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Changes in the International Trade Flows under the Globalized Economy : Expansion of Intra-Firm Trade and the Impacts on the International Trade Flows*

세계화경제에서 국제교역흐름의 변화 : 기업내 교역의 증가와 그의 국제교역 흐름에 미치는 영향

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Abstract

International trade flows have been determined by social, cultural and political environment around the world as well as economic elements. The environment of international trade has changed rapidly as the world has globalized. Significant changes have been generated in the international trade flows. This study investigates the influences of economic globalization on the international trade flows. The changes in international trade flows examined comprehensively by integrating trade with industrial locations, investment, and the various trade related environments. The focus laid on the integration of world economies, such as widening and intensifying international linkages in economic, political and social relation. Special concerns are laid on the impacts of Foreign Direct Investments (FDI) by Trans National Corporations (TNCs), which affect the supply-demand distributions of commodities by industrial relocations, and the expansion of intra-firm trade flows on the international trade flow patterns. The geographical characteristics of the origins and destinations of FDI flows analyzed, since the spatial patterns of the intra-firm trade flows are determined by them. The FDI and intra-firm trade flow patterns have changed significantly over time.

Key words: economic globalization, changes in the environment of international trade, foreign direct investment, intra-firm trade flows.

1. Introduction

Economic globalization consists of the enormous flows of goods and services, capital, and people across national borders (Anderson *et al.* 2000). Although these flows have existed for centuries, their expansion has been accelerated with economic globalization during the last two decades. Actually the volume of world trade has been increased about 16 times during the last two decades, and the growth of global trade exceeds already that of the growth in global output (Yeung *et al.* 1999). The growth rate of global trade in 1990s has been three times higher than the global output growth, and the global trade is

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projected to grow significantly faster than before (The World Bank 2000).

International trade is an important research topic in the economic geography, since it is directly related with industrial locations, the distribution of markets, and transportation networks, which is determined by various geographical factors. Beside, it is related with social, cultural and political environment around the world. However, international trade have been studied mostly by economists whose research focus has been laid on the trade generation mechanism rather than the geographical aspects, although their importance has been pointed out by several economists in recent (Krugman 1991; Fujita *et al.* 1999).

As the world globalized, more various geographical factors have been influenced upon international trade with the changes in social, political, economic, and technological environments around the world. In particular, the dynamic changes in the manufacturing system coherent with economic globalization affect international trade flows significantly. The locations of economic activities have been relocated to global scope according to the expansion of foreign direct investments (FDI) by trans national corporations (TNCs). These changes have affected international trade flows significantly, since the spatial patterns of economic interconnections and the complementarities of commodities have changed by varying in the locations of productions, patterns of regional specialization, and spatial division of labor.

Furthermore, as the number of TNCs has been growing, globally integrated competitive strategies have also been developing. Most TNCs look for more efficient and profitable trade forms as well as the burst of product and process innovation, since trade exerts powerful pressures for change by unleashing the forces of competition. Most TNCs participate in intra-firm trade, in which buying and selling takes place across national boundaries but within the corporation (Hanink 1997, p. 364). Roughly a third of world trade performed between one part of a global firm and an affiliate of that same firm in the end of 1990' s (Anderson *et al.* 2000), and the ratio is growing more rapidly. These processes cause the changes the structure of international trade flows as well as in the international trade mechanisms.

The purpose of this study is to investigate the influences of economic globalization on the international trade flows. At first, this paper examines the changes in the environment related international trade flows. The focus laid on the integration of world economies, such as widening and intensifying international linkages in economic, political and social relation. Special concerns are laid on the impacts of FDI by TNCs, which affect the supply-demand distributions of commodities by industrial relocations, and the expansion of intra-firm trade flows on the international trade flow patterns. The geographical characteristics of the origins and destinations of FDI flows analyzed, since the spatial patterns of the intra-firm trade flows are determined by them.

2. Changes in the International Trade Environment

The volume of world trade has been marked by a strong and persistent upward trend for the last 20 years with the economic globalization. Actually the volume of world trade has been increased about 16 times during the last two decades (Yeung, *et al.* 1999), although the growth rates are different by regions. The growth rate of global trade in 1990s has been three times higher than the global output growth, and the global trade is projected to grow significantly faster than before (The World Bank 2000).

Table 1 shows the changes in the growth ratios of trade by regions during the last two decades. International trade growth has been accelerated since 1977. Before 1980s the rise in international trade is associated mainly with widespread increases in export specialization by the world' s advanced industrial economies (Krugman and Venables 1995; Storper 1992), and the enormous rise in import by developing countries. However, the growth rate of export by developing counties has increased almost twice faster than developed countries since that time, and thus the growth rate of trade volume in the developing countries has surpassed the developed countries at the end of 1980' s. In particular, this resulted from the far outgrowing in the Emerging Asia. The rapid growth in trade is mainly among the advanced economies and some East Asian countries (Storper 1992), which is strongly related with the FDI flows.

