



Korean multinationals show solid recovery after global crisis

Report dated November 16, 2010

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Seoul and New York, November 16, 2010

The Institute of International Affairs of the Graduate School of International Studies (GSIS) at Seoul National University in Seoul, and the Vale Columbia Center on Sustainable International Investment (VCC) at Columbia University in New York, are releasing the first annual report on leading Korean multinationals. The research for this report was conducted in 2010 and covers the period 2007 to 2009.¹

Highlights

The Republic of Korea (henceforth 'Korea'), the 11th largest economy in the world, has now become one of the leading investors abroad. The number and the size of the corporate giants that dominate the economy have increased over the years, boosting and diversifying their investments around the world. Korea's multinational enterprises ranked by their foreign assets (see table 1 below) show about USD 93 billion in assets held abroad.²

Samsung Electronics Co., Ltd. (SEC), a member of a leading Korean conglomerate, ranked 1st with slightly over USD 18 billion, followed by another top conglomerate member, LG Electronics, with over USD 10 billion dollars. Hyundai Heavy Industries Co., Ltd, and DSME Co., Ltd, had foreign assets of over USD 8 billion each and LG Display had over USD 6 billion. The top five firms together accounted for just over half of the total foreign assets of the top 20 companies.

Foreign sales (including exports) of the top 20 were about USD 246 billion and 12 of the 20 firms together had 139,715 employees abroad. (Figures on foreign employment were available for only 12 companies. See annex table 1 and the immediately following tables 1a, 1b and 1c for details regarding assets, sales and employment.) The top 20 list includes only one state-controlled firm: Korea Electric Power Corp. (KEPCO). The rest are privately controlled, even

¹ The research for this report was carried out under the direction of Hwy-Chang Moon, in association with the Institute of International Affairs. Professor Moon was assisted by Jimmyn Parc and Sohyun Yim.

² The exchange rates used to calculate all figures for the years 2007-2009 are those provided by the International Monetary Fund for December 31st of the relevant year.

though some have small stakes held by state enterprises. Most of the other companies on this list belong to business groups known as *chaebol* – see box 1 on 'Common governance among the top 20' below. Following the progressive liberalization of outward investment policy since the 1980s, Korea's largest firms have become progressively more internationalized in recent decades.

Rank	Name of company	Industry	Status (% of state ownership) ^b	Foreign assets ^c
1	Samsung Electronics Co., Ltd.	Conglomerate	Listed (Nil)	18,093
2	LG Electronics	Conglomerate	Listed (Nil)	10,467
3	Hyundai Heavy Industries Co., Ltd.	Conglomerate	Listed (Nil)	8,221
4	DSME Co., Ltd.	Ship & boat building & repairing	Listed (19.11%)	8,087
5	LG Display	Conglomerate	Listed (Nil)	6,257
6	Hyundai Motors	Conglomerate	Listed (Nil)	5,983
7	Samsung Heavy Industries Co., Ltd.	Conglomerate	Listed (Nil)	5,797
8	SK Energy	Conglomerate	Listed (Nil)	4,874
9	POSCO	Iron & steel foundries	Listed (5.08%)	4,774
10	Hynix Semiconductor Inc.	Semiconductors & related devices	Listed (Nil)	4,107
11	KIA Motors	Conglomerate	Listed (Nil)	2,826
12	S-Oil	Petroleum refining/wholesaling & petroleum products	Listed (Nil)	2,065
13	Samsung C&T Corp.	Conglomerate	Listed (Nil)	2,021
14	Doosan Heavy Industries & Construction	Conglomerate	Listed (Nil)	1,677
15	Korea Electric Power Corp. (KEPCO)	Electricity	Listed (51.07%)	1,425
16	Daewoo International Corp.	Conglomerate	Listed (Nil)	1,353
17	Lotte Shopping Co., Ltd.	Conglomerate	Listed (Nil)	1,282
18	Hyundai Merchant Marine Co., Ltd.	Conglomerate	Listed (Nil)	1,245
19	Hyundai Mobis	Conglomerate	Listed (Nil)	1,179
20	LG Chem. Ltd.	Conglomerate	Listed (Nil)	1,126
Total				92,859

Table 1	. Ranking of	the top 2) Korean	multinationals	investing	abroad,	2009ª ((USD million)
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Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com) and individual auditor's reports.

- ^a The table shows results for the top 20 non-financial multinationals in 2009. All data are based on auditors' reports. For additional data on each multinational, see annex I, table 1 and the tables that follow. Annex II contains a brief narrative profile of each company 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, rankings by foreign assets over the three-year period 2007-2009 showed mostly moderate changes among the top 20, barring a case like that of Samsung Heavy Industries, which went from 13th place in 2007 to 28th in 2008 and then all the way up to the 7th in 2009. This was a result of the global crisis (see further discussion below under Shipbuilding). Samsung C&T, the builder of the world's tallest tower in Dubai, received more than USD 11 billion in orders from the U.A.E. in 2009, including refineries and power plants, though the company stopped work on a USD 350 million bridge after a unit of Dubai World halted payments. Daewoo International Corp., on the other hand, kept a steady course, increasing exports of manufactured goods and increasing greenfield investment abroad in 2009. Lotte Shopping improved its ranking from 30th in 2007 to 17th in 2009 mainly due to its acquisitions of PT Makro Indonesia and the Chinese supermarket chain Times Ltd. Its foreign assets increased by 158% in just a year, from USD 500 million in 2008 to USD 1,292 million in 2009. Through heavy investments in Australia, Canada, China, Hong Kong (China), Philippines and Nigeria, KEPCO successfully increased its foreign assets by 64% in 2009, when it ranked 15th. Hyundai Merchant Marine Co., Ltd. increased its investment in the Netherlands and expanded its branches in Malaysia, Thailand, the U.A.E., and Vietnam, thus improving its ranking from 24th in 2008 to 18th in 2009. Finally, LG Chemical successfully entered into several new contracts in foreign markets, particularly in battery cells, including the US and the Netherlands. It also increased its investments, particularly in green technologies, in collaboration with firms such as Hyundai Mobis to increase its foreign sales and assets.

