
International Trade and Global Investment Analysis in Regional Economy

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Chapter 1. Introduction

The purpose of this study is to ascertain advancements in globalization at the regional level and analyze relationships and influences between major global activities and local economies to identify policy implications towards promoting local economic development and building local industry competitiveness. The focus of analysis is global trade (imports and exports) and global investment (foreign direct investment and overseas investment). As a first step, it considers the existing body of research to identify aspects of globalization and examine them in the context of local economies. Specifically, current conditions and characteristics of globalization in terms of local economies are analyzed in the context of global trade to identify implications. For the next step, an analysis of global investment conditions and an empirical examination are conducted in terms of their relationship with and influence on lo-

cal economies. Finally, existing research findings are summarized to suggest policy implications for response measures in the local economy to advancements in globalization. While most previous research on advancements in globalization and global value chains (GVCs) has approached response measures at the national level, the current study is distinct in examining them at the local level and in offering a comprehensive analysis focusing on major trade, investment, and other global activities, in contrast with the analysis of local economy impacts from individual forms of globalization found in some studies at the local level.

Chapter 2. Globalization & Regional Development

1. Trends in Globalization & Recent Conditions

Global Trade & Investment Trends

Globalization has intensified since the 1990s with an expansion of overseas direct investment and continued increase in world trade. In addition to a rapid increase in global production since the 2000s, overseas direct investment and world trade has increased rapidly.

With this global trade expanding since 2000, Asia has come to account for an increasingly large percentage of products and services. Since the mid-2000s, the balance of trade for Asian products has shown a continued surplus, while the percentage of commodity trade from Europe and the US has declined. North America (including the US) has come to account for a larger percentage of product imports, resulting in a continued negative trade bal-

ance. Asia's regional percentage of service trade has also increased steadily since 2000, while those for US and Europe have decreased. The expansion in global investment since the mid-2000s can be attributed to a large increase in the scale of inflows and outflows from Asia. Global investment by the world's advanced economies has decreased rapidly since the global financial crisis of 2008–09, while from developing countries it has steadily increased, resulting in a reduced investment gap between the two strata of nations. In terms of investment direction, overseas direct investment toward particular countries has increased about 1.5 times for developing countries from before the global financial crisis, with foreign direct investment moving overseas from particular countries also undergoing a marked increase among developing and Asian countries in comparison to the pre-crisis year of 2007.

Major Recent Conditions

The rapid growth in trade and increase in overseas direct investment since the 2000s is attributable to a global decrease in the cost of trade. Technological advancements have played a major role in this decline of costs, including developments in transportation technology from steam ships to railroads, vehicles, and aircraft and the communication revolution from telephones to the Internet. In addition to these technological developments, efforts to increase trade by global trade organizations such as GATT and the WTO have made a contribution, as have increases in regional trade agreements and bilateral or multilateral free trade agreements. As the costs of international trade decrease and international trade

conditions are formed to take advantage of low wages in developing countries, production bases for major global corporations have begun a full-scale migration from developed to developing economies. This shift and expansion of production bases has resulted in a division of labor among economies at various production stages, ushering in an era where products can fairly be marked as “Made in the world.”

With advancements in globalization of the world economy since the mid-1980s and the resulting rapid increase in global trade and investment outpacing the increase in incomes, the extent of global economy linkage has been increasing. Rises in foreign direct investment, exports, and production are interconnected rather than isolated phenomena, with activities by multinational corporations playing a part in all three.

Investment in Asia accounts for over 40% of all new investment worldwide, making the region the world’s largest in terms of new investment inflows. As of 2015, nearly two-thirds (64%) of all global investment by industry was in services.

2. Globalization Analysis Theory & Implications for Local Development

The theoretical characteristics and respective advantages and disadvantages of global value chains (GVCs) and global production networks (GPNs) were compared in terms of global trade and investment to identify implications for local development policies.

