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**KOREA'S FOREIGN DIRECT INVESTMENT  
IN SOUTHEAST ASIA**

**Jai-Won Ryou  
and  
Byung-Nak Song**

**KIEP**  

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**Working Paper**



**KOREA INSTITUTE FOR  
INTERNATIONAL  
ECONOMIC POLICY**

# **KOREA'S FOREIGN DIRECT INVESTMENT IN SOUTHEAST ASIA\***

**Jai-Won Ryou**

**Korea Institute for International Economic Policy**

**Byung-Nak Song**

**Seoul National University**

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# **1. INTRODUCTION**

Since the mid-1980s, Korea's foreign direct investment (FDI) in Southeast Asian countries has rapidly increased and is emerging as an important source for foreign capital for some of these countries. Korea is soon expected to rank among the largest investors in Southeast Asia together with Japan and Taiwan.

The recent trend of Korea's outward FDI in this region may be explained by domestic and global changes in the investment environment which have redefined the international competitiveness of East and Southeast Asian countries. The appreciation of the Japanese yen against the US dollar, immediately following the Plaza Meeting, provided a favorable opportunity for Korean exports. Korea recorded a considerable current account balance surplus during 1986-1988, and the Korean won appreciated accordingly. Meanwhile, inflationary pressures from the external sector caused a rapid increase in wage rates and real estate prices. As a result, Korea's competitive edge rapidly deteriorated against other developing countries, particularly the ASEAN countries. Under these circumstances, the shift of production sites to Southeast Asia became one of the viable choices for many Korean firms.

Will Korea's FDI in Southeast Asia continue to grow or become a short-lived phenomenon? The outcome is uncertain, but it will be closely related to the effects of FDI on the economic development of

Korea and the host countries. Given the recent global trend of rapidly growing FDI replacing exports, perhaps as an engine of growth in the world economy, it is clear that the continuous growth of outward FDI seems to be inevitable for Korea due to its heavy reliance on external trade. Moreover, as the need for closer economic cooperation between Korea and Southeast Asia grows in the midst of an undesirable tendency towards protectionism and regionalism of the world economy, the importance of FDI as a means of securing a division of labor in this region is increasing.

On the other hand, with Korea experiencing a serious current account deficit, it is debatable whether such capital outflow is desirable or not. The abatement of FDI in Korea, which has resulted in a net outflow of direct investments since 1990, raises concern over the risk of de-industrialization. In addition, outward FDI may have unfavorable effects on the domestic economy such as the replacement of Korea's exports or deterioration of the balance of payments due to imports from overseas affiliates.

The purpose of this paper is to present the major trends and characteristics of Korea's FDI in Southeast Asia and to assess its causes and consequences. Our study confirms that mutual benefits from FDI flows are prevalent. As for the Korean economy, the outward FDI in Southeast Asia contributes to industrial restructuring by promoting resource re-allocation from sectors losing their comparative advantage to those with promising growth opportunities. The host economy

can expect that FDI inflows in industries with a comparative advantage will promote export and transfer of appropriate technologies for economic development.

This paper will first review major characteristics of recent trends in Korea's outward FDI. Secondly, it examines Korea's FDI in Southeast Asia with a focus on its present status, performance and economic effects. Thirdly, this paper then discusses prospects for Korea's investment in Southeast Asia.

## **2. OVERVIEW OF KOREA'S OUTWARD FOREIGN DIRECT INVESTMENT**

### **A. Upsurge of Outward FDI**

Korea's outward FDI began in 1968, but it remained insignificant until the mid-1980s. Prior to this, it was considered capital outflow and, thus, was generally discouraged by the government except for special cases aiming at securing a stable supply of important raw materials or facilitating export.

Korea's outward FDI has rapidly increased since the mid-1980s. As shown in Table 1, the total number of cases of approved outward FDI increased from 74 in 1986 to 632 in 1992, and its total value from US\$ 0.36 billion to US\$ 1.2 billion. Actual outward investment also continued to grow, with its annual amount surpassing US\$ 1.0 billion in 1991 and 1992. As a result, the total value of Korea's existing

investments rose from US\$ 0.65 billion in 1986 to US\$ 4.3 billion in 1992.

The average size of total existing investments continues to grow. The value of investment per case amounted to US\$ 2.0 million in 1991. However, the small-scale investments still dominate. The investments valued less than US\$ 1.0 million constituted 71.7% of the total number of investments, but only 11.7% of the total value of investments up to 1991. In contrast, the large-scale investments surpassing US\$ 10.0 million accounted for 2.9% of total cases, but 53.1% of the total value of investments.

The direct cause for the recent trend of Korea's outward FDI may be the liberalization of government regulations on outward FDI since 1986. In order to reduce inflationary pressures from the current account balance surplus during 1986-88, monetary authorities took a series of

<Table 1> Trends in Korea's Outward FDI

(unit: case, US\$ million)

| Year    | Approvals |         | Actual Investments |         | Withdrawals* |        | Total Existing Investments |         |
|---------|-----------|---------|--------------------|---------|--------------|--------|----------------------------|---------|
|         | no.       | amount  | no.                | amount  | no.          | amount | no.                        | amount  |
| 1986    | 74        | 364.9   | 52                 | 183.9   | 19           | 22.7   | 476                        | 645.1   |
| 1987    | 110       | 371.1   | 92                 | 410.5   | 32           | 89.6   | 536                        | 966.0   |
| 1988    | 253       | 479.3   | 176                | 223.8   | 32           | 59.7   | 680                        | 1,130.1 |
| 1989    | 368       | 943.3   | 269                | 569.6   | 23           | 177.2  | 926                        | 1,522.5 |
| 1990    | 517       | 1,624.8 | 339                | 959.3   | 22           | 146.1  | 1,243                      | 2,335.7 |
| 1991    | 539       | 1,605.6 | 453                | 1,125.4 | 23           | 88.1   | 1,673                      | 3,372.9 |
| 1992**  | 632       | 1,210.0 | 500                | 1,255.0 | 33           | 104.6  | 2,054                      | 4,326.9 |
| 68-92** | 3,184     | 7,475.1 | 2,898              | 6,356.7 | 344          | 1624.2 | -                          | -       |

Note: \* Includes liquidation.

\*\* As for withdrawals, up to October only.

Sources: Bank of Korea, *Outward Foreign Investment Statistics Yearbook*, 1992.

Korea Export-Import Bank, *Weekly Outward Foreign Investment Information*, 1993.1.16.

measures to encourage outward FDI, e.g. by introducing the notification system and allowing private firms to purchase real estate in foreign countries. The current account balance returned to deficit in 1990. However, the outward FDI continued to grow. In spite of concerns over negative effects of outward FDI on the balance of payments, the Korean government showed little noticeable change in its liberalization measures towards FDI.

Although it is virtually impossible to identify a single dominant economic determinant of the recent trend in outward FDI, potential causes can be summarized as changes in Korea's domestic investment environment as well as the changing conditions in global investment. The Korean economy had to endure domestic macroeconomic instability and growing protectionism by the advanced countries since the mid-1980s. For example, unit labor cost in the manufacturing sector denominated in the U.S. dollar almost doubled during 1986-91 (see Table A.1). The appreciation of the Korean won by 16% during the same period accelerated the demise of Korea's comparative advantage.

Recently, the macroeconomic stability of the Korean economy has substantially recovered, but not the vitality of overall domestic investment. Taking into account the sluggish growth of exports as well as weak industrial activity, it remains to be seen how long the current increase of outward FDI continues.



## B. Active Investment in the Manufacturing Sector

The increase of outward FDI was accompanied by a substantial change in investment structure. In terms of the share of FDI by industries, the manufacturing sector has been the most active, while resource-related investment in the forestry, fisheries and mining sectors has been stagnant since the mid-1980s. As shown in Table 2, the share of the manufacturing sector in total existing investments increased from 25.5% to 48.9% between 1986 and 1991. Investment in the service sector has also shown steady growth due to the establishment of trading companies.

The recent increase in FDI in the manufacturing sector is mostly concentrated in labor intensive industries and reflects perhaps industrial restructuring of the Korean economy. Investment in industries such

〈Table 2〉 Korea's Outward FDI by Industry (unit: %)

| Industry           | Actual Investments |       |       |       |       |        | Total Existing Investments |              |
|--------------------|--------------------|-------|-------|-------|-------|--------|----------------------------|--------------|
|                    | 1986               | 1987  | 1988  | 1989  | 1990  | 1991   | 1986                       | 1991         |
| Forestry & Fishery | 2.3                | 0.6   | 6.1   | 0.9   | 2.9   | 1.3    | 10.5( 7.6)                 | 5.2( 4.8)    |
| Mining             | 44.3               | 53.4  | 29.3  | 19.3  | 16.4  | 11.0   | 37.6( 2.7)                 | 15.1( 1.6)   |
| Manufacturing      | 40.0               | 37.9  | 36.6  | 49.2  | 51.0  | 53.2   | 25.4(18.7)                 | 48.9(45.8)   |
| Construction       | 1.0                | 0.6   | 2.8   | 2.3   | 0.5   | 1.1    | 5.4( 9.5)                  | 1.9( 3.8)    |
| Transportation     | 0.0                | 0.2   | 2.8   | 2.3   | 0.5   | 1.1    | 0.4( 4.0)                  | 1.9( 3.8)    |
| Trading            | 7.9                | 4.8   | 19.1  | 10.8  | 22.9  | 20.7   | 13.2(47.5)                 | 19.9(32.1)   |
| Others*            | 2.9                | 2.3   | 2.6   | 11.1  | 5.7   | 11.0   | 3.5( 7.5)                  | 8.1( 7.9)    |
| Real Estate        | 1.6                | 0.2   | 3.3   | 0     | 0.4   | 0.9    | 4.0( 2.5)                  | 1.4( 1.6)    |
| Total              | 100.0              | 100.0 | 100.0 | 100.0 | 100.0 | 100.0  | 100.0(100)                 | 100.0( 100)  |
| Amount(US\$ M)     | 183.9              | 410.5 | 223.8 | 569.6 | 959.3 | 1125.4 | 645.1(476)                 | 3372.9(1673) |

Note: \* Agriculture and unspecified service sectors (banking & insurance not included).

