When it comes to overall Korean foreign direct investment (FDI) flows abroad, however, 2010 was a year of *recovery*, after a substantial decline in 2009 (See Annex Figure 5).

Table 1. The top 20 non-financial South Korean multinationals, by foreign assets, 2010[a] (US$ million)

Rank	Name of company	Industry	Status (% of state ownership)[b]	Foreign assets[c]
1	Hyundai Heavy Industries	Conglomerate	Listed (Nil)	9,606
2	DSME	Ship & boat building & repairing	Listed (19%)	9,595
3	Samsung Heavy Industries	Conglomerate	Listed (Nil)	8,206
4	LG Display	Conglomerate	Listed (Nil)	7,338
5	Hyundai Motors	Conglomerate	Listed (Nil)	6,920
6	SK Innovation	Conglomerate	Listed (Nil)	6,478
7	LG Electronics	Conglomerate	Listed (Nil)	6,191
8	POSCO	Iron & steel foundries	Listed (5%)	5,407
9	Hynix Semiconductor	Semiconductors & related devices	Listed (Nil)	5,378
10	Samsung Electronics	Conglomerate	Listed (Nil)	2,819
11	SK Networks	Conglomerate	Listed (Nil)	2,778
12	S-Oil	Petroleum refining/wholesaling & petroleum products	Listed (Nil)	2,481
13	Daewoo International Corp.	Conglomerate	Listed (Nil)	2,137
14	Honam Petrochemical Corp.	Petrochemicals	Listed (Nil)	2,034
15	Samsung C&T Corp.	Conglomerate	Listed (Nil)	1,841
16	KIA Motors	Conglomerate	Listed (Nil)	1,767
17	Hyundai Mobis	Conglomerate	Listed (Nil)	1,545
18	Lotte Shopping	Conglomerate	Listed (Nil)	1,345
19	Korea Gas Corporation (KOGAS)	Gas utility	Listed (61%)	1,340
20	Doosan Heavy Industries & Construction	Conglomerate	Listed (Nil)	1,300
Total				**86,506**

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites.

[a] The table shows results for the top 20 non-financial multinationals in 2010. Financial firms are excluded from the ranking by the methodology of the Emerging Market Global Players project (fn. 1 above). All data are based on auditors' reports and company websites. For additional data on each multinational, see AnnexTable 1 and the tables that follow. Annex II contains brief narrative profiles of the companies on the list.

[b] The percentage of state ownership shown in parentheses covers direct state holdings as well as indirect holdings through state-controlled enterprises.

[c] Foreign assets were calculated by adding together capital invested in foreign affiliates, foreign currency assets, and foreign trade receivables. (Neither corporate annual reports nor auditors' reports mention foreign assets directly.)

Profile of the top 20

Ranking changes over the past three years

As Table 1a shows, the rankings of some companies changed greatly from 2009 to 2010. Samsung Electronics, which in 2008 and 2009 ranked 1st, has dropped to 10th place. LG Electronics has dropped from 2nd place in 2009 to 7th. A large drop in the foreign assets of these two electronics companies is due to inaccessible data of foreign trade receivables for 2010. Korea Electric Power Corp. (KEPCO), Hyundai Merchant Marine, and LG Chemicals, which made the 2009 list, have been pushed out by three new companies: SK Networks, Honam Petrochemical, and KOGAS. Part of SK Networks' big jump in rank was its investment of US$ 700 million in Brazilian mining firm MMX Mineração e Metálicos S.A., which gave it rights to 9 million tons of iron ore per year. Honam Petrochemical increased its assets through the acquisition of Titan Chemical in Malaysia and DACC Aerospace in 2010. KOGAS increased its foreign assets in 2010 by launching joint ventures in various countries including Indonesia and Canada, and successfully gaining access to oil and gas fields in Iraq. The MNEs that improved their rank over 2009 include: Hyundai Heavy Industries, DSME, SHI, LG Display, Hyundai Motors, SK Innovation, POSCO, Hynix Semiconductor, SK Networks, Daewoo International Corp., Honam Petrochemical Corp., Hyundai Mobis, and KOGAS. HHI's divisions were able to deliver profitable performances and recorded the highest in foreign assets (US$ 9.6 billion) as well as the best sales performance in its history (nearly US$ 20 billion). The multinationals that fell in rank include: LG Electronics, Samsung Electronics, Samsung C&T Corp., KIA Motors, Lotte Shopping, and Doosan Heavy Industries & Construction. The only company that kept its 2009 rank (12th) was S-Oil.

Table 1a. Korea: Ranking by foreign assets of the 2010 top 20, 2008-2010

Firm	2008	2009	2010	Firm	2008	2009	2010
Hyundai Heavy Industries	2	3	1	SK Networks	13	21	11
DSME	3	4	2	S-Oil	14	12	12
Samsung Heavy Industries	28	7	3	Daewoo International Corp.	16	16	13
LG Display	7	5	4	Honam Petrochemical Corp.	29	24	14
Hyundai Motors	4	6	5	Samsung C&T Corp.	11	13	15
SK Innovation (former SK Energy)	6	8	6	KIA Motors	10	11	16
LG Electronics[a]	5	2	7	Hyundai Mobis	21	19	17
POSCO	8	9	8	Lotte Shopping	26	17	18
Hynix Semiconductor	9	10	9	Korea Gas Corporation (KOGAS)	22	27	19
Samsung Electronics	1	1	10	Doosan Heavy Industries & Construction	18	14	20

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites.

[a] For LG Electronics, foreign trade receivables were taken to be zero and foreign currency assets were assumed to be the same as last year, as exact and up-to-date data were unavailable.

Principal industries

As Annex Figure 1 indicates, the leading industry among the top 20 Korean MNEs, when measured by foreign assets, is shipbuilding (32% of foreign assets), with electrical and electronic equipment a very close second (26%). The next three fairly substantial industries are petrochemicals and gas (15%), motor vehicles (13%), and iron and steel (7%). Wholesale and retail trade, and construction bring up the rear, accounting for the remaining 8%.

As noted, this breakdown by industry is based on asset allocation. If one simply looks at the *numbers* of companies in Table 1, there are 14 "conglomerates" (including six of the top seven) and only six firms in various specific industries, such as shipbuilding and petrochemicals.

Shipbuilding

HHI, DSME and SHI are the main shipbuilders in the world among the top 20 multinationals. In order to reduce risks caused by economic uncertainties, these firms have expanded their businesses to related sectors such as ship engines, natural resources and renewable energy. In particular, increasing competition from Chinese shipbuilders with their advantages of lower production costs, financial support from state-run banks and large domestic demand has led Korean shipbuilders to maintain their competitiveness by building technologically advanced and high-value-added vessels.

In 2010, these three companies performed better than expected, as the shipping industry showed a slight recovery from the global recession. For instance, HHI won orders for 80 ships valued at US$ 10.6 billion. Its order backlog stands at 324 ships worth US$ 532.7 billion. Its steady growth in foreign assets comes from its investments in China, Brazil and India. Their investments include building new factories and facilities, and acquiring some portion of energy-related firms. The company is also the world's top drillship builder with a 60% market share and has won 32 of the total 53 drill ships ordered worldwide from 2000 through 2010. DSME has been actively pursuing opportunities abroad, including the establishment of a joint venture with the Russian United Shipbuilding Corporation (USC) to build a joint shipyard in Zvezda, Russia. It entered the African shipbuilding market in 2010 by taking a 30% share in the Paenal Shipyard in Angola, thus acquiring a competitive advantage by securing a foothold in West Africa and winning new shipbuilding contracts in the region. Finally, SHI gained new orders for 75 ships worth US$ 9.7 billion in 2010. It was a meaningful year for SHI as it recorded the highest compensated gross tonnage (CGT) in the world, reaching 8,432,000. This was the first time in its history that it displaced HHI from the top position.

Electrical and electronic equipment, including semiconductors

Samsung Electronics made major investments in China to meet Chinese demand for flat panel displays. In May 2010, Samsung Electronics invested nearly US$ 19 billion in upgrading its manufacturing facilities, of which around US$ 11 billion was in the semiconductor business and around US$ 4 billion in the LCD business. LG Group, which has already established the LG Cluster in China in 2003, has been expanding its investment since then where LG Display has been performing the best among the LG subsidiaries in China, outperforming LG Electronics. LG Display is therefore planning to establish a new factory line in Guangzhou, China by 2014. LG Electronics, on other hand, targeted the European market, as it has been ranking the first in consumer products. The total investment amount made in Poland since 2010 is expected to reach US$ 70 million to effectively produce and provide consumer products by 2015.

SK Networks established its leading position in the Korean information and communication distribution market by selling nearly 92 million mobile phones between 1996 and 2010, nearly 11 million of these being sold just in 2010. There is a sudden growth in the demand for smartphones, of which over 7.3 million smartphones were sold compared to just around 700 thousand smartphones in 2008. Yet, as SK Networks comprises business portfolios of trading, consumer goods, fashion business, and others, it has been enjoying a large increase in sales across different businesses, particularly by making investments in fashion businesses in China.

Petrochemicals and steel

The main firms in petrochemicals are SK Innovation and Honam Petrochemical. In June 2010, SK

Innovation, formerly SK Energy, completed the construction of the largest LNG (liquefied natural gas) plant in the history of Peru. The newly-built LNG plant has an annual capacity of 4.4 million tons.
As part of its restructuring, SK Innovation, whose shares were relisted instead of those of SK Energy, has set up three fully owned units - SK Energy for its crude oil refining business, SK Global Chemical for its chemical business and SK Lubricants for its lubricant oil business. This is an effort to achieve vertical integration that includes block exploration, production, and transport. This structural change was made so that the company could accelerate growth through a faster process of decision-making and respond promptly to changes in today's uncertain business environment.

POSCO, the iron and steel firm, was also active in investing in emerging markets in 2010, particularly in Southeast Asia, to ensure stable access to key raw materials such as steel, coal, and iron. In 2010, it entered into a joint venture with Indonesia's largest steel maker PT Krakatau, acquired a 25% stake in the Australian Premium Iron joint venture, and announced a greenfield investment of US$ 7 billion in India (See Annex Table 5).

Automobiles and auto parts

The firms in this industry are Hyundai Motors, Kia Motors and Hyundai Mobis, the last of which produces auto parts. Despite the unfavorable global economic environment, Hyundai Motors recorded its biggest production and sales gains in the company's history in 2010, selling 3.6 million vehicles in the global market. The share of overseas production was greater than that of domestic production. The company is continuing to expand its production facilities abroad, particularly in emerging markets. It completed its sixth overseas full-cycle production facility in St. Petersburg, Russia, in 2010; its third plant in Beijing, China and a factory in Sao Paulo, Brazil are completed in 2012.

2010 was also a good year for Kia Motors, an independent car producer under the same group as Hyundai Motors. It increased its overseas sales from around 1.5 million in 2009 to over 2 million in 2010, in which foreign sales (including exports) were much greater than domestic sales, reaching over 1.5 million units. In early 2010, the company successfully launched the Sorento R, Sportage R, K5 (Optima) and other cars, increasing its global sales and production to over 2 million units of these models. Kia's outstanding performance, also in foreign markets, can be attributed to the opening of its new plant in Georgia in the United States. Thanks to a favorable deal with the government of the state of Georgia in the U.S., Kia Motors built a factory, which in turn helped Kia Motors to overcome costs coming from currency fluctuations. With the increasing demand in the United States and in order to compete against Japanese firms that have been expanding their production within the United States, Kia Motors is also considering expanding its factory in Georgia to further reduce export costs and time as well as to deal with domestic labor disputes in Korea. These have currently posed large threats to the entire business operations. The sales growth of Kia Motors reached about 12% in 2010, while that of the global auto industry was under 2%. Unit sales of Hyundai Group as a whole (Hyundai Motors and Kia Motors) added up to more than 5 million, putting the group in 4th place among automakers globally, after GM, Toyota and Ford.

Hyundai Mobis, the auto parts company that supplies parts and components for Hyundai and Kia cars, established new production facilities in emerging economies like China, India and the Czech Republic in 2010. In 2010, it became the first Korean company to establish a distribution center in Egypt, so that it could provide better service in the Middle East and North African region. With an investment worth US$ 20 million, the new center supplies around 70,000 different auto parts to 20 dealers in North Africa.

Geographic distribution of foreign affiliates

Although the geographic distribution of Korean foreign affiliates varies from industry to industry, around one-third (30%) of the foreign affiliates of the top 20 as a group are located in East Asia & the Pacific (excluding developed Asia-Pacific), followed by a bit less than one-fifth (19%) in South Asia, and just over one-tenth in North America and other Europe (See Annex Figure 2).

Transnationality Index (TNI)

The TNI is a measure of the internationalization of corporate activity. It is calculated as a simple average of three ratios – foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment (Annex Table 1). Since foreign employment data was only available for 14 of the top 20 multinationals,[2] the TNI figures for six of the cases in Annex Table 1 do not include the foreign-to-total employment ratio. With that caveat, we may note that LG Electronics had the highest TNI at 67, followed by DSME at 49, KIA Motors at 45, Honam Petrochemicals at 44, Hynix Semiconductor at 42, and Samsung Heavy Industries at 41. Hyundai Heavy Industries, the largest company by foreign assets, ranked 8th for TNI, whereas KOGAS, the only state-owned company included in the top 20, ranked the lowest at 8.

Ownership and status

All of the top 20 multinationals in Table 1 are listed on the Seoul stock exchange, while 15 are also listed on foreign stock exchanges. Out of these 15, nine are listed on more than one foreign stock exchange (See Annex Table 3 for details). Among the top 20 multinationals listed, KOGAS is the only state-controlled enterprise, with its major shareholders being the Central Government, KEPCO and local governments, which each own 27%, 25% and 10%, respectively, totaling 61% in public shares. Minor shares of DSME and POSCO are also owned by the state. The shares of all the other firms on the list are privately held.

Eight of the top 20 Korean multinationals have 30% or higher foreign shareholdings. These include: Samsung Electronics (51%), POSCO (50%), Hyundai Mobis (47%), S-Oil (46%), Hyundai Motors (43%), LG Display (34%), Samsung Heavy Industries (31%), and SK Innovation (around 30%). Not all these foreign holdings have voting rights: for instance, although Samsung Electronics' foreign shareholdings are 51%, only 44% have voting rights; in contrast, for Hyundai Motors, all of the 43% of foreign shares have voting rights.

[2] The 14 firms are: Hyundai Heavy Industries, LG Display, Hyundai Motors, LG Electronics, Hynix Semiconductor, Samsung Electronics, SK Networks, S-Oil, Samsung C&T Corp., KIA Motors, Hyundai Mobis, Lotte Shopping, Honam Petrochemical and KOGAS.

