility of economic integration among the countries whose levels of economic development are different. In this case, the interest of each country is different and gains accruing from the larger market are derived from different sources, that is, one from free or more trade and another from protection. But Korea and Taiwan are at a similar stage of economic development, which may be thought to be a necessary precondition for achieving successful economic integration, from the viewpoint of equal distribution of benefits. Within the theoretical setting argued in section 2, we can establish the criteria with which analysis can be carried out to evaluate the feasibility of economic integration between Korea and Taiwan. These criteria are as follows[19]:

In the aspect of free or more trade,

(1) trade creation and trade diversion (in a static sense)

(2) competition

In the aspect of protection or growth,

(3) economies of scale

(4) specialization and complementarity[20]

(5) factor movements[21]

In the aspect of both free trade and protection,

(6) propinquity and transportation costs

(7) uncertainty and administrative economies

In the aspect of the relation with outside countries,

(8) bargaining power

(9) external vulnerability.

(1) Trade Creation and Trade Diversion

In a static framework, the production effects of economic integration can

(19) Criteria are not classified distinctly. Some included in "free trade aspect" are relevant to "protection aspect" also.

(20) This criterion has some relevance to "free trade aspect" too.

(21) This criterion has some relevance to "free trade aspect" too.

be estimated as the difference between (a) the amount of trade created, each item multiplied by differences in unit costs and (b) the amount of trade diverted, each component multiplied by differences in cost per unit[22]. Here, the complementarity or competitiveness (at the present time) of the participating economies, the size of integration, propinquity and transportation costs and height of tariff can be regarded as the main determinants of the static production effects. In general, gain from the trade creation is more likely,

(a) if the economies of the member countries are actually very competitive (or similar) but potentially very complementary (or dissimilar)[23],

(b) the higher is the proportion of trade with the partner countries and the lower the proportion with the outside countries. In other words, if one of the member countries is the principal supplier of the products that it exports to the others and if one is the principal market of the products that it imports from the others[24]. For showing the degree of trade cohesion between partner countries, the following formula may be recommended[25]:

$$Iij=\frac{Xij}{Xi}\div\frac{Mj}{W-Mi}\times 100$$

where Iij stands for the degree of trade cohesion among countries, i and j,

Xij is the amount of exports of i country, to j countries ($j=1, 2\ldots n$),

Xi is the total amount of exports of i country.

Mi and Mj are the total amount of imports of i country and j countries respectively,

W is the total amount of imports of the world as a whole.

At the same time, share indices per commodities, that is, the ratio of composition of exports per commodities are recommended also.

(c) the lower is the proportion of foreign trade to purchases of domestic products[26],

(d) the more elastic the domestic demand for and supply of goods which

(22) J. E. Meade: *The Theory of Customs Union*, pp. 35—36.

(23) J. E. Meade: op. cit., p. 107.
H. G Johnson: "The economic theory of customs union" op. cit., p. 44.

(24) J. E. Meade, op. cit., pp. 108—109.

(25) K. Kojima: op. cit., pp. 67—98.

(26) R. G. Lipsey: "The theory of customs union; a general survey" EJ, Sept. 1960, pp. 508—509.

the member countries is capable of providing.

(e) the degree of substitutability in consumption between goods from partner and from foreign sources,

(f) the higher the initial rates of duties on imports in each member countries, and the lower the tariff level in exports outside of the integration[27]. In general, the more heavily protected the manufactured commodities are. In connection with tariff reduction, the following formula may be advisable for estimating probable increase in imports due to the tariff reduction[28]:

$$\frac{\Delta M}{M}=a\cdot\frac{t}{100+t}\cdot n$$

where $\frac{\Delta M}{M}$ stands for the proportional increase in imports (M), item by item

t is current tariff as percentage of world price $\left(=\frac{T}{Pw}\right)$

a is the percentage rate of tariff reduction$\left(\frac{\Delta t}{t}\text{ or }\frac{\Delta T}{T}\right)$

n is price elasticity of demand for imports $\left(\frac{\Delta M}{\Delta P}\cdot\frac{P}{M}\right)$, where $P=Pw+T$)

(g) if duties on imports from partner countries are partially reduced, rather than completely removed,

(h) if trade barriers take the form of fixed quantitative restrictions, rather than that of taxes on imports.

Among several criteria mentioned above for the purpose of evaluating the trade creation and trade diversion, some are open to criticism[29]. Moreover, these criteria are based on certain assumption with respect to the potential welfare gains from integration which relate to the existing patterns of production and to the proportion which trade among regional countries bears to their total trade. Their relevance for the integration among underdeveloped countries is different under different assumptions[30].

(27) J. Viner: op. cit., pp. 51—52.
J. E. Meade: ibid, pp. 108—109.
(28) K. Kojima: op. cit.
(29) Particularly (a), (c), (f), (g) and (h) of criterion (1).
(30) R. F. Mikesell: ibid.

As shown in Section 3, and speciallyTables 6, 7, 11 and 12, the volume and commodity composition of trade between Korea and Taiwan is very small and narrow as compared with those of other integrated markets such as EEC, EFTA, LAFTA, CACM and EACM. It is understandable, therefore, that, in general, by the application of the above static criteria, we are able to anticipate insignificant gains from a wider market formed by Korea and Taiwan. Also, as shown in Tables 11 and 12, each country is not the principal supplier and market to the other, that is, the proportion of trade with the partner country is low while the proportion with the outside countries is extremely high, so that the scope affected by trade liberalisation between them is narrow. This position may be compared with Viner's thesis that, when economic integration is limited to a small number of poor countries, the possible gains from more trade are likely to be small(31). We can expect the gains from any integration scheme for Korea and Taiwan only in the dynamic aspects which are likely to be derived by their efforts toward planned industrialization.

(2) Competition

As to the possibility of gains from competition in an integrated area, opinions differ widely. Maurice Bye asserts that monopolies within the integrated market are beneficial, since natural gains would result from the disappearance of certain competitive struggles, from a pooling of market research and from mutual adaptation of the conditions of production(32). The same line of thought is followed by Jan Tinbergen(33). On the other hand, the absence of an opportunity for making comparisons of cost and quality may lead to low productivity and corresponding high costs of industrial production. A wide market would provide a spur to higher efficiency even in those industries for which a larger than national market would not be necessary for reaching the optimum economies of scale. The possibility for competition provides an incentive for improving productivity.