Connections between local development and GVCs can be identified in terms of the ripple effect on local economies and

industry from linkages between specific national and local businesses and their positions at various GVC stages for products, in GVC participation efforts by and upgrading of local businesses, and in stronger linkage with the global economy. To begin with, GVC participation by a specific locally-situated business may result

Table 1. GVCs & GPNs from a Local Development Standpoint

	GVCs	GPNs
Definition & Background	<ul style="list-style-type: none"> - Analyzing company networks resulting from increased national specialization at production stage - Include all activities distributed geographically and internationally from product and service production to final stage of use 	<ul style="list-style-type: none"> - Originated from economic geography perspective emphasizing development of particular regions through linkage between global environment changes and internal factors - Network connecting interrelated functions and activities to enable production, distribution, and consumption at multiple levels
Process & Scope	<ul style="list-style-type: none"> - GVCs formed through global specialization of companies - Formed according to value chains 	<ul style="list-style-type: none"> - Global linkage of interrelated functions and activities by companies and different actors in global specialization process - Forming integrated networks
Actors & Relationships	<ul style="list-style-type: none"> - Companies - Linear relationships formed through value chains 	<ul style="list-style-type: none"> - Includes companies, institutions, networks, industries, etc. - Non-linear relationships formed through networks
Response Measures	<ul style="list-style-type: none"> - GVC participation - GVC upgrading 	<ul style="list-style-type: none"> - Learning through strategic combination and formation of reciprocal relationships
Major Implications	<ul style="list-style-type: none"> - Potential for regional GVC-based technology ripple effects and cluster formation - Need for regional policies and corporate strategies for GVC participation and upgrading - Increased importance of global factors and trends due to stronger linkage 	<ul style="list-style-type: none"> - Need to acquire knowledge about GPN needs - Designing and targeting policies for specific industries and areas - Demand for institutional support efforts - Need for regional policies aimed at strategic linkage

in local economy effects by encouraging geographic concentration through the force of integration. Second, regional policies or corporate strategies may be needed to create value-added for local economies and create or upgrade the management of local industries by encouraging GVC participation and improvements in capabilities in order to shift resources toward high value-added areas. Finally, interconnectedness between the global economy and local economies can be increased through establishment of systems of global specialization.

From a local development standpoint, GPNs may be explained in terms of their effects on imbalanced state and local development from economic activities in which companies in the global environment occupy sites around the world, yet are managed in integrated and interconnected ways. Local development is seen as achievable in terms of how global capital is linked to a particular region's potential and assets. In GPN terms, local development first requires that policymakers obtain knowledge not only about the various assets within a given region, but also about the needs of various global production networks. Second, this knowledge must be area-specific, and effective policy interventions must be designed and targeted to suit specific industries and areas. Third, knowledge must be oriented beyond the needs of a specific production network toward various institutional arrangements. Fourth, policy interventions must emphasize an understanding of differences between value creation, strengthening, and capture. Local policies to achieve strategic combinations must be developed in a way that distinguishes and supports priorities in value strengthening and capture.

Chapter 3. Analysis of Global Conditions in Local Economy Trade

1. Global Conditions in Local Economy Trade

Trends in Product Importation & Exportation by Region

Over the past ten years, product exportation and importation in Korea have increased markedly for the capital area (near Seoul) and Honam (Jeolla) regions on an average annual basis but decreased for the Daegu/Gyeongsang region. In terms of industries by region, electronics and precision machinery accounted for the largest percentage of exports in the Greater Seoul, Chungcheong, Daegu/Gyeongsang, and Gangwon regions, but decreased from 2005 levels for all regions. In the Daegu/Gyeongsang region in particular, electronics and precision machinery fell substantially as a percentage of the regional economy. Petrochemicals and oil refining accounted for the largest percentage of the regional economy in Honam, while transportation equipment did so in the Southeast, with slight declines from their 2005 levels. In Jeju, farming, forestry, and fishing accounted for half of regional exports, although the percentage represented by electronics and precision machinery has risen rapidly in recent years.

As with exports, electronics and precision machinery accounted for the largest percentage of imports by region and industry for the Greater Seoul area. For the Chungcheong, Honam, Southeast, and Gangwon regions, mining products with imported fuels (including petroleum and coal) accounted for half or more of regional im-

ports. Electronics and precision machinery exports fell from 2005 levels for all regions except Jeju, contributing to regional trade surpluses. By continent, Asia accounted for more than half of product exports, indicating a higher degree of dependence on the region than in the past. Asia also ranked highest in terms of product imports, although the degree of dependence on the region fell from past levels.