Box 1: Common governance among the top 20

An important characteristic of Korea's top 20 is that most of them belong (or until recently belonged) to what are known in Korea as *chaebol*. A *chaebol* is a loosely organized family-controlled business group, rather like the Japanese *keiretsu* (formerly *zaibatsu*), except that it is not centered on a bank. The *chaebol* was strongly encouraged and supported by the government in the beginning of Korea's economic development from the 1960s, and played a key role in Korea's emergence as one of the "newly industrializing economies" or "NIEs". After the Asian crisis of 1997, however, the previously close relationship between the government and *chaebols* and public support of the *chaebol* system both changed; as a result, *chaebols* were forced to be more transparent, operate purely on a market-based system and cooperate with SMEs for sustainable growth.

Most of the top 20 companies belong to eight of these *chaebol*s (in italics below) and three others (last paragraph) used to belong to one or another.

Samsung Group: Samsung Electronics, Samsung Heavy Industries, and Samsung C&T Corp.
Hyundai Group: Hyundai Merchant Marine
Hyundai-Kia Motors Group (former Hyundai Group): Hyundai Motors, KIA Motors, Hyundai Mobis
Hyundai Heavy Industries Group (former Hyundai Group): Hyundai Heavy Industries
LG Group: LG Electronics, LG Display, LG Chem.
Doosan Group: Doosan Heavy Industries & Construction
SK Group: SK Energy, SK Hynix
Lotte Group: Lotte Shopping, Honam Petrochemical Corp.

DSME and Daewoo International Corp. originally belonged to the Daewoo Group but became an independent company in 2003, specializing in shipbuilding and in international trading and investment.

Hynix Semiconductor was a part of the LG Group prior to the 1997 Asian economic crisis. It then became a part of the Hyundai Group and was finally spun off as an independent firm in 2001. The company was acquired by SK Group in 2012 and changed its name to SK Hynix.

Honam Petrochemical Corp. started off as a state-run firm in 1976 but became a part of the Lotte Group in 1979 by selling half of its shares to Lotte when the Korean government tried to privatize state-owned enterprises to increase productivity.

Source: GSIS-VCC research on leading Korean multinationals, 2011.

Head office locations

The headquarters of all 20 multinationals are located in Korea, 13 in Seoul and 7 elsewhere (Annex Figure 4). The head offices of Samsung Electronics and SK Networks are located in Suwon, that of Hynix Semiconductor in Icheon, and KOGAS in Seongnam. The other three are located in the southeast of Korea: POSCO's in Pohang, Hyundai Heavy Industries' in Ulsan and Doosan Heavy Industries & Construction's in Changwon.

Official language and the nationality of the CEO and the top management

At the headquarters, Korean is the official language of all firms and the nationality of each firm's CEO, as well as the top management, but they have been increasing the number of foreigners both in Korea and abroad. The language in a foreign affiliate depends on the location and the top management in the affiliate, but is likely to use Korean as the primary language, particularly to communicate with the headquarters. Even if the affiliates in foreign countries are managed by foreigners, the top management team, or specialists from the headquarters in Korea are sent periodically to the affiliates and subsidiaries situated abroad to enhance communication and management from abroad. Among the top 20 companies, S-Oil has been managed by a foreign CEO, dispatched from ARACO Saudi, the largest shareholder and the joint venture company of S-Oil.

Nasser Al-Mahasher took office from 2012.

Top mergers and acquisitions

Top mergers and acquisitions (M&As) mostly took place in developed countries to gain access to energy and resources, as well as advanced technology (See Annex Table 4). To diversify their dependence on North American and European suppliers, Korean firms showed aggressive moves to secure new energy sources and to acquire research capabilities in petroleum resources development. After the 2008 global financial crisis, M&A transactions were conducted in European and American financial and public (i.e., government) sectors, in which Korea Investment Corp. also successfully concluded the third largest M&A transaction by Korean investors during the period of 2008-2010 (See Annex Table 4).

Top greenfield investments

Unlike M&A transactions, all top 10 greenfield investments except one were made in developing countries, most of them focusing on gaining access to natural resources such as coal, oil and gas, or steel and metals (See Annex Table 5). The largest two investments were made by POSCO in India and by Taekwang Industrial in Vietnam in an attempt to lower production costs and sustain competitiveness against new competitors from emerging markets like China. To complement its domestic development, POSCO has been enlarging its production capacity and market in developing countries. In order to secure natural resources, the Korea East-West Power Co. (EWP), subsidiary to state-run KEPCO, will be joining hands with Sahara India Power Corp., subsidiary to India's Sahara Group, to build and run coal-fired power plants in Orissa, entailing a collective outlay of US$ 1.6 billion. Other investments were made in electronic components and real estate. In 2010, Samsung invested US$ 3.6 billion to expand the capacity of its 12-inch semiconductor fabrication plant in Austin, Texas, in the United States, which has established its premier status as a center for semiconductor research and manufacturing.

Drivers of outward FDI

Two main drivers of Korean investment abroad have been the search for natural resources and the search for lower production costs. Companies such as KOGAS have invested in getting the development and production rights to the oil and gas fields in Zubair and Badra, Iraq, to secure natural resources. Other Korean firms are investing in China and South East Asia to reduce production costs. For instance, by 2010, LG Electronics had built more than 10 production subsidiaries in China; KOGAS had engaged in a joint operation project in Indonesia (Donggi-Senoro LNG), which was the first Korean-Japanese joint LNG development; and POSCO had completed a processing center at the Renault-Nissan Supplier Park in Chennai, India. Some companies invested in developed countries to acquire new technologies.

Another driver for Korean firms was the search for markets. Initially, Korean firms chose developed countries to enter relatively large markets. More recently, Korean firms have started to expand to developing countries as well due to growth in the size of those host countries' markets and increasing demand for high quality but relatively low-cost cars.

A related motivation is the aim to boost regional sales or to infiltrate neighboring markets surrounding the host markets, particularly in Latin America and the Middle East. For instance, as mentioned previously, Hyundai Mobis' new logistics center in Alexandria, Egypt, has boosted sales in the MENA region. The main targeted 8 countries are Morocco, Algeria, Libya, Israel, Lebanon, Syria and Dubai. It serves to provide a more systematic and efficient parts and components distribution center to its largest buyers, which had to unexpectedly face the largest demonstration to date in June 2010 and close down temporarily after the Egyptian Revolution in the end of January, 2011.

Changes in assets, sales and employment over 2008-2010

Table 2 below shows a snapshot of changes in the collective assets, sales and employment of 15 of the top 20 MNEs over 2008-2010.[3] Annex Tables 1a, 1b, and 1c provide details for individual companies over the same three-year period.

Over these three years, foreign assets grew hugely (slightly below 50%) in 2009 and then continued to grow, but less dramatically, by about 11% in 2010. Total assets, in turn, grew by 12% in 2009 and 73% in 2010. One reason influencing those numbers is that many companies have increased domestic investments. For example, HHI invested in Hyundai Oilbank, which was disaffiliated from the Hyundai Group in the wake of the financial crisis, by buying an additional 35% of its stakes and incorporating that refinery firm into the HHI. Another reason for the growth in assets was a rise in stock price. Other shipbuilding companies also have shown an increase in their stock prices. SK Innovation, which was formerly SK Energy, increased its total assets through restructuring and establishing new local subsidiaries.

In contrast to shipbuilding firms, electronics companies such as Samsung Electronics, LG Display, and LG Electronics showed a drop in terms of total assets, though that drop may be partially due to data unavailability.

In the case of sales, foreign sales increased by 7% in 2009 and by 3% in 2010. Total sales showed a slightly higher increase - over 6% and 12% in 2009 and 2010 respectively.

Total employment of the top 20 MNEs increased in both 2009 and 2010 by 19% in 2009 and 32% in 2010 respectively (See Table 2). Excluding the five companies that didn't report foreign assets and foreign sales information, the increase in total employment was slightly higher in 2009 (26%) but lower in 2010 (31%). The reason is that LG Display, LG Electronics, and Honam Petrochemical, all of which were included in the 15 firms in Table 2, showed a sudden increase in total employment in both 2009 and 2010, while the changes of employment of the five missing companies were insignificant.

[3] Only 15 MNEs reported both foreign assets and foreign sales in these consecutive three years (see Annex Table 1).

Table 2. Korea: Snapshot of 15 of the top 20 multinationals, 2008-2010 (US$ million and numbers of employees)

Variable	2008	2009	2010	% change (2008-2009)	% change (2009-2010)	% change, 2008-2010
Assets						
Foreign	46,766	69,549	77,423	49%	11%	66%
Total	207,534	232,815	403,452	12%	73%	94%
Share of foreign in total (%)	23%	30%	19 %			
Sales						
Foreign[a]	149,384	160,057	165,012	7%	3%	10%
Total	231,164	246,615	277,168	7%	12%	20%
Share of foreign in total (%)	65%	65%	60%			
Employment						
Foreign	-	-	-	-	-	-
Total[b]	345,015	410,384	542,314	19%	32%	57%
Share of foreign in total (%)	-	-	-	-	-	-

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), KORCHAMBIZ (www.korchambiz.net), individual auditors' reports and company websites.

[a] Note that the figures only include 15 companies of the top 20. Companies not included are Samsung Electronics, Daewoo International, Hyundai Mobis, Lotte Shipping, and KOGAS.
[b] The information for foreign employment was available for only 14 out of 20 firms, so none have been included in this table. See annex table 1 for foreign employment numbers of the 14 firms. Calculation for foreign employment was not included as the figures for all three years were not complete.

The big picture

Korea's first recorded outward FDI took place in 1959, with a real estate investment made by a Korean firm in New York, while the first non-real-estate investment was made by the Korea Southern Area Development Company in 1968 in a forestry development project in Indonesia. Most investments from the 1960s to the mid-1980s aimed at securing natural resources, forestry and trading businesses, but the absolute amount remained marginal.

Despite the 1997 Asian financial crisis, Korean FDI increased dramatically between 1995 and 1999, accounting for 14% of the total investment between 1980 and 2009. The increase can be attributed to several factors, such as the liberalization of government policy, wage increases at home (cost efficiency-seeking), trade conflicts with major trading partners (often involving anti-dumping measures), the appreciation of the Korean won, and efforts by large domestic investors to overcome the domestic economic downturn.

Table 3. Korea: Outward FDI, 2006-2010 (US$ million)

Year	2006	2007	2008	2009	2010
Investment	11,620	22,220	23,845	20,094	23,186
Growth (%)	62%	92%	7%	-16%	15%

Source: GSIS-VCC research on leading multinationals, 2011, drawing on the Korea Export Import Bank, http://www.koreaexim.go.kr.

Korean outward FDI surpassed US$ 10 billion in 2006 for the first time and US$ 20 billion in 2007, according to Korea Exim Bank (See Annex Figure 7). As seen in Table 3, the growth rate of outward FDI slowed in 2008 because of the global recession and continued to decline in 2009 but picked up again in 2010, with a growth rate of 15%. The increase in 2010 can be primarily attributed to an increase in manufacturing and mining investments.

Until the 1990s, Korean investors sought developed countries for investment, so as to gain access to high technology, a better business environment, and a sophisticated and large pool of demand. Since 2000, however, Korean investors are turning more to untapped markets in Africa and Asia. The rapid growth in demand in these regions and their large and inexpensive labor pools are a draw for Korean investors. In many instances, the most important factor has been a strategic location allowing Korean firms to better serve the neighborhood.

Although investment in Sub-Saharan Africa is still low and even decreased by 22% compared to the previous year, Korean companies in mining, power generation, electronics, and telecommunications are planning to increase their investment in African countries. For companies like POSCO, SK Innovation and Daewoo International, Africa represents a source of untapped revenue that will continue growing over the next decade, given its large reserves of mineral deposits. Yet, African countries are not only seen as locations of natural resources, but also as potential consumer markets and production sites. In the case of Korea's mobile giants, for example, Africa represents an untapped consumer market that will continue expanding.

Except in 2009, outward FDI from Korea has shown a steady growth over the past decade. The largest recipient of the country's FDI in 2010 was in Asia, followed by Europe and North America. The total outward investment for the past 5 years in these top three regions has accounted for more than 80% of total outward FDI by Korea. As can be seen in Annex Table 7a, while investments in Europe increased, those in North America decreased because outward investments made in Canada and the United States in the mining sector dropped dramatically from the previous year, by 52% and 84% respectively. Investments in the manufacturing sector of the United States also dropped by 50% in 2010 compared to the previous year. Although financial firms are not included in the list of the top 20, Annex Tables 6a, 7, and 7a include the finance and insurance industry for reference and comparison, as this industry ranked third in outward FDI by industry. Investment in Latin America showed the largest increase in growth from the previous year by 88%.

Due to the global economic downturn following the financial crisis, outward FDI in 2009 was low in both Asia and Latin America; investment was revitalized mainly by investment in manufacturing and mining in 2010. As shown in Annex Table 6, investment growth in Asia went from -43% in 2009 to 43% in 2010. Latin America grew even more, from -51% in 2009 to 88% in 2010. Investment in manufacturing accounts for more than 50% of total investment in Asia, while mining accounts for the largest portion in Europe and Latin America & the Caribbean (See Annex Table 6a and 6b for the investment trend in major industries and Annex Table 7 for major transactions). Korea National Oil Corporation, though not included in the top 20 multinationals, bought an English company (Dana Petroleum) which led to a 2000% increase in investment in England over the previous year. Indeed, the largest outward FDI transactions (both M&A and greenfield) were led by the natural resources industry, followed by manufacturing.

Most transactions involved taking more than 50% of foreign equity ownership, reflecting a strong desire by Korean firms for tight control over local operations in strategic countries. Investments of over US$ 100 million each also increased by 15% over 2009, accounting for 54% of total investment in 2010, compared to 25% in 2006 and 47% in 2009 (See Annex Table 8 & 9).

Box 2: The development of outward FDI policies

Korea's outward FDI policies have changed to adapt to the country's economic development and the changes in its external environment. In 1968, the Bank of Korea first authorized private foreign investment but under quite severe restrictions: first, it had to be approved and, second, it had to be related to developing natural resources, securing raw materials or boosting exports. In 1981, the advance authorization requirement was scrapped and qualifications for investing abroad were made less stringent.

During the 1980s, wage increases at home and trade conflicts abroad led Korean firms to consider off-shoring and the government helped by liberalizing outward investment policies. The pre-authorization system was replaced by the reporting system, particularly in labor-intensive industries. Moreover, the positive specification of acceptable investment areas was dropped in favor of a "negative system", which specified the few forbidden industries. Investment procedures were also much simplified.