Firm	2007	2008	2009	Firm	2007	2008	2009
Samsung Electronics Co., Ltd.	1	1	1	KIA Motors	11	10	11
LG Electronics	7	5	2	S-Oil	12	14	12
Hyundai Heavy Industries Co., Ltd.	5	2	3	Samsung C&T Corp.	14	11	13
DSME Co., Ltd.	9	3	4	Doosan Heavy Industries & Construction	22	18	14
LG Display	2	7	5	Korea Electric Power Corp. (KEPCO)	19	19	15
Hyundai Motors	4	4	6	Daewoo International Corp.	18	16	16
Samsung Heavy Industries Co., Ltd.	13	28	7	Lotte Shopping Co., Ltd.	30	26	17
SK Energy	3	6	8	Hyundai Merchant Marine Co., Ltd.	20	24	18
POSCO	6	8	9	Hyundai Mobis	23	21	19
Hynix Semiconductor Inc.	8	9	10	LG Chem. Ltd.	16	15	20

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com) and auditors' reports.

Principal industries (see annex figure 1)

Electrical & electronic equipment, including semiconductors

The recent financial crisis had a large impact on Korean firms. However, with strong government support to boost outward FDI, many companies expanded abroad and increased their foreign assets and sales. Samsung Electronics increased its foreign assets by increasing the number of foreign affiliates and their size in foreign markets. The growth of its capital assets came mainly from the increased net profit of its foreign affiliates. LG Electronics also invested aggressively in foreign markets, especially in the BRICs, Indonesia, Canada, Poland, and the US, achieving tremendous success in home appliances, home entertainment and mobile communications, resulting in a 133% increase in foreign assets in 2009. (See its steady rise in the top 20 ranking in table 1a below.)

During the financial crisis, in early 2009, LG Display was close to hitting the panic button but in the end the company was able to expand its international operation and increase investments in China, Taiwan Province of China, and Poland. It also made new investments in the US to develop technologies for large-sized organic light-emitting diode (OLED) screens for televisions, solar cells and flexible displays. As a result, the company's foreign assets increased by roughly 68% in 2009. Hynix Semiconductor Inc. also bounced back to profit in the fourth quarter of 2009, after a record loss in the previous year, as sales surged and prices for its mainstay computer memory chips increased.

Automobiles and auto parts

Although the world automobile market shrank due to the global credit crunch, Hyundai Motors increased its market share by 12% and recorded the highest sales in its history. The company invested heavily in 2009 in both its sales and its production facilities in China, the Czech Republic, Russia, Poland, Spain, Germany, and the US In particular, it increased its investment by 42% in Hyundai Motors America (HMA), from USD 1,295 million in 2008 to USD 1,848 million in 2009. Hyundai Motors' affiliate, Kia Motors, also invested in its production facilities for manufacturing parts and components, mainly in China.

As these two Korean automobile makers expanded their market shares in China, India and the Czech Republic, Hyundai Mobis, the largest Korean auto parts company, established new production facilities in these countries as well, increasing its foreign assets by 39.1% in 2009. Indeed, the financial crisis actually helped the sales of Hyundai Mobis, as car-owners delayed purchases of new vehicles and thus boosted demand for replacement components.

Shipbuilding

In early 2009, the shipbuilding industry ranked 1st in Korea's exports for the first time in history, outpacing exports of automobiles and semiconductors. Hyundai Heavy Industries, DSME and Samsung Heavy Industries are the main shipbuilders among the top 20 multinationals in Korea. While maintaining and upgrading production facilities for high-value ships in Korea, they actively invested in China to produce low-value ships. To reduce risks deriving from the financial crisis and external economic uncertainties, these Korean firms have also expanded their businesses to related sectors such as ship engines and to other sectors such as natural resources and new energy-related activities.

As table 1a shows, Samsung Heavy Industries displayed the greatest volatility over the past three years. Because of the global financial and economic crisis, the company faced huge drops in global ship orders. There were practically no new orders in 2008. With capital flows failing to live up to expectations, corporate bonds were issued for the first time in seven or eight years. The other two shipbuilding firms were also in a similar situation but Samsung Heavy Industries, in particular, had to issue a larger number of bonds totaling USD 700 billion. Its foreign assets were the smallest among the top 20 multinationals in 2008. But it was able to pick up quickly in 2009, mainly due to its heavy investments in China, Brazil, and India (see annex table 1a).

Petrochemicals and steel

Amid continued concerns over a volatile business environment and the global economic slowdown, SK Energy invested in Australia and Brazil to secure oil and gas fields for its own production. Its domestic rival, S-Oil, also increased its foreign assets through investment in oil and gas fields. POSCO adopted an aggressive strategy to secure coal, iron and ore mining facilities in Australia and Brazil when the price was low. The company invested in Macarthur Coal Ltd. in Australia and Nacional Minerios S.A. in Brazil, and expanded its investment in Nippon Steel and in its subsidiary in Chennai, India.