□ Local Economies & Trends in Global Trade

While no clear positive relationship was observed between local economic growth and the rate of increase in exports between 2000 and 2014, a general positive relationship was found between exports and imports. Recent trends in local economies and global trade suggest that effects on local economic growth from increased local exports and production are limited unless they contribute to value-added creation within the region. The joint rise in exports and imports may also be seen as reflecting an increase in exportation and importation of intermediate goods amid the international division of labor that has recently become the trend in global trade as a result of intensifying globalization. The relationship between local economies and global trade should therefore be examined in terms of areas that have recently emerged as issues. Specifically, structural changes in global trade should be examined in terms of growth in value-added, which serves as a metric for local economic growth, and joint increases in exports and imports may be discussed in terms of the intensifying international division of labor.

2. Structural Analysis of Global Trade by Local Economies

□ Structural Analysis of Global Trade in South Korea

Because South Korea's production input structure has a higher percentage of intermediate than value-added goods, the extent of GVC participation, while greater than in the past, still has a limited effect in terms of benefiting the national economy through value-added generation. Examination of the role of intermediate goods exports, which provides a gauge of GVC participation in the product sale process, shows that participation to be both high and up from past levels in manufacturing and services alike. Dependence on China for exports and procurement of intermediate goods has risen sharply from past levels. Examination of market share for specific countries of exports of global intermediate goods to other countries shows South Korean exports to China accounting for 1.3% of such exports in 2011. In terms of procurement of intermediate goods imports, of the countries in the comparison, South Korea depended on China for 40%. As this reveals, the specialization framework with China in terms of the trade in intermediate goods has deepened from past levels.

An examination of the contribution of value-added products from specific countries to the exportation process in terms of practical benefits to the national economy showed no major difference in market share for South Korea's exported value-added products over the time period, but the share of the same export market for the countries compared was at its lowest in 2011. This shows that despite the recent increase in GVC participation, the percentage of value-added products in export terms has not increased, and

the role of exports remains inefficient in national economy terms compared to China and other countries.

□ Structural Analysis of Global Trade for Local Economies

Regional industry relation tables and regional export and import data were used when possible to analyze global trade structure for local economies. In terms of local production input structure, production in the Honam and Southeast regions can be classified as accounting for a relatively high percentage of value-added returns from other regions and countries. While the percentage of intermediate goods imports rose for all regions, the percentage of local value-added products fell for all regions, with the percentage within the Greater Seoul area declining at a slower pace than for other regions. In terms of the regional production distribution structure, the Southeast had a relatively high percentage of direct value-added exports, while the Greater Seoul and Daegu/Gyeongsang areas may be classified as having a high percentage of indirect value-added exports through the use of intermediate goods in the production of final goods overseas. Overseas exports of products increased from 2005 levels for all regions, but while indirect value-added generation increased greatly for the Greater Seoul, Chungcheong, and Daegu/Gyeongsang regions as a result of overseas intermediate demand, direct value-added generation from overseas final demand was found to be relatively low for Honam and the Southeast. Asia accounted for the highest percentage of exports of intermediate goods from the Chungcheong region, followed by Jeju and Honam. Dependence on the Middle East for intermediate goods imports

was high for Honam, the Southeast, and Chungcheong, which import large amounts of crude oil, while dependence on Asia was high for Greater Seoul, Gangwon, and Daegu/Gyeongsang.

Two indicators, the value-added generation coefficient and trade in value added (TiVA) at the regional level, were used to examine the extent of regional value-added generation in the global trade process. Examination of the coefficient according to regional export demand showed the highest value-added generation effects in Jeju, followed by Gangwon and Greater Seoul. Jeju and Gangwon both showed objectively larger value-added effects from export demand, while Greater Seoul was found to have the highest level of regional value-added generation due to the concentration of high value-added service exports and the procurement of intermediate goods for manufacturing exports within the region. TiVA calculations of the value-added exportation structure arising in trade between regions as a result of overseas export demand showed Greater Seoul, Gangwon, Honam and Jeju to have positive net inflows and Daegu/Gyeongsang and the Southeast to have negative net inflows for value-added generated through overseas export demand. As global trade has become more active since 2005, the gap in value-added generation from global trade between local economies has grown, with value-added expanding for Greater Seoul while other regions experienced either no major changes or increased value-added outflows to other regions.