Table 1. Growth Rates of Trade by Region

(unit : annual percentage change)

	1977	1987	1997
World			
Exports (volume)	4.30	5.70	7.75
Imports (volume)	5.10	4.90	4.00
Developed Market Economies			
Exports (volume)	4.20	4.40	6.50
Imports (volume)	3.00	6.50	5.50
Developing Countries			
Exports (volume)	3.20	9.90	11.00
Imports (volume)	11.30	4.90	14.00

Sources: United Nations, *World Economic Survey 1979-80*, 1986, 1990; United Nations, *World Economic and Social Survey*, 1997

Trade has been recognized as the economic tool that increases efficiency in production and distribution by stimulating competition, promoting technical change, reaping economies of scale and sharing the benefits of specialization based on comparative and competitive advantages. However, there are fundamental changes in the international trade flows with the economic globalization. On the past, trade and FDI were viewed largely as substitutes for one another, because much of the FDI was induced by trade protection in host countries. As the international linkages in the production and consumption have been both widened and intensified according to the expansion of FDI by TNCs, FDI became a part of the international production systems. The large increase in FDI flows in recent was mainly due to the increased globalization of production, investment and innovation activities by multinationals. Intra-firm trade flows have increased enormously, and thus International commodity flows become subject to the internal decisions of trans national corporations as well as external market process. Therefore, the spatial patterns of the international trade are affected by the spatial distributions of the origins and destinations of FDI which have changed over time.

The enormous expansion of world trade in recent years has been driven by an increasing economic integration and liberalization of restrictions on the mobility of goods, services, capital, and technological knowledge (Gupta and Choudhry 1997). The processes of economic integration and trade liberalization were being initiated globally with a general acceptance of the proposition that the liberalization of international trade provides economic benefits. However, trade liberalization has been accelerated through numerous rounds of negotiations or pressure from multilateral agencies, and with the regionalization of the world economy. Most countries have substantially eliminated barriers to trade in goods and services continuously. As the consequences, significant proportion of world trade is conducted under the different rules from the previous, and the world patterns of trade and investment have been rearranged (Berry, B.J.L. *et al.* 1993; Frankel *et al.* 1998).

Regionalization has doubling effect on economic integration and trade liberalization, because of removing the restrictions of trade and FDI. Although regional trade organizations have long tradition, many regional blocs have been emerged during the last two decades. There has been a widespread movement to the establishment of regional trade organizations which are effective in removing regional trade barriers since mid-1980s, and these forces led to the increasing number of meaningful regional trade organizations in the 1990s.

The growth in trade between the members of a regional trade organization has outpaced the growth in global trade. Actually the growth ratio of intra-regional trade has grown faster than world trade (Yoshida *et al.* 1994). In particular, three continental blocs, the European Community, the Western Hemisphere, and East Asia, showed strong bias to intra-regional trade flows since 1970s. These intra-regional trade shares increased distinguishably during the 1980s in each of the three major parts of the world, and this trend has been continued in the 1990s (Frankel *et al.* 1998). In particular, the intra-regional trade flows reached far more than the half of total trade flows in the Western Europe in the beginning of 1990s (Yoshida *et al.* 1994), and have increased continuously.

The important change brought by deep integration with regionalization is also about the composition of trade. All trade was inter-industry trade with shallow integration. As the economies got deep integration, however, trade between these countries within the regional blocs changes to intra-industry, while trade with the rest of the world remains inter-industry (Duranton 1999).

Besides changes in the economic and political environment of international trade, there are also social reactions. Trade has been recognized as a tool for bring economic benefits for all countries involved, and the rising both in the standards of living and in the level of environmental protection and conservation will be associated with. However, there are strong doubts for the optimistic view for international trade in recent. The negative effects of the international trade have been pointed out. In particular, equity and sustainability issue in the context of globalization has also been hotly debated in recent both theoretically and empirically, and several reactions have been emerged coherently. Some social groups, such as environmentalists, works unions, etc., start to against strongly to the world organizations whose main role is to accelerate the economic globalization and the liberalization in the world trade as we saw an example in Seattle in 1999, which may affect the future world trade flows substantially.

There are several evidences of growing inequities over the world: within developing countries, between developing and developed countries, and also, within some highly industrialized countries, while the world economy has globalized rapidly and world trade has expanded enormously. Most developing countries' per capita income shows lower than it was 15 years ago, and, as a result, more than quarter of the humanity-1.6 billion people-are worse off today than they were 15 years ago (Gupta and Choudhry 1997). As reported in the United Nations Development Program's (UNDP) *Human Development Report*, 1999, almost 100 countries are worse off economically than they were 10 years ago, leading to global polarization between rich countries and poor countries. In spite of the growth in global output over the last thirty years, the income share of the richest 20 percent to that of the poorest 20 percent has more than doubled, from 30:1 in 1960 to 61:1 in 1990, and to 76: 1 in 1997 (UNDP 1999). Benefits from trade and investment generally flow to the rich countries rather than poor countries, and thus, income inequality among countries is increased (Braun 1997; Hahnel 1999; Harrison and Hanson 1999; Beyer *et al.* 1999). Therefore, the income share of the poorest 20 percent has declined from 2.3 percent to 1.4 percent during the same period (Gupta and Choudhry 1997).

This disparity appears also within the developed countries which globalization has become common parlance. As the world economy is getting deeply integrated and international trade is growing rapidly, inequality within countries is also fostered. Actually, 95% of American households had a decline in their net worth during this period, while the top 1% of families in the U.S. holds more than 40% of the wealth (Bezruchka 2000). Since deep integration in the economy leads to the adoption of more exclusive technologies with higher skill requirements, deep integration in the world trade fosters personal inequalities within countries as the result (Duranton 1999). Free trade associated with economic globalization has produced great wealth just for multinational corporations and provided low-wage jobs that keep many people in poverty.