Sources: Same as Table 1.

as textiles, garments, footwear, electric and electronic appliances are examples (see Table 3). In particular, the fabricated metal sector, including household electric and electronic products, records the largest share in the manufacturing sector. It accounts for 30.4% of the total investment made by 1991.

Investment in capital-intensive industries is linked closely to the favorable investment environment provided by the host countries. It may match the industrial policy objectives of the host countries. In the case of developed countries, FDI seems to be an instrument for circumventing the heightening trade barriers. Increasing investment in the consumer electronics industry in the 1980s may be a

〈Table 3〉 Korea's Outward FDI in the Manufacturing Sector (unit: %)

| Industry              | 1988   | 1989   | 1990    | 1991    |
|-----------------------|--------|--------|---------|---------|
| Foods                 | 2.4    | 2.7    | 6.4     | 5.6     |
| Textile & Apparel     | (10.3) | (17.0) | 13.7    | 13.1    |
| Footwear & Leather    |        |        | 4.8     | 4.0     |
| Wood & Furniture      | 3.1    | 1.8    | 2.5     | 3.9     |
| Paper & Printing      | 2.3    | 2.9    | 1.6     | 2.0     |
| Chemicals             | 7.9    | 10.0   | 13.3    | 11.6    |
| Non-Metallic Minerals | 8.0    | 6.7    | 3.8     | 6.0     |
| Basic Metals          | 41.0   | 29.3   | 23.3    | 16.1    |
| Fabricated Metals     | (23.5) | (26.2) | (27.2)  | 30.4    |
| Machine & Equipment   |        |        |         | 2.1     |
| Others                | 1.5    | 3.4    | 3.2     | 5.2     |
| Total                 | 100.0  | 100.0  | 100.0   | 100.0   |
| Amount (US\$ M)       | 389.9  | 531.0  | 1,061.2 | 1,648.2 |

Note: The above numbers are based on the total existing investments by the end of the specified year. Data are available from 1988.

Sources: Same as Table 1.

good example (see Jun (1987)).

### **C. Growing Investment in Southeast Asia**

The regional distribution of Korea's outward FDI is shown in Table 4. North America and Asia share 46.1% and 33.8% of the value of total investment, respectively, made by 1991. In terms of the number of cases of investments, Asia's share (47.2%) surpasses North America's (23.7%). In contrast, the EC's share accounts for only 5.0% of the total value of investment and 7.1% of the total number of cases.

The recent increase in investment in Asia is concentrated mostly in the ASEAN countries. The ASEAN region's share in total existing investments almost doubled to 26.0% during the period from 1986 to 1991. Only recently are China and South Asian countries (Bangladesh, India, Pakistan and Sri Lanka) emerging as viable alternatives in Asia.

Industrial distribution of investment varies from region to region according to where FDI takes place. As shown in Table 5, investment in the manufacturing sector in Asia is concentrated in labor intensive industries such as textiles, apparel and fabricated metals. On the other hand, in the case of North America, the share of the manufacturing sector is 45.7%, as compared with that of trading services of 31.5%. Moreover, in the case of manufacturing investments in North America, basic metals and the household electric goods industries account for the largest shares.

The regional differences in industrial shares may reflect different

<Table 4>

Korea's Outward FDI by Region

(unit: %)

| Region                | Actual Investments |       |       |       |       |        | Total Existing Investments |              |
|-----------------------|--------------------|-------|-------|-------|-------|--------|----------------------------|--------------|
|                       | 1986               | 1987  | 1988  | 1989  | 1990  | 1991   | 1986                       | 1991         |
| <b>Asia</b>           | 3.9                | 32.2  | 20.2  | 22.8  | 31.3  | 38.3   | 18.9(31.4)                 | 33.8(47.2)   |
| ASEAN                 | 0.8                | 30.9  | 13.0  | 15.9  | 23.9  | 29.0   | 13.4(11.6)                 | 26.0(23.7)   |
| Indonesia             | 0.8                | 30.5  | 8.5   | 13.2  | 17.1  | 15.1   | 7.6( 3.4)                  | 17.6(11.0)   |
| Malaysia              | 0                  | 0.2   | 0.6   | 0.5   | 1.8   | 6.2    | 4.4( 3.8)                  | 3.5( 4.1)    |
| Philippines           | 0                  | 0.1   | 0.3   | 0.5   | 3.4   | 4.3    | 0.3( 0.6)                  | 2.6( 3.5)    |
| Singapore             | 0                  | 0.1   | 0.0   | 0     | 0.3   | 0.5    | 0.7( 2.1)                  | 0.4( 1.6)    |
| Thailand              | 0                  | 0     | 3.6   | 1.6   | 1.3   | 2.9    | 0.4( 1.7)                  | 1.9( 3.5)    |
| China                 | 0                  | 0     | 0     | 1.1   | 1.7   | 3.8    | 0.0( 0.0)                  | 1.9( 5.9)    |
| Japan                 | 1.1                | 0.3   | 3.1   | 1.8   | 1.1   | 1.3    | 3.5( 8.6)                  | 1.9( 6.8)    |
| Hong Kong             | 1.8                | 0.6   | 1.8   | 2.3   | 0.5   | 1.2    | 1.5( 8.6)                  | 1.4( 6.0)    |
| South Asia*           | 0                  | 0.1   | 0.8   | 1.1   | 2.3   | 2.1    | 0.2( 1.3)                  | 1.6( 3.2)    |
| Others                | 1.0                | 0.3   | 1.5   | 0.6   | 1.8   | 0.9    | 0.3( 1.3)                  | 1.0( 1.6)    |
| <b>North America</b>  | 43.1               | 43.2  | 43.0  | 49.6  | 45.3  | 41.1   | 36.2(36.6)                 | 46.1(28.1)   |
| U.S.                  | 31.8               | 40.9  | 51.5  | 29.6  | 35.7  | 35.1   | 23.6(34.5)                 | 35.2(26.1)   |
| <b>Europe</b>         | 3.0                | 1.7   | 8.6   | 3.5   | 9.9   | 8.2    | 2.6( 9.3)                  | 7.2( 8.3)    |
| EC                    | 3.0                | 1.6   | 8.3   | 2.6   | 5.0   | 6.3    | 2.6( 9.3)                  | 5.0( 7.1)    |
| Eastern Europe        | 0                  | 0     | 0     | 0.3   | 0     | 1.9    | 0.0( 0.0)                  | 1.0( 0.7)    |
| <b>Others</b>         | 50.0               | 22.9  | 28.1  | 24.2  | 13.4  | 12.3   | 42.3(22.5)                 | 12.9(16.5)   |
| <b>Total</b>          | 100.0              | 100.0 | 100.0 | 100.0 | 100.0 | 100.0  | 100.0(100)                 | 100.0(100)   |
| <b>Amount(US\$ M)</b> | 183.9              | 410.5 | 223.8 | 569.6 | 959.3 | 1125.4 | 645.1(476)                 | 3372.9(1673) |

Note: \* Pakistan, India, Sri Lanka, Bangladesh.

Numbers in parentheses denote shares in the total number of cases of investment.

Sources: Same as Table 1.

incentives behind investment decisions, i.e. the use of low-wage labor in the case of Asia and circumvention of trade barriers in the case of North America. This problem will be examined in the next section.