3. Survey of Corporate Global Trade Conditions

A total of 350 companies in South Korea involved in imports

and exports were examined in terms of their motives for involvement in global activity, their relationship with other globally active companies in their region, and issues their regions face.

□ GVCs & Networks

From a GVC standpoint, the companies analyzed were currently located for the most part at relatively low value-added stages of the value chain. As with the previous analysis of conditions, local economies outside the Greater Seoul area were found to be facing limitations in value-added generation. Examination of areas where companies are obliged to focus their capacities in the future showed an emphasis on GVC upgrading as a global trade orientation among local businesses. This suggests that policies for the globalization of regional businesses should be focused on supporting their upgrading to a high value-added stage through market expansion and R&D investment support. Most regions were also found to be pursuing an upgrade to the “smile curve” GVC stage by decreasing the role of low value-added areas such as parts procurement and end goods production and expanding into high value-added areas through R&D, marketing, and sales. From a GPN standpoint, distribution of technology and information through organic networks with domestic and overseas businesses in the course of global activities is important for the globalization of local companies to have a more positive impact on local economies. To begin with, efforts to boost competitiveness through technology exchange were found to be relatively lacking due to a focus on short-term market exploration in interactions with partner busi-

nesses overseas. Networks with globally active companies within the region were described as “important” by 68.3% of companies, with networks formed in the region shown to be especially important as channels for GVC entrance and other methods of opening overseas markets. At the same time, many companies were found to have a low actual level of network formation with globally active businesses in the region, despite recognizing the importance of such networks. As reasons for this, many companies reported either that there were no globally active companies in the region or that network formation was not possible due to a lack of information. Networks were also found to consist primarily of subcontracting and outsourcing relationships.

Demand for Regional Policy

Examination of the policies required to promote global trade businesses within regions showed the most preferred policy type to consist of “tax benefits, deregulation, and financial support,” followed by “information about overseas markets” and “technical support and other policies to promote local business capabilities.” Indeed, the large number of responses citing lack of information and inability to meet international standards as reasons for companies not forming networks within their region suggests a need for attention to these areas to improve networks with other local globally active businesses in terms of providing information about overseas markets and creation of policies designed to boost local industry capacities. By region, Chungcheong showed a strong preference for policies to provide global trade-related information (including infor-

mation about overseas markets, support for overseas exhibitions, and support for international standards and certification) in addition to tax benefits and other forms of institutional support. Honam and the Southeast showed relatively strong demand for global trade-related information and policies to support technological capabilities of local business, while Daegu/Gyeongsang showed strong demand for information and policies related to technological support infrastructure, including local R&D facilities. Analysis of policy demands according to GVC stage showed a generally high preference for “tax benefits, deregulation, and financial support.” For the R&D and planning/design fields, demand was relatively high for R&D infrastructure and technological support to boost local technological capabilities. For companies in intermediate goods production, demand was particularly strong for local policies aimed at technological support and network formation with global businesses; for end goods production stage companies, demand for overseas distribution networks and certification was high, while for service companies, local policies to promote cooperation with large local corporations were an area of especially strong demand.

Chapter 4. Analysis of Global Investment Conditions for Local Economies

1. Global Investment Conditions for Local Economies

- Trends & Stages in South Korean Global Investment

In sheer volume terms, overseas investment totaled around USD

27.7 billion as of 2015, with foreign direct investment amounting to around USD 15.9 billion. Overseas investment in Asia was particularly large, with 64.1% of cumulative investment over the past 30 years being focused there. South Korean global investment grew substantially in terms of both inflows and outflows after the foreign exchange crisis of the late 1990s, although outflows have outpaced inflows in recent years. Overseas investment first began substantially exceeding foreign direct investment in 2005, resulting in a positive national net overseas investment (NOI) value. In terms of investment development pathway theory, this corresponds to stage four. According to this theory, South Korea has reached the stage in which increased overseas advancement by companies as a result of growth in the national economy has resulted in overseas investment exceeding foreign direct investment.