However, the chances of competition in underdeveloped countries appear to be gloomier than in developed countries. The difficulties of readjustment and possibilitis of bankruptcy for inefficient enterprises, so called "ruinous

(31) J. Viner: op. cit., p. 135.
(32) M. Bye: "Customs union and national interests" Int'l Economic Papers, No. 3. p. 222.
(33) J. Tinbergen: "On the theory of economic integration" Selected Papers, p. 159.

competition", have been frequently cited(34). Premature competition might lead to the abandonment of existing productive capacities and the loss of existing jobs. If underdeveloped countries have already embarked upon the process of industrialization, their existing industries should not be exposed too soon to unrestricted competition, for once the producers are able and willing to face competitions from other underdeveloped countries, they will be in a better position to stand on their own in the world's markets and ultimately to accept competition from the producers in developed countries.

As we have seen in section 3, Korea and Taiwan are at the transitional stage of economic development. Heavy industries are emerging while some parts of light consumer goods industries are already developed and others are on the verge of development. It has been argued that, in view of their key position in the industrialization efforts, emerging heavy industries should be protected from external and internal composition, in order to maintain the optimum economies of scale in the integrated economy of planned complementarity. To exclude existing light industries completely from the trade liberalization commitments, however, would exempt possibly wider sectors from the beneficial effects of a regional integration, particularly in those sectors such as textiles which have already reached a relatively advanced stage of development(35). By being exempted from any liberalization attempts, these industries tend to be of lower efficiency. To this extent, account should be taken of the fact that when economies are in a growing phase, the creation of a r egional market leads to the rapid expansion of the efficient firms, while the existing suboptimum firms tend to experience a reduction of their participation in total production and consumption. In relation to the light industries that do not yet exist in other countries, the case for the immediate establis-

(34) UN, Dep't of Economic and Social Affairs: *The Latin American Common Market*, 1959, pp. 18—20.

(35) H. Katano: "Direction of intra-regional trade harmonization in the *ECAFE* region". Bulletin for Asia and the Far East, Vol. XVIII No. 2 Sept. 1967, p. 14. In this paper, it has been shown that there is an economic possibility of expanding intra-regional trade among the ECAFE region on the basis of prices and technology. It concluded that almost all the countries under review (India, Korea, Malaya, Pakistan, Philippines, Australia and Japan) are in a position to gain more from trade by promoting intra-regional trade. In addition, some possibilities of redirecting the intra-regional trade flow for more effective use of int'l division of labour was indicated. Although Taiwan is excluded from the study, the conclusion can be applicable to the intra-trade flow of existing light industrial goods between Korea and Taiwan also.

hment of a market that would be free of internal trade barriers looks particularly strong. We can conclude therefore that competition may bring about benefits to some industries such as already developed light industries, but not to every industry in the integrated market of Korea and Taiwan.

(3) Economies of Scale

The bulk of the literature claims that integration favours economies of scale, while others, critical of integration, voice rather pessimistic views(36). The theory of economies of scale assumes that the optimum size plants are necessarily of large size, and that the extent of one national market is too small to sustain the large size plants.

Pessimists argue, however, that, in many industries, technical economies can be exhausted by plant of moderate size and even relatively small countries can have a number of plants of the minimum efficient size(37). This argument is valid for light industries such as non-durable consumer goods involving little technology and capital, which is a kind of production typical of the very early stages of industrialization and which often finds adequate market outlets within a national boundary. But, for many small countries whose population has a very low purchasing power, the domestic market is not sufficient for the basic and heavy industries and durable consumer goods industries to be of the optimum size(38). Among such industries are, for example, iron and steel, nonferrous metals, heavy chemicals, fertilizers, pulp and paper, industrial machinery, farm machinery, electrical equipment, transports equipment, etc. These industries are characterised by relatively high income elasticities of demand in underdeveloped countries. To be precluded by the size of the market from going into these lines of production means losing some of the most dynamic apparatus for economic development. Even

(36) F. Gehrels and B.F. Johnston; "The economic gains of European integration" JPE Aug. 1955. pp. 275—292.
H. G. Johnson: "The gains from free trade with Europe: an estimate" Manchester School, 1958, pp. 247—255.
T. Scitovsky: *Economic Theory and Western European Integration.*

(37) E. A. G. Robinson: *Economic Consequences of the Size of Nations,* Part VI.

(38) E. A. G. Robinson: op. cit.
L. Rostas "Comparative Productivity in British and American Manufacturing Industry" and "Productivity, Prices and Distribution in Selected British Industries".
M. Frankel: "British and American Manufacturing Productivity".

for production characteristic of earlier stages of the impsrt substitution process and involving less advanced technology, such as cement or consumer goods like textiles and footwear, access to large markets tends to reduce costs greatly.

According to Bain's data, the exploitation of economies of scale in LAFTA is powerful in the manufacturing of excavating and construction equipments, automobiles, heavy vehicles, railway equipments, chemicals, etc(39). It is noted that most plants in CACM are too small and cannot fully utilize their capacity due to the limited size of national markets. The textile, footwear and cement industries will be created under the auspices of the integration programmes. In Latin America, contrary to Europe, similar tastes can be observed as between countries and hence standardization is possible. Notwithstanding the restricting effects of transportation costs, LAFTA and CACM offer substantial opportunities for internal economies in steel, passenger automobiles, machinery and chemical products.

These internal economies are, however, frequently very small as compared with external economies. Hirshman argues for the establishment of industries producing intermediate products, where the combined amount of the backward and forward linkage effects is the largest(40). The possibility of reaping external economies through the interdependence of industries, especially heavy industries, appears as a powerful argument for economic integration among developed countries as well as underdeveloped countries.

Kuznets notes that all small countries face certain disadvantages by reasen of the limited domestic market, the uncertainty of foreign trade and the absence of a diversified industrial structure(41). An increase in the size of the market is likely to create growing points that will permit the introduction of advanced technology in the supplier and buyer industries. According to Marshall's dictum, small firms are at a disadvantage because they cannot afford much research and are often unable to develop innovations due to the lack

(39) J. S. Bain: *Barriers to New Competition*, pp. 228—248. A study of the Iron and steel industry: Latin America pp. 112—116.