<Table 5>

Korea's Outward FDI by Region & Industry

(unit: US\$ million, case)

| Industry                      | ASEAN    | Asia      | North America | E C      | World      |
|-------------------------------|----------|-----------|---------------|----------|------------|
| <b>Mining</b>                 | 254( 3)  | 255( 6)   | 111( 8)       | 0( 0)    | 508( 26)   |
| <b>Forestry &amp; Fishery</b> | 36( 12)  | 40( 18)   | 29( 13)       | 0( 0)    | 176( 80)   |
| <b>Manufacturing</b>          | 552(325) | 699(498)  | 715(110)      | 89(279)  | 1648( 767) |
| Foods                         | 64( 9)   | 75( 21)   | 14( 10)       | 0( 0)    | 92( 39)    |
| Textile & Apparel             | 73( 76)  | 119(113)  | 25( 18)       | 0( 0)    | 215( 212)  |
| Footwear & Leather            | 38( 27)  | 51( 42)   | 9( 6)         | 0( 0)    | 65( 53)    |
| Wood & Furniture              | 21( 19)  | 21( 23)   | 27( 5)        | 0( 0)    | 65( 31)    |
| Paper & Printing              | 6( 3)    | 6( 3)     | 27( 8)        | 0.3( 1)  | 33( 12)    |
| Chemicals                     | 93( 43)  | 119( 53)  | 32( 10)       | 27( 3)   | 191( 73)   |
| Non-Metallic Minerals         | 46( 13)  | 54( 23)   | 41( 1)        | 0( 0)    | 100( 28)   |
| Basic Metals                  | 3( 3)    | 3( 6)     | 254( 5)       | 5( 1)    | 265( 14)   |
| Fabricated Metals             | 154( 64) | 179( 92)  | 272( 24)      | 40( 13)  | 501( 141)  |
| Machine & Equipments          | 11( 8)   | 14( 13)   | 11( 13)       | 10( 3)   | 35( 29)    |
| Others                        | 43( 60)  | 6(109)    | 6( 10)        | 7( 5)    | 86( 135)   |
| <b>Construction</b>           | 1( 13)   | 11( 23)   | 33( 18)       | 0( 1)    | 63( 64)    |
| <b>Transportation</b>         | 0( 1)    | 7( 19)    | 1( 12)        | 1( 4)    | 15( 40)    |
| <b>Trading Companies</b>      | 7( 29)   | 67(187)   | 493(242)      | 70( 76)  | 640( 537)  |
| <b>Others</b>                 | 23( 11)  | 35( 29)   | 167( 55)      | 2( 5)    | 272( 132)  |
| <b>Real Estate</b>            | 1( 2)    | 28( 9)    | 13( 11)       | 7( 5)    | 48( 27)    |
| <b>Total</b>                  | 875(396) | 1141(789) | 1553(469)     | 169(118) | 3373(1673) |

Note: Above numbers denote the total existing investments as of 1991. The numbers of investments made are in parentheses.

Sources: Same as Table 1.

### 3. PRESENT STATUS OF KOREA'S FDI IN SOUTHEAST ASIA

#### A. Major Characteristics

Asia, particularly Southeast Asia is now as aforementioned one of the most notable recipients of Korea's overseas investments. The

ASEAN region accounts for 77% of Korea's existing investments in Asia made by 1991. As for the average size of investments, Asia recorded US\$ 1.5 million in 1991, much less than that of either North America (US\$ 3.3 million), or the world as a whole (US\$ 2.0 million). This fact implies that investment by small and medium-sized firms is active in this region.

The increase in FDI in Southeast Asia is not unique to Korea. For example, FDI in this region by Japan as well as Taiwan showed a spectacular growth since the mid-1980s. In the case of Japan, the ASEAN region replaced the ANIEs as the major recipient of its investment in Asia (see Table A.2). In the case of Taiwan, the ASEAN region had received 80% of its total investment in Asia (except for mainland China) made by 1991 (see Table A.4). Moreover, despite the downward shift in world FDI flow since 1990, investment in Southeast Asia has shown continuous growth.

Korea's investment in Southeast Asia experienced a substantial change in terms of its industrial distribution. Until the early 1980s, Korea's FDI in Southeast Asia was concentrated in mining and forestry. Now, the manufacturing sector's share dominates. In the case of the ASEAN Big Four (Indonesia, Malaysia, Philippines and Thailand), investment in the manufacturing sector accounts for 82% of the total number of cases and 63% of the total value of Korea's FDI made by 1991.

Industrial distribution of FDI in the manufacturing sector in the ASEAN countries appears to vary according to the level of economic

development of these countries. In order to examine this problem, we classify the manufacturing sector into the following four groups according to level of technology and labor-capital intensity. These include labor-intensive and low technology (LL), labor-intensive and high technology (LH), capital-intensive and low technology (KL), and capital-intensive and high technology groups (KH).<sup>1)</sup>

Investment in the manufacturing sectors of the ASEAN Big Four is mostly concentrated in the labor-intensive sector (LL and LH), accounting for 74.3% of the total value of existing investments made by 1991 (see Table 6). However, it is only in Indonesia that LL investment assumes majority. Investment in Indonesia, in this aspect, is similar to that in China or South Asia.

Meanwhile, in the cases of Malaysia, the Philippines and Thailand, investment in the LH sector such as in electric and electronic appliances, dominates. In Malaysia, which no longer has an abundant source of labor, the share of KL and KH sectors is also significant.

Industrial distribution of Korea's FDI in Southeast Asia is similar to the cases of Taiwan and Japan in that the majority of FDI in the manufacturing sector is labor-intensive. Meanwhile, Japan's FDI in Southeast Asia is more concentrated in the LH sector such as in electric and electronic appliances and machinery (see Table A.3). In the case of Taiwan, investment in the KL sectors such as basic metals and non-metallic minerals is also active (see Table A.5).

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1) For a detailed explanation of this classification system, please refer to Lee and Lee (1991).

〈Table 6〉 Korea's FDI in Southeast Asia by Factor Intensity and Technology  
(unit: %)

| Classification              | Indonesia | Malaysia | Philippines | Thailand | China | S.Asia |
|-----------------------------|-----------|----------|-------------|----------|-------|--------|
| <b>Labor-intensive,</b>     |           |          |             |          |       |        |
| <b>Low-technology (LL)</b>  | 63.3      | 12.0     | 23.9        | 37.6     | 61.8  | 78.9   |
| Foods                       | 21.3      | 0        | 0.1         | 4.5      | 10.2  | 7.1    |
| Textile & Apparel           | 19.4      | 0.8      | 16.1        | 4.7      | 10.8  | 56.3   |
| Footwear & Leather          | 10.2      | 0        | 4.7         | 8.2      | 18.0  | 2.5    |
| Wood & Furniture            | 2.8       | 10.9     | 0.4         | 0        | 0.3   | 0      |
| Other Manufactured Goods    | 9.6       | 0.3      | 2.6         | 20.2     | 22.5  | 13.0   |
| <b>Labor-intensive,</b>     |           |          |             |          |       |        |
| <b>High-technology (LH)</b> | 16.3      | 50.1     | 46.0        | 46.3     | 23.3  | 3.1    |
| Paper & Printing            | 0.6       | 1.7      | 0           | 4.3      | 0     | 0      |
| Fabricated Metals           | 12.6      | 48.4     | 46.0        | 38.4     | 19.7  | 3.1    |
| Machine & Equipment         | 3.1       | 0        | 0           | 3.6      | 3.6   | 0      |
| <b>Capital-intensive,</b>   |           |          |             |          |       |        |
| <b>Low-technology (KL)</b>  | 3.7       | 23.3     | 1.3         | 10.7     | 3.5   | 11.5   |
| Nonmetallic minerals        | 2.8       | 23.3     | 1.3         | 10.7     | 3.5   | 10.3   |
| Basic metals                | 0.9       | 0        | 0           | 0        | 0     | 1.2    |
| <b>Capital-intensive,</b>   |           |          |             |          |       |        |
| <b>High technology (KH)</b> | 16.7      | 14.7     | 28.8        | 5.4      | 11.4  | 6.5    |
| Chemicals & Petroleum       | 16.7      | 14.7     | 28.8        | 5.4      | 11.4  | 6.5    |

Note: The above numbers are based on the total existing investment in 1991.

Sources: Same as Table 1.

## B. Motivation and Performance

A recent survey by KIEP,<sup>2)</sup> as shown in Table 7, indicates that the major motivation behind Korean firms' decision to invest in developing countries is mainly the abundance of low-wage workers in the host country.

2) In May 1992, the Korea Institute for International Economic Policy (KIEP) surveyed 212 manufacturing FDI firms to evaluate the performance of Korea's outward FDI. About 70% of the total number of cases were concentrated in Asia: 92 in the ASEAN countries, 44 in China and 11 in South Asia, respectively.



The advantage in exporting to the third country market is also an important factor. Korea's investment in developed countries, however, has different purposes: information gathering, penetration into the host country market, and gaining access to advanced technologies.

According to the survey, Korean firms investing in Southeast Asia identified the abundant and relatively cheap source of labor as being the most important factor in decision for FDI. The average wage level of unskilled labor in these countries was about 75% lower than that of Korea, while the labor productivity amounted to 30% below that of Korea. The selection of a particular country seems to be greatly affected by its labor condition.