After becoming an official member of the Organisation for Economic Co-operation and Development (OECD) in 1996, Korea reduced restrictions further but it was the 1997 Asian financial crisis that really forced the government, as part of the conditionality agreement with the International Monetary Fund (IMF), to take major further steps. A number of changes were made to both inward and outward FDI policies. Changes in outward FDI policies made at this point included the introduction of a deferred payment system, increased and liberalized financial support for investing in developing countries, and collateral insurance and mortgage systems. In order to strengthen ties with and secure natural resources from developing countries, the Economic Development Cooperation Fund (EDCF) and the Korea International Cooperation Agency (KOICA) were established in 1987 and 1991, respectively. They were enhanced after the financial crisis to support international demand for Korean investment and support resource development projects abroad. As noted above, the post-crisis period also saw the adoption of a floating foreign-exchange regime.

In 2003, a new enforcement ordinance in foreign trade law was established, which expanded the mission of reducing and removing restrictions to providing positive support for investment abroad. The main supporting measures in place today include financial support, exemption on taxes paid overseas, institutional services providing information and administrative help, and special attention to small and medium-sized firms that wish to invest abroad. In addition, investment insurance services are also now provided to protect firms against losses through expropriation, war, and other such contingencies.

Source: The 2010 GSIS-VCC report.

The future of Korean outward investment

Korean outward FDI has been growing steadily since 1980; the total outward FDI stock has multiplied over 1000-fold compared with the level in 1980. In recent years, Korean outward FDI surged in order to secure and explore energy resources, enhance its current competitiveness and to fight against the presumed negative impacts of the 2008 global financial crisis. Korean outward investment has shown a recovery from the 2008 financial crisis and the global recession that followed and there were distinctive features after the crisis.

First, as the Korean government urges for more energy and resources, the outward FDI in mining increased significantly, exceeding the amount invested in manufacturing. The investment increase in mining was the largest in England, Brazil, Indonesia and Australia. M&A investments also increased the largest by 195% in mining sectors, and around 25% in manufacturing, while M&A transactions in other industries decreased compared to the previous year. This may imply problems of biased industry structure of Korea, which is also reflected on the Korean FDI--it is less concentrated on high-value added areas, which show high potential for long-term growth.

Second, while Korean FDI since 2009 has not shown a consistent pattern overall, its outward FDI in developing countries has been rising. While Korean FDI in emerging markets such as BRIC (Brazil, Russia, India and China) has tended to be cost efficiency- and resource-seeking investments, the government has been trying to draw attention to MAVINS (Mexico, Australia, Vietnam, Indonesia, Nigeria, and South Africa),whose populations and market sizes are expected to grow rapidly.

Third, after the crisis, the Korean government has put more emphasis on the promotion of a cooperative development for both large conglomerates and small and medium enterprises (SMEs). One example was the introduction of the Act on the Promotion of Collaborative Cooperation between Large Enterprises and SMEs in 2010. This is intended to promote mutual profits between *chaebols* and small businesses by having fair trade between them, sharing common goals and systems, and making co-investments in R&D and abroad. The government has been promoting tax incentives for such co-investments, and giving specific guidelines for mutual growth of SMEs and individual enterprises to make sustainable and profitable investments abroad. Large enterprises are recommended to share their foreign networks and consult SMEs to settle down and expand in foreign markets.

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Emerging Markets Global Players Project

This report on Korean multinationals was prepared in the framework of the Emerging Market Global Players (EMGP) Project, a collaborative effort led by the Vale Columbia Center.It brings together researchers on FDI from leading institutions in emerging markets to generate annual reports on the top multinationals in each participating country. Reports on 14 economies have been published so far (several on some of them): Argentina, Brazil, Chile, China, Hungary, India, Israel, Korea, Mexico, Poland, Russia, Slovenia, Taiwan and Turkey. For further information, visit: http://www.vcc.columbia.edu/content/emerging-market-global-players.

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This report was prepared by Hwy-Chang Moon in association with the Institute of International Affairs, an institute at the Graduate School of International Studies at Seoul National University. The Institute promotes research in international studies and publishes academic journals on international relations, business and economics, area studies and other related subjects. It pursues excellence in academic research and has led the development of international studies in Korea. For more information, see http://gsis.snu.ac.kr or http://iia.snu.ac.kr/.

Vale Columbia Center on Sustainable International Investment

The Vale Columbia Center is a joint center of the Columbia Law School and the Earth Institute at Columbia University. It serves as a leading forum for discussion by scholars, policy makers, development advocates and other stakeholders of issues related to FDI in the global economy, paying special attention to the impact of this investment on sustainable development. The Center currently focuses on three key themes: creating a framework for extractive industries and sustainable development; analyzing trends in investment law and policy around the world, especially as they contribute to sustainable development; and analyzing the rise of emerging market multinationals. For further information, visit: http://www.vcc.columbia.edu.

Annex 1: Tables and figures

Annex Table 1. Korea: The top 20 multinationals: Key variables, 2010 (US$ million and number of employees)

Rank by foreign assets	Firms	Assets		Sales		Employment		TNI (%)	Number of foreign affiliates	Number of host countries
		Foreign	Total	Foreign	Total	Foreign	Total			
1	Hyundai Heavy Industries	9,606	93,516	17,299	19,549	4,900	24,222	40	40	23
2	DSME	9,595	20,046	10,304	10,535	n.a.	12,116	49	14	11
3	Samsung Heavy Industries	8,206	25,206	10,334	11,390	n.a.	13,204	41	15	11
4	LG Display	7,338	10,535	3,264	21,817	16,509	46,705	40	11	7
5	Hyundai Motors	6,920	20,206	18,471	32,082	20,255	80,185	39	46	24
6	SK Innovation	6,478	35,833	22,920	38,272	n.a.	5,457	26	35	12
7	LG Electronics	6,191	15,701	19,918	22,894	93,000	126,242	67	78	48
8	POSCO	5,407	22,974	12,395	28,429	n.a.	16,390	22	21	13
9	Hynix Semiconductor	5,378	42,047	10,118	10,447	3,708	22,541	42	31	8
10	Samsung Electronics	2,819	10,447	n.a.	97,940	29,097	95,659	29	53	20
11	SK Networks	2,778	16,251	4,489	20,499	58	3,852	14	28	14
12	S-Oil	2,481	8,727	10,340	17,913	2	2,551	29	1	1
13	Daewoo International Corp.	2,137	13,705	n.a.	13,674	n.a.	1,796	8	65	44
14	Honam Petrochemical Corp.	2,034	8,050	3,697	6,273	1,772.	3,800	44	5	2
15	Samsung C&T Corp.	1,841	64,914	6,100	11,381	3,824	9,601	32	83	44
16	KIA Motors	1,767	4,180	12,284	20,296	10,386	32,599	45	44	33
17	Hyundai Mobis	1,545	18,517	n.a.	11,950	8,042	14,286	32	38	17
18	Lotte Shopping	1,345	7,694	n.a.	11,794	345	21,983	10	112	4
19	Korea Gas Corporation (KOGAS)	1,340	12,097	n.a.	19,729	120	2,797	8	18	11
20	Doosan Heavy Industries & Construction	1,300	9,611	3,079	5,391	n.a.	6,328	24	40	9
Total		**86,506**	**460,256**	**165,013**	**432,254**	**192,018**	**542,314**		**779**	

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites. Data for total sales was derived from KORCHAMBIZ (www.korchambiz.net).

[a] All calculations use exchange rates provided by the IMF for December 31 of 2008 and 2009, and December 30 for 2010: KRW 1,257.5, 1,167.6, and 1,146.1, respectively, per US$ 1.

[b] n.a.' indicates the non-availability of data. Data on foreign employees for Samsung Electronics, KIA Motors, and Lotte Shopping are for 2009.

[c] The TNI is calculated as a simple average of three ratios – foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment. The TNI appears in parentheses where it has been calculated without including the foreign-to-total employment ratio.

Annex Table 1a. Korea: Foreign and total assets of the top 20 multinationals, 2008-2010
(US$ million)[a]

Rank by foreign assets	Firms	2008		2009		2010	
		Foreign	Total	Foreign	Total	Foreign	Total
1	Hyundai Heavy Industries	6,495	20,104	8,221	21,302	9,606	93,516
2	DSME	5,801	12,687	8,087	12,964	9,595	20,046
3	Samsung Heavy Industries	347	20,743	5,797	17,290	8,206	25,206
4	LG Display	3,929	13,123	6,257	16,174	7,338	10,535
5	Hyundai Motors	5,305	25,581	5,983	30,358	6,920	20,206
6	SK Innovation	4,648	17,857	4,874	18,554	6,478	35,833
7	LG Electronics	4,759	13,788	10,467	18,480	6,191	15,701
8	POSCO	3,779	29,450	4,774	34,252	5,407	22,974
9	Hynix Semiconductor	2,647	10,496	4,107	11,498	5,378	42,047
10	Samsung Electronics	11,246	57,669	18,093	73,676	2,819	10,447
11	SK Networks	1,439	6,348	1,040	6,604	2,778	16,251
12	S-Oil	1,404	6,088	2,065	7,751	2,481	8,727
13	Daewoo International Corp.	1,037	2,127	1,353	3,327	2,137	13,705
14	Honam Petrochemical Corp.	245	2,824	822	4,862	2,034	8,050
15	Samsung C&T Corp.	1,631	8,966	2,021	11,892	1,841	64,914
16	KIA Motors	2,580	12,288	2,826	14,510	1,767	4,180
17	Hyundai Mobis	897	6,162	1,179	9,583	1,545	18,517
18	Lotte Shopping	525	10,579	1,282	15,980	1,345	7,694
19	Korea Gas Corporation (KOGAS)	786	17,450	604	19,642	1,340	12,097
20	Doosan Heavy Industries & Construction	965	7,888	1,677	7,859	1,300	9,611
Total		**60,464**	**302,217**	**91,528**	**356,558**	**86,506**	**460,256**

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites.

[a] All calculations use exchange rates provided by the IMF for December 31 of 2008 and 2009, and December 30 for 2010. For 2008, 2009, and 2010, these were KRW 1,257.5, 1,167.6, and 1,146.1, respectively, per US$ 1.

Annex Table 1b. Korea: Foreign and total sales of the top 20 multinationals, 2008-2010 (US$ million)[a]

Rank by foreign assets	Firms	2008		2009		2010	
		Foreign	Total	Foreign	Total	Foreign	Total
1	Hyundai Heavy Industries	14,291	15,870	16,298	18,107	17,299	19,549
2	DSME	8,592	8,807	10,309	10,656	10,304	10,535
3	Samsung Heavy Industries	14,291	15,870	16,298	18,107	10,334	11,390
4	LG Display	11,771	12,616	16,423	17,231	3,264	21,817
5	Hyundai Motors	15,823	25,598	13,525	27,286	18,471	32,082
6	SK Innovation	21,478	36,372	18,126	30,685	22,920	38,272
7	LG Electronics	16,854	21,979	20,425	26,133	19,918	22,894
8	POSCO	7,840	24,368	8,093	23,085	12,395	28,429
9	Hynix Semiconductor	5,002	5,165	6,213	6,442	10,118	10,447
10	Samsung Electronics	47,234	58,014	64,062	76,887	n.a.	97,940
11	SK Networks	3,667	17,413	4,005	18,149	4,489	20,499
12	S-Oil	11,574	18,290	9,016	14,923	10,340	17,913
13	Daewoo International Corp.	4,818	8,784	5,024	9,548	n.a.	13,674
14	Honam Petrochemical Corp.	1,402	2,464	3,231	5,113	3,697	6,273
15	Samsung C&T Corp.	4,818	8,784	5,024	9,548	6,100	11,381
16	KIA Motors	9,040	13,028	9,817	15,772	12,284	20,296
17	Hyundai Mobis	4,432	7,454	4,965	9,107	n.a.	11,950
18	Lotte Shopping	n.a.	8,357	6,690	9,879	n.a.	11,794
19	Korea Gas Corporation (KOGAS)	n.a.	18,422	n.a.	16,608	n.a.	19,729
20	Doosan Heavy Industries & Construction	2,941	4,540	3,254	5,378	3,079	5,391
Total		**205,867**	**332,196**	**240,798**	**368,644**	**165,013**	**432,254**

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), KORCHAMBIZ (www.korchambiz.net), individual auditors' reports and company websites

[a] All calculations use exchange rates provided by the IMF for December 31 of 2008 and 2009, and December 30 for 2010. For 2008. 2009. and 2010, these were KRW 1,257.5, 1,167.6, and 1,146.1, respectively, per US$ 1.

Annex Table 1c. Korea: Total employment of the top 20 multinationals, 2008-2010 (number of persons)

Rank by foreign assets	Firms	2008	2009	2010
		Total	Total	Total
1	Hyundai Heavy Industries	25,248	24,982	24,222
2	DSME	11,815	12,245	12,116
3	Samsung Heavy Industries	12,107	12,623	13,204
4	LG Display	19,024	23,934	46,705
5	Hyundai Motors	56,029	55,984	80,185
6	SK Innovation	5,639	5,391	5,457
7	LG Electronics	28,415	82,136	126,242
8	POSCO	16,721	16,458	16,390
9	Hynix Semiconductor	18,018	17,175	22,541
10	Samsung Electronics	84,471	85,085	95,659
11	SK Networks	2,439	2,069	3,852
12	S-Oil	2,464	2,521	2,551
13	Daewoo International Corp.	1,546	1,502	1,796
14	Honam Petrochemical Corp.	993	1,540	3,800
15	Samsung C&T Corp.	4,622	9,774	5,049
16	KIA Motors	32,859	32,755	32,599
17	Hyundai Mobis	4,560	6,460	14,286
18	Lotte Shopping	9,783	9,092	21,983
19	Korea Gas Corporation (KOGAS)	2,806	2,790	2,797
20	Doosan Heavy Industries & Construction	5,456	5,868	6,328
Total		**345,015**	**410,384**	**542,314**

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites.

