Why Do Multinationals Accelerate Regional Integration?:

A Short Essay on the Theory of Economic Integration*

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1. Introduction

The world trade has dramatically expanded since the Second World War under the GATT system, which is now succeeded by the World Trade Organization established in 1995. The GATT has been seeking a multilaterally increased world trade system and also been very cautious about making economic integration because the world trade was seriously damaged under the blocked system in the 1930s. The article 24 of GATT established requirements for making customs unions and free trade areas as follows:

The common external tariff, and other trade measures imposed at the time of the formation of a customs union, be set at a level that is not 'on the whole' higher of more restrictive than was imposed by the constituent territories prior to its formation[1].

However, multilateral free trade in the postwar period has developed with a process of integration through regional agreements: 98 agreements were notified to GATT under article 24 from 1947 through to the end of 1994, and a further 11 agreements were notified by developing countries under the 1979 Enabling Clause[2]. The European Union has expanded her membership and a lot of regional free trade agreements have been approved since the formation of WTO.

We characterize the postwar integration as follows. First, the regional economic integration started in the West European countries. As the European Economic Community was created in 1958 and the European Free Trade Association was in 1960, it is quite evident that the postwar regional integration has been primarily centered in Western Europe. Second, the Canada-United States Automotive Agreement was signed in 1965, providing for free trade in automobiles and parts, and the 1988 Canada-United States Free Trade Agreement extended tariff-free treatment to the remainder of trade. This agreement was extended to the North American Free Trade Agreement in 1994, including Mexico. In the postwar Latin America, protective tariffs were raised because they pursued an import-substituting strategy for industrialization. However, they also tried to make regional free trade areas and created the Latin American Free Trade Association in 1960. Since then, they have tried to change their inward-oriented developing policies to outward-oriented policies, beginning to establish free trade agreements.

In East Asia, however, few regional agreements have been approved since the end of the Second World War, because the East Asian countries and areas, Japan, Hong Kong, Singapore, South Korea and Taiwan have been pursuing an export-oriented industrialization and have close ties with the United States respectively. These countries did not need

1) "World Trade Organization, Regionalism and the World Trading System", in Miroslav N. Javanovic ed., *International Economic Integration,* Vol. 1, Theory and Measurement, London and New York, 1998, p. 28.

2) *Ibid.*, p. 49.

to establish regional free trade areas and have economic cooperation each other. East Asian economic integration has been called for since the Asian financial crisis of 1997.

This study focuses on microeconomic agents which promote regional economic integration. A lot of scholars have already scrutinized the postwar regional and economic integration from various views. In this short essay, we will historically study what microeconomic agent has promoted the postwar integration, and political-economically try to predict East Asian economic integration in the future.

2. The Static Analysis of Economic Integration

Jacob Viner first analyzed the economic effects of a customs union on the world efficiency. He created the concept of trade creating and trade diverting effects of a customs union. Where the trade-creating force is predominant, one of the members at least must benefit, both may benefit, the two combined must have a net benefit, and the world at large benefit. Where the trade-diverting effect is predominant, one at least of the member countries is bound to be injured, both may be injured, the two combined will suffer a net injury, and there will be injury to the outside world and to the world at large[3). The customs union creates free trade because of abolishing tariffs, and shifts supply in trade from high-cost to low-cost sources. However, trade diversion acts in the opposite direction because the common tariffs of customs union shifts supply in trade from low-cost to high-cost sources. If the trade creation outweighs the trade diversion, the effects of customs union will be beneficial to the members. He points out also that the production effects of a customs union should 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[4).

This theory is basically relied on the assumption of a pure competitive situation, and constant and zero transportation costs. In other words, this theory was made by theorizing the behavior of owner-manager for a competitive business in the world economy. We conclude that this theory would be valuable for judging the economic rationality of a customs union and economic integration in a static framework.

3. The Dynamic Theory of Economic Integration

The theory of economic integration has shifted from a static analysis made by Jacob Viner to a dynamic analysis against a background of postwar high-economic growth in developed countries. B. Balassa pointed out that a perusal of recent writings on the customs union issue has shown that—following the time-honored tradition of international trade theory—these contributions concentrated on problems of resource allocation in a static framework and paid little attention to the dynamic effects of integration[5).