□ Global Investment Trends for Local Economies

Global investment in South Korea is markedly skewed toward specific regions. Since 2011, 71.9% of foreign direct investment and 75.3% of overseas investment have been concentrated in the Greater Seoul area. At the same time, this skewing toward Greater Seoul has diminished slightly from past levels. The preponderance of foreign direct investment in Greater Seoul stems from around 90% of service industry investment occurring within that region, while for other regions it is focused chiefly on local manufacturing mainstays.

Manufacturing was found to account for a higher level of overseas investment than foreign direct investment for Greater Seoul; as with foreign direct investment, overseas investment in different

regions was chiefly centered on local manufacturing mainstays. As of 2015, overseas investment exceeded foreign direct investment at the national level, with an ongoing net outflow since 2006. Greater Seoul also experienced a steady net outflow from 2006 onward, and inflows and outflows have both grown in recent years. Dae-gu/Gyeongsang and the Southeast have experienced net outflows, while Chungcheong has experienced repeated net outflows and inflows; Honam and Gangwon have both had large net outflows. Global investment trends were found to differ according to regional competitiveness, location advantages, and strategic company activities. With Greater Seoul accounting for an overwhelming share of national global investment in proportion to the scale of its economic activity, targets for global investment have chiefly been the mainstay industries of the various regions. This indicates that the most competitive industries locally are the chief players in global investment locally, which may be seen as the result of strategic activities to establish local industry competitiveness.

2. Analyzing Global Investment in Local Economies

Global Investment Linkages with Local Economies

To analyze how recent increases in global investment activities have ultimately translated into effects on local economies, long-term equilibrium between global investment and local economy value-added were examined through a cointegration regression analysis. The results showed a 0.09% rise in regional value-added for every 1% rise in foreign direct investment and a 0.05% decrease

for every 1% rise in overseas investment. This suggests that achieving local economic growth will require both an increase in factors directly needed for production (including capital and labor) and the attraction of foreign direct investment to regions. At the same time, the analysis also showed increased overseas investment to in fact be associated with the loss of growth engines for local economies.

Linkage between Global Investment & Global Trade

Intensifying globalization has recently been accompanied by increased interconnectedness, with an especially prominent inter-relationship between global trade and investment. Such linkage between global trade and global investment may also exist within countries at the regional level. A Granger causality test to examine interdependence between global trade and investment showed causal relationships between exports and overseas investment; exports and foreign direct investment; imports and overseas investment; and overseas investment and foreign direct investment. Regions with active overseas investment also had active global trade in terms of exports and imports, while regions with strong foreign direct investment inflows may be seen as having stronger export activity as well.

Effect of Foreign Direct Investment on Local Economies

Analysis of the long-term equilibrium between foreign direct investment and regional productivity showed a significant positive relationship between foreign direct investment and regional total

factor productivity. This finding reveals that the attraction of foreign direct investment to a region may function as an important factor in increasing that region's productivity. Overseas investment, however, could not be seen as having the same positive relationship with local productivity observed earlier in its relationship with local value-added. Analysis in terms of ripple effects on company productivity, which is the most frequently cited effect on local economies from foreign direct investment, showed a unit rise in foreign-invested companies (of upstream industries) to be associated with a roughly 0.3% rise in productivity for purely domestic downstream industry businesses within the same region. In terms of potential productivity ripple effects from foreign-invested companies in other regions, no significant intra-industry ripple effects or downstream linkage effects were found, while a significant negative upstream linkage effect was observed. Analysis by investment type showed new investment in other regions exerting a negative effect on purely domestic businesses through upstream linkage effects; this effect was not significant for new investment within the same region. Ripple effects according to spatial characteristics for different regions were significantly lower within the same region and industry for Chungcheong and Daegu/Gyeongsang than for Greater Seoul. Significant positive ripple effects from other regions within the same industry were only observed for companies in the Greater Seoul area.

□ Overseas Investment Structure in Local Economies

Between 2005 and 2014, Asia accounted for the largest portion of South Korean investment, followed by North America, Europe,

and Central and South America. Recently, overseas investment has been diversifying from its past Asian focus. In terms of investment purpose, overseas investment for local market advancement, resource development, and access to third countries showed strong increases from 2005 levels. In terms of investment purpose by regions, local market advancement accounted for an overwhelming percentage of investment in Asian regions, while recent years have also shown a rapid increase in overseas investment for access to third countries as a means of gaining a foothold for participation in global networks. Overseas investment in North America was chiefly aimed at introduction of advanced technology, while investment in Asia had the chief purposes of acquiring raw materials, taking advantage of low wages, advancing into local markets, and overcoming protectionist trade policies. Central and South America accounted for the largest portion of overseas investment to gain access to third countries (an area that has increased in recent years), followed by Europe and Asia.