Annex Table 1d. Korea: The top 20 multinationals: Detailed TNI[a] Data 2010

Rank by foreign assets	Firms	Assets	Sales	Employment	TNI (%)
		Foreign/ Total	Foreign/ Total	Foreign/Total	
1	Hyundai Heavy Industries	10%	88%	20%	40
2	DSME	48%	98%	0%	49
3	Samsung Heavy Industries	33%	91%	0%	41
4	LG Display	70%	15%	35%	40
5	Hyundai Motors	34%	58%	25%	394
6	SK Innovation	18%	60%	0%	26
7	LG Electronics	39%	87%	74%	67
8	POSCO	24%	44%	0%	22
9	Hynix Semiconductor	13%	97%	16	42
10	Samsung Electronics	27%	n.a.[b]	30%	29
11	SK Networks	17%	22%	2%	14
12	S-Oil	29%	58%	0%	29
13	Daewoo International Corp.	16%	n.a.	0%	8
14	Honam Petrochemical Corp.	25%	59%	47%	44
15	Samsung C&T Corp.	3%	54%	40%	32
16	KIA Motors	4%	61%	32%	45
17	Hyundai Mobis	8%	n.a.	56%	32
18	Lotte Shopping	17%	n.a.	2%	10
19	Korea Gas Corporation (KOGAS)	11%	n.a.	4%	8
20	Doosan Heavy Industries & Construction	14%	57%	0%	24

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites. Data for total sales was derived from KORCHAMBIZ (www.korchambiz.net).

[a] The TNI is calculated as a simple average of three ratios – foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment. The TNI appears in parentheses where it has been calculated without including the foreign-to-total employment ratio.

[b] n.a.' indicates the non-availability of data. Data on foreign employees for Samsung Electronics, KIA Motors, and Lotte Shopping are for 2009.

Annex Table 2. Korea: The top 20 multinationals: Regionality Index (%), 2010

Rank by foreign assets	Firms	Middle East & North Africa	Sub-Saharan Africa	East Asia & the Pacific	South Asia	Developed Asia-Pacific (Japan, Australia & New Zealand)	Eastern Europe & Central Asia	Other Europe	Latin America & the Caribbean	North America	Total (Number of firms, %)	
1	Hyundai Heavy Industries	13%	8%	23%	8%	5%	5%	25%	3%	13%	40	5%
2	DSME	7%	7%	14%	7%	14%	14%	14%	7%	14%	14	2%
3	Samsung Heavy Industries	7%	0%	20%	13%	13%	13%	13%	7%	13%	15	2%
4	LG Display	0%	0%	45%	18%	9%	9%	9%	0%	9%	11	1%
5	Hyundai Motors	13%	2%	13%	17%	7%	13%	9%	4%	22%	46	6%
6	SK Innovation	6%	0%	31%	14%	14%	0%	11%	9%	14%	35	5%
7	LG Electronics	9%	5%	19%	10%	3%	15%	13%	14%	12%	78	10%
8	POSCO	0%	0%	33%	38%	10%	0%	0%	10%	10%	21	3%
9	Hynix Semiconductor	0%	0%	23%	13%	6%	0%	29%	0%	29%	31	4%
10	Samsung Electronics	2%	0%	38%	36%	4%	8%	2%	8%	4%	53	7%
11	SK Networks	14%	0%	50%	18%	7%	4%	7%	0%	0%	28	4%
12	S-Oil	100%	0%	0%	0%	0%	0%	0%	0%	0%	1	0%
13	Daewoo International Corp.	9%	11%	23%	15%	6%	12%	9%	8%	6%	65	8%
14	Honam Petrochemical Corp.	0%	0%	80%	20%	0%	0%	0%	0%	0%	5	1%
15	Samsung C&T Corp.	11%	5%	18%	24%	6%	13%	10%	6%	7%	83	11%
16	KIA Motors	9%	5%	7%	16%	7%	16%	23%	5%	14%	44	6%
17	Hyudai Mobis	5%	0%	29%	8%	5%	11%	18%	3%	21%	38	5%
18	Lotte Shopping	0%	0%	74%	25%	0%	1%	0%	0%	0%	112	14%
19	Korea Gas Corporation (KOGAS)	39%	6%	0%	22%	11%	11%	0%	0%	11%	18	2%
20	Doosan Heavy Industries & Construction	28%	0%	10%	25%	3%	5%	5%	3%	23%	40	5%
Total		**9%**	**3%**	**30%**	**19%**	**5%**	**8%**	**10%**	**5%**	**11%**	**778**	**100%**

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites.

[a] The Regionality Index is calculated by dividing the number of a firm's foreign affiliates in a particular region of the world by its total number of foreign affiliates and multiplying the result by 100.

Annex table 2a. Korea: The top 20 multinationals: Number of affiliates, 2010

Rank by foreign assets	Firms	Middle East & North Africa	Sub-Saharan Africa	East Asia & the Pacific	South Asia	Developed Asia-Pacific (Japan, Australia & New Zealand)	Eastern Europe & Central Asia	Other Europe	Latin America & the Caribbean	North America	Total
1	Hyundai Heavy Industries	5	3	9	3	2	2	10	1	5	40
2	DSME	1	1	2	1	2	2	2	1	2	14
3	Samsung Heavy Industries	1	0	3	2	2	2	2	1	2	15
4	LG Display	0	0	5	2	1	1	1	0	1	11
5	Hyundai Motors	6	1	6	8	3	6	4	2	10	46
6	SK Innovation	2	0	11	5	5	0	4	3	5	35
7	LG Electronics	7	4	15	8	2	12	10	11	9	78
8	POSCO	0	0	7	8	2	0	0	2	2	21
9	Hynix Semiconductor	0	0	7	4	2	0	9	0	9	31
10	Samsung Electronics	1	0	20	19	2	4	1	4	2	53
11	SK Networks	4	0	14	5	2	1	2	0	0	28
12	S-Oil	1	0	0	0	0	0	0	0	0	1
13	Daewoo International Corp.	6	7	15	10	4	8	6	5	4	65
14	Honam Petrochemical Corp.	0	0	4	1	0	0	0	0	0	5
15	Samsung C&T Corp.	9	4	15	20	5	11	8	5	6	83
16	KIA Motors	4	2	3	7	3	7	10	2	6	44
17	Hyudai Mobis	2	0	11	3	2	4	7	1	8	38
18	Lotte Shopping	0	0	83	28	0	1	0	0	0	112
19	Korea Gas Corporation (KOGAS)	7	1	0	4	2	2	0	0	2	18
20	Doosan Heavy Industries & Construction	11	0	4	10	1	2	2	1	9	40
Total		**67**	**23**	**234**	**148**	**42**	**65**	**78**	**39**	**82**	**778**

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites.

Annex Table 3. Korea: The top 20 multinationals: Stock exchange listings, 2010

Firms	Domestic	Foreign
Hyundai Heavy Industries	Seoul	Over-the-counter (OTC)[a] US
DSME	Seoul	OTC US, Luxembourg Stock Exchange[b] , Stuttgart Stock Exchange (STU)[c]
Samsung Heavy Industries	Seoul	OTC US
LG Display	Seoul	Munich Stock Exchange (MUN)[d], New York, Stock Exchange (NYSE)[e] Mexican Stock Exchange (BMV)[f]
Hyundai Motors	Seoul	OTC US, Frankfurt Stock Exchange[g] (FWB), Luxembourg, Turquoise
SK Innovation	Seoul	None
LG Electronics	Seoul	OTC US, Turquoise, FWB
POSCO	Seoul	NYSE, FWB, Tokyo Stock Exchange[h], Turquoise, Singapore Stock Exchange[i] (SGX), Buenos Aires Stock Exchange[j] (BCBA)
Hynix Semiconductor	Seoul	OTC US, Luxembourg
Samsung Electronics	Seoul	OCT US, Luxembourg, FWB , BCBA, Turquoise, London Stock Exchange[k], BATS[l] Europe
SK Networks	Seoul	None
S-Oil	Seoul	OTC US
Daewoo International Corp.	Seoul	None
Honam Petrochemical Corp.	Seoul	OTC US
Samsung C&T Corp.	Seoul	OTC US
KIA Motors	Seoul	OTC US, Luxembourg
Hyundai Mobis	Seoul	None
Lotte Shopping	Seoul	OTC US, Turquoise
Korea Gas Corporation	Seoul	None
Doosan Heavy Industries & Construction	Seoul	OTC US

Source: GSIS-VCC research on leading Korean multinationals, 2011, drawing on auditors' reports and Bloomberg Businessweek (http://investing.businessweek.com/research/common/symbollookup/symbollookup.asp).

[a] OTC stands for over-the-counter.
[b] Luxembourg stands for Luxembourg Stock Exchange (Bourse de Luxembourg in French)
[c] STU stands for Stuttgart Stock Exchange
[d] MUN stands for Munich Stock Exchange
[e] NYSE stands for New York Stock Exchange
[f] BVM stands for the Mexican Stock Exchange (Bolsa Mexicana de Valores in Spanish)
[g] FWB stands for Frankfurt Stock Exchange (Frankfurter Wertpapierbörse in German)
[h] TSE stands for Tokyo Stock Exchange (東京証券取引所 Tōkyō Shōken Torihikijyo in Japanese)
[I] SCX stands for Singapore Stock Exchange
[j] BCBA stands for Buenos Aires Stock Exchange (Bolsa de Comercio de Buenos Aires in Spanish)
[k] LSE stands for London Stock Exchange
[l] BATS stands for Better Alternative Trading System.

Annex Table 4. Korea: Top 10 outward M&A transactions, 2008-2010 (US$ million)

Date	Acquirer's name	Target name	Target industry	Target economy	% of shares acquired	Value of transaction
12/22/2009	KNOC	Harvest Energy Trust	Crude petroleum and natural gas	Canada	100	3,936.6
09/24/2010	KNOC	Dana Petroleum PLC	Crude petroleum and natural gas	United Kingdom	100	2,570.8
02/01/2008	Korea Investment Corp	Merrill Lynch & Co Inc	Security brokers & dealers	United States	9	2,000.0
11/01/2010	Honam Petrochemical Corp	Titan Chemicals Corp	Chemicals and chemical preparations	Malaysia	72	918.3
08/05/2008	LS Cable Ltd	Superior Essex Inc	Drawing & insulating nonferrous wire	United States	100	903.2
02/06/2009	Investor Group	Petro-Tech Peruana SA	Crude petroleum and natural gas	Peru	100	892.8
05/26/2010	NPS	Morgan Stanley RE-Sony Center	Operators of non-residential buildings	Germany	100	766.7
08/21/2008	STX Corp	Aker Yards ASA	Ship building and repairing	Norway	52	734.0
10/29/2010	SK Networks	MMX Mineracao e Metalicos SA	Iron ores	Brazil	12	698.3
12/07/2009	Doosan Heavy Inds & Constr Co	Skoda Power AS	Turbines and turbine generator sets	Czech Republic	100	658.4
Total						**14,079.1**

Source: Adapted from Thomson ONE Banker, Thomson Reuters.

Annex table 5. Korea: Top 10 outward greenfield transactions, announced[a], 2008-2010 (US$ million)

Date	Company	Destination	Industry	Value of transaction
Jan-10	Pohang Iron & Steel (POSCO)	India	Metals	7,028
Jan-10	Taekwang Industrial	Vietnam	Coal, Oil and Natural Gas	4,500
May-08	DSECO	UAE	Real Estate	4,002
Aug-09	LG	China	Electronic Components	4,000
Jun-10	Samsung	United States	Semiconductors	3,600
Jan-08	Pohang Iron & Steel (POSCO)	Vietnam	Metals	3,500
Aug-09	Samsung	China	Electronic Components	3,000
May-08	SK Energy	China	Chemicals	2,000
Aug-09	Daewoo	Myanmar (Burma)	Coal, Oil and Natural Gas	1,700
Jul-10	Korea East-West Power (EWP)	India	Coal, Oil and Natural Gas	1,600
Total				**34,930**

Source: Adapted from fDi Intelligence, a service from the Financial Times Ltd.

[a] Note that these transactions may not have materialized exactly as listed here.

Annex Table 6. Korea: Outward FDI by region (US$ million and percentages)

Region	**2006**	**2007**	**2008**	**2009**	**2010**	**% change 2009-2010**
Asia	6,329	11,583	11,677	6,638	9,468	43%
Europe	1,231	4,431	3,390	5,145	5,883	14%
North America	2,176	3,760	5,297	5,998	4,501	-25%
Latin America & the Caribbean	1,085	1,295	2,102	1,040	1,953	88%
Oceania	193	543	771	538	772	43%
Middle East	398	369	287	360	319	-11%
Africa	207	239	320	374	291	-22%
Total	**11,619**	**22,220**	**23,844**	**20,093**	**23,187**	**15%**

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 6a. Korea: Outward FDI of major industry sectors by region (US$ million and percentages)

Region	Industry	2006	2007	2008	2009	2010	% change 2009-2010
Asia	Manufacturing	3,832	5,603	4,211	2,728	4,877	79
	Mining	270	410	672	809	1,104	36
	Professional, scientific & technological service	263	429	595	371	995	168
	Finance & insurance	131	1,076	1,478	1,158	883	-24
	Wholesale & retail	285	963	1,684	373	459	23
	Total	**4,781**	**8,481**	**8,640**	**5,439**	**8,318**	
Europe	Mining	89	252	282	767	3,279	328%
	Real estate & Leasing	10	11	25	1,606	1,061	-34
	Manufacturing	882	1,742	1,653	902	865	-4
	Wholesale & retail	128	265	429	452	353	-22
	Transportation	16	72	105	212	164	-23
	Professional, scientific & technological services	80	1,750	628	839	62	-93
	Total	**1,205**	**4,092**	**3,122**	**4,778**	**5,784**	
North America	Finance & insurance	9	63	83	121	1,561	1185
	Mining	380	347	1,437	3,016	1,238	-59
	Manufacturing	574	481	994	732	366	-50
	Wholesale & retail	620	1,093	1,443	842	319	-62
	Professional, scientific & technological services	41	773	602	617	285	-54
	Total	**1,624**	**2,757**	**4,559**	**5,328**	**3,769**	
Latin America & the Caribbean	Mining	220	365	847	162	866	433
	Finance & insurance	482	391	553	477	557	17
	Manufacturing	213	263	265	112	251	124
	Real estate & Leasing	100	50	88	132	134	1
	Professional, scientific & technological services	n.a.	16	17	n.a.	102	10156
	Total	**1,015**	**1,085**	**1,770**	**883**	**1,910**	

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 6b. Korea: Outward FDI in major regions by economy (US$ million and percentages)

Region	Economy	2006	2007	2008	2009	2010	% change 2009-2010
Asia	China	3,430	5,263	3,754	2,127	3,167	49
	Malaysia	51	158	327	110	1,555	1311
	Hong Kong	857	1,867	2,591	1,565	1,262	-19
	Indonesia	148	256	541	334	874	162
	Vietnam	593	1,297	1,360	602	832	38
	Total	**5,079**	**8,841**	**8,573**	**4,738**	**7,690**	
Europe	United Kingdom	69	175	189	1,710	3,280	92
	Germany	38	404	642	292	757	159
	Netherlands	141	661	664	1,057	678	-36
	France	29	33	30	264	337	28
	Russia	114	226	358	428	332	-22
	Total	**391**	**1,499**	**1,883**	**3,751**	**5,384**	
North America	United States	1,786	3,615	5,132	3,564	3,290	-8
	Canada	390	145	166	2,434	1,210	-50
	Total	**2,176**	**3,760**	**5,298**	**5,998**	**4,500**	
Latin America & the Caribbean	Brazil	110	265	635	132	1,054	701
	Cayman Islands	222	350	235	460	531	16
	Bermuda	421	113	452	n.a.	115	n.a.
	Mexico	53	120	305	55	64	16
	Panama	133	172	241	241	53	-78
	Total	**939**	**1,020**	**1,868**	**888**	**1,817**	