Geographic distribution of foreign affiliates

The geographic distribution of the foreign affiliates varies from industry to industry. More than 43% of the foreign affiliates of the top 20 as a group are located in Asia and the Pacific, followed by 25% in Europe and just under 20% in North and South America (see annex table 2 and annex figure 2). Though the percentage of foreign affiliates in the Middle East and Africa is low, there is rising interest in these regions among Korean firms, particularly in the manufacturing and petrochemical industries.

Foreign asset distribution by industry

As noted in an earlier section, most Korean multinationals are to be found in five main industries – electrical and electronic equipment, including semiconductors; autos and auto parts; shipbuilding; steel; and petrochemicals. About 42% of the foreign assets of the top 20 are in the electrical and electronic industry (annex figure 1). Foreign assets in shipbuilding add up to a further 24%, with another 11% invested in autos and auto parts. Foreign assets in the petrochemical and oil refining industries were only about 9%, wholesale & retail trade 4% and construction 3%.

Transnationality Index (TNI)

Since information on foreign employment was only available for 12 of the top 20, the TNI proper could only be calculated for these 12 firms.³ Annex table 1 gives a TNI figure for each of the top 20 but, in eight of the cases, this does not include the foreign to total employment

³ The twelve firms are: SEC, LG Electronics, Hyundai Motors, Hynix Semiconductor Inc., Kia Motors, S-Oil, Samsung C&T Corp., Doosan heavy Industries & Construction, KEPCO, Lotte Shopping Co., Ltd., Hyundai Mobis and LG Chem. Ltd.

ratio. Bearing this in mind, we may note that the highest TNI is recorded for DSME Co., 79.56%, followed by LG Display at 67% and LG Electronics at 66.16%. SEC, the largest company by foreign assets, ranked 9th for TNI, whereas KEPCO, the only state-owned company included in the top 20, ranked the lowest.

Ownership and status

All 20 firms in table 1 are listed on the Seoul stock exchange. Sixteen of the 20 are also listed on foreign stock exchanges, nine of them on more than one. (See annex table 3 for details.) KEPCO is the only state-controlled enterprise among the top 20, with 21.12% of direct state ownership and a further 29.95% owned indirectly through the Korea Finance Corporation (KoFC), which is in turn a wholly state-owned enterprise. DSME Co. and POSCO also have a state stake but it is a minority one. The shares of all other firms on the list are privately held.

Six of the top 20 Korean multinationals have substantial foreign shareholdings. These are: Samsung Electronics Co., Ltd (47.71%), Hyundai Motors (33.49%), SK Energy (around 30.00%), POSCO (50.07%), S-Oil (47.35%) and Hyundai Mobis (35.95%). In the case of POSCO, various factors – including the existence of several 'strategic stake swaps' (or 'white squire' holdings), the largest shareholder being Korean, and so forth – have led us to conclude that POSCO is a Korean company suitable for inclusion in this report.

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* were strongly encouraged and supported by the government, beginning in the 1960s, and played a key role in Korea's emergence as one of the 'newly industrializing economies' or 'NIEs', as they came to be called around 1980. Relations between the government and the *chaebol* changed after the Asian crisis of 1997, which exposed a variety of weaknesses in the *chaebol* system.

Fourteen of the top 20 belong to one of eight of these groups (in italics below) and three others (last paragraph) belonged to one or another but are now independent.

Samsung Group: Samsung Electronics Co., Ltd., Samsung Heavy Industries Co., Ltd., and Samsung C&T Corp. Hyundai Group: Hyundai Merchant Marine Co., Ltd.

Hyundai-Kia Motors Group (former Hyundai Group): Hyundai Motors, KIA Motors, Hyundai Mobis *Hyundai Heavy Industries Group* (former Hyundai Group): Hyundai Heavy Industries Co., Ltd.

LG Group: LG Electronics, LG Display, and LG Chem. Ltd.

Doosan Group: Doosan Heavy Industries & Construction

SK Group: SK Energy

Lotte Group: Lotte Shopping Co., Ltd.

DSME Co., Ltd. and Daewoo International Corp. originally belonged to the Daewoo Group but became an independent companies specializing in shipbuilding and in international trading and investment in 2003. Hynix Semiconductor Inc. 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.

Source: GSIS-VCC research on leading Korean multinationals, 2010.

Head office locations

The headquarters of all companies are located in Korea and most of them are located in Seoul (annex figure 4). SEC's headquarter is located in Suwon. The others are located in the southeast of Korea; the head office of POSCO is situated in Pohang, Hyundai Heavy Industries Co., Ltd. in Ulsan, Doosan Heavy Industries & Construction in Changwon, and DSME Co., Ltd. in Geoje.

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

The official language of all firms is Korean, with the CEO, top management and most of the employees being Korean as well. The language used by foreign affiliates varies according to their locations and their top management, but most affiliates are controlled by the head office and are operated by Korean managers dispatched from the head office.

Top mergers and acquisitions

The most significant M&A transaction by value carried out by a Korean multinational in the past three years was the investment made by Doosan Infracore Co., Ltd (an affiliated company of the Doosan Group which is not among the top 20) which bought the Bobcat, Utility Equipment and Attachments Business Units from Ingersoll-Rand, a US firm, for nearly USD 5 billion (annex table 4). The only firm from the top 20 to figure in the top 10 M&As of 2007-2009 was Doosan Heavy Industry & Construction, which bought a Czech company in the turbine and turbine generator business for nearly USD 660 million (annex table 4).