Actually trade is a vital part of bringing about sustainable economies. In global economy with growing population, total world demand could appear to be the relevant measure, which counts a true comparative advantage or sustainable trading advantage. However, the goal of maximizing short-term welfare through free trade should be replaced with the goal of long-term sustainability to achieve ecologically and economically efficient trade. In this way the global trade pattern may be significantly differentiated from the present one. However, an important element of global sustainability is the political and institutional context in which other policies for sustainability are adopted, sustainability requires a process of national, regional, and local resource and environmental planning, which is in direct conflict with the principle of free trade.

3. Expansion of Foreign Direct Investments and the Geographical Changes

The emergence of TNCs and FDI produced a great effect upon the global trade patterns as well as the locational restructuring of manufacturing industries. Most TNCs apparently prefer FDI over either exporting or licensing with several reasons, such as transportation costs, market imperfections, following competitors, the product life cycle, and location-specific advantages (Hill 1998).FDI involves a corporation purchasing a lasting interest in, and degree of influence over, the management of a business in another country (Anderson 2000). NCs are the major agents in the process of intra-firm trade with sales by their foreign affiliates (Gupta and Choudhry 1997). The spatial patterns of the intra-firm trade are affected by the spatial distributions of the origins and destinations of FDI, since intra-firm trade flows and the locations of industries interact directly. Therefore, it is required to understand the changes in the FDI and the intra-firm trade flows by TNCs for understanding the contemporary international commodity flows properly.

As the world economy globalization has accelerated in the 1980s and 1990s, there has been substantial increases in FDI by TNCs (Tang 1997). During the late 1980s, world FDI outflows increased at the rate 24 percent per year, and it has increased continuously. Table 2 provides the statistics on the outward and inward FDI flows by OECD members which most TNCs are belong to. Both the outward and inward FDI from/in OECD countries increased more than fourfold in average in the 1980s, and grew much more rapidly in 1990s.

However, these flows have changed geographically over time. In the 1970s the outward FDI flows from the United States was outstood compare to other countries, while the European countries, such as United Kingdom, France, Germany, and Netherlands, had significant inflows which were almost same amounts of their outflows.

Table 2. Foreign Direct Investment by OECD Countries

(unit : million US dollars)

	Outward				Inward			
	1971~1980 (A)	1981~1990 (B)	B/A	1997/1987	1971~1990 (C)	1981~1990 (D)	D/C	1997/1987
Australia	2,510	22,610	9.01	1.22	11,295	40,369	3.57	2.41
Austria	578	4,132	7.15	4.65	1,455	3,274	2.25	4.33
Belgium-Luxembroug	3,213	21,454	6.68	2.50	9,215	28,182	3.06	5.36
Canada	11,335	41,847	3.69	1.51	5,534	33,699	6.09	1.02
Denmark	1,063	6,292	5.92	6.55	1,561	3,388	2.17	33.75
Finland	605	12,132	20.05	3.86	376	2,838	7.55	5.82
France	13,940	85,618	6.14	4.09	16,908	43,194	2.55	5.02
Germany	24,846	86,573	3.48	3.43	13,969	18,029	1.29	-0.10
Greece	-	-	-	-	-	6,145	-	5.25
Hungary	-	-	-	-	-	-	-	-
Italy	3,597	·28,707	7.98	5.20	5,698	24,888	4.37	0.91
Ireland	-	-	-	-	-	-	-	-
Japan	18,052	185,826	10.29	1.29	1,424	3,281	2.30	2.74
Korea	-	-	-	13.36	-	-	-	3.41
Mexico	-	-	-	-	-	-	-	4.74
Netherlands	27,829	52,940	1.90	2.35	10,822	28,203	2.61	2.86
New Zealand	-	-	-	-	-	-	-	5.63
Norway	1,079	8,995	8.34	4.62	3,074	4,831	1.57	20.07
Poland	-	-	-	-	-	-	-	30.77
Portugal	21	374	17.81	18.72	535	6,918	12.93	3.72
Spain	1,274	8,196	6.43	13.45	7,060	46,000	6.52	1.20
Sweden	4,597	47,802	10.40	2.38	879	8,612	9.80	14.96
Switzerland	-	31,858	-	7.96	-	12,432	-	2.02
United Kingdom	55,112	185,674	3.37	1.86	40,503	130,469	3.22	2.39
United States	134,354	170,041	1.27	3.95	56,276	359,650	6.39	1.52
Total	302,306	1,005,323	3.33	2.78	188,249	836,329	4.44	2.17

Source: Organization for Economic Cooperation and Development (1995), *OECD Reviews of Foreign Direct Investment*, United Nations, Paris: OECD; Organization for Economic Cooperation and Development (1999), *OECD Economic Outlook*, United Nations, Paris: OECD.

The FDI outflows from Japan and United Kingdom became bigger than those from the United States in the 1980s, whereas the inflows to the United States increased enormously. However, the FDI flows have been dominated by United States again in the 1990s in both the outward and inward flows.