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex table 6c. Korea: Top 10 destinations for outward FDI (US$ million)

Destination	Investment Amount
United Kingdom	3,300
United States	3,300
China	3,100
Malaysia	1,600
Hong Kong	1,300
Canada	1,200
Brazil	1,100
Indonesia	900
Vietnam	800
Germany	800

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 7. Korea: Outward FDI by industry sectors (US$ million and percentages)

Industry	**2006**	**2007**	**2008**	**2009**	**2010**	**% change 2009-2010**
Mining	1,431	2,051	4,104	5,430	7,225	33
Manufacturing	5,568	8,158	7,200	4,571	6,567	44
Finance & insurance	621	1,685	2,158	1,774	3,204	81
Real estate & Leasing	868	1,612	1,768	2,462	1,509	-39
Professional, scientific & technological services	387	2,973	1,846	1,829	1,443	-21
Wholesale & retail	1,121	2,511	3,730	1,810	1,149	-37
Others	1,624	3,230	3,039	2,217	2,090	-6
Total	**11,620**	**22,220**	**23,845**	**20,093**	**23,187**	**15**

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 7a. Korea: Totals of major investments in main industries in main destinations, 2006-2010 (US$ million and percentages)

Industry	Economy	2006	2007	2008	2009	2010	% change 2009-2010
Mining	United Kingdom	9	55	83	2	3,008	136466
	Canada	294	26	58	2,394	1,141	-52
	Brazil	57	110	612	89	771	769
	Indonesia	14	12	45	120	561	368
	Australia	25	72	533	162	366	126
	Netherlands	54	65	31	493	258	-48
	Madagascar	29	134	108	285	166	-42
	Myanmar	n.a.	1	35	348	162	-54
	Vietnam	187	251	216	147	156	6
	United States	86	321	1,379	622	97	-84
	Total	**755**	**1,047**	**3,100**	**4,662**	**6,686**	
Manufacturing	China	2,883	3,799	2,326	1,693	2,294	36
	Malaysia	11	25	50	39	1,352	3384%
	Vietnam	296	620	665	304	450	48
	United States	541	472	977	725	360	-50
	Russia	41	112	265	261	295	13
	Hong Kong	279	322	486	222	173	-22
	Indonesia	103	143	205	79	171	118
	Netherlands	9	342	97	27	158	480
	Philippines	16	24	45	26	151	478
	India	82	261	135	216	132	-39
	Total	**4,261**	**6,120**	**5,251**	**3,592**	**5,536**	
Real estate & leasing	Germany	6	n.a.	2	n.a.	684	n.a.
	France	n.a.	n.a.	1	n.a.	322	120892
	United States	46	232	127	237	102	-57
	Brazil	n.a.	n.a.	n.a.	n.a.	82	n.a.
	Vietnam	18	203	213	21	51	141
	Total	70	435	343	258	1,241	
Finance & insurance	United States	9	63	54	121	1,561	1185
	Cayman Islands	124	236	127	438	481	10
	China	16	656	258	50	347	598
	Hong Kong	112	280	161	810	242	-70
	Australia	n.a.	n.a.	n.a.	1	175	13937
	Total	**261**	**1,235**	**600**	**1,420**	**2,806**	

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 8. Korea: Outward FDI amount by ownership percentage (US$ million and percentages)

% of ownership	2006	2007	2008	2009	2010	% change 2009-2010
Less than 10%	536	815	736	436	302	-31
More than 10% ~ less than 50%	858	2,345	3,188	1,578	2,864	82
50%	343	541	358	657	170	-74
More than 50% ~ less than 100%	1,685	2,552	2,089	1,605	3,090	93
100%	8,198	15,967	17,474	15,818	16,759	6
Total	**11,620**	**22,220**	**23,845**	**20,094**	**23,186**	**15**

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 9. Korea: Outward FDI by scale of investment (US$ million and percentages)

Investment amount	**2006**	**2007**	**2008**	**2009**	**2010**	**% change 2009-2010**
Less than $500,000	994	1,042	815	545	585	7
$500,000 ~ $2 million	1,298	1,570	1,364	934	1,049	12
$2 million ~ $5 million	1,308	1,946	1,790	1,308	1,386	6
$5 million ~ less than $10 million	1,066	1,623	1,699	1,125	1,317	17
$10 million ~less than $50 million	2,821	5,026	5,297	4,068	4,081	0
$50 million ~ less than $100 million	1,219	1,836	3,002	2,629	2,249	-15
Over $100 million	2,914	9,177	9,878	9,485	12,520	32
Total	**11,620**	**22,220**	**23,845**	**20,094**	**23,186**	**15**

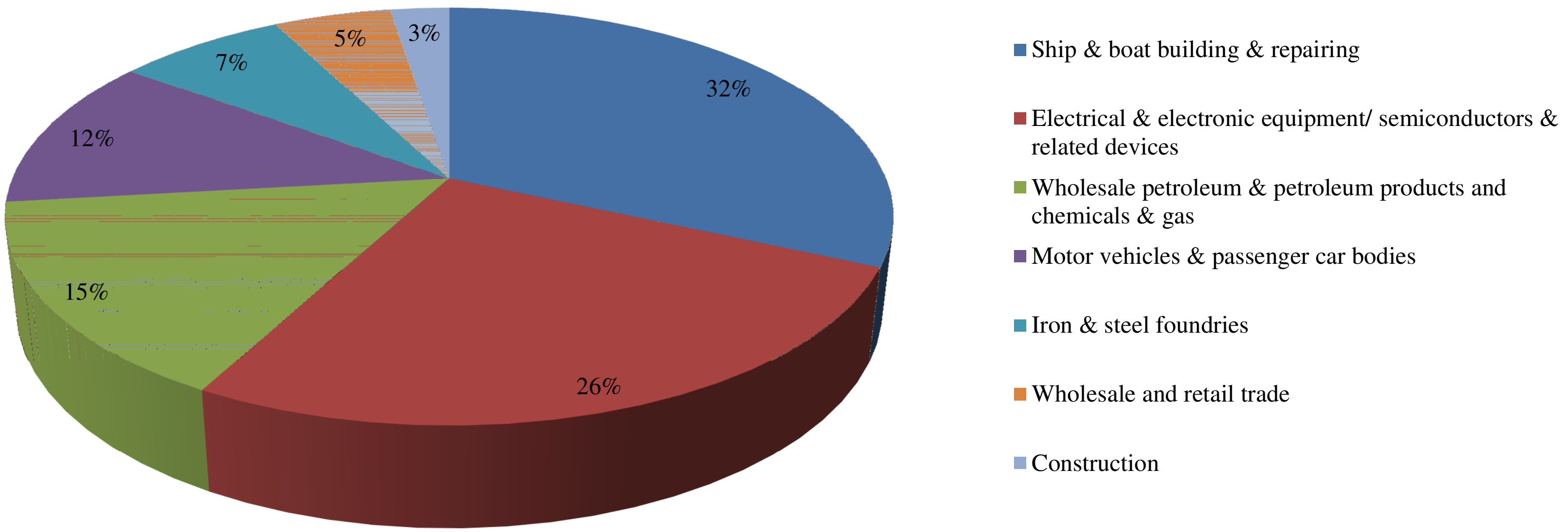
Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Table 10. Korea: Outward M&As by industry (US$ million and percentages)

Industry	**2007**	**2008**	**2009**	**2010**	**% change 2009-2010**
Mining	356	1,312	1,320	3,900	195
Manufacturing	2,231	1,700	880	1,099	25
Finance & Insurance	254	264	925	497	-46
Wholesale & retail	1,084	2,065	924	350	-62
Professional, scientific & technological services	1,622	544	647	236	-64
Others	862	1,567	583	318	-46
Total	**6,408**	**7,453**	**5,279**	**6,400**	**21**

Source: Adapted from the 2010 FDI Trend Analysis, the Export-Import Bank of Korea, March 2011.

Annex Figure 1. Korea: Breakdown of the foreign assets of the top 20 multinationals, by main industry, 2010



The top multinationals, by main industry, 2010 (US$ million)

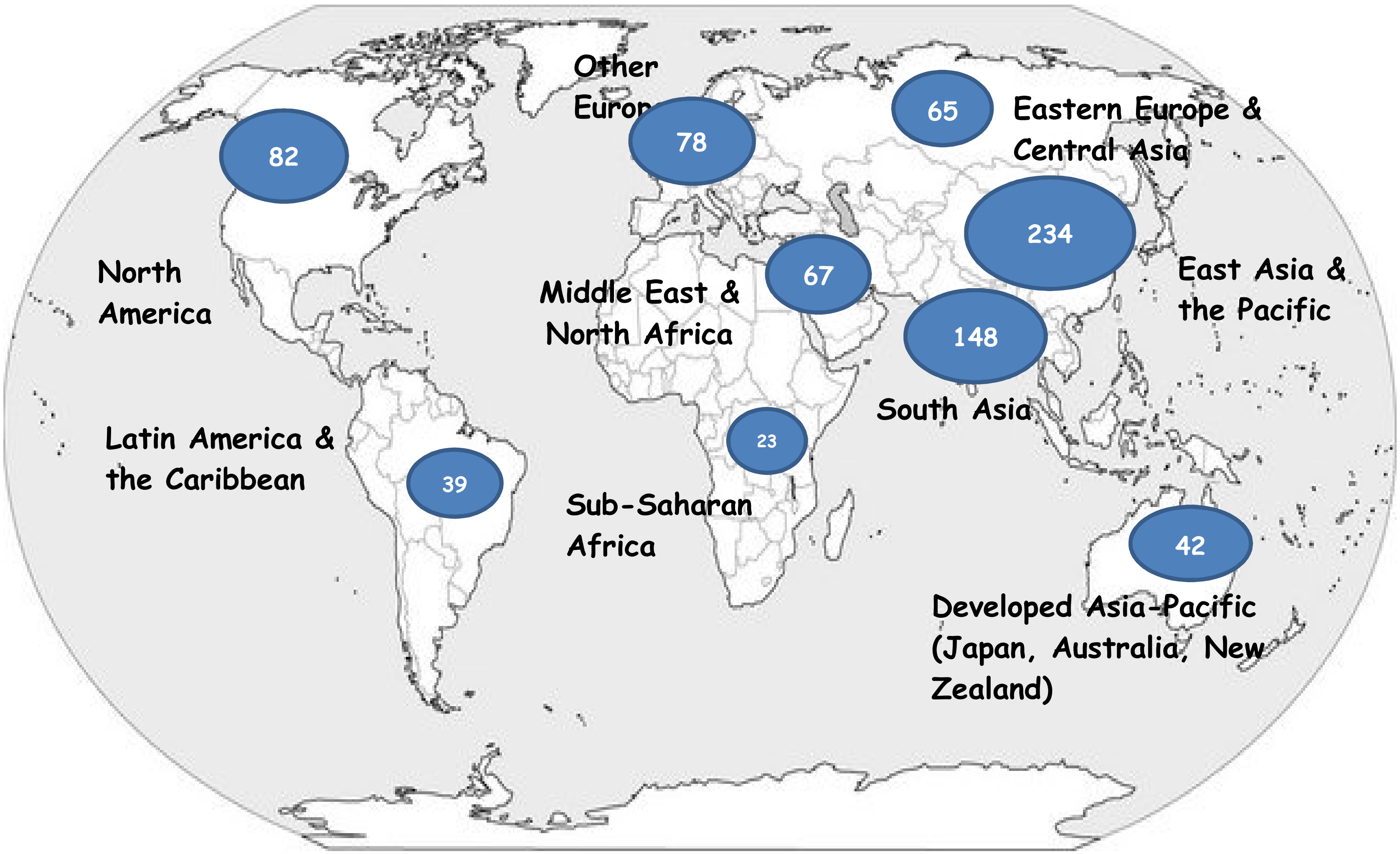
Industry	Foreign	Companies
Ship & boat building & repair	27,407	DSME, Hyundai Heavy Industries, Samsung Heavy Industries
Electrical & electronic equipment/ semiconductors & related devices	22,652	Hynix Semiconductor, LG Display, LG Electronics, Samsung Electronics, SK Networks[a]
Wholesale petroleum & petroleum products and chemicals & gas	13,259	Honam Petrochemical Corp., SK Innovation, SK Networks, S-Oil, KOGAS
Motor vehicles & passenger car bodies	10,232	Hyundai Mobis, Hyundai Motors, KIA Motors
Iron & steel foundries	6,333	POSCO, SK Networks
Wholesale and retail trade	4,402.5	Daewoo International Corp., Lotte Shopping, Samsung C&T Corp.[b]
Construction	2,220.5	Doosan Heavy Industries & Construction, Samsung C&T Corp.

Source: GSIS-VCC research on leading multinationals, 2011, drawing on Korea Information Service, Inc. (www.kisline.com), individual auditors' reports and company websites. Data for total sales were derived from KORCHAMBIZ (www.korchambiz.net).

[a] SK Networks's foreign assets were divided into its three broad business areas: petroleum products and chemicals, steel, and mobile phones, as the exact division of assets is unclear. The foreign assets were included in Electrical & electronic equipment; wholesale petroleum & petroleum products and chemicals & gas; and iron & steel foundries.