(40) A. O. Hirshman: *The Strategy of Economic Development*, Chap. 6.

(41) S.Kuznets: "Economic growth of small nations" *Economic Consequences of the Size of Nations*, pp. 14—34.

(42) A. Marshall: *Principles of Economics*, 8th ed. p. 234.

of capital[42]. But large firms may enjoy progress through large scale research. We may say that integration will be conducive to autonomous technical improvement, since large scale economies in research can be reaped on both the national and the firm's level. These beneficial effects of integration on autonomous technical change are expected to follow in the EEC as well as in Latin American integrated markets[43]. Together with such an internal autonomous improvemant of technology, imports from abroad of up-to-date technical know-how (and capital) are also to be mentioned.

In the case of Korea-Taiwan integration, these favourable effects of integration might occur in the heavy industries as well as in the large light industries, optimum size of which needs a larger market than a current national domestic market. These industries include, for instance, iron and steel, petroleum products, petroleum refinery, cement, fertilizer, automobiles, tyres, viscose and acetate rayon, plywood, sheet glass, electrical equipment, caustic soda, chlorine insecticides, pulp and paper, paint, bicycles, etc.

Specially for these industries, there are possibilities of inducing foreign capital which is an important source of financing in this integrated area. The need for foreign capital is acute, since domestic savings are far from adequate to satisfy the demand for investment funds. At present, many factories are being constructed in Korea with the help of foreign capital.

From the point of view of real purchasing power, however, Korea and Taiwan are still small, as shown in Table 1, relative to some heavy industries (provided it is right to say that most of the maior industrial economies of scale could be achieved by a relatively high income nation of 50 million[44]), so that it may be necessary that any integration be extended to included some more South East Asian underdeveloped countries such as the Philippines, Malaysia, Thailand, Indonesia, Vietnam, etc. Anyway, the gains from economies of scale is the strongest standpoint for the integrationists who advocate the creation of a larger integrated market between Korea and Taiwan.

(4) Specialization and Complementarity

An increase in the extent of the market also changes the structure of individual industries and the allocation of output. Generally, the wider the

(43) B. Tuchtfeld: *Economic Integration and Technical Progress*, pp. 91—113.
(44) E. A. G. Robinson: *Economic Consequences of the Size of Nations*, p. XVIII.

integrated market, the larger will be the economies of specialization. A small market may permit the maintenance of one or even a few optimal plants, but it will not be able to support a complete structure of optimal scale industries. The economies of specialization require a highly developed industrial structure, but will be exhausted on a relatively low level of economic development in some industries. The advantage of specialization in particular locations of a large area will be evident in the case of products in the production cost of which raw materials or energy have a large share. In the production of certain chemical products of alumina or of paper and cellulose, where the input in raw materials and energy is large, the economies of specialization are particularly important. Naturally, the smaller countries have particular reasons for paying attention to these considerations, for few of them can hope to produce the whole range of the goods they need.

Great emphasis is laid on gains from specialization in Latin America. ECLA conducted studies on the possibilities of specialization in the pulp and paper industry and in cotton textiles and heavy industries. In the productions of electric motors, electric and gas equipment, sowing machines, and metal furniture, there has been a tendency to subcontract part of the production process. It should be noted, however, that gains from specialization can be partly offset by transportation costs and specialization can contribute to agglomerative tendencies.

In general, there are three reasons for international specialization(45): differences in transportation costs, differences of natural endowment and differences in productivity. As for as the reallocation of existing light industries are concerned, these conditions may not apply in their entirety in the integration of Korea and Taiwan. This is because differences in natural endowment are probably small and the small differences in productivity seem to be explained mainly by the equally small differences in the nature and quantity of capital equipment. This is also because economic integration would lead to an international reallocation of output only in fields where there is little or no scope for lowering the threatened national industry's average cost of production through a domestic reallocation of output. Here, we are cartain that, with evidence of ample scope for reallocation within many national industries, such reallo-

(45) T. Scitovsky: op. cit., p. 32.

cation would often take the form of reallocation between national industries, not between the industries of different countries. Furthermore, as to the existing light industries, specialisation does not and must not imply the concentration of all production in the most efficient enterprise because such a shift would lead to the disturbance of productive forces and resulting losses would far outweigh any gains from high average productivity of the employed productive forces. Reallocation of light industries between countries, therefore, is subject to the limitation that it must not destroy the productive forces of light industries which have been oreated with such great effort in these countries. In other words, reallocation of light industries according to the principle of comparative advantage should be carried out cautiously and gradually, and the costs and benefits of such a shift must be taken into account. Hence, it is important to recognise that, as to the existing light industries, we must find out a point of harmonization between benefits (improvement of efficiency through competition) and costs (elimination of marginal producers in order to implement specialization programme). Therefore, the principle of specialization should be mainly confined to heavy industries as well as light industries not existing so far which are to be allocated on a complementary basis. As for these industries, the above criteria may be useful for joint planning by both the Korean and the Taiwan governments.

(5) Factor Movements

a. Capital

Inter-country capital movenemts are necessary to facilitate the shifts in resource allocation consequent upon the liberalization of trade. These free movements are governed by differences in earning possibility, and the estimated degree of risk and uncertainty. The risk and uncertainty are conditioned by fears of monetary instability, changes in taxation, price and wage fixing, etc. Capital being sensitive to differences in yields, actual differences and expected changes in monetary, fiscal and other policies could lead to sizable shifts of capital, that could deteriorate rathar than improve the efficiency of reaource allocation. Capital usually tends to be attracted to the place where returns on capital are higher. These movements of capital, in turn, facilitate the agglomerative tendencies.