The interrelationship of market size and growth has been long discussed in the economic literature. Balassa, however, discussed this relationship from a stand point of economic integration. This dynamic theory was developed against the background of the European economic integration in the 1950s and focused on the market size and productivity.

The enlargement of the market size through economic integration will generate an enormous demand for goods in an imperfect competitive situation. The growing demand will raise the level of production and develop an efficient use of production facilities. It will also make the products standardized and the large scale production been possible for the newly constructed workshops. The potential gains are especially pronounced in the small and medium-sized member

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3) J. Viner, "The Economics of Customs Unions", in Javanovic ed., *op. cit.,* p. 170.

4) Bela Balassa, *The Theory of Economic Integration,* Homewood, Ill., Richard D. Irwin, Inc., 1961, p. 26.

5) Ibid., p. ix.

countries: in Belgium, Luxemburg, the Netherlands, and Italy. Gains from scale economies will be forthcoming, although to a lesser extent, in several French and German industries, too[6]. From a standpoint of the economies of scale, the economic integration of Latin America will also make a lot of gains because an enlarged market will achieve the economies of scale for the Latin American business.

How does economic integration have a dynamic effect on the market structure? Some scholars say that economic integration will accelerate the formation of international cartels through abolishing tariffs on products. However, others have expressed quite an opposite opinion that large free markets will improve the efficiencies of domestic economic system and stimulate competition[7]. The economies of scale will promote competition in an integrated area, and abolishing tariffs will also shift markets to the competitive ones, because market forces in an integrated area will break a monopoly based on the national economy. We show a positive correlation between market size and competitiveness. In Belgium the largest enterprise produced 23 per cent of output in the cotton industry, 67 per cent in oil refining, 26 per cent in paper and allied products, and 41 per cent in canned food in the 1950s. In the United States the production of the four largest firms amounted only to 13, 37, 16, and 27 per cent of industry output in the above branches of manufacturing[8].

Economic integration will encourage technological improvement because eliminating tariff barriers will enlarge the size of market and the economies of scale will be realized in a number of industries. The increase in the size of firm may contribute to technological progress through large-scale economies in research and development. Large firms have the further advantage of possessing a greater amount of resources for research expenditures, they have better access to the capital market, and they are likely to have the longer time horizon necessary to form long-term development plans, to undertake basic research[9].

Economic integration will also eliminate risk and uncertainty in foreign transactions. There are two types of risk and uncertainty in foreign transactions. The first is associated with restrictions existing at any point of time, and the second is the possibility of changes in restrictions or in economic policies. There are lots of administrative regulations on foreign trade, which are tariff barriers, quotas and exchange restrictions. As long as the trader can never be sure when a foreign country will change these restrictions, the normal flow of trade will be disrupted. The possibility of changes in monetary, fiscal, and social policies will also increases the risk of the trader. The former risk and uncertainty will be removed by the establishment of a customs union. On the other hand, the latter risk and uncertainty will continue to exist in a union as long as coordination of economic policies has not been achieved. Big businesses have an increase in the high fixed cost of machinery and equipment. The enlargement of the market, brought by economic integration, will encourage them to invest in a lot of capital assets because they can reduce the production costs by selling well[10].

The lessening of uncertainty associated with national frontiers will influence investment activity through its impact on investment in export industries and on foreign investment. In the period of an active demand and full utilization of capacity, economic integration will have an inflationary effect and encourage firms to invest aggressively in their machinery and equipment because they have to respond to a large demand and expand their ability of production. In the period of a small demand and a low rate of utilization of capacity, economic integration will have also firms expand their production because integration will enlarge the markets for goods[11].

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6) *Ibid.,* p. 136.
7) J. E. Meade, *Problems of Economic Union,* Chicago, The University of Chicago Press, 1953, p. 14.
8) Balassa, *op. cit.,* p. 169.
9) *Ibid.,* pp. 174–5.
10) *Ibid.,* pp. 177–9.
11) *Ibid.*, pp. 179–84.

What microeconomic agent promoted economic integration in the period from the 1950s to 1960s? We recognize that the firms which wanted to promote economic integration in that period had high-technologically invested in equipment and had the high fixed cost of machinery and equipment. In order to make a lot of profits they had to expand their market, and to sell a lot.