Top greenfield investments

In sharp contrast to the M&A story, the top 11 outward *greenfield* transactions over 2007-2009 (annex table 5) were mostly carried out by firms from the top 20, even though the largest of them involved the Deaesung Engineering Corp. (DSECO), which is not on our list. It is followed by a transaction undertaken by LG Electronics in China, a USD 4 billion investment in electronic components. Samsung Electronics also made an investment in the same field in China but it was only half the amount of the LG Electronics one. POSCO's investments in India and Vietnam ranked 3rd and 4th respectively. SK energy and Hynix Semiconductor also invested in China, whereas DSME Co., Ltd. invested in Russia.

Drivers of Korean outward FDI

A lack of natural resources, along with cost disadvantages and a saturated home market were key drivers of Korean outward FDI. Companies such as POSCO and Samsung C&T Corp. invested abroad to get access to natural resources and to overcome a volatile commodities market and price fluctuations at home. To reduce production costs, Korean firms have targeted China in particular; for example, LG Electronics has established more than ten production subsidiaries in China.

Korean firms also went abroad to meet foreign demand. At the initial stage of outward FDI, Korean firms chose developed countries for their relatively large market size. Later, they expanded into developing countries as well. For example, LG Electronics moved to Taiwan Province of China and modified its products to improve quality, whereas Samsung Electronics invested in Vietnam to meet the Vietnamese government requirement of establishing production facilities to gain market access.

There were other drivers as well – for example, moving abroad to acquire new technologies or to overcome competitive disadvantages at home. In some cases, Korean firms have expanded into specific locations (e.g., Germany or Malaysia) to boost regional sales or infiltrate neighboring markets.

Changes in assets, sales and employment over 2007-2009

Table 2 below offers a snapshot of changes in the assets, sales and employment of the top 20 over 2007-2009, while annex tables 1a, 1b and 1c provide details for individual companies over the same three-year period. Both assets and sales of the top 20 fell in 2008, although the fall in *foreign* assets and sales was slight (by just over 2% and 1% respectively) in comparison with *total* assets and sales (by about 10% and 4% respectively), as the Korean economy became vulnerable to foreign capital flight, depreciating the Korean won dramatically.. However, both assets and sales picked up quickly in 2009. The growth in foreign assets and sales was stronger (in the case of assets, much stronger) than the growth in total assets and sales, as Korean firms invested heavily abroad, increasing foreign assets and sales in larger proportions than total assets and sales. The former grew by 53% and 18% respectively, while the latter grew by only 17% and 12%. Total employment increased in both 2008 and 2009, although the increase was slight (somewhat over 1%) in the former year as against the latter (18%).

Variable	2007	% change	2008	% change	2009	% change, 2007-2009
Assets						
Foreign	62,255	-2.31	60,819	52.68	92,859	49.16
Total	379,892	-10.04	341,749	16.95	399,692	5.21
Share of foreign in total (%)	16.39		17.8		23.23	
Sales						
Foreign	210,351	-1.26	207,693	18.64	246,425	17.14
Total	341,350	-3.91	327,996	12.11	367,700	7.72
Share of foreign in total (%)	61.3		63		67.02	
Employment						
Foreigna	-	-	-	-	-	-
Total	367,089	1.47	372,482	18.18	440,230	19.92
Share of foreign in total (%)	-	-	-	-	-	-

Table 2. Snapshot of the top 20 Korean multinationals,	, 2007-2009 (USD million and
numbers of employees)	

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com), auditor's reports and interviews by telephone.

^a Foreign employment figures were unavailable for eight out of 20 firms, so none have been included in this table. See annex table 1 for foreign employment numbers of 12 firms.

The big picture

Korea's first outward investment took place as early as 1959, when a Korean company invested in real estate in New York. The non-real estate activities, however, began ten years later, in 1968, when the Korea Southern Area Development Company invested in an Indonesian forestry development project. From the 1960s to the mid-1980s, Korean FDI abroad remained negligible and limited to mining, forestry and trading businesses. Both investment and trade were focused on securing natural resources, as domestic production was not enough to meet domestic demand.

The period from 1980 to 1984 accounted for only about 0.4% of total outward investment made during the past three decades. The trend remained similar during the period 1985 to 1990 – just 1.2% of total investment over the period. From the year 1990, outward FDI increased on account of several factors, including the appreciation of the Korean Won, the liberalization of government policy, local wage increases and trade conflicts, which often involved anti-dumping measures. During the period 1995 to 1999, large investments took place despite the 1997 Asian financial crisis and accounted for 14.4% of the total investment between 1980 and 2009. After the Asian financial crisis, the government adopted a floating exchange rate, thus making it possible for small and medium-sized enterprises as well as individuals to invest abroad.

Indeed, the main obstacle to Korean outward FDI until the 1980s was the government's strict controls on foreign exchange. It was only after the 1985 Plaza Accord that the government started liberalizing foreign exchange regulations. The appreciation of the Korean won in subsequent years played a significant role in boosting outward FDI. From the 1960s to the 1980s, Korea was focused on economic development, mainly through boosting exports, and the exchange rate was an important instrument in keeping exports competitive. In 1989, the government attempted to adopt a floating exchange rate for the first time. However, this was a 'managed float', severely restricting the range of fluctuation. The range was enlarged in 1995 and, after the 1997 Asian financial crisis, a free-floating exchange rate was adopted in December 1997 (see annex figure 8).