In the case of Korea and Taiwan, capital is of such paucity in both countries that inter-country movements of capital are in fact not a significant factor in the economic development and cannot be realized easily due to the reasons mentioned above.

b. Labour

J. E. Meade maintains that wage earners will have an incentive to move if the difference between earnings at the place of immigration and that of emigration is greater than the sums of the direct costs of movement and the intangible costs of emigration(46). Actually, this needs modification because irrationality and imperfect foresight are introduced. Lack of sufficient knowledge on social facilitities, uncertainty about security, etc., contribute to this result. Irrational motives such as national, religious, and racial prejudices, fell in the same dimension. Among the sociological and psychological factors, differences in language, customs, and in general, loss of accustomed life deserve mention. Here we are inclined to say that, although the desirability of the movement of manpower in the integrated region is established, there is not much chance of large scale labour movements. In the integration of Korea and Taiwan, labour movement is unlikely because of a number of reasons shown above.

c. Entrepreneurial Resources

The need for both managerial functions and decision making under uncertainty is strong at the early stage of economic development. But, due to the social rigidity, disinclination towards risk taking, lack of business education, etc., there is a scarcity of entrepreneurial resources in underdeveloped countries. Also, the movements of entrepreneurial resources are restricted because of reluctance to accept the inflow of foreign managerial skills and entrepreneurs. At the same time, the uncertainty encountered in setting up a new business in a foreign country acts as powerful deterrent on the supply side. As with the movements of capital and labour, perverse movements of entrepreneurial resources may tend to occur under the conditions of economic integration.

In the integration of Korea and Taiwan, the movements of entrepreneurial resources are not important for economic development, sinse both countries suffer from scarcity of this factor and need it badly at the same time. Furt-

(46) J. E. Meade: *Trade and Welfare*, Vol. II, p. 358.

hermore, the quality of entrepreneurial resources existing in both countries is still so low that these resources cannot affect economic development greatly even after being transfered to another country according to the comparative advantage.

(6) Propinquity and Transportation Costs

Next, we have to consider how the propinquity of the participating countries bears upon the economic effects of integration. The main advantages of propinquity are said to be:

(a) the distances are shorter,

(b) tastes are similar and distribution channels are more easily established in adjacent economies,

and (c) the countries have a common history, awareness of common interests, etc., and hence are more willing to coordinate policies[47].

As a general proposition, it can be stated that, ceteris paribus, the shorter the economic distance between countries, the greater the potentialities of economic intercourse between them. This proposition can be used in evaluating actual integration projects and the other two propositions are also of importance for integration projects. But one encounters serious obstacles in attempting to assess their actual significance, especially in cases where subjective factors play an important role.

In the case of Korea-Taiwan integration, propinquity and transportation costs can be regarded as important factors which inhibit the implementation of trade liberalization schemes as well as of planned complementarity. For example, the countries are geographically divided by high sea, languages are different, and history and customs are not similar. In addition, the banking and insurance services and often also the currency affiliations and preferential trading arrangements of the two countries are geared to the other developed countries, with which in many cases the business community has linguistic and ethnic ties. However, awareness of common political and economic interests as well as willingness to cooperate with each other, which are very strong, are positive reasons for economic integration between them.

(7) Uncertainty and Administrative Economies

(47) B. Balassa: op.cit., p. 40.

Uncertainty is associated with the complexity of administrative regulations and policies. It has an adverse effect on foreign transactions, since producers include an additional risk premium in their calculations. This risk and uncertainty also obstruct the application of large-scale technology, which calls for large and stable markets, and increase the cost of entering the foreign market.

Integration may counteract these negative aspects of foreign trade and instead expedite the flow of goods and services. Also, the lessening of uncertainty will affect investment in export industries and foreign investment. The need for increased investments is especially pronounced in an integration of underdeveloped countries, where integration takes place pari passu with economic development.

It seems certain that in the case of Korea and Taiwan integration, these benefits could be brought about. However, the importance of these factors is difficult to assess, since the degree of uncertainty varies greatly between countries and over time.

Together with the elements of uncertainty, customs charges in inernational trade not only burden the traders but also can result in the loss of marginal transactions. The complexity of tariff levies is another obstacle to foreign trade, and administrative regulations on imports also provide indirect protection to special groups of domestic producers. In this regard, the abolition of tariffs between the member countries brings about cost reduction in the budget, saving of expenses and time, and increase in trade transactions.

On the other hand, we must realize that the additional burden of negotiation, coordination of codes, mutual supervision and tax problems will act in the opposite direction. It is difficult, however, to compare the costs and benefits quantitatively.

(8) Bargaining Power

Meade notes that the larger the trading area which negotiates as a single unit, the better the commercial policy treatment which it can hope to exact in its bargaining with other countries, and the better therefore its terms of trade with the rest of the world are likely to be[48]. The greater the proportions of the world's production, consumption and trade that are covered by

(48) J. E. Meade: *The Theory of Customs Union*, p. 96

the member countries, the stronger the bargaining power it can possess. In reality, nobody would deny that the bargainng strength of the EEC is significantly greater than that of the Benelux countries.

Yet, in the case of Korea and Taiwan integration, there is not likely to be a significant increase in bargaining power. These countries have few commodities with which they can exercise sufficient monopoly or monopsony power, specially in view of alternative sources of supply on the part of importing countries. In other words, since both countries are not the chief suppliers on the world market or do not constitute a large part of the world market for the imports, as shown in Table 6 and 8, the effects on bargaining power or terms of trade is negligible. The only exception is that, when negotiation is under way to induce foreign capital, two countries will be capable of enjoying bargaining power against foreign investors more than before, due to the gains from economies of scale.

(9) **External Vulnerability**

Fluctuation and stagnation in the traditional primary products exports of underdeveloped countries make it necessary for them to diversify their exports both in kind and in destination. Exports of industrial products to other underdeveloped countries could lessen their dependence upon developed countries. This argument for integration will be understood particularly in those countries which are heavily dependent upon one single commodity. The expansion of trade among underdeveloped countries could have both an economic and a political significance.

In Korea and Taiwan, this argument is relatively weak. Since the trade pattern is changing, as discussed in Section 3, in favour of exports of various kinds of manufactured goods, desire for the escape from external vulnerability is less pursuasive.

VII. SOME APPROACHES TO INTEGRATION

In the previous sections, we examined, by applying various theoretical criteria, the possibily of economic integration between Korea and Taiwan. From this, we have inferred,

first, that, in somes apects such as economies of scale, specialization, and

uncertainty, there might appear to be some gains from the integration, but in others such as static trade creation, competition except (existing and already developed light industries), propinquity and factor movements, no gains might arise therefrom, and

second, that in general it would be possible to achieve economic integration between them only if some conditions are fulfilled in the dynamic as well as the static aspect. As mentioned in the theoretical setting of Section 2, benefits from both free trade and protection will not be brought about easily in the integration scheme of underdeveloped countries.