We will discuss the investment behavior of those firms in that period. What factors decided the investment demand function of those firms in the postwar world economy? J. M. Keynes discusses how the firm decides the level of investment as follows:

Now it is obvious that the actual rate of current investment will be pushed to the point where there is no longer any class of capital-asset of which the marginal efficiency exceeds the current rate of interest. In other words, the rate of investment will be pushed to the point on the investment demand-schedule where the marginal efficiency of capital in general is equal to the market rate of interest[12).

According to Keynes's argument, the level of investment of the firm is decided by the equal point of the marginal efficiency of capital to the interest rate. However, we should say that the investment level of the firm in that period was not decided by the equal point of the marginal efficiency of capital to the interest rate, but by the expected rate of growth in sales of this firm in the future. The marginal efficiency of capital and the interest rate were very weak factors for deciding the level of investment in that period.

The major firms first decided the standard volume of production and target returns, and set the price of their products which contained a fund for these firms' investment in the future. They had not a U-shaped marginal cost curve but a horizontal one, therefore the supply price of the capital-asset was constant and the marginal efficiency of capital never diminished. They were fairly free from the debt for investment because they had cash positions enough. The level of interest rate was therefore nothing to do with the level of firms' investment.

We conclude that the expected rate of growth in sales of the firm was the crucial factor which decided the level of investment of the firms. It was important for firms to have capacity of production enough for demand, because the objective of the firms' investment was to maintain the market share of the industry to which they belonged. We express the demand function of investment as follows:

$$I = I\left(r_m, i, \overset{*}{Z}\right)$$

where r_m is the marginal efficiency of capital, i is the level of interest rate, and $\overset{*}{Z}\left(= \Delta Z / Z\right)$ is the expected rate of growth in sales of the firm. We have $\partial I / \partial r_m > 0$, $\partial I / \partial i < 0$ and $\partial I \big/ \partial \overset{*}{Z} > 0$. We can find the level of investment was mostly determined by the expected rate of growth in sales of the firm ($\overset{*}{Z}$). Therefore, those firms had a powerful incentive to promote economic integration in that period.

4. The Behavior of Multinationals and the Economic Integration

Times have changed. Big firms and multinationals have not easily expanded their market from the 1970s up to the present, because the Keynesian economic policy has been nor more effective and the competition among big firms has become very keen over the world. In the period of effective Keynesian policy, big firms had invested abroad because of a high expected rate of growth in sales of foreign countries. However, the expected rate of growth in foreign sales has become a second factor for big firms to think about investing abroad. Instead, they will estimate the level of the

12) J. M. Keynes, *The General Theory of Employment, Interest, and Money,* San Diego, New York, and London, Harcourt Brace Javanovich, Inc., 1953, pp. 136–7.

marginal efficiency of capital invested abroad. If it is higher than the level of domestically invested capital, the firm will decide to invest abroad.

The decline in the supply price of the capital asset abroad is a crucial factor for firms to decide to invest in foreign countries. The level of direct investment also depends largely upon the level of interest rate, because big firms have not been free from the debt.

Keynes writes that the marginal efficiency of capital is defined as being equal to the rate of discount which would make the present value of the series of annuities given by the returns expected from the capital asset during its life just equal to its supply price. The series of annuities is defined as the series of prospective returns, which will be expected to obtain from selling its output, after deducting the running expenses of obtaining that output, during the life of the asset. The supply price of the capital asset means not the market-price at which an asset of the type in question can actually be purchased in the market, but the price which would just induce a manufacturer newly to produce an additional unit of such asset, i.e. what is sometimes called its replacement cost[13]. The supply price of the capital asset is expressed as follows:

$$P_I = \frac{Q_1}{(1+r_m)} + \frac{Q_2}{(1+r_m)^2} + ... + \frac{Q_n}{(1+r_m)^n}$$

where P_I is the supply price of the domestic capital asset, $Q_{1\sim n}$ is the series of prospective returns, and r_m is the marginal efficiency of domestic capital. We also express the supply price of the foreign investment capital asset as follows:

$$P_{If} = \frac{Q_{1f}}{(1+r_{mf})} + \frac{Q_{2f}}{(1+r_{mf})^2} + ... + \frac{Q_{nf}}{(1+r_{mf})^n}$$

where P_{If} is the supply price of the foreign investment capital asset, $Q_{1f\sim nf}$ is the series of prospective returns on foreign investment, and r_{mf} is the marginal efficiency of foreign investment capital. If we obtain $P_{If} < P_I$ and $r_{mf} > r_m$, the foreign investment will be much profitable than the domestic. This relationship will occur when the manufacturing costs of capital goods foreign produced are lower than domestically produced. Since the 1970s, the level of wages has become a crucial factor for manufacturing costs in the developed countries because the rise of wages and decline in the labor productivity have been occurred in these countries.

In fierce competition among big businesses around the world, they have tried to find the areas where the supply price of the capital asset is lower than that of home countries. The multinationals have tried to vertically integrate their manufacturing process across countries. The market is crucial for success in business for ever. However, multinationals invest abroad not only for selling products but for efficiently integrating production process.

R. H. Coase makes economically clear why the firm exists in his seminal paper “The Nature of the Firm” in *Economica* (1937)[14]. His approach explains the existence and growth of the firm in terms of costs and benefits on internal transactions. The firm will tend to expand until the costs of organizing an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm.

P. J. Buckley and M. C. Casson applied this theory to the formation of multinational corporations. Their long-run theory of the multinational enterprise is based on the three postulates. (1)Firms maximize profit in a world of imperfect markets. (2)When markets in intermediate products are imperfect, there is an incentive to bypass them by creating

13) *Ibid.,* p. 135.

14) R. H. Coase, “The Nature of the Firm” in *Economica,* Ⅳ, 1937.

internal markets. This involves bringing under common ownership and control, the activities which are linked by the market. (3)Internalization of markets across national boundaries generates multinational enterprises[15].

We theoretically discuss how behavior of these vertically integrated multinationals has effects on the economic integration in the world economy. The firm will internalize its production process across national boundaries. Now, we will discuss the behavior of this internationally integrated firm whose home is country 1. If this firm is composed only of a vertically integrated business sector i located in n countries, the capital stock of this firm will amount to $\sum_{j=1}^{n} K_{ij} \left(= K_{i1} + K_{i2} + \dots + K_{in}\right)$. We show the value of capital stock of this firm in terms of home currency 1 as follows:

$$\sum_{j=1}^{n} p_j K_{ij} \left(= p_1 K_{i1} + p_2 K_{i2} + \dots + p_n K_{in}\right)$$

where p_j is price variable of country j in terms of home currency 1 and K_{ij} is the value of capital stock of this firm located in country j. We show the total amount of profits and the total profit rate of this firm as follows:

$$\sum_{j=1}^{n} r_{ij} p_j K_{ij} \left(= r_{i1} p_1 K_{i1} + r_{i2} p_2 K_{i2} + \dots + r_{in} p_n K_{in}\right)$$

$$r_i = \frac{\sum_{j=1}^{n} r_{ij} p_j K_{ij}}{\sum_{j=1}^{n} p_j K_{ij}}$$

where r_{ij} is the profit rate of this firm located in country j and r_i is the total profit rate of this firm.

In this model, transactions within this firm are conducted between a parent company and subsidiaries, and also between subsidiaries located in foreign countries. If a parent company sends products to her subsidiaries and set the transfer price high, the profit rate of the parent company will be high. If the transfer price is low to the contrary, the profit rate of the parent company will be low. If a subsidiary sends products to her parent company and sets the transfer price high, the profit rate of the subsidiary will be high. If the transfer price is low to the contrary, the profit rate of the subsidiary will be low.

When a subsidiary cannot send a remittance to her parent company because of a strict control of foreign exchange at host country, the profits of the subsidiary will be sent to her parent company through transfer price which is set low. When this firm tries to evade tax collection, this will do through a tax haven. The multinationals can transfer their fund freely within the firms through transfer pricing. They globally set up the workshops and sales network world wide in order to make a profit high.