After the initial modifications of foreign exchange and FDI policies in the 1980s, Korean firms started exploring Southeast Asian markets, which offered both opportunities for market expansion and access to cheaper labor. Since then, Korean FDI in the region has increased continuously except during the period of the Asian financial crisis from 1997 to 1998 and during the recent global financial and economic crisis.

The recent crisis had a negative impact on Korea's GDP growth, which slowed in the first quarter of 2009. However, the government's strong economic policies to support investment and exports helped growth pick up in the second quarter of 2009. In the third quarter of 2009, record low interest rates and other stimulus measures helped return the economy to its precrisis condition.

Annex table 4a lists significant individual transactions by Korean multinationals in major *regions* in 2009, while annex table 4b lists transactions in main *industries* from 2005 to 2009. (Both M&A and greenfield transactions are covered by these tables.) Although financial firms are not

included in the list of the top 20, these tables do include firms and investments in finance and insurance, such as an investment made in Hong Kong (China) in 2009. Canada received more investment than the US in North America, whereas the UK and the Netherlands were the biggest recipients of Korean FDI among European countries. The investment in real estate in the UK (an increase of 778.8%) increased the total in Europe by 61.5% over 2008. Caribbean territories such as the tax haven Cayman Islands also feature among the locations chosen by Korean investors in recent years.

The more restrictive labor and environmental regulations recently imposed by the Chinese government have led to a decline in Korean manufacturing investment in China. As we can see from annex table 4b, which is broadly representative of outward FDI from Korea as a whole, annual manufacturing_investment in China peaked in 2007 at USD 3,754 million, which was about seven times larger than the *total* invested in real estate and six times larger than the total in mining. In 2008, FDI in manufacturing in China had fallen by nearly 40% to USD 2,311 million; in 2009, it fell a further 30% to USD 1,652 million.

By 2009, the largest outward FDI transactions (both M&A and greenfield) were led by mining, followed by manufacturing, with real estate gaining rapidly. Investment in the mining sector increased by over 40% in 2009, because of large investments in Canada, the Netherlands and Madagascar. The largest amount invested in the real estate sector was in the UK, where Korea's national pension agency acquired the HSBC Tower, which led to a near 40% increase in overall Korean investment in foreign real estate. Also noticeable in annex table 4b is a large shift towards locations in Europe and North America in the IT services industry, beginning in 2007.

Total outward FDI flows from Korea have risen fairly steadily over most of the past decade, with some exceptions – a small drop in 1997, 1999 and 2002 according to the Export Import Bank of Korea, and a larger drop in 2001 and a small dip in 2005 according to UNCTAD (see annex figure 7 for both sets of figures since 1980). Then in 2009 there was a big drop of 44% according to UNCTAD but a relatively small one of 15% according to the Exim Bank. Both sources agree, however, that 2009 saw a decline in outward FDI flows.⁴ Table 3 below relates investment to investor size. At least in 2009, a clear pattern emerges: the smaller the investor, the greater the drop in investment over 2008, ranging from under 1% for large multinationals to 65% for individuals. Since over 80% of the investment is made by large firms, it is natural that the final drop in total outward FDI in 2009 is relatively small.

The number of new affiliates also dropped in 2009, from 4,022 in 2008 to 2,483 in 2009 (see annex table 7). The biggest drop was in Asia: from 2,744 in 2008 to 1,588 in 2009.

Investor type	2005	2006	2007	2008	2009	% change, 2008-2009	
Large firms	3,935	7,283	14,110	15,912	15,772	-0.9%	

Table 3.	Outward FDI	amounts, b	v sizeª	of inve	estor (USD m	villion)
			/	••••••		

⁴ The difference is partly a matter of different sources, UNCTAD' 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-todate data too late to include it in its *World Investment Report 2010*. The EXIM Bank data presented in this report are thus more reliable.

Medium-sized firms	2,445	3,336	5,989	6,003	3,339	-44.4%
Small firms	123	136	164	91	43	-53.1%
Individuals	564	875	1,045	858	297	-65.4%
Others (NGOs, etc.)	11	0	116	50	0	-100%
Total	7,078	11,631	21,423	22,914	19,451	-15.1%

Source: Overseas Investment Statistics, the Export Import Bank of Korea.

^a In the relevant Korean legislation (say on foreign exchange or on SMEs), there are no standard criteria of 'size' that apply across industries. Thus, a 'large' manufacturing firm must have at least 300 employees or more than 8 billion won in *capital*, while a firm in the movie industry must have more than 200 employees or more than 20 billion won in *sales*.

About 30% of total outward FDI was in the form of cross-border M&As. Annex table 8 shows the Regionality Index of M&As. The percentage of investment in North America was 42%, the largest among all regions in 2009 (data covering period until September only). Asia, which accounted for 47% in 2008, declined to 26% of total M&As, falling to 2nd place.

Though inward FDI was more sensitive to economic fluctuations in Korea, outward FDI, both flows and stock, rose dramatically after 2005 (annex figures 5 and 6), with flows reaching nearly USD 19 billion in 2008. Outward FDI stock remained well below inward stock, however, until 2008 (annex figure 6). Inward FDI flows peaked in 1999, at nearly USD 10 billion but fell sharply thereafter to reach USD 3.4 billion in 2002. They went up again in 2004 to USD 9 billion and dropped to USD 2.6 billion in 2007, the same level as at the time of the 1997 Asian financial crisis. The reasons included the rise of China as a competitor and the appreciation of the Korean won.