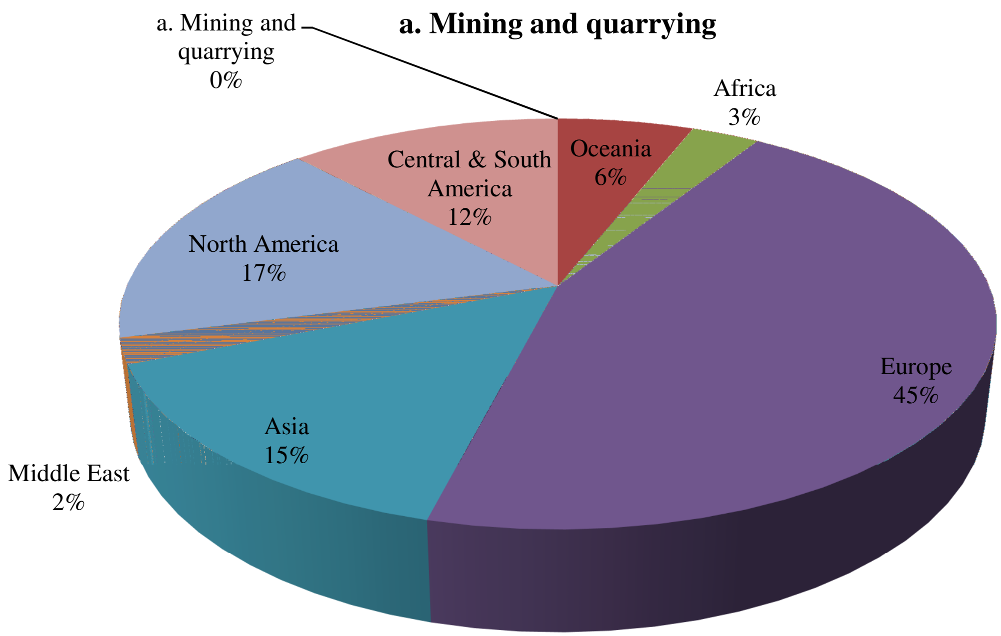
[b] Half of Samsung C&T Corp.'s foreign assets are included in construction and the other half in wholesale & retail trade, as the exact division of assets is unclear.

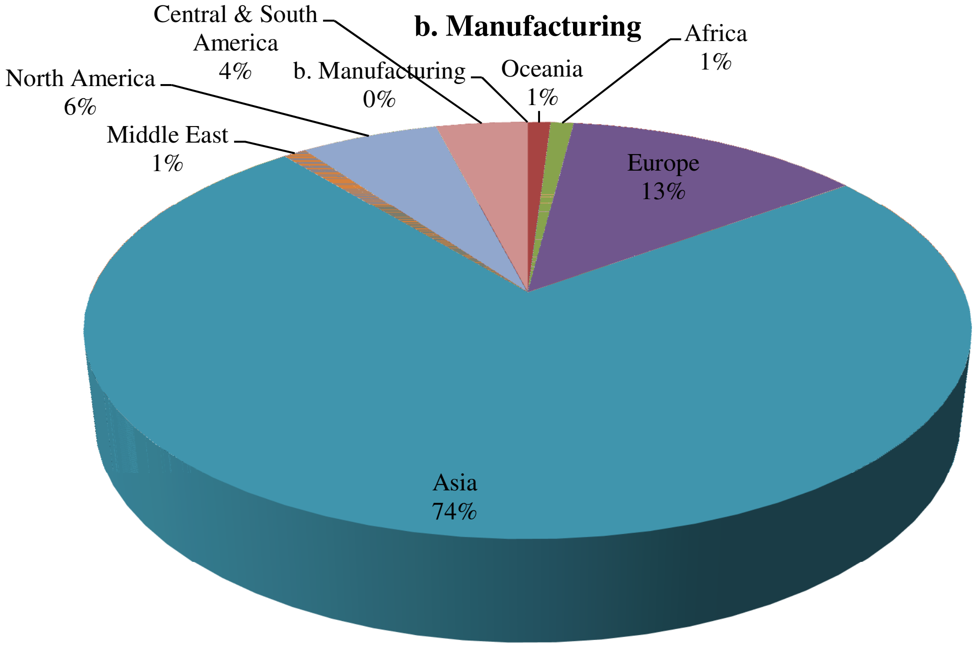
Annex Figure 2. Korea: Foreign affiliates of the top 20 multinationals, by region, 2010 (number of affiliates)

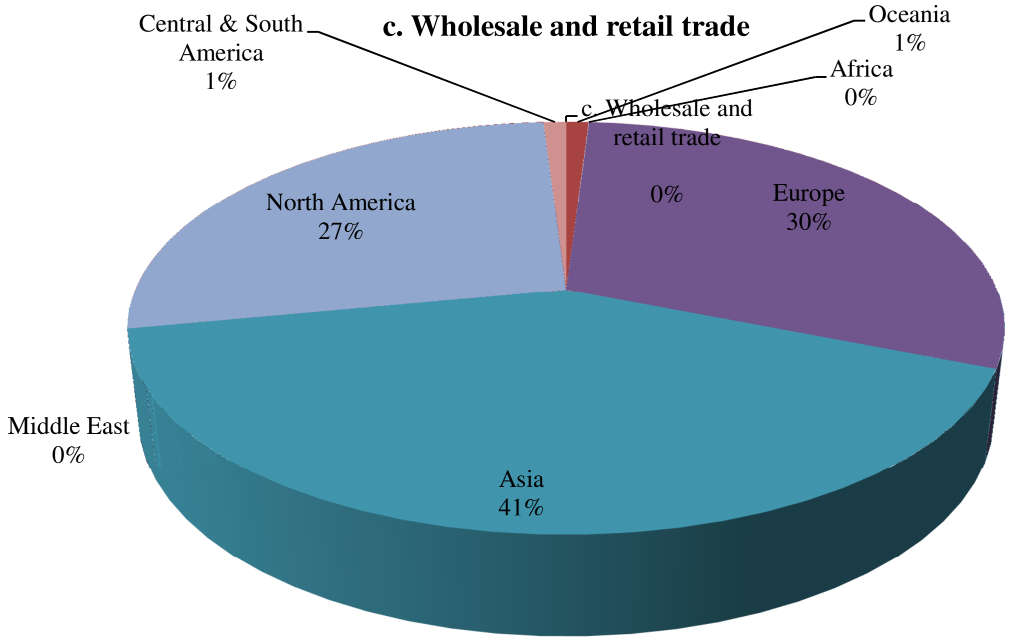


Source: GSIS-VCC research on leading multinationals, 2011, drawing on auditors' reports and company websites.

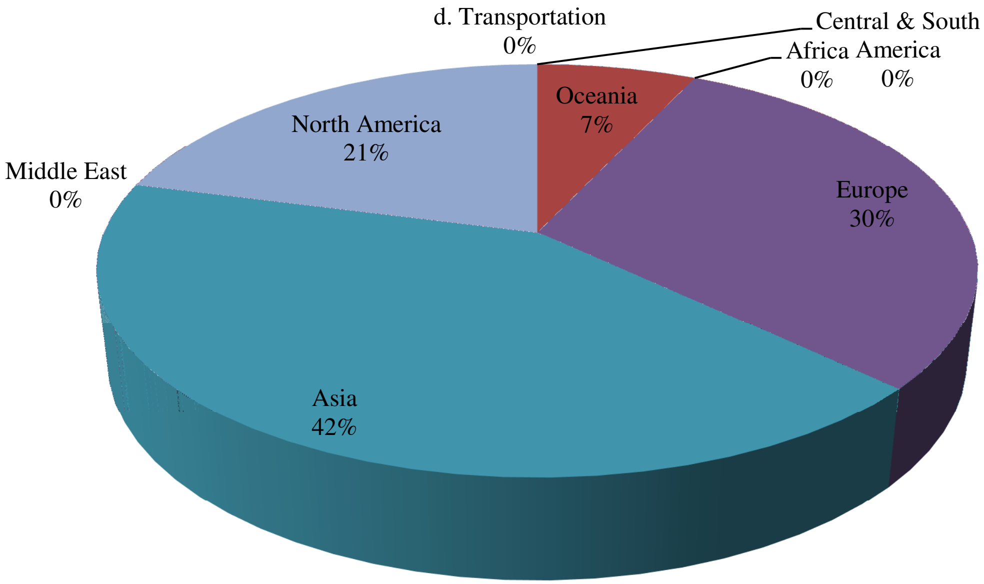
Annex Figure 3. Korea: Geographic distribution of the assets of total outward FDI, by main industry, 2010[a] (percentages)

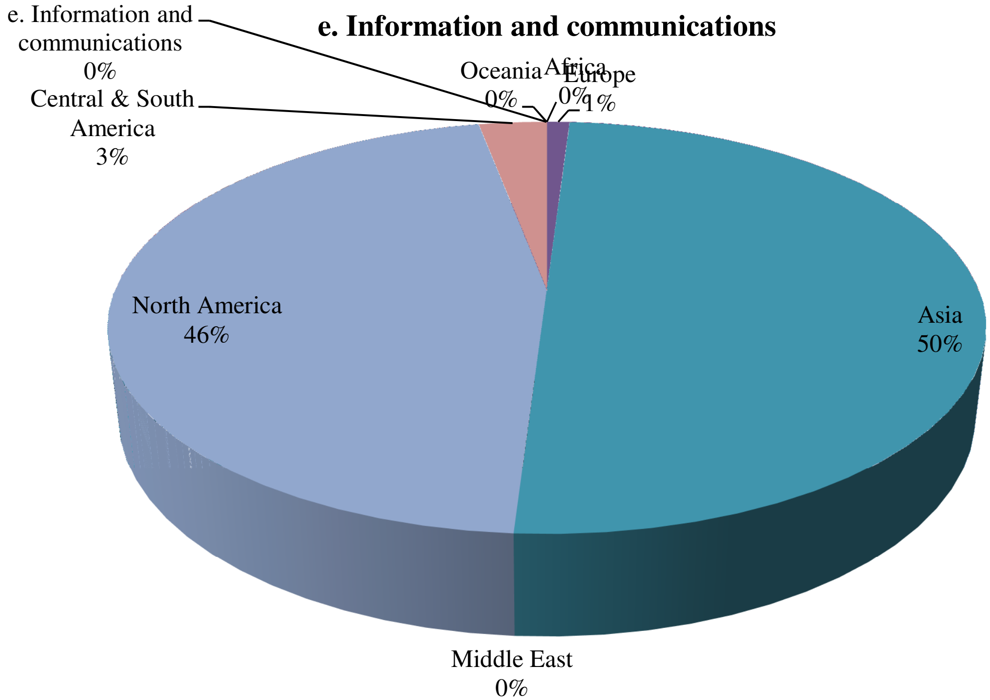


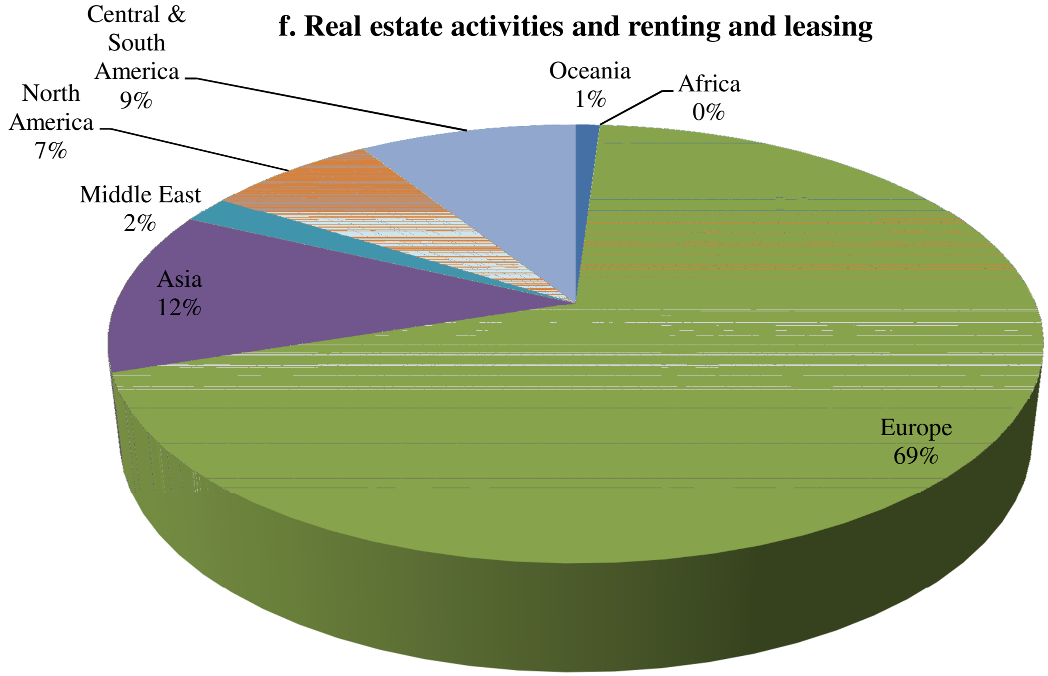

b. Manufacturing
Central & South America 4%
North America 6%
Middle East 1%
b. Manufacturing 0%
Oceania 1%
Africa 1%
Europe 13%
Asia 74%

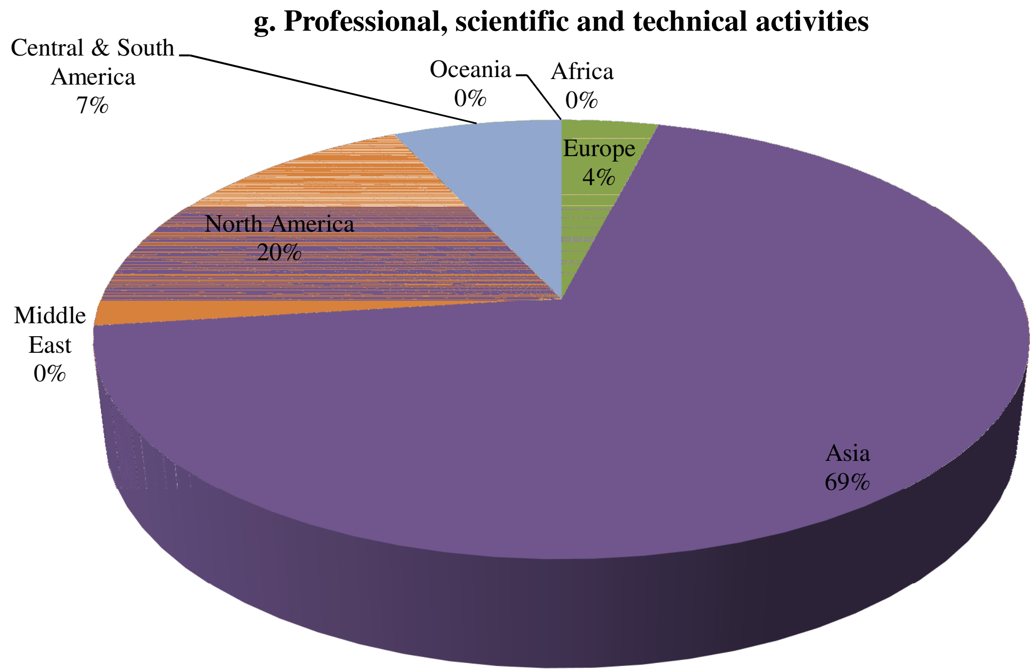

c. Wholesale and retail trade
Central & South America 1%
Oceania 1%
Africa 0%
c. Wholesale and retail trade 0%
North America 27%
Europe 30%
Middle East 0%
Asia 41%

d. Transportation




e. Information and communications
e. Information and communications
0%
Oceania
0%
Africa
0%
Europe
1%
Central & South
America
3%
North America
46%
Asia
50%
Middle East
0%


f. Real estate activities and renting and leasing
Central & South America 9%
North America 7%
Middle East 2%
Asia 12%
Oceania 1%
Africa 0%
Europe 69%



Source: Adapted from Foreign Investment Statistics, The Export Import Bank of Korea, http://en.koreaexim.go.kr/en2/05_fdi/02_statistic/03.jsp.