The enlargement of the market by means of economic integration is neither a panacea nor a possible substitute for the fulfilment of prerequisites for a successful policy of economic development. In other words, the economic integration of underdeveloped countries can only provide a more rational framework within which development may take place(49). It can yield the expected benefits only if it is accompanied by efficient political and social policies as well as a high degree of operational know-how. From the practical point of view, we might ask some questions with respect either to the products covered, to the extent to which barriers are to be lowered, or the countries to be included(50). Some approaches which should be carried out for fulfilling the conditions for Korea-Taiwan integration are as follows:

(1) Policy Harmonisation Approach

In order to enjoy benefits from an integrated market, the policies which affect the terms of competition, planned complementarity, etc., would have to be gradually harmonized. This need for harmonization is concerned with the tariffs, trade policy towards third countries, monetary and fiscal policy, investment policy, etc. In short, both trade liberalization and development plans should be harmonized. But, generally, the trade liberalization approach is subject to narrow limits in this region, as discussed in section 2, and will act as a permissive circumstance of the production plan harmonization, the motives for which are directed towards equitable distribution of benefits,

(49) B. Balassa: "Economic development and integration", Centro de Estudios Monetarios Latinoamericanos, Mexico, 1965.

(50) UNCTAD: *Trade Expansion and Economic Integration Among Developing Countries.* 1967. TD/B/851 Rev. 1.

establishing priorities, avoidance of duplication and strengthening of domestic enterprises.

In these harmonization efforts, both countries will have to pay particular attention to their present or future concern for a rather strict balance of mutual advantages: although the tendency to the inequitable distribution of benefits of integration between Korea and Taiwan is rather weak, still trade and non-trade measures to ensure equity are necessary. Non-trade measures may include differential fiscal incentives, fiscal compensation schemes, regional integration banks and development agencies and joint investment policy. The policy harmonization approach is also applicable to the cases where these two countries exert their policies on external marketing, payment clearance, etc.

The achievement of the necessary harmonization is, however, likely to be very difficult. When negotiating commitments that are to lead ultimately to integrated markets, governments should realize that this evolution will involve mutually agreed limitations of economic sovereignty of each country.

(2) Gradual Approach

The above policy harmonization will have to be carried out gradually by effective co-operation in increasingly extensive fields. Economies of scale and specialization as well as competition can be achieved only if there exist propinquity and sufficient infrastructure such as a transportation and communication network. In the integrated area among developed countries, the adoption of integration commitments is added by a high degree of pre-existing economic inter-dependence and de facto integration. On the contrary, in Korea and Taiwan, the existing trade channels run still towards developed countries, and to start trading with regional business partners means desling with numerous unknown obstacles. In addition, transport tends to be costly, on account of the relatively poor conditions of harbour, roads and railways. Together with the transport infrastructure, telecommunication for linking the producers and the consumers in the larger market areas is still unsatisfactory. For these reasons, the problem of promoting economic co-operation and integration between them can only be dealt with by means of detailed specific case studies.

Not all conditions of a fully integrated market can be fulfilled at the same time. Some requirements might first be met partially and parallel progress in

the various fields is thus indispensable. As with the RCD (the Regional Co-operation for Development among Pakistan, Iran and Turkey)[51] an improvement of infrastructure and background might be made through a reduction of postal rates, the establishment of a joint airline, closer co-operation in the field of shipping, promotion of tourism and the establishment of a joint chamber of commerce. The co-operation to clear away the obstacles inhibiting free or more trade needs a lot of time and can be implemented only gradually. Without these preconditions, economic integration between Korea and Taiwan will be difficult to realize.

(3) Sectoral Approach

The underlying assumptions for sectoral or commodity approaches are:

(a) that, since the differences between sectors are great, an individual approach would be called for,

and (b) that the conditions for establishing a unified market might be fulfilled more easily with regard to certain sectors or commodities than with regard to others.

In the case of Korea-Taiwan integration also, we have found some justification for following different approaches as regards the products of emerging heavy industries, those of existing light industries, and those of emerging light industries. As for emerging heavy industries, the specialization approach of planned complementarity may be desirable. On the other hand, the competition approach such as tariff reduction, free list, regional quotas, etc., would be applicable to existing and already developed light industries. As for existing weak but important light industries, the trade liberalization approach may not be advisable.

Particularly, the argument for integration is much less valid for most agricultural products than for industrial goods. To pursue the purposes of integration that are relevant to agricultural products can create very serious problems:

(a) since population in agriculture has a relatively low standard of living, to lower the trade barriers might lead to economically disruptive imports.

(51) N. Islam: ibid.

(b) the agricultural sector is characterized by a high degree of structural rigidity and hence it is difficult to reorient the cultivation of land and put it to alternative uses.

and (c) due to the balance of payments reason, both countries are unwilling to depend on one another for food supplies.

These obstacles will prevent Korea and Taiwan from extending trade liberalization to the agricultural sector, except for a few agricultural commodities which are being produced under specialization according to comparative advantage resulting from quite different natural endowment and climatic conditions.

(4) Sub-regional Approach[52]

There are different degree of urgency, different size of geographical scope and real incomes according to the different countries. Some underdeveloped countries might have such a large internal market that there is still enough scope for import substitution without there being an absolute necessity to include the markets of other countries. Small countries, on the other hand, might or should feel the need for an enlargement of the market much sooner. Generally speaking, the wider the geographical scope of a regional market, the greater are likely to be the benefits of economies of scale, of specialisation, and of bargaining power[53]. On the other hand, it is equally clear that the more countries there are to be included within an integrated group, the more difficulties they are likely to have in agreeing on the conditions to be achieved for forming a larger market. Therefore, to avoid the possible drawbacks of both arguments, an effort should be made to reconcile the advantages and disadvantages of the larger size of the market and those of the smaller size of the market.

In the context of Korea and Taiwan integration, the size of the enlarged market is characterized, as shown in Table 1, as small as compared with

(52) The "sub-region" is defined as the area consisting of a few countries which are geographically close to each other. This concept of the sub-region, used by the ECAFE Secreteriat, is in contrast with that of the "region" that is equivalent to the ECAFE region as a whole.