Box 2: The development of outward FDI policies

Korea's outward FDI policies have changed in keeping with 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 offshoring and the government helped by liberalizing outward investment policies. The pre-authorization system gave way to 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 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, 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 went beyond reducing and removing restrictions to providing positive support for investment abroad. The main supportive 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: GSIS-VCC research on leading Korean multinationals, 2010.

The future of Korean outward investment

Korean investment abroad has increased notably during the past two decades and is expected to rise further, given the improvements in the regulatory environment in Korea described in box 2 above. Nonetheless, some key challenges remain. First, Korean FDI overseas is mainly concentrated in China and needs to be diversified to other countries and regions. Second, although investment in mining, real estate and so forth has increased in recent years, Korean investment is still concentrated in manufacturing industries. Investment needs to be diversified into high-value-added sectors, including R&D and certain kinds of services. Third, given the differences in the motivations of different firms, they need to be careful about selecting the appropriate market entry strategies that fit their specific motivations and goals. And, finally, the government needs to keep an eye on the vulnerabilities of small and medium-sized companies in volatile circumstances and stand ready to provide additional support as needed.

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Emerging Markets Global Players Project

This report on Korean multinationals was prepared in the framework of the Emerging Markets 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 leading multinationals in each participating country. Nine country reports were published in 2009. Up to 15 countries are expected to be covered in 2010. Visit http://www.vcc.columbia.edu/content/emerging-market-global-players for further information.

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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 on Sustainable International Investment, headed by Karl P. Sauvant, is a joint Columbia Law School - Earth Institute venture at Columbia University. It seeks to be a leader on issues related to FDI in the global economy, paying special attention to the sustainability aspect of this investment. The Center focuses on the analysis and teaching of the implications of FDI for public policy and international investment law. Its objectives are to analyze important topical policy-oriented issues related to FDI, develop and disseminate practical approaches and solutions, and provide students with a challenging learning environment. For more information, see http://www.vcc.columbia.edu.

Annex	Annex table 1. Korea: The top 20 multinationals: Key variables, 2009 (USD million ^a and number of employees) ^b											
Rank by	Firm		Assets		Sales			Employment			TNI (%)°	Number of foreign
foreign assets	Firm	Foreign	Total	Foreign/ total	Foreign	Total	Foreign/ total	Foreign	Total	Foreign/ total		affiliates
1	Samsung Electronics. Co., Ltd.	18,093	73,676	24.56	64,062	76,887	83.32	29,097	85,085	34.20	47.36	94
2	LG Electronics	10,467	18,480	56.64	20,425	26,133	78.16	52,308	82,136	63.68	66.16	77
3	Hyundai Heavy Industries Co., Ltd.	8,221	21,302	38.59	16,298	18,107	90.01	n.a.	24,982	n.a.	(64.30)	35
4	DSME Co., Ltd.	8,087	12,964	62.38	10,309	10,656	96.74	n.a.	12,245	n.a.	(79.56)	13
5	LG Display	6,257	16,174	38.69	16,423	17,231	95.31	n.a.	23,934	n.a.	(67.00)	17
6	Hyundai Motors	5,983	30,358	19.71	13,525	27,286	49.57	33,692	55,984	60.18	43.15	47
7	Samsung Heavy Industries Co., Ltd.	5,797	17,290	33.53	10,417	11,215	92.88	n.a.	12,623	n.a.	(63.20)	13
8	SK Energy	4,874	18,554	26.27	18,126	30,685	59.07	n.a.	5,391	n.a.	(42.67)	18
9	POSCO	4,774	34,252	13.94	8,093	23,085	35.06	n.a.	16,458	n.a.	(54.07)	19
10	Hynix Semiconductor Inc.	4,107	11,498	35.72	6,213	6,442	96.44	5,160	17,175	30.04	54.07	31
11	KIA Motors	2,826	14,510	19.48	9,817	15,772	62.25	10,368	32,755	31.65	37.79	28
12	Sn.a.Oil	2,065	7,751	26.64	9,016	14,923	60.41	2	2,521	0.08	29.04	1
13	Samsung C&T Corp.	2,021	11,892	16.99	5,024	9,548	52.62	2,509	9,774	34.53	34.71	106
14	Doosan Heavy Industries & Construction	1,677	7,859	21.35	3,254	5,378	60.51	250	5,868	4.26	27.28	42
15	Korea Electric Power Corp. (KEPCO)	1,425	59,940	2.38	4,830	28,850	16.74	79	20,177	0.39	6.50	18
16	Daewoo International Corp.	1,353	3,327	40.66	5,024	9,548	52.62	n.a.	1,502	n.a.	(46.64)	67
17	Lotte Shopping Co., Ltd.	1,282	15,980	8.03	6,690	9,879	67.72	345	9,092	3.79	26.51	4
18	Hyundai Merchant Marine Co., Ltd.	1245	7144	17.42	5,238	5,238	100.00	n.a.	2,079	n.a.	(58.71)	180
19	Hyundai Mobis	1,179	9,583	12.31	4,965	9,107	54.52	253	6,460	3.92	23.58	35
20	LG Chem. Ltd.	1,126	7,159	15.72	8,676	11,729	73.97	5,652	13,989	40.4	43.37	40
Total		92,859	399,692		246,425	367,700			440,230		n.a.	885

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com), auditors' reports and interviews.