Related to the role of government policy towards FDI, it is interesting to see whether or not the improvement of the incentive system as well as liberalization of foreign investment regulations in major ASEAN

〈Table 7〉 Motivation for Korea's FDI by Region

| Motivation \ Region (cases) | ASEAN (93) | China (44) | S.Asia (11) | U.S. (12) | Mexico (3) | C.America (27) | EC (8) | Oceania (7) |
|-----------------------------|------------|------------|-------------|-----------|------------|----------------|--------|-------------|
| Cheap labor                 | 4.8        | 4.7        | 4.9         | 0.6       | 4.7        | 4.7            | 1.6    | 2.1         |
| Trade barriers              | 1.0        | 0.4        | 1.7         | 1.3       | 1.7        | 0.9            | 4.5    | 1.6         |
| Raw materials               | 1.1        | 1.7        | 0.6         | 2.8       | 0.7        | 0.3            | 1.9    | 0.6         |
| Natural resources           | 0.5        | 0.6        | 0.5         | 1.8       | 0.3        | 0.1            | 0.9    | 0.7         |
| Market access               | 1.5        | 2.0        | 0.9         | 3.5       | 0.3        | 1.1            | 4.5    | 2.1         |
| High technology             | 0.2        | 0.3        | 0.2         | 3.3       | 0.0        | 0.1            | 2.5    | 0.6         |
| Information gathering       | 2.0        | 2.5        | 1.3         | 3.7       | 1.3        | 1.4            | 4.0    | 2.0         |
| Third country market        | 2.6        | 2.5        | 2.7         | 2.1       | 3.3        | 2.7            | 4.1    | 2.1         |

Note: Number five and zero represent maximum and minimum degree of importance, respectively.

Source: KIEP, 1992 (footnote 2).

countries in the mid-1980s actually contributed to the inducement of FDI. According to the survey, the effect of the investment incentives provided by the host country appears to be considerable in the EC and South Asia, but relatively insignificant in the ASEAN countries.

Like Korea in the 1980s, the ASEAN countries are now taking measures to reduce incentives for FDI, in particular, in the case of low-technology sectors. This reversal of the incentive policy seems to reflect the labor market conditions for unskilled labor. As the merit of low-wage workers in these countries steadily declines, Korea's investment in the labor-intensive and low-technology sectors is expected to gradually decline in the near future.

At present, most Korean firms investing in Southeast Asia appear to be optimistic about their investment decisions and future prospects for business. In terms of overall satisfaction with their performance, Southeast Asia was reported to rate the highest, along with China and South Asia, far ahead of developed countries. At the same time, 68% of the firms investing in the ASEAN region replied that they had plans to expand the existing projects or begin new projects.

As for the business environment of ASEAN, the lack of infrastructure, such as electricity, water, transportation and telecommunications, appears to be most problematic for Korean firms, as is the case in most developing countries. Difficulty with the timely provision of raw and intermediate materials, which is pointed out as another important factor, is closely related to the bottlenecks caused by a lack of infrastructure

〈Table 8〉 Types of Difficulties Facing Overseas Korean Firms

| Difficulties \ Region (cases) | ASEAN (93) | China (44) | S.Asia (11) | U.S. (12) | Mexico (3) | C.America (21) | EC (8) | Oceania (7) |
|-------------------------------|------------|------------|-------------|-----------|------------|----------------|--------|-------------|
| Raw Materials                 | 3.0        | 3.3        | 2.0         | 1.5       | 2.7        | 2.4            | 2.6    | 2.6         |
| Labor Productivity            | 2.7        | 3.0        | 2.2         | 1.3       | 2.0        | 2.6            | 2.1    | 3.6         |
| Infrastructures               | 3.1        | 3.5        | 3.0         | 0.3       | 2.3        | 2.6            | 1.5    | 2.6         |
| Local financing               | 2.8        | 2.3        | 1.9         | 3.3       | 2.7        | 2.4            | 2.6    | 2.0         |
| Foreign exchanges             | 2.2        | 2.3        | 2.2         | 1.8       | 1.3        | 1.6            | 2.6    | 1.4         |
| Friction with partners        | 1.0        | 0.8        | 0.6         | 1.1       | 0.7        | 0.4            | 2.0    | 0.3         |
| Local contents                | 0.7        | 0.9        | 0.4         | 0.1       | 0.0        | 0.5            | 3.0    | 0.1         |
| Market Access                 | 0.8        | 1.3        | 0.6         | 0.4       | 0.0        | 0.5            | 2.4    | 0.6         |
| Government intervention       | 0.7        | 1.3        | 0.4         | 0.4       | 0.0        | 0.7            | 1.6    | 1.7         |
| Competition                   | 1.5        | 1.0        | 0.5         | 1.4       | 2.0        | 1.2            | 3.3    | 1.3         |
| Remittance of profits         | 0.7        | 1.1        | 0.8         | 1.6       | 1.3        | 1.4            | 1.6    | 1.0         |

Source: KIEP, 1992.

facilities.

A few minor points are worth noting. In spite of low wages, low labor productivity and labor-management disputes in host countries often become troublesome for Korean firms. As mutual understanding of cultural differences between Korea and ASEAN countries deepens, these problems will be resolved without causing serious difficulties. Some companies have complained about difficulties in gaining access to local financing, but financial market conditions actually appear to be much better than in Korea. Competition with local firms, however, is less serious than was initially expected. This may be due partly to the lack of Korean firms' efforts to penetrate into the local market. As for government regulations or intervention, no serious bottlenecks seem to exist. In some cases, however, difficulty still exists in gaining

operation permits, which actually works against foreign investors as an entry barrier.

### **C. Economic Effects**

FDI has both positive and negative economic effects. Its overall effects depend on the investment environment as well as stages of economic development. In the case of Korea's FDI in Southeast Asia, it is expected to contribute to the promotion of Korea's industrial restructuring and export to Southeast Asia through trade between parent firms and their affiliates. On the other hand, it has the negative effect of replacing domestic investment and export, and accelerating de-industrialization.

With a very short history of FDI, the Korean firms operating in Southeast Asia maintain strong ties to their parent firms. Most firms import new or second-hand production facilities from Korea. Also, they procure a large proportion of raw and intermediate materials from their parent firms. The proportion of raw materials purchased in the local market is continuously increasing, but still constitutes only a small portion. Finally, Korean firms export more than 80% of their final products. The amount of exports to Korea totals less than 20%, with the remainder going to third country markets, mostly to the U.S. and the EC.

In this regard, Korea's FDI in Southeast Asia may have a positive effect on Korea's balance of payments. Moreover, Korea's FDI in this

region appears to be helpful to parent firms' adjustment to the rapidly changing world trading environment by allowing efficient use of sector-specific capital. Naturally, the bilateral balance of payments surplus will decrease with progress in localization and the horizontal division of labor.

In general, potential benefits of FDI for host countries can be summarized as employment creation, technology transfer, technical and managerial skills, and access to world markets (see Gillis, et al, 1992). In the case of Korea's FDI in Southeast Asia which is mostly concentrated in labor-intensive export industries, it is needless to mention positive economic effects for the host country, particularly employment creation and access to world markets. Furthermore, technologies embedded in Korea's FDI would be more appropriate for developing countries than those from capital-abundant developed countries. Even the lack of penetration of Korean firms into the domestic market may be interpreted positively from the host country's point of view.

Judging from the experience of Japan in the 1960s and 1970s, Korea's investment in this region is expected to contribute to the overall industrial adjustment of the region, and thus, intra-regional trade (see Kojima, 1978). The recent trend in Korea's trade with Southeast Asia is quite promising in this sense. As shown in Table 9, ASEAN's share in Korea's exports increased from 2.2% to 6.4% between 1986 and 1991. This may have been affected by a stagnation of Korea's exports to developed countries, especially the U.S. Nevertheless, exports to

Southeast Asia are most notable in the area of manufactured capital goods and seem to be closely related to the recent increase in Korea's FDI in the region.

Meanwhile, imports from the ASEAN countries are steadily growing, especially concentrated in the manufacturing sector. The strengthening of intra-industry trade between Korea and the ASEAN countries may be interpreted as the formation of a complementary relationship between the two economies and shows a potential for expansion of bilateral trade. Of course, there is concern over competition between Korean and the ASEAN countries exemplified by the shrinking shares of Korean exports in the U.S. and Japanese

<Table 9> Korea's Trade by Region

| Region                | Korea's Export to (%) |        | Korea's Import from (%) |        | Trade Balance (US\$ M) |         |
|-----------------------|-----------------------|--------|-------------------------|--------|------------------------|---------|
|                       | 1986                  | 1991   | 1986                    | 1991   | 1986                   | 1991    |
| <b>East Asia</b>      | 22.9                  | 30.4   | 37.6                    | 31.7   | -3,935                 | -4,543  |
| Japan                 | 15.6                  | 17.5   | 34.3                    | 26.3   | -5,443                 | -9,139  |
| ANIEs                 | 7.3                   | 12.5   | 3.3                     | 4.7    | 1,508                  | 4,887   |
| China                 | 0.0                   | 0.4    | 0.0                     | 0.7    | 0                      | -291    |
| <b>ASEAN</b>          | 2.2                   | 6.4    | 5.5                     | 6.2    | -953                   | -534    |
| <b>North America</b>  | 43.7                  | 29.9   | 23.4                    | 25.8   | 7,787                  | -127    |
| U.S.                  | 40.0                  | 26.4   | 20.7                    | 23.6   | 7,372                  | -872    |
| <b>E C</b>            | 12.4                  | 14.2   | 10.5                    | 15.2   | 993                    | -2,439  |
| <b>Others</b>         | 18.8                  | 19.1   | 23.0                    | 21.1   | -10,610                | -13,845 |
| <b>Total(%)</b>       | 100.0                 | 100.0  | 100.0                   | 100.0  | ..                     | ..      |
| <b>Amount(US\$ M)</b> | 34,792                | 69,489 | 31,374                  | 81,114 | 3,418                  | -11,625 |

Note: ANIEs - Taiwan, Hong Kong, Singapore.