The FDI flow patterns have changed significantly between 1980s and 1990s. Figure 1 and Figure 2 show the distribution patterns of the net FDI flows in the year 1985 and 1997, respectively. In particular, the amount of FDI flows to developing countries have increased enormously (almost 6 times) since 1990 (The World Bank 2000). This boom has been appeared specially in 'new emerging markets' in Asia, South America, and Northern and Eastern Europe.

However, the share of global FDI flows by developed countries has dominated and continued to increase. Their share of global outflows of FDI rose to 91.6 percent and 71.5 percent in inflows in 1998 (United Nations 1999). In particular, the dominations of United States and a few Western European countries have getting stronger in the recent years.

4. The Geographical Characteristics of Intra-Firm Trade Flows

These changes in the FDI flows affect directly the locations of productions and the spatial patterns of economic interconnections, and thus the spatial patterns of complementarity of each commodity. These brought the changes in the spatial patterns of global commodity flows in consequent. A large fraction of international trade now takes place between parent companies and their foreign affiliates, and between foreign affiliates within the same TNC networks. The volume of intra-firm trade has been expanding rapidly as multinational companies has globalized their investment and trade. Roughly a third of current world trade is not between countries but between one part of a global firm and an affiliate of that same firm (Anderson *et al.* 2000), and it is growing more rapidly. Therefore, these intra-firm trade flows are significant in current world trade flows.

However, in spite of the importance of international intra-firm trade flows, it is difficult to put precise figures on their global flows because of the lack of the data. So far, only United States have gathered the information regularly on international intra-firm trade flows. In order to investigate the characteristics of the intra-firm trade flows, this paper examines the U.S. data. Because world major intra-firm trade flows are appeared all in the U.S. data, This can give the idea for the global intra-firm trade flows.

Table 3 presents the changes in the international intra-firm trade flows trade flows between U.S. parents firms and their foreign affiliates and U.S. affiliates and their foreign parents groups during the last two decades. The intra-firm trade flows had increased over six times during the last two decades.

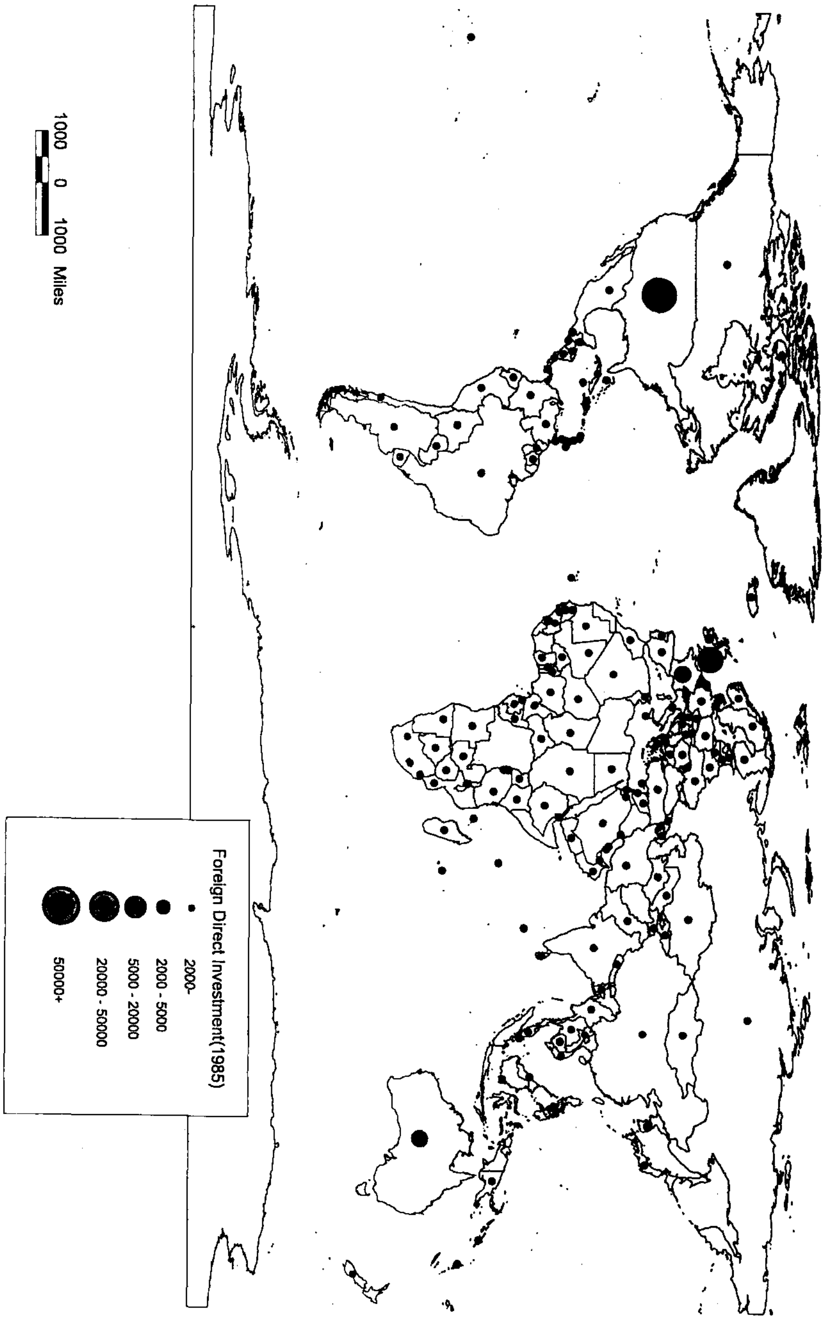

Figure 1. The Net FDI Flows(1985)