^a As indicated earlier, all calculations use exchange rates provided by the IMF for December 31 of the reporting year. For 2007, 2008 and 2009, these were KRW 938.2, 1,257.5 and 1,167.6, respectively, per USD 1. ^b 'n.a.' indicates the non-availability of data. ^c The TNI percentage 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, 2007-2009 (USD million) ^a											
		20	07	20	08	2009					
Rank	Firm	Foreign	Total	Foreign	Total	Foreign	Total				
1	Samsung Electronics Co., Ltd.	11,270	69,522	11,246	57,669	18,093	73,676				
2	LG Electronics	3,676	15,281	4,759	13,788	10,467	18,480				
3	Hyundai Heavy Industries Co., Ltd.	5,198	17,905	6,495	20,104	8,221	21,302				
4	DSME Co., Ltd.	3,341	8,833	5,801	12,687	8,087	12,964				
5	LG Display	6,023	14,277	3,929	13,123	6,257	16,174				
6	Hyundai Motors	5,233	31,536	5,305	25,581	5,983	30,358				
7	Samsung Heavy Industries Co., Ltd.	2,125	11,256	347	20,743	5,797	17,290				
8	SK Energy	5,728	16,734	4,648	17,857	4,874	18,554				
9	POSCO	4,040	32,501	3,779	29,450	4,774	34,252				
10	Hynix Semiconductor Inc.	3,570	15,846	2,647	10,496	4,107	11,498				
11	KIA Motors	2,661	13,700	2,580	12,288	2,826	14,510				
12	S-Oil	2,587	10,082	1,404	6,088	2,065	7,751				
13	Samsung C&T Corp.	1,550	10,583	1,631	8,966	2,021	11,892				
14	Doosan Heavy Industries & Construction	695	5,949	965	7,888	1,677	7,859				
15	Korea Electric Power Corp. (KEPCO)	829	69,967	919	53,175	1,425	59,940				
16	Daewoo International Corp.	964	2,307	1,037	2,127	1,353	3,327				
17	Lotte Shopping Co., Ltd.	22	12,729	525	10,579	1,282	15,980				
18	Hyundai Merchant Marine Co., Ltd.	805	6,145	701	6,586	1,245	7,144				
19	Hyundai Mobis	652	7,224	897	6,162	1,179	9,583				
20	LG Chem. Ltd.	1,284	7,514	1,204	6,391	1,126	7,159				
Total		62,255	379,892	60,819	341,749	92,859	399,692				

Sources: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com) and auditors' reports.

^a As indicated earlier, all calculations use exchange rates provided by the IMF for December 31 of the reporting year. For 2007, 2008 and 2009, these were KRW 938.2, 1,257.5 and 1,167.6, respectively, per USD 1.

Annex	table 1b. Korea: Foreign	and total s	ales of the	top 20 mul	tinationals,	2007-2009 (USD m	illion) ^a
		20	07	20	008	2009	
Rank	Firm	Foreign	Total	Foreign	Total	Foreign	Total
1	Samsung Electronics Co., Ltd.	54,404	67,337	47,234	58,014	64,062	76,887
2	LG Electronics	18,100	25,050	16,854	21,979	20,425	26,133
3	Hyundai Heavy Industries Co., Ltd.	14,660	16,556	14,291	15,870	16,298	18,107
4	DSME Co., Ltd.	7,455	7,573	8,592	8,807	10,309	10,656
5	LG Display	14,002	15,096	11,771	12,616	16,423	17,231
6	Hyundai Motors	18,719	32,637	15,823	25,598	13,525	27,286
7	Samsung Heavy Industries Co., Ltd.	8,290	9,080	7,843	8,481	10,417	11,215
8	SK Energy	8,450	15,841	21,478	36,372	18,126	30,685
9	POSCO	7,141	23,669	7,840	24,368	8,093	23,085
10	Hynix Semiconductor Inc.	8,792	8,989	5,002	5,165	6,213	6,442
11	KIA Motors	11,827	16,999	9,040	13,028	9,817	15,772
12	S-Oil	9,747	16,233	11,574	18,290	9,016	14,923
13	Samsung C&T Corp.	4,413	8,331	4,818	8,784	5,024	9,548
14	Doosan Heavy Industries & Construction	2,139	4,359	2,941	4,540	3,254	5,378
15	Korea Electric Power Corp. (KEPCO)	n.a.	30,893	n.a.	25,068	4,830	28,850
16	Daewoo International Corp.	4,413	8,331	4,818	8,784	5,024	9,548
17	Lotte Shopping Co., Ltd.	n.a.	10,412	n.a.	8,357	6,690	9,879
18	Hyundai Merchant Marine Co., Ltd.	5,427	5,427	6,364	6,364	5,238	5,238
19	Hyundai Mobis	5,325	9,050	4,432	7,454	4,965	9,107
20	LG Chem. Ltd.	7,046	9,486	6,979	10,056	8,676	11,729
Total		210,351	341,350	207,693	327,996	246,425	367,700

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com) and auditors' reports.