(53) J. Viner: ibid, p. 51. J. E. Meade: *The Theory of Customs Union*, p. 609. J. Tinbergen; "Gustoms unions: influence of the size on their efficiency" Selected Papers, pp. 152—164. G. A. Duncan: "The small state and int'l economic equilibrium" Economia Internationale, Nov. 1950, pp. 933—943.

those of other integrated areas. Nevertheless, the difficulties appear to be great because it would seem that more conditions than in developed countries have to be fulfilled for achieving the same purpose. This means that the sub-regional approach is generally applicable, but as to some industries such as heavy industries which need much wider for economies of scale, the market formed by Korea and Taiwan must be extended, after a specified period of years, to other South East Asian countries which are at a similar stage of economic development. These countries may include the Philppines, Malaysia, Thailand, Indonesia, Vistnam, etc. But due to the great divergencies between these countries, extension of the integrated market made by Korea and Taiwan should be limited, in the first instance, to one or two countries which is or are close to Korea and Taiwan.

VIII. CONCLUDING REMARKS

From the previous discussions, the following important conclusions are deduced:

In the case of Korea-Taiwan-Japan intergration,

(1) the possibility of economic integration is narrowly limited to the traditional complementary pattern, and

(2) it is unfavourable to the economic development of Korea and Taiwan in the long run, since there might emerge a danger of an agglomerative tendency due to the different stages of economic development.

In the Korea-Taiwan integration,

(3) little static welfare gains can be derived from it but,

(4) as to the existing light industries such as textile industry which are already developed, benefits might arise from free competition.

(5) In the dynamic aspect, there is a realistic possibility of the establishment of integrated industries or regional international companies[54] under joint purpose projects which aim at achieving planned complementarity in the enlarged market. Heavy industries are cases in point.

(6) As for some of these heavy industries, however, it may be necessary to extend the integration scheme of Korea and Taiwan to include one

(54) I. M. D. Litttle: "Regional international companies as an approach to economic integration" Journal of Common Market Studies, 5, 1966—67, pp. 181—186.

or two other South East Asian counries, in order to enjoy economies of scale and speialization to a full extent.

(7) Even in the dynamic effects, some conditions must be fulfilled if integration is to be beneficial. These conditions are to be approached gradually and harmoniously.

In our analysis of the feasibility of economic integration between Korea and Taiwan, two preliminary tasks have not yet been mentioned in this paper. They are;

(1) to examine in more detail the existing pattern of production and consumption, the price and quality factors, etc., together with the import requirements, with a view to determining two countries' trade possibilities, and

(2) to conduct further research into the individual heavy industries as regards the size of the present and future market, minimum economic size of plant, production costs, raw materials, cost of internal transport, volume and composition of investment, etc(55).

TABLE 1

General Structure of Economy (1965)

	KOREA	TAIWAN	JAPAN
Area (Km^2)	98,451(220,231) (South+North)	35,961	369,661
Population(millions)	29.2(1966)	13(1966)	98.3(1965)
National Income(billions)	681(Won)	91.9(New Taiwan Dollars)	25,067(Yen)
Gross National products	760(Won)	113.1(NTD)	31,345(Yen)
Per Capita Gross Domestic products (US$ rounded)	147	172	585
Gross fixed capital formation	101,88(b. Won)	18,528(m. NTD).	9784(b. Yen)
Rate of Growth of gross domestic products.			
Aggregate p.w. (60-65).	7.0(1966=13.4)	8.8	9.5
Per centage p.w. (60-65)	4.1	5.4	8.4

Source: U.N *Economic Surveys of Asia*, 1966.

(55) U.N., ECLA: *Possibilities of Integrated Industrial Development in Central America*, 1964, E/CN. 12/483/Rev. 1.

TABLE 2

Industrial Origin of Net Domestic Products

	KOREA	TAIWAN	JAPAN
Total	716.77(b. Won)	92, 220(m.NTD)	25, 165(b.yen)
Agri. Forestry. Fishing	291.36	4, 799	2, 926
Mining	14.55	1, 904	244
Manufacturing	126.59	17, 268	6, 964
Construction	24.94	3, 691	1, 786
Trans. Commn. facilities	39.67	5, 889	2, 214
Ownerships of Dwelling	27.20	5, 515	
Pub.Ad. & Defence	39.84	10, 615	1, 165
Other Service	14.70	7, 313	5, 545

Source: U.N. *Economic Surveys of Asia*, 1966.

TABLE 3

Production of Selected Commodities (1965. 1000 tons, monthly average)

	KOREA	TAIWAN	JAPAN
Tea		2.1	6.5
Coal	854	421	4128
Natural gas		25.81	148.0
Petroleum crude		1.54	56
Iron ore	61		206
Tin-in-concentrates			
Salt	55.7	46.7	70.6
Sugar	3.8	83.4	47.4
Cotton yarn	5.5	4.6	45.8
Cotton fabrics	22.5(Mn sq. metres)	19.2(Mn metres)	251(Mn sq. metres)
Paper	3.8	11.3	309.4
Vegetable Oils		2.2	26.4
Sugar phosphates		16.3	129.2
Ammonium Sulphate		23.3	207.4
Petroleum products	134(〃)	138(1000 kilolitres)	7055(〃)
Cement	134.7	203.6	2748
Steel (Ingots, metal for castings)	16.0	21.7	3430
Tin Metal			0.144
Electricity (million Kwk)	271	538	15698

Source: U.N. *Economic Surveys of Asia*. 1966.

TABLE 4

The Composition of demand for manufactured products in selected years

	Korea		Taiwan		Japan	
	1955	1964	1953	1963	1909	1939
A. Machinery & Trans. Equi.	9.7	9.8	8.5	13.5	10.8	15.0
Machinery	3.3	2.9	3.5	6.9	5.3	8.3
Electrical	2.4	3.3	2.4	4.1	1.8	3.2
Transportation	4.0	3.6	2.6	2.5	3.7	3.5
B. Metals	3.7	6.7	8.3	8.9	5.2	21.4
Basic metals	2.0	4.9	6.5	6.2	—	18.6
Metal products	1.7	1.8	1.8	2.7	—	2.8
C. Building materials	9.1	5.9	6.5	8.9	5.3	5.2
Non-Metallic	5.3	4.5	2.9	5.5	3.2	2.5
Wood products	3.8	1.4	3.6	3.4	2.1	2.7
D. Chemicals, paper etc.	17.1	23.3	25.1	26.1	17.6	25.2
Paper products	1.9	3.1	3.8	4.3	3.2	3.9
Petroleum	2.4	4.4	5.8	5.7	—	—
Rubber	2.7	4.2	1.9	1.3	—	1.3
Chemicals	10.1	11.6	13.6	14.8	14.4	20.2
E. Textiles	23.9	20.5	23.2	15.5	30.9	18.0
F. Consumption Goods, other than Foods	9.1	7.1	—	3.9	6.1	2.5
Furniture	1.2	1.4	—	—	0.1	0.2
Printing	2.3	2.7	—	2.0	2.5	2.1
Leather	1.3	0.9	0.5	0.2	1.5	2.1
Wearing App.	4.3	3.1	—	3.9	—	—
G. Food & Kindred	28.8	25.7	26.1	22.3	22.3	10.9
H. Mnf/GNP.	10.2	14.3	14.3	20.2	9.1	23.4

Source: Dr. W.T.Hong. *Economic Research*. June & Sept. 1966.
College of Commerce, Seoul National University.