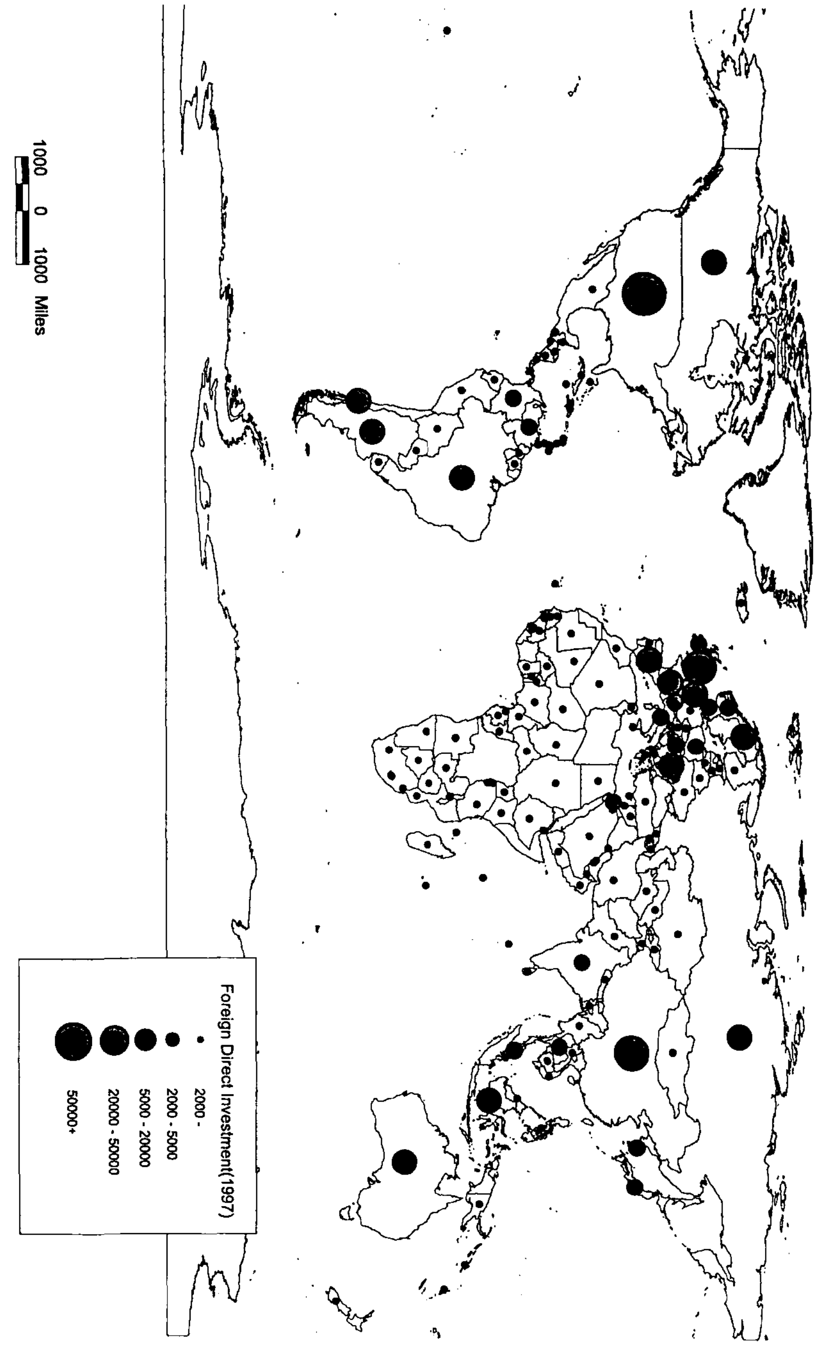

Figure 2. The Net FDI Flows(1997)

Table 3. Changes in the International Intra-firm Trade of the U.S.

(unit : million US dollars, percentage points)

	Intrafirm trade between US Parents and their foreign affiliates			*Intra-firm trade between US affiliates and their foreign parent groups*			Portion to US Merchandise Trade
	US Export	US Import	Total	US Export	US Import	Total	
1977	29,275(100)	30,880(100)	60,155(100)	11,691(100)	30,878(100)	42,569(100)	37.4%
1987	65,248(223)	55,867(181)	121,115(201)	19,109(163)	108,201(350)	127,310(299)	37.6%
1997	215,751(737)	178,695(579)	394,447(656)	62,815(537)	195,495(633)	258,310(607)	41.8%

Note : 1997 is the most recent year for which detailed data available on the intra-firm trade.
Source: US Department of Commerce, *Foreign Direct Investment in the United States, US Direct Investment Abroad* (various years)

The growth has been accelerated during the last ten years compare to the previous decade. The increase rates had been doubled during the period of 1977 and 1987, whereas they had been tripled during the recent ten years. As the result, intra-firm trade flows accounted for over 40 percent of the current total international trade flows of the United States. In particular, imports from the parent firms for the affiliates of Unites States TNCs represent more than 80 percent of their total imports from the United States, whereas intra-firm trade accounted for over 40 percent of the parent company exports in 1997 (United Nations 1999). If the United States' pattern could be generalized, TNCs would account for around three quaters of world merchandise trade flows, and intra-firm trade would account for over one third of them.