ASEAN - Indonesia, Malaysia, Philippines, Thailand.

Source: IMF, *Direction of Trade Yearbook*, 1992.

markets in contrast to increasing shares of the ASEAN countries. However, this phenomenon seems inevitable at least until Korea gains international competitiveness in the capital-intensive and high-technology sectors.

As for technology trade, Korea is still a net importer of advanced technologies and is far from becoming an active exporter in the global market. Still, Southeast Asia is emerging as an important importer of Korea's technology. The amount of royalty receipts from the ASEAN countries increased from US \$ 1.0 million to US \$ 16.8 million between 1986 and 1991.

What is interesting is the fact that technology exported to Southeast Asia is mainly concentrated in Indonesia. This fact may reflect that the

〈Table 10〉 Korea's Technology Exports (unit: US\$ million)

| Region             | 1986     | 1987    | 1988    | 1989     | 1990     | 1991     |
|--------------------|----------|---------|---------|----------|----------|----------|
| <b>U.S.</b>        | 0( 0)    | 0( 0)   | 3.0( 1) | 0.9( 1)  | 3.5( 1)  | 3.9( 0)  |
| <b>Japan</b>       | 0( 0)    | 0( 0)   | 0( 0)   | 0.5( 3)  | 1.9( 4)  | 1.5( 3)  |
| <b>ASEAN</b>       | 1.0( 3)  | 1.6( 2) | 1.5( 8) | 2.6(10)  | 6.4(24)  | 16.8(13) |
| Indonesia          | 0( 0)    | 0( 1)   | 0.1( 4) | 1.1( 5)  | 4.2(15)  | 14.4( 6) |
| Malaysia           | 0.9( 2)  | 1.2( 0) | 0.9( 1) | 0.5( 1)  | 1.3( 4)  | 1.5( 5)  |
| Philippines        | 0( 0)    | 0( 0)   | 0( 0)   | 0( 2)    | 0( 0)    | 0( 0)    |
| Thailand           | 0( 1)    | 0( 1)   | 0( 2)   | 0.9( 2)  | 0.8( 5)  | 0.8( 2)  |
| <b>South Asia</b>  | 0.1( 3)  | 0.5( 7) | 0.5( 2) | 0.3( 4)  | 0.7( 3)  | 0.5( 3)  |
| <b>Middle East</b> | 9.9( 4)  | 1.9( 3) | 1.3( 0) | 0.6( 0)  | 1.3( 1)  | 0.2( 0)  |
| <b>Others</b>      | 0.7( 6)  | 5.1( 2) | 2.6( 4) | 5.6( 2)  | 8.0(17)  | 12.3(20) |
| <b>Total</b>       | 11.7(16) | 9.1(14) | 8.9(15) | 10.5(29) | 21.8(50) | 35.2(39) |

Note: Numbers in the parentheses denote the number of cases of technology exports. Technology exports include royalty receipts.

Source: Korea Industrial Technology Association, *Major Indicators of Industrial Technology*, 1992.

technology gap between Korea and other ASEAN countries is relatively small, a noticeable difference from that between Japan and ASEAN. In this sense, the technology transfer from Korea to ASEAN will be affected by the progress of technology development in Korea.

## **4. ISSUES AND PROSPECTS FOR KOREA'S FDI IN SOUTHEAST ASIA**

### **A. Capital Flows and the Balance of Payments**

Korea's outward FDI is still in its early stages compared with other countries. For example, Korea's outward investment in 1991 amounted to only half of all Taiwanese investment and 2% of all Japanese investment. If the ratios of annual outward investment to gross national product are compared, Korea's current status is similar to Japan's in the mid-1970s, and to Taiwan's in the mid-1980s. From a long-term perspective, the progress of globalization and industrial restructuring of the Korean economy will result in the continuous growth of FDI.

In the short run, however, the uncertainty of Korea's balance of payments will be a stumbling block for the continuous growth of outward FDI. In the cases of Japan and Taiwan, active outward FDI followed the realization of stable current account surpluses. Even if demand for outward FDI has increased due to the recent changes in the global investment environment, there will be a clear limit to outward FDI as one of the major forms of capital exports in light of the shortage



in the supply of capital.

The slowing of FDI in Korea and the reversal of the FDI account from surplus to deficit is another factor exacerbating the problem (see Tables A.6 - A.8 for recent trends in FDI in Korea). According to an hypothesis proposed by Dunning (1981), the FDI balance for a national economy goes through changes from surplus to deficit as the level of per capita income increases. If the experience of advanced industrial countries, e.g. Japan, Germany and U.K., can be applied to Korea, a net outflow of FDI from Korea is expected to continue.

It is questionable, however, to accept the idea that the current FDI flow of Korea is a natural phenomenon. It should be noted that Dunning's hypothesis, as aforementioned, supposes a gain in firm-specific advantages with progress in economic development. In this sense, the prospects for the growth of Korea's outward FDI presuppose the recovery of Korea's international competitiveness and an improvement of its current account balance, accordingly.

## **B. Outward FDI and De-industrialization**

There is concern that the recent increase in outward FDI will result in de-industrialization of the Korean economy. Those who prefer a tighter regulation of outward FDI insist that outward FDI will not only replace domestic investment, but also will result in damages to the domestic economy through manufactured imports from overseas affiliates. In order to assess this argument, the reasons behind outward FDI need

careful examination.

As shown in Table 11, the relative importance of outward FDI compared with domestic investment is gradually increasing. The ratio of outward FDI to gross domestic capital formation surpassed 1% in 1987. The same ratio in the manufacturing sector reached 2.01% in 1991. However, it seems to be difficult to conclude that such a value indicates de-industrialization.

Of course, it should be noted that the share of inward FDI in Korea's domestic gross capital formation dropped to 1.06% in 1991 from 1.58% in 1986. The stagnation of inward FDI in the manufacturing sector is evident. What seems to be more worrisome

〈Table 11〉 FDI Flows and Domestic Capital Formation (unit: US\$ million)

| FDI & Investment                  | 1986    | 1987    | 1988    | 1989    | 1990    | 1991     |
|-----------------------------------|---------|---------|---------|---------|---------|----------|
| Inward FDI (A)                    | 476.9   | 625.5   | 894.1   | 812.3   | 895.4   | 1175.0   |
| Manufacturing (B)                 | 242.4   | 374.9   | 558.7   | 504.4   | 595.6   | 941.4    |
| Outward FDI (C)                   | 183.9   | 410.5   | 223.8   | 569.6   | 959.3   | 1125.4   |
| Manufacturing (D)                 | 73.5    | 155.4   | 81.9    | 280.2   | 488.9   | 598.8    |
| Gross Capital Formation (E)       | 30048.0 | 38834.7 | 53606.0 | 71029.1 | 90167.1 | 110569.0 |
| Gross Fixed Capital Formation (F) | 29489.4 | 37846.4 | 51067.7 | 67404.5 | 89002.3 | 107404.3 |
| Manufacturing(G)                  | 8564.6  | 12844.9 | 16857.2 | 21104.6 | 24758.1 | 29859.4  |
| A/E (%)                           | 1.58    | 1.61    | 1.67    | 1.14    | 0.99    | 1.06     |
| A/F (%)                           | 1.62    | 1.65    | 1.75    | 1.21    | 1.01    | 1.09     |
| B/G (%)                           | 2.83    | 2.92    | 3.31    | 2.39    | 2.41    | 3.15     |
| C/E (%)                           | 0.61    | 1.06    | 0.42    | 0.80    | 1.06    | 1.02     |
| C/F (%)                           | 0.62    | 1.08    | 0.44    | 0.85    | 1.08    | 1.05     |
| D/G (%)                           | 0.86    | 1.21    | 0.49    | 1.33    | 1.97    | 2.01     |

Sources: Bank of Korea, *Outward Foreign Investment Statistics Yearbook*, 1992.

Ministry of Finance, *The Current Status of Inward FDI*, 1992.9.

National Statistical Office, *Korean Economic Indicators*, 1992.9.

than the overall sluggishness is the decrease in FDI in the technology-intensive industries, such as metals and machinery. In addition, the share of high technology-related inward FDI, which is eligible for government tax incentives, is falling, too. In this situation, the negative impacts of outward FDI on the domestic economy may be felt more strongly.

At present, it remains to be seen whether outward FDI leads to de-industrialization or promotion of industrial restructuring. As long as FDI can be seen as a sensitive barometer reflecting the vitality of a national economy, it is appropriate to consider the current increase in outward FDI as a result, rather than a cause of the deterioration of the domestic economy. The Japanese economy, since the mid-1980s, provides a good example. In spite of a rapid rise in outward FDI after the Plaza Meeting, the Japanese economy after 1987 realized high economic growth and faced a serious labor shortage. Japan's heavy investment in Southeast Asia, in fact, contributed to its structural adjustment, and thus, to the maintenance of Japan's international competitiveness (see Sakurai (1991)).