As with overseas investment at the national level, Asia accounted for the highest percentage of overseas investment for all regions except Jeju, with Honam ranking first and Chungcheong second by percentage of regional investment. Chungcheong in particular showed a stronger linkage between exports and overseas investment than other regions. Examination revealed that targeting local market advancement accounted for a large percentage of the purposes for overseas investment for Greater Seoul, Chungcheong, Honam, and Gangwon. For Daegu/Gyeongsang and the Southeast, resource development accounted for a large percentage; Daegu/Gyeongsang focused its overseas investment in resource develop-

ment on Oceania, while the Southeast focused on North America.

3. Survey of Conditions at Companies Involved in Global Investment

A total of 112 companies were surveyed on their global investment activities, with this number made up of 33 domestic businesses involved in overseas investment and 79 foreign direct investment companies operating in South Korea.

Global Value Chains & Networks

In terms of global value chain stages for companies involved in global investment activity, the foreign direct investment companies in the study were most frequently at the low value-added “parts/materials procurement and production” stage, while many were also active at the high value-added “services” stage. For overseas investment companies, activity at the high value-added GVC stage was generally high; these companies commonly cited “research and development” and “marketing/sales” as areas where they would need to focus their capacities in the future.

In terms of items concerning domestic and overseas networks, foreign direct investment companies reported relatively active exchanges of personnel and technology with overseas parent companies, but a relative dearth of exchanges in core technology and research staff. Around 70% described formation of networks with other global businesses in their region as “important,” with “ease of establishing cooperation with related upstream and downstream

businesses” cited as the chief reason. Only a minority of companies, however, reported actually forming such networks. A lack of information about local businesses was the most commonly-cited reason for not forming networks within a given region, and this lack of information about globally active companies in the region was also cited as an area in need of improvement. The most commonly-reported form of networking with local businesses was subcontracting, which is a strongly vertical form of relationship; this suggests that networking with foreign direct investment companies currently established within regions is likely to be a limited approach in terms of fostering self-sufficient regional growth, which in turn indicates that policy support at the local level needs to follow a more progressive model in the future. At the same time, companies involved in overseas investment were found to be engaged in substantial exchanges of information on overseas partner companies, chiefly in connection with overseas markets. Many companies characterized the formation of networks within their current region as “important,” with “ease of forming global networks” cited as the most important reason. Only a small number of companies had actually formed networks; as with foreign direct investment companies, policy support to address the shortage of information about globally active companies was cited as an area for improvement in regional network formation.

Regional Policy Demand

In addition to investment incentives and other forms of institutional support, foreign direct investment companies also cited “estab-

lishment of regional industry clusters and other policies to produce specialized local industry development” as an area where regional policies were needed to promote regional investment activity. This is consistent with the fact that many foreign direct investment companies are currently located in industry clusters, with industry cluster development and degree of industry specialization regarded as the greatest priorities in terms of location conditions that are considered when investing. Regions differed in their preferred policies to promote investment: “Policies to promote regional specialized industry development” was most commonly cited in Chungcheong, institutional support such as “tax benefits and deregulation” in Honam and the Southeast, and “establishment of business networks with foreign and overseas businesses” in Daegu/Gyeongsang. By GVC stage, companies at the R&D stage showed the strongest preference for innovation infrastructure policies, while those at the production stage most strongly preferred institutional support measures such as tax benefits and deregulation. Companies at the marketing/sales and R&D stages also showed a high preference for policies related to dedicated infrastructure for foreign-invested companies. The survey of policy demand among companies investing overseas showed the strongest preference to be for information support. By region, the Southeast ranked high in preference for policies aimed at strengthening local business capabilities, while Daegu/Gyeongsang showed a higher preference for tax benefits and deregulation. A strong preference for policies aimed at “providing information on overseas markets” and “tax benefits and deregulation” was observed across all GVC stages. Additionally, companies at the R&D stage showed a general preference for “technical support and other

policies to strengthen regional business capabilities,” while those at the marketing and sales stages showed a relatively strong preference for “policies for linkage with domestic corporations and global businesses.” A particular strong preference for policies to support linkage with domestic corporations was also observed at the end goods assembly and production stage.