Intra-firm trade flows between foreign parents and U.S. affiliates account for a substantial share of the current total U.S. merchandise trade, and thus the geographical characteristic and their changes may provide important insights into the overall intra-firm trade flows as well as U.S. trade performance. Table 4 shows the global distributions of the current intra-firm trade flows between U.S. parents and foreign affiliate as well as U.S. affiliates and foreign parents. The U.S. intra-firm flows are dominated by the flows with Canada and a few Asian and European countries. In particular, Canada dominated in the intra-firm trade flows between U.S. parents and their foreign affiliates, while Japan dominated in the intra-firm trade flows between U.S. affiliates and foreign parent groups. The intra-firm trade flows between Japanese parent groups and U.S. affiliates still accounted for over 40 percent of total intra-firm trade flows with foreign parents by U.S. affiliates, although the share decreased compare to 1980s.

As the economic globalization has accelerated,

Table 4. Intra-firm Trade Flows

(unit : million US dollars)

	Intra-firm trade between US parents and foreign affiliates				Intra-firm trade between US affiliates and foreign pareuats			
	Total	%	Exports	Imports	Total	%	Exports	Imports
All countries	294,747	100.0	161,359	133,848	258,310	100.0	62,815	195,495
Canada	99,361	33.7	45,903	53,458	23,305	9.0	7.478	15,827
Europe	68,365	23.2	46,362	22,003	71,735	27.8	13,885	57,850
Belgium	4,191	1.4	3,031	1,160	2,788	1.1	540	2,248
France	7,362	2.5	4,631	2,731	7,168	2.8	1,630	5,538
Germany	10,681	3.6	7,307	3,374	25,404	9.8	3,360	22,044
Italy	3,333	1.1	2,172	1,161	4,253	1.6	1,089	3,164
Netherlands	6,884	2.3	5,724	1,160	3,904	1.5	951	2,953
Sweden	756	0.3	599	157	4,629	1.8	928	3,701
Switzerland	5,301	1.8	4,704	597	5,903	2.3	1,432	4,471
United Kingdom	20,226	6.9	13,639	6,587	11,832	4.6	2,824	9,008
Others	9,631	3.3	4,555	5,076	5,854	2.3	1,131	4,723
Latin America & other Westernn Hemishere:	51,413	17.4	24,111	27,302	15,315	5.9	4,852	10,463
Argentina	867	0.3	776	91	232	0.0	150	82
Brizil	5,090	1.7	3,103	1,987	3,032	1.2	1,673	1,359
Mexico	39,518	13.4	17,273	22,245	6,764	2.6	1,688	5,076
Venezuela	901	0.3	779	122	2,852	1.1	162	2,690
Others	5,037	1.7	2,180	2,857	2,435	0.9	1,179	1,256
Asia and Pacific:	73,345	24.9	44,036	29,309	140,871	54.5	35,265	105,606
Australia	5,083	1.7	4,432	651	1,530	0.6	749	781
China	1,746	0.6	877	869	2,161	0.8	1,410	751
Hong Kong	12,098	4.1	8,461	3,637	3,357	1.3	711	2,646
Japan	17,407	5.9	15,454	1,953	111,384	43.1	25,778	85,606
South Korea	2,912	1.0	2,448	464	11,495	4.5	3,641	7,854
Singpore	19,857	6.7	5,411	14,446	3,063	1.2	946	2,117
Taiwan	3,250	1.1	1,786	1,464	4,078	1.6	962	3,116
Others	10,992	3.7	5,167	5,825	3,803	1.5	1,068	2,735
Middle East	1,216	0.4	484	732	4,969	1.9	440	4,529
Israel	1,019	0.3	287	732	665	0.3	166	499
Others	197	0.1	197	0	4,304	1.6	274	4,030
Africa	1,043	0.4	459	584	788	0.3	289	499
South Africa	272	0.1	255	17	478	0.2	125	353
Others	771	0.3	204	567	310	0.1	164	146

Source: U.S. Department of Commerce (1999), *U.S. Direct Investment Abroad: Revised 1996 Estimates, Foreign Direct Investment in the United States: Preliminary 1997 Estimates.*.

the number of TNCs has been growing. Most TNCs look for more efficient and profitable trade forms as well as the burst of product and process innovation, since trade exerts powerful pressures for change by unleashing the forces of competition. Intra-firm trade has developed as one of the globally integrated competitive strategies. Intra-firm trade flows has been increased rapidly with two basic motives: One motive is simple economic efficiency in production, even though it occurs within a single corporation; Another motive is tax avoidance, which is legal, and sometimes even tax evasion, which is not (Hanink 1997, p. 364). A considerable proportion of international trade is intra-firm trade taking place at transfer prices (accounting or imputed prices), which are not determined by market forces and can hence be manipulated according to the needs and wishes of the company. Furthermore, intra-firm trade provides affiliates access to firm-specific technology and knowledge, and the markets through the corporate network. Therefore, the growth of intra-firm trade indicates changing industrial structures and locations, and trade patterns.