[a] Data on the geographic distribution of the assets of the top 20 by main industry were unavailable. The distribution for the *total* outward FDI in 2010 is provided instead. The nature of the source also dictated the division into the regions shown in the figures, which is different from the division into the nine regions used by the Emerging Market Global Players project and used elsewhere in this report (e.g., Annex Table 2 on the regionality index).

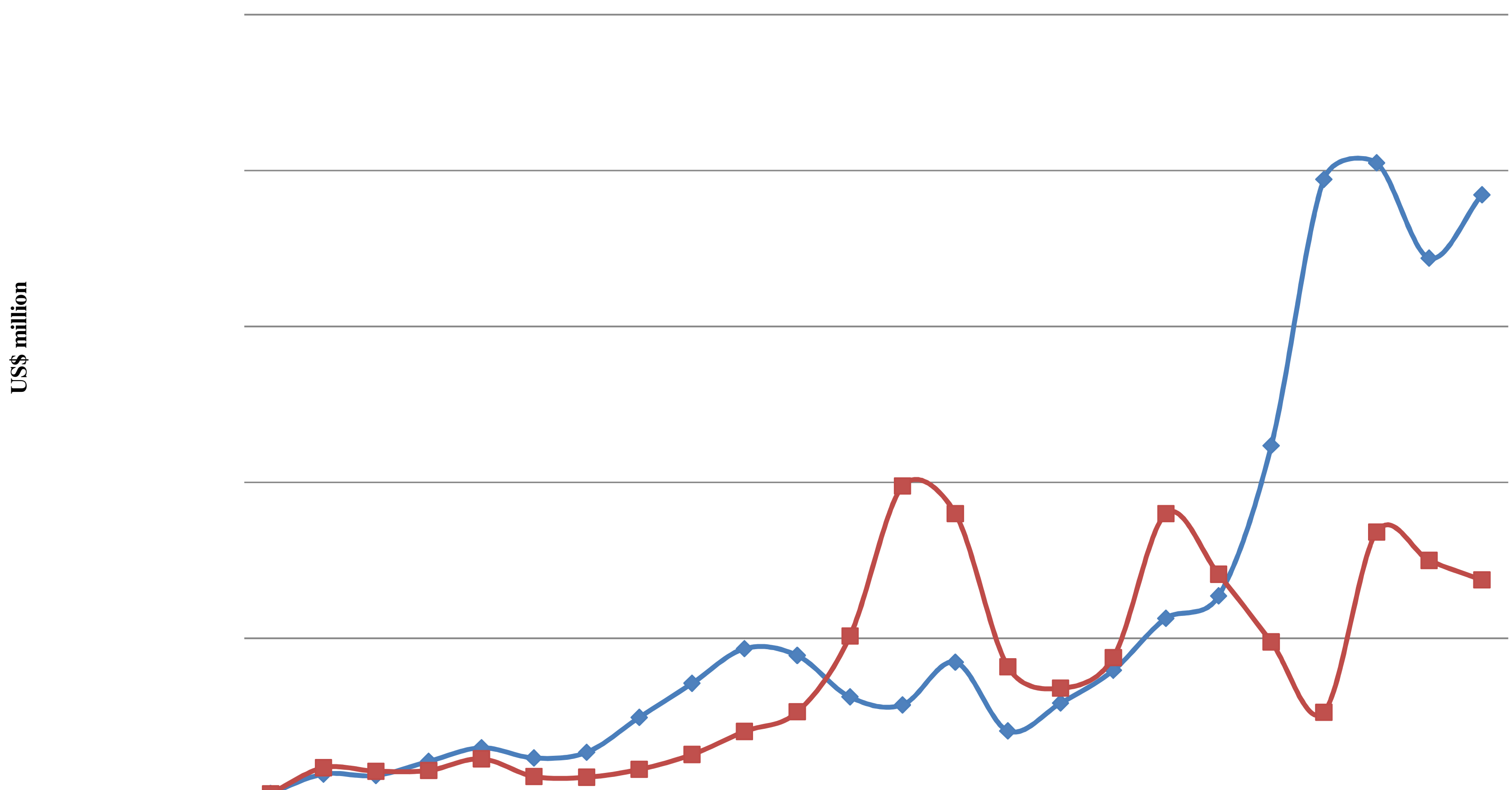
Annex Figure 4. Korea: Head office locations of the top 20 multinationals, 2010[a]

Rank	Firm	HQ Location
1	Hyundai Heavy Industries	Ulsan
2	DSME	Seoul
3	Samsung Heavy Industries	Seoul
4	LG Display	Seoul
5	Hyundai Motors	Seoul
6	SK Innovation	Seoul
7	LG Electronics	Seoul
8	POSCO	Pohang
9	Hynix Semiconductor	Icheon
10	Samsung Electronics	Suwon
11	SK Networks	Suwon
12	S-Oil	Seoul
13	Daewoo International Corp.	Seoul
14	Honam Petrochemical Corp.	Seoul
15	Samsung C&T Corp.	Seoul
16	KIA Motors	Seoul
17	Hyundai Mobis	Seoul
18	Lotte Shopping	Seoul
19	Korea Gas Corporation (KOGAS)	Seongnam
20	Doosan Heavy Industries & Construction	Changwon

Source: GSIS-VCC research on leading multinationals, 2011, drawing on auditors' reports and company websites.

[a] Companies whose numbers do not appear on the map have their head offices in Seoul.

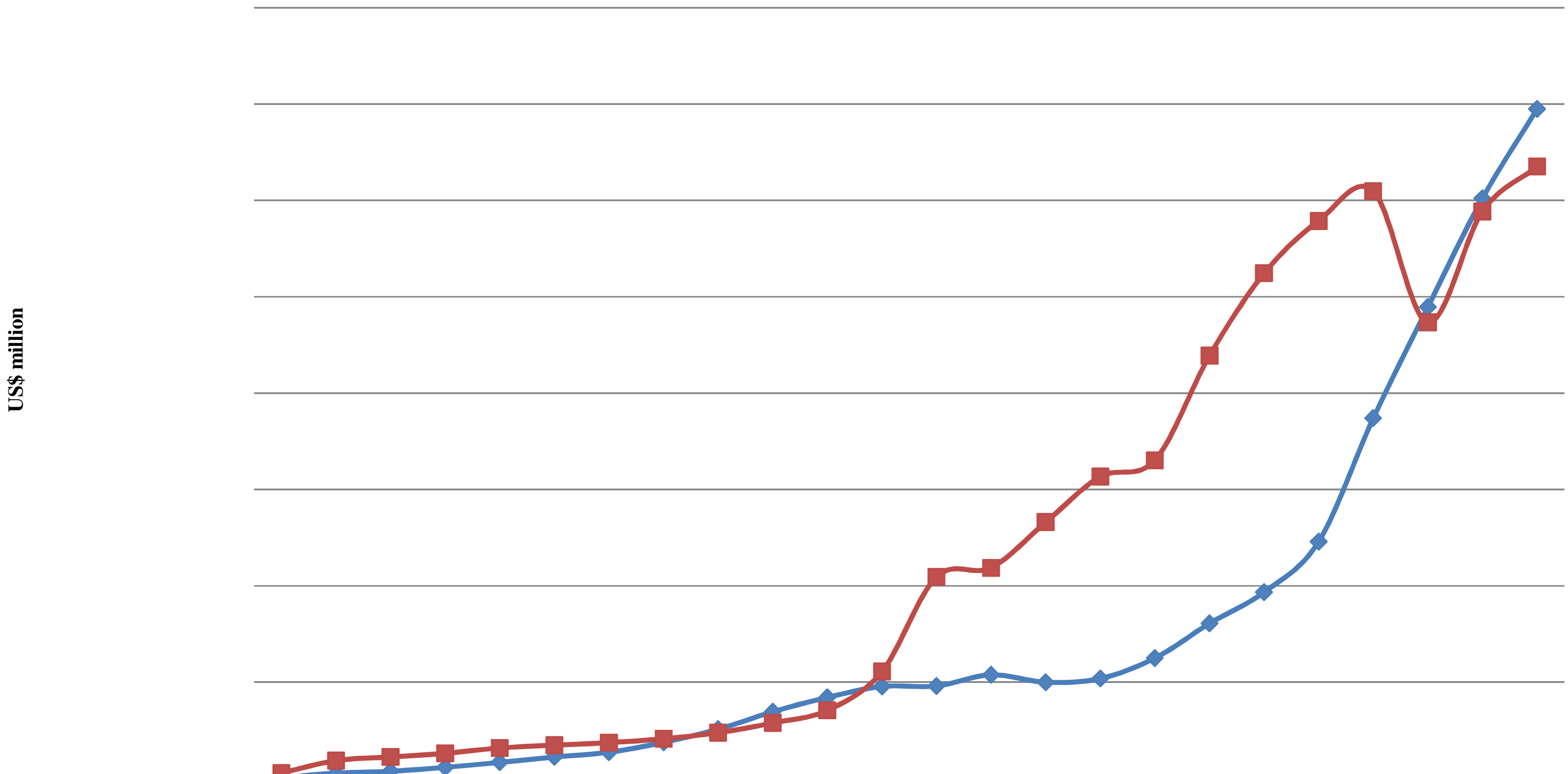
Annex Figure 5. Korea: Inward and outward FDI flows, 1980 - 2010



	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Outward FDI flows	26	643	598	1,05	1,48	1,16	1,34	2,46	3,55	4,67	4,44	3,11	2,86	4,23	2,02	2,92	3,97	5,64	6,35	11,1	19,7	20,2	17,1	19,2
Inward FDI flows	17	848	737	759	1,13	567	546	795	1,27	2,01	2,64	5,07	9,88	9,00	4,08	3,39	4,38	8,99	7,05	4,88	2,62	8,40	7,50	6,87

Source: Adapted from UNCTAD, Annex tables to *World Investment Report, 2011,* http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx.

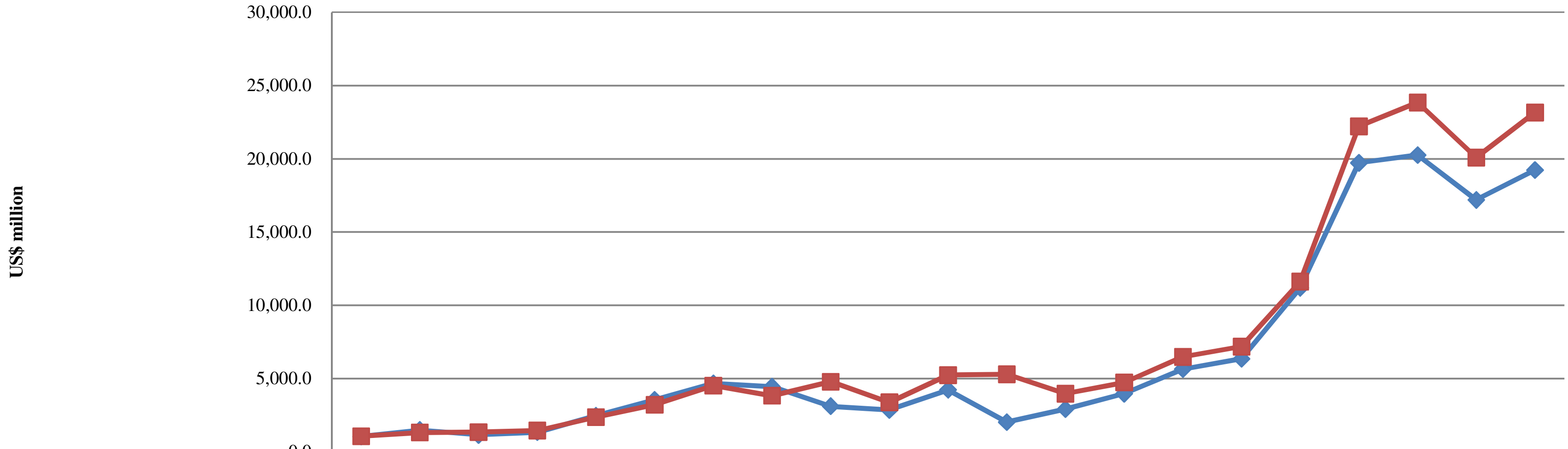
Annex Figure 6. Korea: Inward and outward FDI stock, 1980 - 2010



	1980	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Outward FDI stock	127	1,09	1,48	2,30	3,32	4,42	5,44	7,47	10,2	13,8	16,8	19,0	19,1	21,4	19,9	20,7	24,9	32,1	38,6	49,1	74,7	97,9	120,	138,
Inward FDI stock	1,13	3,68	4,42	5,18	6,31	6,88	7,43	8,22	9,49	11,5	14,1	22,1	41,8	43,7	53,2	62,6	66,0	87,7	104,	115,	121,	94,6	117,	127,

Source: Adapted from UNCTAD, Annex tables to *World Investment Report, 2011,* http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx.

Annex Figure 7. Korea: Outward FDI flows, 1990-2010, from different sources



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total OFDI - UNCTAD*	1,051.6	1,488.6	1,161.5	1,340.0	2,461.1	3,552.0	4,670.1	4,449.4	3,119.0	2,864.4	4,233.1	2,028.9	2,920.3	3,971.4	5,643.3	6,359.1	11,174.	19,719.	20,251.	17,197.	19,229.
Total OFDI - Korea Exim Bank**	1,068.8	1,319.0	1,352.3	1,450.3	2,366.5	3,217.4	4,525.3	3,829.2	4,792.1	3,384.9	5,245.1	5,296.9	3,978.6	4,739.7	6,486.3	7,187.9	11,619.	22,219.	23,843.	20,084.	23,157.

Sources: * UNCTAD (http://stats.unctad.org/fdi/ReportFolders/reportFolders.aspx), accessed on December 30th. 2011.
** The Export Import Bank of Korea

[a] Some discrepancies were found between the data from the Export Import Bank of Korea and from UNCTAD. Data from the two sources were similar until the year 2000 but showed a significant gap from year 2007. Differences in OFDI trends can also be seen in 1998 and 2005. The differences are partly a matter of different sources, UNCTAD's data having come from the Ministry of Knowledge and Economy, which is not the main Korean institution dealing with FDI. In addition, UNCTAD received the most up-to-date data too late to include it in its World Investment Report 2011. The EXIM Bank data presented here are thus more reliable.