### **C. Globalization and Business Networking**

Korea's FDI in Southeast Asia appears to have positive effects on both host and investor countries by promoting industrial adjustment and international division of labor based on comparative advantage. However, the Korean firms investing in this region recognize that the

merits of cheap and abundant labor will disappear in the near future. Thus, the shift of production sites, particularly in the labor-intensive sectors, has clear limitations. For the labor-intensive industries, China, South Asia and Vietnam, Mexico, and other developing countries in Central America, may provide a more favorable environment. Southeast Asia, with a well-developed market system, has a definite advantage over other untested alternative areas. This advantage, however, may disappear soon.

In order to cope with this problem, Korea's investment strategy should be re-examined and devised to create business networks which enable cost optimal integration of final producers with input suppliers. According to a recent survey by MITI, Japanese firms in Asia procured about 47% of the intermediate goods in the local market and 41.3% from Japan in 1988. In the case of capital equipment, the share of local procurement was slightly smaller than the ratio of imports from Japan (see Urata (1992)). As for electric machinery and transport equipment industries for which intra-firm and intra-process division of labor is easy to promote, the ratio of procurement from other Asian affiliates is also significant.

Development of the aforementioned business networks for Korea's FDI in Southeast Asia will take time, because it presupposes the upgrade of Korea's industrial structure as well as substantial changes in the FDI pattern. For example, investment by components' suppliers needs to be promoted along with investment in manufacturing of the

final products. At the same time, globalization of firm activities should be promoted with more attention directed to regional business networks based on intra-firm and intra-process division of labor.

## **5. SUMMARY AND CONCLUSIONS**

Some of the major findings of this paper may be summarized as follows. First, Korea's outward FDI has rapidly increased since the mid-1980s. The amount of total outward investment increased from US\$ 365 million in 1986 to US\$ 1.2 billion in 1992, and the value of total existing investments amounted to US\$ 4.3 billion by 1992. In terms of Korea's share of FDI by industry, the manufacturing sector dominated with its portion increasing from 25.5% to 48.9% of its total FDI between 1986 and 1991. Investment in the manufacturing sector is mostly concentrated in labor-intensive industries such as textiles, garments, footwear, electric and electronic appliances. Resource-related investment has been rather stagnant, but investment in the service sector shows a steady growth. In terms of the share of FDI by recipient countries, North America and Asia shared 46.1% and 33.8% of the total existing investments, respectively, by 1991.

Second, major causes for the recent trend in Korea's outward FDI can be related to changes in the domestic, as well as global investment environment. The Korean economy has experienced macroeconomic instability domestically and growing protectionism internationally

since the mid-1980s. Major incentives for Korean firms to invest in developing countries are the lower wages and the advantages of exporting to the developing countries' markets. In contrast, Korea's investment strategy in developed countries appears to be related to their growing tendency towards protectionism; thus, it shows a need to penetrate into the host country market and obtain access to advanced technologies.

Third, Southeast Asian countries recently emerged as the most notable recipients of Korea's outward FDI, with its share of investment in ASEAN countries almost doubling to 26.0% during the period between 1986 and 1991. In terms of industrial distribution of FDI, the manufacturing sector comprises about 63% of total investments up to 1991. Within the manufacturing sector, investment is concentrated in the labor-intensive sector. Of further importance, unskilled labor-intensive investment assumes the majority of Korea's FDI in Indonesia where it is the most active. In contrast, investment in the labor-intensive and high-technology sectors such as electric and electronic appliances dominates in Malaysia, the Philippines, and Thailand.

Fourth, a recent survey by KIEP indicates that most Korean firms investing in Southeast Asia appear to be optimistic about their investment decisions and future prospects for business. In terms of overall satisfaction, the ASEAN countries rank among the highest. Meanwhile, the lack of infrastructure has proven to be the most significant obstacle for Korean firms operating in Southeast Asia, followed by the timely

provision of raw and intermediate materials.

Fifth, Korea's FDI in Southeast Asian countries affects the economic development of both Korea and the host countries. Korea's outward FDI in Southeast Asia and mostly in the labor-intensive sectors contributes to the labor shortage in the domestic economy. Furthermore, the recent increase in Korea's trade with Southeast Asia, particularly in the export of capital and intermediate goods, is closely related to FDI in the region. For the host country, Korea's FDI may be useful to some extent in promoting employment, export and transfer of technologies. Korean firms in this region export more than 80% of their final products. The proportion of local procurement is still very low, but steadily increasing.

Sixth, in spite of mutual benefits from FDI flows, the prospects for Korea's FDI in Southeast Asia are not necessarily bright. First of all, the uncertainty in Korea's balance of payments may repress the growth of Korea's outward FDI. In addition, it becomes increasingly difficult for those investing in Southeast Asia to find a continuously cheap and abundant source of labor. Also, competition with local firms or multinationals is intensifying. In this respect, the recent increase in Korea's investment in China and South Asian countries is worth noting.

Seventh, in order for Korea's investment in Southeast Asia to continue growing and contributing to an international division of labor, industrial restructuring of the Korean economy will have to be promoted vigorously, and firm-specific advantages should be created. Related to this point, the recent experience of Japan provides some lessons.

The Japanese firms operating in Southeast Asia have pursued the establishment of a production network based on intra-firm and intra-process division of labor, aiming at cost optimization and improvement of production efficiency. From a long-term perspective, Korea's FDI in this region must likewise pay attention to business networking which will secure the efficiency of FDI. For that purpose, investment by the components' suppliers needs to be promoted along with investment in the manufacturing of the final products. In addition, joint ventures with local partners should be more actively promoted.

Finally, while the ultimate decision of investment is up to the firms' responsibility, government support can facilitate FDI flows in many ways. In this respect, the provision of information about investment environments and the continuous liberalization of government regulations on FDI seem to be the two most urgent issues necessary for cooperation. Taking into account the domination of Korea's FDI in the Southeast by small and medium-sized firms, the lack of information on host countries' investment environments is of genuine concern. The formation of a multi-dimensional information network linking related government branches, business circles and research institutions, as well as the creation of a regional investment information bank, may be effective in resolving the problem.

In spite of recent measures to liberalize government regulations on FDI in this region, more systematic efforts are imperative to guarantee the harmonized liberalization of government regulations on



FDI. Even if the Uruguay Round TRIMs (Trade Related Investment Measures) negotiation succeeds, its contribution to liberalization is expected to be quite limited. Under these circumstances, Korea and Southeast Asian countries should take the initiative to promote a regional investment agreement similar to the OECD capital liberalization code, incorporating the right of establishment and national treatment. Particularly when more and more countries are vying for the inducement of FDI, such an investment agreement will substantially help enhance the role of FDI in regional integration.

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## Appendices



<Table A.1>

Major Macroeconomic Indicators of Korea

(unit: US\$ billion, %)

| Indicators                | 1981-5 | 1986  | 1987  | 1988  | 1989  | 1990  | 1991  |
|---------------------------|--------|-------|-------|-------|-------|-------|-------|
| GNP Growth Rate           | 8.4    | 12.9  | 13.0  | 12.4  | 6.8   | 9.3   | 8.4   |
| Manufacturing Growth Rate | 11.2   | 18.3  | 18.8  | 13.4  | 3.7   | 9.1   | 8.5   |
| Export Growth Rate        | 10.2   | 26.1  | 21.6  | 12.5  | -3.8  | 4.2   | 9.8   |
| Inflation Rates           |        |       |       |       |       |       |       |
| Wholesale Prices          | 5.4    | -1.5  | 0.5   | 2.7   | 1.5   | 4.2   | 5.4   |
| Consumer Prices           | 7.4    | 2.3   | 3.0   | 7.1   | 5.7   | 8.6   | 9.7   |
| Unemployment Rate         | 4.2    | 3.8   | 3.1   | 2.5   | 2.6   | 2.4   | 2.3   |
| Nominal Exchange Rate     | 91.1   | 101.3 | 94.5  | 84.1  | 77.2  | 80.3  | 85.5  |
| Real Effective Exc. Rate  | 91.4   | 114.9 | 115.7 | 108.2 | 97.2  | 101.1 | 106.7 |
| Nominal Wages*            | 83.1   | 109.2 | 121.9 | 145.8 | 182.3 | 219.1 | 256.0 |
| Labor Productivity*       | 86.6   | 111.8 | 116.3 | 124.8 | 124.0 | 134.9 | 143.8 |
| Unit Labor Cost (won)*    | 95.8   | 97.7  | 104.8 | 116.8 | 147.0 | 162.4 | 178.0 |
| Unit Labor Cost (\$)*     | 99.6   | 96.4  | 110.9 | 138.9 | 190.4 | 195.7 | 208.2 |
| Current Account Balance   | -2.23  | 4.62  | 9.85  | 14.16 | 5.05  | -2.18 | -8.83 |
| Trade Account Balance     | -1.81  | 4.21  | 7.66  | 11.45 | 4.60  | -2.00 | -7.07 |

Notes: \* Pertains to the manufacturing sector.

For real values and indices, the base year is 1985. Real effective exchange rates denote the trade weighted real exchange rates using relative whole sale price indices. Labor productivity denotes production per person.