TABLE 5

Regression of percentage share of each manufactured output in total manufacturing on the percentage share of total manufactured output in GNP.

	Industrialization elasticities		
	Korea (1953—1964)	Taiwan (1953—1963)	Japan (1921—1940)
Machinery & Trans. Equi.	+0.24	+3.19	+1.26
Metals.	+1.06	+1.25	+2.10
Building Materials.	−0.06	+1.61	−0.17
Chemicals.	+0.70	+0.40	+0.90
Textiles.	−0.12	−1.15	−1.28
Consumption Goods, other than Foods.	−0.42		0.61
Food.	−0.33	−0.93	−0.90

Source: Dr. W.T. Hong; ibid

TABLE 6

World Trade by region and countries (value in million US. $)

	1960	1961	1962	1963	1964	1965
			Imports c.i.f.			
World	135300	140900	149500	162100	181500	196800
N. America	22520	22090	24040	25110	27760	31820
Develog. Asia	13060	13440	13830	14710	16090	17240
LAFTA	6725	6725	6890	6568	7112	7181
CACM	623	633	696	815	936	1080
EEC	29590	32170	35770	40420	44910	49000
EFTA	23010	23550	24590	26450	30220	31780
EACM	375	378	380	426	429	503
Korea, Taiwan & Japan.	5132	6448	6363	7661	8771	9176
Korea & Taiwan	641	638	726	922	833	1006
Korea	344	316	422	560	404	450
Taiwan	297	322	304	362	429	556
Japan	4491	5810	5637	6736	7938	8170
			Exports f.o.b.			
World	128000	134000	141600	154000	172400	186200
N. America	26230	26810	27670	29890	34340	35570
Devlog. Asia	11930	11970	12600	13740	14850	15810
LAFTA	7230	7378	7816	8267	8856	9311
CACM	467	480	558	646	732	844
EEC	29730	32310	34200	37550	42560	47910
EFTA	18480	19410	20350	22130	24040	26090
EACM	387	370	388	474	533	500
Korea, Taiwan & Japan.	4473	4641	5451	5902	7186	9036
Korea & Taiwan	418	405	435	450	512	584
Korea	33	411	550	870	119	175
Taiwan	385	364	380	363	393	409
Japan	4055	4236	4916	5452	6674	8452

Source: U.N. *Yearbook of International Trade Statistics*, 1965.

TABLE 7

Importance of Trade

	Korea	Taiwan	Japan
Share in World Trade	0.23(Imp) 0.09(Exp)	0.29 0.22	4.1 4.5
Export per capita	$6	$31.4	$86.2
Ratio of trade to gross domestic products	6.2 : 1	35.5 : 1	19.04 : 1

Source: U.N. *Economic Surveys of Asia*, 1966.
U.N. *Yearbook of Internatiional Trade Statistics*,, 1965.

TABLE 8

Direction of International Trade(1966) (Million dollars)

	Korea		Taiwan		Japan	
	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.
All countries.	62.4	184.2	132.8	154.0	2445.4	2381.1
ECAFE	25.9	94.3	80.7	81.2	788.5	756.8
Develpg. ECAFE	9.1	18.9	46.8	12.5	699.2	558.7
West. Europe	8.5	14.0	12.8	13.6	316.9	217.3
U.K.	1.3	0.6	1.1	2.5	56.4	53.6
N. America	25.6	69.4	33.4	45.6	875.9	861.3
U.S.A.	24.0	68.5	29.6	41.1	752.5	664.5
S. America	0.1	0.7	—	1.0	69.9	111.4
Mid. East & Africa	1.7	2.7	4.5	13.0	246.8	318.0
Sterling Area	5.1	9.1	17.3	17.2	495.8	581.5
ECAFE Sterl. Area	3.6	8.1	14.6	11.4	325.7	362.9

Source: U.N. *Economic Bulletin for Asia and the Far East.* June 1967.

TABLE 9

Value of Imports by principal commodity groups (1966)

Korea(Million U.S. dollars)	1966
Food	6.03
(Cereals and cereal preparations)	(5.11)
Beverages and Tobacco	0.02
Crude materials, inedible (ex. fuels)	12.83
Chemicals	11.21
Textiles	3.76
Machinery	10.14
Transport equipments	4.17
Other manufactured goods	7.54
Taiwan(Million NT dollars)	
Food	172.6
(Crude materials, inedible, ex. fuels)	(515.6)
(Oil seeds, oil nuts & oil kernels)	(70.7)
Textile fibres, raw	228.1
Mineral fuels, lubircates or related materials	159.1
Chemicals	229.0
Base Metals and manufactures	225.6
Machinery	470.3
Transport equipment	165.6
Other manufactured goods	151.8

Japan (Million Yen)	
Food	48.05
(Cereal and cereal preparations)	(25.01)
(Sugar and sugar preparations)	(4.89)
Crude materials, inedible, ex. fuels	114.40
(Oil seeds, oil nuts & oil kernels)	(12.34)
(Crude rubber)	(4.12)
(Textile fibres, raw)	(27.70)
(Metal ores and scrap)	(36.23)
Mineral fuels, lubricants & related materials	54.11
Chemicals	14.46
Machinery	17.46
Transport equipments	5.43
Other manufactured goods	26.50

Source: *Economic Surveys of Asia, 1966.*

TABLE 10

Value of Exports by principal Commodities and/or Commodity Groups

Korea (Million U.S. Dollars)	1966
Food	3.37
Crude materials, inedible, ex.fuels	3.89
Chemicals	0.06
Manufactured goods (inc. textiles)	11.96
Taiwan (Million NT Dollars)	
Rice	99.1
Fruits, fresh, dried & preserved	254.6
Sugar	175.7
Tea	33.1
Plywood	111.0
Cotton Yarn & Fabrics	102.3
Cement	57.0
Cotton clothing & articles of personal wear	31.6
Japan (Billion Yen)	
Food	11.07
(Fish and fish preparations)	(8.05)
Crude materials, inedible, ex. fuels	6.88
Textile fibres, raw	4.54
Chemicals	20.08
Textiles	38.12

Base metals & manufactures	53.33
Machinery	56.05
Transport equipment	43.17
Other manufactured goods	60.63

Source: *Economic Surveys of Asia*, 1966.