Annex II: Brief profiles of the top 20

No. 1. Hyundai Heavy Industries Co., Ltd (HHI)
http://www.hhi.co.kr/
A construction company, Hyndai was created by late founder of the Hyundai Group, Ju-yung Chung in 1947. In the early 1970s, Chung decided to enter the business of shipbuilding, even though Hyundai had no experience, capital, or shipbuilding technology. Despite these challenges, in March 1972, the company broke ground on an empty stretch of beach in Ulsan to construct what is now the world's largest shipyard. It has since set several world records, such as building an average of one ship every four days, having built the world's largest LNC carrier, the *British Emerald* in 2007, and having produced the world's most powerful ship engine. HHI has seven business divisions: offshore & engineering, shipbuilding, industrial plant & engineering, engine & machinery, construction equipment, electro electric systems, and green energy, the last of which was established in 2011. The company's major stockholders are: Moon-Joon Chung, Hyundai Mipo Dockyard, KCC Corporation, Mirae Asset Investment Management Co., Ltd. and National Pension service having 11%, 8%, 7%, 4% and 4% respectively.

No. 2. Daewoo Shipbuilding & Marine Engineering Co., Ltd. (DSME)
http://dsme.co.kr/
DSME was established in 1973 at Okpo Bay, Geoje Island, Korea and has developed into the world's premier specialized shipbuilding and offshore contractor. It builds various vessels, offshore platforms, drilling rigs, floating oil production units, submarines, and destroyers. The company has a superb workforce of approximately 1,500 design and R&D personnel and more than 15,000 skilled workers. After being part of Daewoo, DSME became an independent company in October 2000, and seeks to maintain its high quality as well as technological superiority when delivering its products. Major shareholders include KDB, foreign ownership, and KAMCO representing 32%, 23%, and 19% respectively.

No. 3. Samsung Heavy Industries Co., Ltd. (SHI)
http://www.shi.samsung.co.kr/
Samsung Heavy Industries, established in 1974, is a leader in the high-tech high-value shipbuilding sector with the world's largest share in the markets of drill ship, ultra-large container ship, LNG carrier and the FPSO. Its main sectors include shipbuilding, offshore, engineering and construction, wind power, and power and control systems. The company has set many world records, including achieving best customer satisfaction through promotion of perfect construction with a priority on quality, building the first Arctic Shuttle-Tanker and LNG-FPSOs in the world, etc. The shareholder structure is as follows: foreign, related parties, individual, institutional, and treasury stock representing 30%, 24%, 23%, 16%, and 6% respectively.

No. 4. LG Display
http://www.lgdisplay.com
LG Display was established in January 1985 under the name of Geumsung Software. The company changed its name a few times from LG Software Co., Ltd., LG Soft Co., Ltd., LG LCD C., Ltd., to finally LG Display in 1995, 1997, 1998, and 2008 respectively. In 1987, it started developing TFT-LC, and in 1995, for the first time, the company launched LCD modules. The company has recently become the world's largest company in the area of eco-friendly technology by expanding its business into the thin film solar cells related to display technology. The shareholder structure is as follows: LG Electronics, foreign investors, and domestic investors having 38%, 34%, and 28% respectively.

No. 5. Hyundai Motors

http://worldwide.hyundai.com/

Hyundai Motors was created in 1967 under the Hyundai Group. Despite a difficult global economic environment in the year of 2008 , the company sold 4.05 million vehicles in the global market and it ranked 61st among the top 100 Best Global Brands with a brand value of 6 billion in 2011. Hyundai Motors has achieved a steady growth, particularly in emerging markets such as China and Russia and sold over 500,000 vehicles for the first time in the United States. With all these accomplishments and many more, Hyundai Motors has truly become a global company. Major shareholders include foreign investors and related parties, each holding 43% and 26% respectively.

No. 6. SK Innovation

http://eng.skinnovation.com

SK Innovation was known as SK Energy until 2011, when it was restructured and renamed. It was founded in December 1962 under the name of Korea Oil Corp. and started operating the first domestic oil refinery in 1964. The company played a major role in the economic development of Korea. After becoming a member of SunKyong Group in 1980, the company began taking the challenging steps needed to become a world-class general energy and chemical company. In 1997, SK innovation introduced the "Enclean Bonus Card", which was the first mileage bonus membership card in the petroleum sector in Korea. Also in the 1990s, it launched its ZIC lubricant products and explored 52 blocks in 21 countries for oil. In 2006, the company became the first refinery company with over US$ 11 billion in exports of petroleum, chemicals, and lubricants. The major shareholders consist of SK Co., Ltd., the National Pension Fund, and Templeton Asset Management Ltd., accounting for 33%, 8% and 7%, respectively.

No. 7. LG Electronics Inc.

http://www.lge.com/

LG Electronics was established in 1958 and has led the way into the advanced digital area. The company is a global leader and technology innovator in consumer electronics, mobile communications, and home appliances. It employs more than 80,000 people working in over 115 operations around the world. It is now the world's second largest manufacturer of television sets and third largest producer of mobile phones. The company comprises five business units: home entertainment, mobile communications, home appliance, air conditioning, and business solutions. The shareholder structure is as follows: 31% by LG Corp. , 42% domestic investors and 27% foreign investors .

No. 8. POSCO

http://www.posco.co.kr/

With the support of the government, its founder, Tae-Joon Park, established the company on April 1, 1968, with 39 employees. The first production line, manufacturing 1.03 million tons of crude steel, was completed in 1973. Pohang Works, with a 9.1 million ton production line, was established in 1983. The company also forged and established strong connections between industry, academics, and research centers with the founding of Pohang University of Science and Technology and the R&D Center for Industrial Science and Technology, in addition to an institute solely devoted to the development of its independent technologies. POSCO was privatized in 2000. In recent years, it has been expanding its production base in countries such as Vietnam and India.

No. 9. Hynix Semiconductor Inc.

http://www.hynix.co.kr/

Hynix started as a member of the Hyundai Group in February 1983. It developed the world's first 256M SDRAM in 1995 and the 1G synchronous DRAM in 1997. In 1999, it merged with LG

Semiconductor Co., Ltd. and in 2001 became an independent firm under the name of Hynix Semiconductor.Today, Hynix offers a full range of products from 4M to 1 GB DDR, DDR2 and DDR3 interfaces, as well as a wide range of memory modules for PCs, notebooks and servers. Through its global manufacturing and sales support network, Hynix has strengthened its status as a leading semiconductor company in many regions including China, now the biggest semiconductor market in the world. Around 17% of its shares are foreign-held.

No. 10. Samsung Electronics Co., Ltd.
http://www.samsung.com/sec
From its inception as a small export business in Daegu, Korea, SEC has grown to become one of the world's leading electronics companies, specializing in digital appliances and media, semiconductors, memory, and systems integration. It was founded on March 1, 1938 with an investment of KRW 30,000 (around US$ 26). SEC has diversified and expanded its core businesses globally since the late 1970s and has captured the largest global market share for 13 products, including semiconductors, TFT-LCDs, monitors and CDMA mobile phones. Samsung Life holds the largest share (7%), followed by Samsung C&T corp. (4%). The largest individual shareholder is Gun-Hee Lee, the chairman of Samsung Group, with 3%. Overall, foreigners hold 48% of the total shares, domestic firms 15% and SEC's subsidiaries 13%.

No. 11. SK Networks
http://www.sknetworks.com/
SK Networks started in 1953 as Sunkyung Textiles, with the creation of a small company equipped with a total of 20 outdated weaving machines. In 1976, the company won a medal from the government as a general trading company that exported more than US$ 100 million worth of goods. SK Networks's rapid growth can be seen through the company's expanded lines of businesses, which now amount to more than fifty. It comprises: a trading company with US$ 1.8 billion in exports and 67 overseas locations; a natural resource development company; a mobile phone supply company that sells 10 million mobile phones annually; a petroleum supply company; a total automotive services company; a fashion company; and a wine company that manages the largest wine fund in the world. The company's global business consists of resources & energy, chemicals, steel, and mobile phones. Its domestic business consists of information & telecommunications services, fashion coordination, and convenience stores. The largest shareholder is SK Corporations with a 39% share, followed by the Shinhan Bank, the National Pension Service, and the Korea Finance Corporation, with 9%, 7% and 5% respectively.

No. 12. S-Oil
http://www.s-oil.com/
S-Oil was founded in 1976, after Korea suffered two separate oil shocks in the 1970s, to ensure the stable import of crude oil and a steady supply of petroleum products. The construction of an oil refinery then began in 1976 inside an industrial complex in Ulsan. By January 1981, full-scale operation of the oil-refining and lubricant-producing system was in place. Today, among other operations, S-OIL runs a crude oil refinery with a capacity of 580,000 barrels per day. The Saudi Aramco Overseas Company (AOC) owns 35% of S-OIL stock and Hanjin energy 28%.

No. 13. Daewoo International Corp. (DIC)
http://www.daewoo.com/
The Daewoo International Corporation is one of the surviving companies in the Daewoo Group, a major *chaebol* that ran into difficulties after the Asian financial crisis and collapsed in 1999. Its business interests are diversified in the sectors of trading, manufacturing and the development of natural resources in a number of countries, such as Australia, Mexico, Myanmar and Uzbekistan.

No. 14. Honam Petrochemical Corp.
http://english.hpc.co.kr/
Honam Petrochemical Corp. is a comprehensive petrochemicals company founded in March 1976. HPC has helped the growth of the Korean heavy chemicals industry. In 1992, HPC added raw material facilities like the Naphtha Cracking Center and aromatic compound factories to its world-class plant site in Yeosu Petrochemical Complex, which enabled the company to complete its vertical business integration from raw materials to final products. The company produces plastics, synthetics, and basic chemicals. It has the largest market shares in HDPE, PP and MEG in the Korea. HPC positioned itself as a petrochemical giant with its acquisition of Lotte Petrochemical and KP chemical in 2003 and 2004 respectively. Its shareholders include Lotte produce, Hotel Lotte co., and Lotte Co. (Japan), representing 43%, 34%, 14% and 10%, respectively.

No. 15. Samsung C&T Corp.
http://www.samsungcnt.co.kr/
Samsung C&T Corp. was founded in 1938 and is the origin of the Samsung Group. With its merger with Samsung E&C in December 1995, Samsung C&T now has two wings: the engineering & construction group and the trading & investment group. The former of these was responsible for the construction of the world's tallest building, the Burj Khalifa in Dubai, completed in late 2009. Samsung C&T has more than 100 overseas offices in 45 countries. About 30% of its stock is held by domestic institutions and 19% by foreigners.

No. 16. KIA Motors
http://www.kia.co.kr/Index.htm

Since its humble beginnings as a manufacturer of hand-made bicycle parts on the outskirts of Seoul in 1944, Kia Motors has emerged as one of the leading automobile manufacturers in the world. It produced Korea's first automobile, the K-360 truck in 1962 and became the first automobile exporter in 1975. It later merged with Hyundai, forming the Hyundai-Kia Group in 1999. Its accumulated exports reached 5 million units in 2005. Today, Kia has a network of distributors and dealers covering 172 countries around the world. Hyundai Motors own 35% of Kia's stock, individual investors own 22% and foreigners own 20%.

No. 17. Hyundai Mobis
Http://www.mobis.co.kr/eng/
Hyundai Mobis was established in July 1977 as Hyundai Precision Industry. It grew into the top container manufacturer in the world and then, in the 1990s, moved to the automobile business. It produced finished automobiles (four-wheel drivers like Galloper and Santamo) until the 1997 Asian financial crisis, after when it ceded its automobile division to Hyundai Motors and its railway cars division to the Korea Rolling Stock Technology Corporation, as part of a restructuring process. With the production of chassis modules in late 1999, the company transformed itself into an integral auto parts company and formalized this transformation with a new name, Hyundai Mobis. In 2002, by ceding its plants and heavy machinery business to the Rotem Company, Hyundai Mobis emerged as the largest Korean auto parts company with after service parts sales, auto parts exports, and module parts manufacture as its operating areas. Major shareholders are Kia motors (17%); followed by Mong-Ku Chung (7%), the former Chairman of Hyundai Group, and Hyundai Steel(6%). Foreign investors hold 36% of Hyundai Motors shares.

No. 18. Lotte Shopping Co., Ltd.
http://www.lotteshopping.com/
Lotte Shopping opened its first Lotte Department Store in 1979. Today, it has 29 stores, including three Young Plazas (mainly for young people), two outlet malls, and a variety of department stores, discount stores, and movie theaters in Korea. The company retails clothing, household goods, food products and other items. It has only recently begun to branch out into overseas markets. In 2008, its Singapore affiliate, Lotte Shopping Holdings (Singapore) bought PT Makro Indonesia for US$ 212.6 million. It has also recently bought the Chinese supermarket chain, Times Ltd., for US$ 629 million. In addition, it has established a department store in Moscow in 2007 and another one in Beijing in 2008.

No. 19. Korea Gas Corporation (KOGAS)
http://www.kogas.or.kr/
The Korea Gas Corporation was incorporated by the Korean government in 1983 and has grown to become the world's largest LNG importer. The company is the only LNG provider in Korea and currently operates three LNG terminals and a nationwide pipeline network spanning over 2,739 km to ensure a stable supply of clean, safe, and convenient energy for the nation. KOGAS produces and supplies natural gas, purifies and sells gas-related by-products, builds and operates production facilities and distribution networks, and imports and exports natural gas for domestic and overseas markets. The public shares amount to 61%, consisting of the Central Government, KEPCO, and local governments, which account for 27%, 24 % and 10% respectively. Other shareholders include Korean individuals & institutions, foreigners, treasury, and employees, taking 22%, 7%, 6% and 4%, respectively.

No. 20. Doosan Heavy Industries & Construction
http://www.doosanheavy.com/
Doosan Heavy Industries & Construction's products include casting and forgings, which are basic materials for industry, nuclear reactor vessels, boilers, turbines, generators and other components for the power industry, sea-water desalination systems, water treatment plants and other water-related facilities, and material-handling equipment. The company was founded in 1962, with government support, and contributed to the construction of Korea's first industrial complex in Changwon. It renamed itself Hanjung in 1980 and integrated its domestic power and engine businesses (Hyundai Heavy Industries and Samsung Heavy Industries) into the company in 1999. After going public in 2000, it renamed itself Doosan Heavy Industries & Construction. The company ranks the first in the global desalination market. Its largest shareholder is Doosan Co., Ltd., holding 493% of its stock.