The major economic sector gaining rapid increase in both international production and international trade has been manufacturing industry with the expansion of cross-border investment. In particular, the proportion of intra-firm trade of total world trade in manufactures has been rising dramatically in the past few decades. This can be explained by the fact that about 40% of FDI were invested in manufacturing industries, although the proportion of FDI in banking, finance, insurance, and real estate has been increased rapidly in recent years upto about 30% (Tang 1997). Actually the amount of trade flows in manufactured goods accounted for over 87% of U.S. total trade in goods, and the intra-firm trade flows accounted for almost same share in 1998.

As the control functions of the TNCs on the world economy have tended to become more centralized, while production is becoming globally decentralized and major industrial centers have arisen in many developing countries. This means that if trade has an adverse impact upon the labor market situation of the low-skilled workers, the nexus differences in factor endowments-trade with developing economies may not be the most relevant. Furthermore, the same good can be exported and re-exported many times with a little bit of value added at each stage (Duranton 1999). Therefore, the pattern of international trade flow became contradiction to the traditional trade theories, even though to both production life cycle theory and factor endowment theory. The 'new' trade theories, which are concerned with intra-firm trade in imperfect markets, are required.

5. Conclusion

International trade flows have been determined by social, cultural and political environment around the world as well as economic elements. There have been developed several trade theories and models to explain the mechanisms of international trade flows. However, the environment of international trade has changed very much as the world became globalized. These changes have generated significant changes in the international trade flows, and thus they can not be explained properly with the existing theories and models.

This study investigates the influences of economic globalization on the international trade flows. The changes in international trade flows examined comprehensively by integrating industrial locations, trade, investment, and the environmental influences. The focus laid on the integration of world economies, such as widening and intensifying international linkages in economic, political and social relation. Special concerns are laid on the impacts of foreign direct investments (FDI) by trans national corporations (TNCs), which affect the supply-demand distributions of commodities by industrial relocations, and the expansion of intra-firm trade flows on the international trade flow patterns.

The geographical characteristics of the origins and destinations of FDI flows analyzed, since the spatial patterns of the intra-firm trade flows are determined by them. The FDI flow patterns have changed significantly during the last two decades. Both the outward and inward direct investment from/in OECD countries increased more than fourfold in average in the 1980s, and grew much more rapidly in 1990s. These flows have 010changed geographically over time. In the 1970s the outward FDI flows from the United States was outstood compare to other countries, while the European countries, such as United Kingdom, France, Germany, and Netherlands, had significant inflows which were almost same amounts of their outflows. The FDI outflows from Japan and United Kingdom became bigger than those from the United States in the 1980s, whereas the inflows to the United States increased enormously. However, the FDI flows have been dominated by United States again in the 1990s in both the outward and inward flows. On the other hand, the amount of FDI flows to developing countries have increased almost 6 times since 1990. This boom has been appeared specially in 'new emerging markets' in Asia, South America, and Northern and Eastern Europe. However, the share of global FDI flows by developed countries continued to increase, and thus their share of global outflows of FDI rose to 91.6 percent and 71.5 percent in inflows in 1998. In particular, the dominations of United States and a few European countries have getting stronger in the recent years.

As the number of TNCs has been growing, globally integrated competitive strategies have also been developing. Trade exerts powerful pressures for change by unleashing the forces of competition. Most TNCs look for more efficient and profitable trade forms. Intra-firm trade flows has been increased rapidly with two basic motives: One motive is simple economic efficiency in production, even though it occurs within a single corporation; Another motive is tax avoidance and sometimes even tax evasion. A considerable proportion of international trade is intra-firm trade taking place at transfer prices (accounting or imputed prices), which are not determined by market forces and can hence be manipulated according to the needs and wishes of the company. Furthermore, such intra-firm trade provides affiliates access to firm-specific technology and knowledge, and the markets through the corporate network. Therefore, the growth of intra-firm trade indicates changing industrial structures and locations, and trade patterns.

U.S. data was analyzed to examine the global patterns of intra-firm trade flows. Intra-firm trade between foreign parents and U.S. affiliates accounts for a substantial share of total U.S. merchandise trade, and it has been growing rapidly. The U.S. intra-firm flows are dominated by the flows with Canada and a few Asian and European countries. In particular, Canada dominated in the intra-firm trade flows between U.S. parents and their foreign affiliates, while Japan dominated in the intra-firm trade flows between U.S. affiliates and foreign parent groups. The intra-firm trade flows between Japanese parent groups and U.S. affiliates still accounted for over 40 percent of total intra-firm trade flows with foreign parents by U.S. affiliates, although the share decreased compare to 1980s.

If the United States' pattern could be generalized, these large shares and their spatial patterms of intra-firm trade flows provide important insights into the overall trend of global trade. As the control functions of the TNCs on the world economy have tended to become more centralized, while production is becoming globally decentralized and major industrial centers have arisen in many developing countries. This must mean that if trade has an adverse impact upon the labor market situation of the low-skilled workers, the nexus differences in factor endowments-trade with developing economies, usually considered, may not be the most relevant. Furthermore, the same good can be exported and re-exported many times with a little bit of value added at each stage. Therefore, the pattern of international trade flow became contradiction to the traditional trade theories. The 'new' trade theories, which are concerned with intra-firm trade in imperfect markets, are required. This study can provide insights into changes in the international trade flows in which the global economic interconnection is imbedded.