However, it would be difficult for multinationals to completely remove controls which are imposed by national governments. If they want to cross completely tariff barriers, quotas and foreign exchange restrictions, economic integration should be established in the areas where multinationals internalize their production process. This is the reason why economic integration has been promoted and accelerated by multinationals at present. Setting up the worldwide efficient production process and sales network without restriction is becoming their crucial strategy.

The microeconomic agent that currently accelerates economic integration is the multinational corporation whose objective is to internalize her trade in the open market. The multinationals accelerate not only liberalization of trade but also international investment, because they would like to set up their subsidiaries and affiliates across national

15) P. J. Buckley and M. C. Casson eds., *The Future of the Multinational Enterprise,* London, Macmillan, 1976, p. 33.

boundaries. The WTO established the institutions for protecting the intellectual property rights and for liberalizing the service trade in 1995. The trends toward the liberalization of international investment under the WTO system also caused an agreement on the Trade Related Investment Measures (TRIMs) in 1995.

The negotiation for liberalization of trade and international investment has not always been conducted only under the WTO system. There are many agreements on liberalization for trade and international investment conducted bilaterally. The United States has insisted that basic way of trade negotiations should proceed multilaterally through the WTO. However, the US has also moved toward bilateral negotiations and has reached many agreements in the 1990s and 2000s (first decade).

5. Conclusions: Is It Possible for the East Asian Countries to Form a Community?

The East Asian countries have been far behind in forming a regional economic integration since the Second World War. They have had strong ties with the United States respectively. The economic prosperity through an export-led industrializing in the East Asian countries might have attained by a closer economic relationship with the United States. China that had closed its door since the Day of National Foundation changed the policy and opened its door in 1978. Since then, U.S. multinationals have strong ties with the economic development of China.

Why do the East Asian countries dependent on the U. S. economy set up a target of building an East Asian Community? Because they have found that the globalization led by the United States has a limit to it. In the East Asian countries, deregulation of the domestic financial system and opening of the capital account of international payments have been implemented from the 1980s to 1990s, because these countries have accepted the demand of the United States. The massive capital flows to the East Asian countries in the first half of the 1990s created an excessive economic "euphoria" which encouraged "herd behavior" on the part of investment managers. The Asian financial crisis erupted in Thailand, where the Thai baht floated on July 2, 1997. This triggered pressures on the Philippine peso, the Malaysian ringgit and the Indonesian rupiah. It was serious, but the Clinton Administration never helped them out of the financial crisis. Japan as one of the Asian leading countries presented an idea of "The Asian Monetary Fund" for help, which was collapsed by the United States.

This idea, however, has now become The Chiang Mai-Initiative, which was established in May 2000, when the ASEAN+3 (China, Japan, and South Korea) Finance Ministers met in the northern city of Chiang Mai, Thailand. This Initiative was created for strengthening the ASEAN Swap Arrangement, which would increase the available funds to defend against speculative attacks[16]. After the world economic crisis of 2008–9, the system that facilitates the development of efficient and liquid debt markets in Asia, and furthers better utilization of Asian savings for Asian investments will be crucial for Asian developments.

There is an opinion about the origins of the 2008–9 crisis that can be traced back to the global saving glut in Asian countries. *US Economic Report of the President* writes, "The roots of the current global financial crisis began in the late 1990s. A rapid increase in saving by developing countries (sometimes called the "global saving glut") resulted in a large influx of capital to the United States and other industrialized countries, driving down the return on safe assets.[17]" This saving glut was created by the huge export of Asian countries to the United States. However, the economic crisis of 2008–9 caused a serious decline in the domestic demand of the United States, and most Asian countries much reduced their exports, because they have been mostly dependent on imports of the United States.

The East Asian countries and areas, Japan, Hong Kong, Singapore, South Korea, Taiwan and China have been

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16) See, Andrew Sheng, *From Asian to Global Financial Crisis,* Cambridge, Cambridge University Press, 2009, p. 312.

17) *Economic Report of the President,* 2009, Washington, D. C., GPO, p. 61.

respectively pursuing an export-oriented industrialization and close ties with the United States. This development policy has run up against a wall because it has become clear that the domestic demand of the United States would not eternally increase in the future. Asian countries should be economically independent of the power of the United States and make regional integration for our prosperity in the 21st Century.

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