Sources: National Statistical Office, *Major Statistics of Korea Economy*, various issues,

Korea Labor Institute, *Major Labor Statistics*, 1992,

IMF, *International Statistical Yearbook*, various issues.



<Table A.2>

Japan's Outward FDI by Region

(unit:US\$ million)

| Region               | 1986   | 1987   | 1988   | 1989   | 1990   | 1991   | 1951-91         |
|----------------------|--------|--------|--------|--------|--------|--------|-----------------|
| <b>Asia</b>          | 2,327  | 4,868  | 5,569  | 8,238  | 7,054  | 5,936  | 53,455(19,911)  |
| ANIEs                | 1,531  | 2,580  | 3,264  | 4,900  | 3,355  | 2,203  | 25,476(10,965)  |
| Korea                | 436    | 647    | 483    | 606    | 284    | 260    | 4,398( 1,895)   |
| Taiwan               | 291    | 367    | 372    | 494    | 446    | 405    | 3,135( 2,487)   |
| Hong Kong            | 502    | 1,072  | 1,662  | 1,898  | 1,785  | 925    | 10,775( 3,921)  |
| Singapore            | 302    | 494    | 747    | 1,902  | 840    | 613    | 7,168( 2,662)   |
| ASEAN                | 553    | 1,030  | 1,966  | 782    | 3,242  | 3,083  | 23,856( 7,281)  |
| Indonesia            | 250    | 545    | 586    | 631    | 1,105  | 1,193  | 12,733( 2,021)  |
| Malaysia             | 158    | 163    | 387    | 673    | 725    | 880    | 4,112( 1,645)   |
| Philippine           | 21     | 72     | 134    | 202    | 258    | 203    | 1,783( 892)     |
| Thailand             | 124    | 250    | 859    | 1,276  | 1,154  | 807    | 5,229( 2,723)   |
| China                | 226    | 1,226  | 296    | 438    | 349    | 579    | 3,402( 1,105)   |
| <b>North America</b> | 10,441 | 15,357 | 22,328 | 33,902 | 27,192 | 18,823 | 155,008(25,939) |
| U.S.                 | 10,165 | 14,704 | 21,701 | 32,540 | 26,128 | 18,026 | 148,554(24,551) |
| <b>Europe</b>        | 3,469  | 6,576  | 9,116  | 14,808 | 14,294 | 9,371  | 68,638( 8,228)  |
| <b>Total</b>         | 22,320 | 33,364 | 47,022 | 67,540 | 56,911 | 41,584 | 352,392(67,800) |

Note: Above numbers denote the amount of notified investments, and the numbers of cases of investment are in parentheses.

Source: Ministry of Finance, Japan, *Ministry of Finance/Division of International Finance Yearbook*, 1992.

〈Table A.3〉 Japan's Outward FDI by Region and Industry (1951-1991)

(unit: US\$ million, case)

| Industry                       | ASEAN        | ANIEs         | North-America  | World          |
|--------------------------------|--------------|---------------|----------------|----------------|
| <b>Agriculture/Forestry</b>    | 286( 375)    | 53( 48)       | 473( 249)      | 1,615( 1325)   |
| <b>Fisheries</b>               | 152( 229)    | 7( 32)        | 188( 104)      | 810( 821)      |
| <b>Mining</b>                  | 7,443( 245)  | 19( 29)       | 2,402( 400)    | 17,542( 1380)  |
| <b>Manufacturing</b>           | 11,797(4225) | 8,336(4227)   | 46,190(5272)   | 93,924(19869)  |
| Food and Beverage              | 476( 390)    | 758( 297)     | 2,200( 675)    | 4,717( 1884)   |
| Textile & Garment              | 1,280( 651)  | 576( 412)     | 992( 223)      | 4,615( 2076)   |
| Wood & Pulp                    | 464( 357)    | 79( 107)      | 2,204( 183)    | 3,280( 875)    |
| Chemicals                      | 1,531( 459)  | 1,566( 647)   | 5,522( 536)    | 12,542( 2162)  |
| Metal & Non-metals             | 2,399( 532)  | 570( 479)     | 4,648( 410)    | 11,215( 2153)  |
| Machineries                    | 822( 277)    | 932( 765)     | 4,402( 812)    | 9,216( 2436)   |
| Electric/Electronics           | 2,628( 578)  | 1,987(1166)   | 16,369(1000)   | 22,656( 3403)  |
| Transport. Equipment           | 1,074( 255)  | 710( 171)     | 5,718( 415)    | 12,877( 1141)  |
| Others                         | 1,124( 726)  | 1,158(1183)   | 8,537(1018)    | 12,804( 3739)  |
| <b>Construction</b>            | 373( 350)    | 443( 194)     | 1,366( 335)    | 2,828( 1152)   |
| <b>Trade</b>                   | 574( 637)    | 3,859(2529)   | 19,408(7597)   | 36,564(15290)  |
| <b>Banking &amp; Insurance</b> | 1,043( 154)  | 3,955( 361)   | 21,013( 536)   | 70,290( 2554)  |
| <b>Services</b>                | 1,091( 398)  | 4,122( 856)   | 23,425(2973)   | 40,079( 6311)  |
| <b>Transportation</b>          | 112( 92)     | 1,052( 239)   | 667( 314)      | 19,927( 4584)  |
| <b>Real Estate</b>             | 682( 235)    | 2,543( 532)   | 36,044(4763)   | 54,748( 7361)  |
| <b>Others</b>                  | 139( 247)    | 506( 422)     | 2,711(2962)    | 8,128( 5684)   |
| <b>Branches</b>                | 167( 94)     | 577( 496)     | 1,122( 434)    | 5,928( 1469)   |
| <b>Total</b>                   | 23,856(7281) | 25,476(10965) | 155,008(25939) | 352,392(67800) |

Note: Numbers in parentheses denote the number of cases of investments. See Table A.2 for definitions of ANIEs and ASEAN.

Source: Same as Table A.2.

<Table A.4>

Taiwan's Outward FDI by Region

(unit: US\$ million)

| Region         | 1986 | 1987  | 1988  | 1989  | 1990    | 1991    | 1989-1991     |
|----------------|------|-------|-------|-------|---------|---------|---------------|
| <b>Asia</b>    | 8.4  | 21.3  | 69.3  | 296.4 | 602.9   | 929.6   | 2,004.4( 612) |
| Hong Kong      | 0.3  | 1.3   | 8.1   | 10.4  | 33.1    | 199.6   | 260.8( 106)   |
| Japan          | 0.1  | 3.5   | 2.0   | 0.3   | 1.8     | 3.4     | 12.1( 35)     |
| Singapore      | 0.4  | 1.3   | 6.4   | 5.2   | 47.6    | 12.5    | 82.8( 58)     |
| ASEAN          | 7.7  | 14.8  | 52.7  | 276.8 | 519.8   | 690.0   | 1,614.7( 379) |
| Philippines    | 0.1  | 2.6   | 36.2  | 66.3  | 123.6   | 1.3     | 240.3( 51)    |
| Indonesia      | 1.8  | 1.0   | 1.9   | 0.3   | 61.9    | 160.3   | 253.0( 59)    |
| Thailand       | 5.8  | 5.4   | 11.9  | 51.6  | 149.4   | 86.4    | 320.0( 144)   |
| Malaysia       | 0.0  | 5.8   | 2.7   | 158.6 | 184.9   | 442.0   | 801.4( 125)   |
| <b>America</b> | 46.7 | 70.3  | 125.3 | 553.4 | 699.0   | 369.2   | 1,958.9( 480) |
| U.S.           | 46.0 | 70.1  | 123.3 | 508.7 | 428.7   | 297.8   | 1,591.8( 435) |
| <b>Europe</b>  | 0.2  | 10.2  | 17.0  | 73.3  | 265.9   | 350.2   | 721.1( 121)   |
| <b>Total</b>   | 56.9 | 102.8 | 218.7 | 931.0 | 1,552.2 | 1,656.0 | 4,732.5(1237) |

Note: Above numbers denote the amount of approved investments, and the numbers of cases of investment are in parentheses.

Sources: Investment Commission, Ministry of Economic Affairs, Republic of China, *Statistics on Overseas Chinese and Foreign Investment, Technical Cooperation, Outward Investment, Outward Technical Cooperation*, various issues.