References

Anderson, S. Cavanagh, J., Lee, T., and the Institute for Policy Studies, 2000, *Field Guide to the Global Economy*, The New Press: New York.

Berry, B.J.L., Conkling, E.C., and Ray, M., 1993, *The Global Economy: Resource Use, Locational Choice, and International Trade*, Englewood Cliffs, NJ: Prentice-Hall.

Beyer H., Rojas P. Vergara R., 1999, "Trade liberalization and wage inequality," *Journal of Development Economics* 59, pp.103-123.

Bezruchka S., 2000, "Culture and Medicine: Is globalization dangerous to our health?" *West Journal of Medicine* 172, pp.332-334.

Braun D, 1997 *The Rich Get Richer: The Rise of Income Inequality in the United States and the World, Chicago*: Nelson-Hall.

Duranton, G., 1999, "Trade, wage inequalities and disparities between countries: the technology connection," *Growth and Change :A Journal of Urban and Regional Policy* 30(4), 455-478.

Frankel, J., 1998, *The Regionalization of the World Economy*, Chicago: The University of Chicago Press.

Fujita, M., Krugman, P. and Venables, A., 1999, *The Spatial Economy: Cities, Regions, and International Trade*, Cambridge, MA: The MIT Press.

Gupta, S.D. and Choudhry, N.K., 1997, *Globalization, Growth, and Sustainability*, Boston: Kluwer Academic Publishers.

Hahnel R., 1999, *Panic Rules: Everything You Need to Know About the Global Economy*, Cambridge, MA: South End Press.

Hanink, D.M., 1997, *Principles and Applications of Economic Geography* , New York: John Wiley & Sons.

Harrison A., Hanson G., 1999 "Who gains from trade reform? some remaining puzzles," *Journal of Development Economics* 59, 125-154.

Hill, C.W.L., 1998, *International Business*, Irwin/McGraw-Hill.

Krugman, P. 1991, *Geography and Trade*, Cambridge: MIT Press.

Krugman, P. and Venables, A.J., 1995, "Globalization and the Inequality of Nation", *Quarterly Journal of Economics* 110(4), pp.857-880.

Perkins, P. 1997, "What is Sustainable Trade?", in Gupta, S.D. and Choudhry, N.K. (eds.), *Globalization, Growth and Sustainability*, Boston: Kluwer Academic Publishers.

Storper, M., 1992 "The limits to globalization: technology districts and international trade," *Economic Geography* 68, pp.60-93.

Tang, R.Y.W., 1997, *Intrafirm Trade and Global Transfer Pricing Regulation*, Westport, UK: Quorum Books.

The World Bank, 2000, *Global Development Finance: Analysis and Summary Tables.*

United Nations Development Program, 1999, *Human Development Report* 1999, New York: Oxford University Press.

United Nations, 1999, *World Investment Report 1999: Foreign Direct Investment and the Challenge of Development.*

Yeung, M.T., Perdikis, N., Kerr, W., 1999, *Regional Trading Blocs in the Global Economy: The EU and ASEAN*, Cheltenham, UK: Edward Elgar.

Yoshida, M., Akimune, I., Nohara, M. and Kemitoshi, S., 1994, "Regional Economic Integration in East Asia: Special Features and policy Implications," in V. Cable and D. Henderson (eds), *Trade Blocs?: The Future of Regional Integration*, London: Royal Institute of International Affairs.

요약문

세계화 경제에서 국제교역흐름의 변화 : 기업내 교역의 증가와 그의 국제교역 흐름에 미치는 영향

이 금숙*

국제교역흐름은 경제적 요인들 뿐 만 아니라 세계의 사회, 정치, 문화적 환경에 의하여 결정되어 왔다. 세계화와 더불어 국제교역환경도 빠르게 변화하고 있으며, 이러한 변화는 국제교역의 흐름에 상당한 변화를 주고 있다. 본 연구의 목적은 경제의 세계화가 국제교역의 흐름에 미치는 영향을 파악하고자 하는 것이다. 우선 국제교역에 나타나는 변화를 특히 경제적, 사회적, 정치적으로 국제적 연계가 강화되면서 나타나는 경제적 결합에 초점을 두어 산업입지와 투자, 그리고 그 밖의 교역환경들과 연결하여 종합적으로 파악해 보았다. 특히 산업입지에 변화를 주어 상품의 수요와 공급의 공간적 분포를 재편하는 역할과 함께 기업내 교역흐름을 확장시켜 결과적으로 국제교역패턴에 영향을 끼치고 있는 다국적 기업들에 의한 해외직접투자의 영향을 분석하였다. 기업내 교역은 해외직접투자의 흐름에 의해 결정되므로 본 연구에서는 해외직접투자의 기원지와 대상지의 지리적 특성을 분석하였다. 또한 해외직접투자와 기업내 교역의 공간적 분포에 나타나는 변화를 분석하였다.

주요어 : 경제의 세계화, 국제교역환경의 변화, 해외직업투자, 기업내 교역흐름

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