Chapter 5. Conclusion & Policy Implications

In accordance with the theoretical examination, the following implications may be identified from the globalization perspectives identified in local development terms and from the findings and analytical data on global trade and global investment.

Avenues for Local Development Policies in Response to Globalization

In light of the global value chain (GVC) and global production network (GPN) concepts, which serve as frameworks for analysis of globalization, regional policies should adopt a perspective and direction aimed at taking advantage of the globalization trend. Regional development policy under the GVC concept may be focused on promoting GVC participation by encouraging local businesses to export overseas, and on expanding R&D investment to support upgrades to high value-added production activities. Under the GPN concept, it is important for policies to promote the establishment of networks through development of and investment in regional clusters and linking global capital to regional potential and assets.

For both concepts, central components of the regional development policy response to globalization include the strengthening of local businesses' global capabilities and the promotion of global network activity within regions. GVC-oriented policies focused on companies and GPN-oriented policies focused on regions will be the two chief areas of the regional development policy response to globalization.

Establishing GVC Positive Feedback Loops Within Regions

Regions require the establishment of positive feedback loops in which local businesses integrate into GVCs and upgrade, leading to the formation of new GVCs. This is a process that requires not only GVC entry and expansion efforts by individual companies, but also support in policy terms. In the early stages, GVC upgrading should be promoted through support for linkage and partnerships with global businesses and/or corporations in South Korea and overseas and for stronger GVC competitiveness. Ultimately, the aim should be a positive feedback loop in which companies grow to become core businesses and establish new GVCs in turn.

Promoting Network Activity to Encourage Local Investment

Policies should be aimed at encouraging the sharing of technology and knowledge through long-term, horizontal partnerships between foreign direct investment companies and local companies. Policies to strengthen local business capabilities may serve as a suitable policy means for promoting networks between foreign direct investment companies and local companies. Policy support is also

needed to enable local companies involved in overseas investment to leverage their cooperation with large corporations in South Korea and overseas (as well as other global businesses) towards joint development of technology and joint advancement of overseas markets. Support for linkage with global businesses and corporations at home and abroad may also be seen as a key policy approach in terms of expanding global markets for local companies.

Globalization Responses by Region Type

The question of whether particular regions require export promotion measures or R&D-based shifts toward a high value-added chain requires an understanding of those regions' current role and standing, which must be used as a basis for devising practicable policy measures. For regions where investment and exports are to be promoted, continued efforts will need to focus on using a locally-based production network to introduce companies into high value-added chains. For regions where the attraction of investment is the goal, attempts should be made to change the service-type industry structure through investment; regions targeted for export promotion have strong export potential and required expansions in scale through the attraction of investment. Regions with low investment and exports will require efforts to encourage GVC participation.

Strengthening the Global Capabilities of Local Small Businesses

Large companies may be seen as already having established rel-

ative global competitiveness through globalization and independent growth capabilities achieved by expanded overseas direct investment and value chain integration. Policy support should therefore be focused on local small businesses. Strategies for encouraging GVC participation involve individual companies entering markets from a GVC standpoint, specializing their capabilities, and shifting to higher value-added stages. Achieving this will first require the development of strategies that take those companies' industry characteristics into account. These characteristics should be classified by type within the GVC occupied by the companies, and should be consulted by those companies when they develop their strategies.

□ Supporting Specialization in Response to Globalization & Building Infrastructure

Local governments will need to adopt a broad policy approach to help local companies establish consistent competitive advantage within the region. Nationally, efforts to support exportation are conducted by local governments, the central government, and support agencies. As these efforts are sometimes overlapping or piecemeal, similar projects should be consolidated, and support policies for regionally-specialized exports should be developed. Investment should also be focused and have the aim of supporting globalization. Policy measures to encourage companies involved in high value-added activities to take up residence within the region should be considered as a strategy for attracting foreign direct investment locally. A good example of this is the establishment of a regional innovation environment through expansion of local R&D infrastructure.