TABLE 11

Intra-Regional Trade among Korea, Taiwan and Japan (%)

	1960		1961		1962		1963		1964		1965	
	Imp	Exp	Imp	Exp	Imp	Exp	Imp	Exp	Imp	Exp	Imp	Exp
Korea	100	100	100	100	100	100	100	100	100	100	100	100
Taiwan	1.6	1.2	2.0	1.2	1.7	2.6	2.7	0.8	1.3	1.6	2.3	1.1
Japan	20.5	61.6	22.6	47.4	25.9	42.9	28.4	28.6	24.8	32.7	37.0	25.1
Taiwan	100	100	100	100	100	100	100	100	100	100	100	100
Korea	0.1	3.6	1.0	2.8	0.3	2.8	0.2	4.7	0.4	1.4	0.3	1.4
Japan	35.4	37.7	31.0	29.0	34.1	23.9	29.7	31.7	34.8	30.9	39.2	30.9
Japan	100	100	100	100	100	100	100	100	100	100	100	100
Korea	0.5	2.6	0.4	2.7	0.5	2.8	0.4	2.9	0.5	1.6	0.4	2.1
Taiwan	1.0	2.1	1.0	2.2	1.0	2.4	1.9	1.9	1.8	2.0	1.9	2.5

Source: U.N. *Yearbook of International Trade Statistics*, 1965.

TABLE 12

Trade by member countries of production and destination

	1961	1962	1963	1964	1965	1966
			Imports c.i.f.			
Korea: total	299956	421782	560293	404351	449952	59700
Taiwan	6199	7269	14994	5176	10465	
Japan	69212	109171	159345	100117	166628	
Taiwan: total	120943	121738	144834	171614	222960	20810 (m. US. $)
Korea	13.1	27.8	37.6	77.5	81.2	
Japan	3993.1	4157.0	4296.0	5972.0	8874.9	
Japan: total	5810.9	5637.0	6736.9	7938.2	8169.7	285.7 (b. Yen)
Korea	22.4	28.5	27.0	41.7	41.3	
Taiwan	67.8	61.4	122.6	140.9	157.4	
			Exports f.o.b.			
Korea: total	38646	54813	86802	119056	175082	20900
Taiwan	530	1354	722	1947	1942	
Japan	19397	23083	24841	38158	43974	

Taiwan: total	7812.2	8734.8	13282.6	17361.5	17987.3	178.8 (m. US. $)
Korea	225.3	246.4	626.4	242.6	250.2	
Japan	2262.0	2083.5	4209.2	5357.7	5503.9	
Japan: total	4235.9	4916.6	5452.6	6673.9	8452.4	293.3 (b.Yen)
Korea	135.9	138.2	159.7	108.8	180.3	
Taiwan	96.3	118.6	107.2	137.9	217.9	

Source: U.N. *Yearbook of International Trade Statistics*, 1965.

TABLE 13

Composition and rate of increase in export (%) of Japan

	Composition			Rate of increase		
	1955	1960	1965	1956—60	1961—65	1956—65
Heavy Industrial Products,						
Capital intensive products.	28.0	22.3	31.0	10.6	24.6	16.6
Labor intensive products.	15.3	25.8	35.2	28.5	24.0	26.2
Light Industrial Products.						
Capital intensive products.	38.7	37.8	26.3	15.2	8.4	11.8
Labor intensive products.	18.0	14.1	7.6	10.3	2.9	6.5

Source: Economic Survey of Japan (1966—69),
Economic Planning Agency, Japanese Government, Tokyo, 1967.

TABLE 14

Percentage share of Japan. Hong Kong, Taiwan, Korea and all underdeveloped countries in total imports of light consumer goods of U.S.A.

	Cotton Goods	Cloths	Ply-woods	Cutlery & Table Crockery	Umbrellas
Japan 1962	22	28	54	72	74
1966	12	27	37	75	68
Undeveloped Countries					
1962	66	32	33	1	7
1966	76	37	49	8	27
From Hong Kong					
1962	32	17	—	—	7
1966	31	21	—	—	29
Taiwan					
1962	11	—	10	—	—
1966	—	—	—	4	—
Korea					
1962	—	—	—	—	—
1966	—	—	17	2	—

	Rubber Shoes	Artificial Flowers	Toys	Transistor Radios
Japan 1962	90	18	97	89
1966	67	9	48	75
Underdeveloped Countries				
1962	3	71	1	9
1966	32	86	34	22
From Hong Kong				
1962	2	71	1	5
1966	8	84	32	15
Taiwan				
1962	—	—	1	—
1966	—	1	—	3
Korea				
1962	—	—	—	—
1966	21	—	—	—

N.B. *small amount to be neglected.
Source: "Minor export industries face new threats", *The Oriental Economists.* Nov. 1967.

TABLE 15

Wages and productivity of Japan

	Average rate of increase in productivity			Average rate of increase in wages		
	1956—60	60—65	56—65	1956—60	61—65	56—65
1. *Heavy industrial Products*						
Capital intensive productss	9.6	10.3	9.9	−3.0	0.4	−1.3
Labour intensive products	12.5	9.6	11.0	−5.7	1.8	−2.0
2. *Light industrial Products*						
Capital intensive products	7.8	8.9	8.3	−0.5	5.2	2.1
Labour intensive products	7.7	6.9	7.0	−0.5	6.1	2.8

Source: Economic Surveys of Japan (1966-67), Economic Planning Agency, Japanese Movement, Tokyo, 1967.

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