〈Table A.5〉 Taiwan's Outward FDI by Region and Industry(1959-1991)  
(unit: US\$ million, case)

| Industry                       | Asia        | America     | Europe     | World      |
|--------------------------------|-------------|-------------|------------|------------|
| <b>Agriculture, Forestry</b>   | 13.8 ( 6)   | 0 ( 0)      | 0 ( 0)     | 14 ( 7)    |
| <b>Fishery, Husbandry</b>      | 0.4 ( 2)    | 1.4 ( 3)    | 0 ( 0)     | 5 ( 7)     |
| <b>Mining</b>                  | 1.4 ( 1)    | 0 ( 0)      | 0 ( 0)     | 1 ( 1)     |
| <b>Manufacturing</b>           | 1667.5(392) | 1065.6(240) | 71.1 (21)  | 2826(663)  |
| Food and Beverage              | 33.5 (21)   | 160.4 ( 6)  | 0 ( 0)     | 194 (28)   |
| Textile                        | 114.5 (42)  | 5.1 ( 3)    | 34.8 ( 1)  | 155 (48)   |
| Garment & Footwear             | 2.6 (18)    | 4.5 ( 8)    | 0 ( 0)     | 9 (22)     |
| Lumber & Bamboo                | 19.2 (18)   | 6.0 ( 5)    | 0 ( 0)     | 26 (24)    |
| Pulp & Paper                   | 96.7 ( 9)   | 3.0 ( 1)    | 0 ( 0)     | 100 ( 9)   |
| Leather & Fur                  | 3.9 ( 5)    | 0.6 ( 2)    | 0 ( 0)     | 4 ( 7)     |
| Plastic & Rubber               | 69.7 (32)   | 49.0 (13)   | 0.1 ( 1)   | 121 (48)   |
| Chemicals                      | 223.0 (34)  | 415.4 (17)  | 2.2 ( 2)   | 641 (53)   |
| Non-metallic Minerals          | 197.1 (25)  | 5.3 ( 4)    | 0 ( 0)     | 205 (29)   |
| Basic Metals                   | 397.7 (48)  | 12.6 ( 9)   | 0.2 ( 1)   | 423 (64)   |
| Machinery & Equipment          | 17.2 (15)   | 3.8 ( 6)    | 0.1 ( 1)   | 22 (24)    |
| Electric & Electronics         | 492.4(125)  | 399.9(166)  | 33.7 (15)  | 927(307)   |
| <b>Construction</b>            | 20.3 (11)   | 36.3 ( 6)   | 6.5 ( 2)   | 63 (20)    |
| <b>Trade</b>                   | 65.2(147)   | 73.7(108)   | 48.3 (51)  | 192(312)   |
| <b>Banking &amp; Insurance</b> | 50.5 (17)   | 562.3 (32)  | 482.1 (40) | 1095 (80)  |
| <b>Transportation</b>          | 4.6 ( 6)    | 19.4 ( 9)   | 0 ( 0)     | 32 (16)    |
| <b>Services</b>                | 170.4 (24)  | 196.9 (75)  | 103.1 (12) | 476(114)   |
| <b>Others</b>                  | 13.2 ( 8)   | 3.3 ( 7)    | 10.2 ( 3)  | 27 (18)    |
| <b>Total</b>                   | 2007.3(612) | 1958.9(480) | 721.1(121) | 4733(1237) |

Sources: Same as Table A.4.

<Table A.6>

Trends in FDI in Korea

(unit: US\$ million)

| Year  | Approvals    | Actual Investment | Withdrawals | Existing Approvals |
|-------|--------------|-------------------|-------------|--------------------|
| 62-66 | 47.4( 42)    | 24.3( 2)          | 0( 0)       | 47.6( 39)          |
| 67-71 | 218.6(415)   | 117.2( 9)         | 3.7( 22)    | 226.2( 367)        |
| 72-76 | 879.4(1260)  | 535.8( 99)        | 22.4(368)   | 894.7( 850)        |
| 77    | 83.6( 54)    | 142.9( 30)        | 11.1( 53)   | 945.6( 851)        |
| 78    | 149.4( 51)   | 180.0( 43)        | 12.4( 56)   | 1,090.9( 846)      |
| 79    | 191.3( 55)   | 195.3( 34)        | 23.4( 60)   | 1,201.9( 841)      |
| 80    | 143.1( 40)   | 130.9( 36)        | 114.4( 62)  | 1,296.1( 819)      |
| 81    | 153.2( 44)   | 151.6( 33)        | 16.7( 83)   | 1,455.1( 780)      |
| 82    | 189.0( 56)   | 128.7( 56)        | 39.3( 34)   | 1,507.7( 802)      |
| 83    | 269.4( 75)   | 122.5( 35)        | 32.9( 29)   | 1,752.2( 848)      |
| 84    | 422.3(104)   | 193.3( 42)        | 60.6( 18)   | 2,160.9( 934)      |
| 85    | 532.2(127)   | 236.1( 32)        | 16.8( 92)   | 2,657.5( 969)      |
| 86    | 354.7(203)   | 476.9( 38)        | 41.7( 30)   | 2,867.8(1142)      |
| 87    | 1,063.3(362) | 625.5( 53)        | 23.7( 63)   | 3,899.4(1441)      |
| 88    | 1,282.7(342) | 894.1( 45)        | 46.1( 89)   | 4,994.3(1694)      |
| 89    | 1,090.3(336) | 812.3( 62)        | 75.1( 73)   | 6,048.2(1957)      |
| 90    | 802.5(296)   | 895.4( 63)        | 136.2(132)  | 6,734.8(2121)      |
| 91    | 2,396.1(510) | 1,175.0( 33)      | 47.3(113)   | 7,967.2(2295)      |
| 92    | 689.0(368)*  | 684.9( ..)*       | 99.2( ..)** | 8,283.4(2412)*     |

Notes : \*(\*\*) Up to October (August) Only

Sources: Ministry Finance, *The Current Status of Inward FDI*, 1992.9.

\_\_\_\_\_, *The Recent Trend in FDI in Korea*, 1992.10.

<Table A.7>

FDI in Korea by Investing Country

(unit: %)

| Investing Country                          | 1981      | 1985      | 1988      | 1991      |
|--|-----------|-----------|-----------|-----------|
| <b>International Cooperation Institute</b> | 2.0       | 1.4       | 1.4       | 1.4       |
| <b>America</b>                             | 32.0      | 29.7      | 28.1      | 27.7      |
| U.S.                                       | 26.5      | 25.0      | 25.3      | 26.7      |
| <b>Asia</b>                                | 57.1      | 59.6      | 55.7      | 46.8      |
| Japan                                      | 52.9      | 55.7      | 52.3      | 44.2      |
| Hong Kong                                  | 4.1       | 3.8       | 2.7       | 1.7       |
| <b>Europe</b>                              | 8.1       | 8.5       | 14.3      | 23.7      |
| <b>Middle-East</b>                         | 0.8       | 0.7       | 0.3       | 0.1       |
| <b>Others</b>                              | 0.0       | 0.1       | 0.2       | 0.3       |
| <b>Total</b>                               | 100.0     | 100.0     | 100.0     | 100.0     |
| (Amount: US\$ M)                           | (1,455.1) | (2,657.5) | (4,994.4) | (7,967.1) |

Note: Above numbers denote the distribution of the total existing foreign investments on the approval basis at the end of the specified year.

Sources: Same as Table A.6.

<Table A.8>

FDI in Korea by Industry

(unit: %)

| Industry                                   | 1981      | 1985      | 1988      | 1991      |
|--|-----------|-----------|-----------|-----------|
| <b>Agriculture, Forestry &amp; Fishing</b> | 0.5       | 0.4       | 0.4       | 0.4       |
| <b>Mining</b>                              | 0.2       | 0.2       | 0.2       | 0.1       |
| <b>Manufacturing</b>                       | 69.6      | 55.3      | 61.2      | 64.3      |
| Foods                                      | 3.1       | 3.1       | 3.6       | 4.1       |
| Textile & Apparel                          | 3.5       | 1.9       | 1.8       | 1.5       |
| Paper & Wood                               | 0.5       | 0.8       | 0.7       | 0.7       |
| Chemicals, n.e.s.                          | 21.8      | 9.8       | 13.0      | 14.4      |
| Fertilizer                                 | 3.1       | 1.5       | 0.7       | 0.2       |
| Drugs                                      | 1.6       | 3.0       | 3.3       | 3.0       |
| Petroleum                                  | 3.1       | 2.8       | 1.9       | 7.6       |
| Pottery                                    | 1.2       | 1.0       | 0.9       | 1.3       |
| Metals                                     | 6.9       | 4.0       | 1.8       | 1.5       |
| Machinery                                  | 4.2       | 2.6       | 4.9       | 6.0       |
| Electric & Electronic Appliances           | 15.0      | 14.9      | 18.1      | 14.3      |
| Transport Equipment                        | 4.5       | 9.4       | 9.4       | 8.7       |
| Others                                     | 1.0       | 0.7       | 1.1       | 0.8       |
| <b>Services</b>                            | 29.7      | 44.1      | 38.2      | 35.2      |
| Hotel                                      | 15.2      | 30.7      | 28.9      | 19.8      |
| Transport and Warehouses                   | 2.0       | 1.0       | 0.4       | 0.4       |
| Financing                                  | 7.9       | 7.2       | 6.2       | 8.0       |
| Insurance                                  | 0.2       | 0.1       | 0.3       | 2.3       |
| Trading                                    | 0.0       | 0.0       | 0.4       | 1.9       |
| Others                                     | 4.4       | 5.0       | 2.0       | 2.8       |
| <b>Total</b>                               | 100.0     | 100.0     | 100.0     | 100.0     |
| (Amount: US\$ M)                           | (1,455.1) | (2,657.5) | (4,994.4) | (7,967.1) |

Note: Above numbers denote the distribution of the total existing foreign investments on the approval basis by the end of the specified year.

Sources: Same as Table A.6.