^a As indicated earlier, all calculations use exchange rates provided by the IMF for December 31 of the reporting year. For 2007, 2008 and 2009, these were KRW 938.2, 1,257.5 and 1,167.6, respectively, per USD

Annex table 1c. Korea: Total employment of the top 20 multinationals, 2007-2009 (number of persons)							
Rank	Firm	2007	2008	2009			
1	Samsung Electronics Co., Ltd.	84,734	84,471	85,085			
2	LG Electronics	29,503	28,415	82,136			
3	Hyundai Heavy Industries Co., Ltd.	25,484	25,248	24,982			
4	DSME Co., Ltd.	10,950	11,815	12,245			
5	LG Display	15,359	19,024	23,934			
6	Hyundai Motors	55,638	56,029	55,984			
7	Samsung Heavy Industries Co., Ltd.	11235	12,107	12,623			
8	SK Energy	5,086	5,639	5,391			
9	POSCO	17,322	16,721	16,458			
10	Hynix Semiconductor Inc.	18,274	18,018	17,175			
11	KIA Motors	33,120	32,859	32,755			
12	S-Oil	2,433	2,464	2,521			
13	Samsung C&T Corp.	4,275	4,622	9774			
14	Doosan Heavy Industries & Construction	5156	5,456	5,868			
15	Daewoo International Corp.	1550	1,546	1,502			
16	Korea Electric Power Corp. (KEPCO)	21,012	20,884	20,177			
17	Lotte Shopping Co., Ltd.	8551	9,783	9,092			
18	Hyundai Merchant Marine Co., Ltd.	2024	2,116	2,079			
19	Hyundai Mobis	4595	4,560	6,460			
20	LG Chem. Ltd.	10,788	10,705	13,989			
Total		367,089	372,482	440,230			

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com) and auditors' reports.

Annex ta	Annex table 2. Korea: The top 20 multinationals: Regionality Index ^a (right, %) and number of affiliates (left), 2009										
Rank	Firm	Nor Sub	lle East & th Africa, -Saharan Africa	Pac Asia,	Asia & the ific, South Developed ia-Pacific	Eu Cen	astern Irope & tral Asia, er Europe	the C	America & Caribbean, h America	1	otal
1	Samsung Electronics. Co., Ltd.	13	13.83	41	43.62	22	23.40	18	19.15	94	10.62
2	LG Electronics	12	15.58	24	31.17	26	33.77	15	19.48	77	8.70
3	Hyundai Heavy Industries Co., Ltd.	5	14.29	14	40.00	9	25.71	7	20.00	35	3.95
4	DSME Co., Ltd.	3	23.08	4	30.77	4	30.77	2	15.38	13	1.47
5	LG Display	0	0.00	9	52.94	3	17.65	5	29.41	17	1.92
6	Hyundai Motors	7	14.89	17	36.17	11	23.40	12	25.53	47	5.31
7	Samsung Heavy Industries Co., Ltd.	1	7.69	5	38.46	4	30.77	3	23.08	13	1.47
8	SK Energy	1	5.56	9	50.00	4	22.22	4	22.22	18	2.03
9	POSCO	0	0.00	15	78.95	0	0.00	4	21.05	19	2.15
10	Hynix Semiconductor Inc.	0	0.00	12	38.71	9	29.03	10	32.26	31	3.50
11	KIA Motors	1	3.57	6	21.43	15	53.57	6	21.43	28	3.16
12	S-Oil	0	0.00	0	0.00	1	100.00	0	0.00	1	0.11
13	Samsung C&T Corp.	13	12.26	58	54.72	23	21.70	12	11.32	106	11.98
14	Doosan Heavy Industries & Construction	8	19.05	17	40.48	6	14.29	11	26.19	42	4.75
15	Korea Electric Power Corp. (KEPCO)	7	38.89	8	44.44	1	5.55	2	11.11	18	2.03
16	Daewoo International Corp.	14	20.90	30	44.78	13	19.40	10	14.93	67	7.57
17	Lotte Shopping Co., Ltd.	0	0.00	3	75.00	1	25.00	0	0.00	4	0.45
18	Hyundai Merchant Marine Co., Ltd.	18	10.00	68	37.78	62	34.44	32	17.78	180	20.34
19	Hyundai Mobis	2	5.71	14	40.00	11	31.43	8	22.86	35	3.95
20	LG Chem. Ltd.	0	0.00	28	70.00	4	10.00	8	20.00	40	4.52
Total		105	11.86	382	43.16	229	25.88	169	19.10	885	100.00

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on 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 3. Korea: The top 20 multinationals: Stock exchange listings, 2009								
Firm	Domestic	Foreign						
Samsung Electronics Co., Ltd.	Seoul	Berlin, Frankfurt, Hamburg, London, Luxembourg, Stuttgart,						
LG Electronics	Seoul	Berlin, London, Munich, Stuttgart,						
Hyundai Heavy Industries Co., Ltd.	Seoul	Hamburg						
DSME Co., Ltd.	Seoul	London						
LG Display	Seoul	Berlin, Frankfurt, Munich, Stuttgart,						
Hyundai Motors	Seoul	Berlin, Dusseldorf, Frankfurt, Hamburg, Munich, London, Luxembourg, Stuttgart						
Samsung Heavy Industries Co., Ltd.	Seoul	Hamburg						
SK Energy	Seoul	Berlin, Sydney,						
POSCO	Seoul	Berlin, Frankfurt, London, Munich, New York (NYSE), Stuttgart,						
Hynix Semiconductor Inc.	Seoul	Frankfurt, London, Luxembourg,						
KIA Motors	Seoul	Luxembourg						
S-Oil	Seoul	None						
Samsung C&T Corp.	Seoul	Luxembourg						
Doosan Heavy Industries & Construction	Seoul	None						
Korea Electric Power Corp.(KEPCO)	Seoul	Berlin, Frankfurt, Munich, New York (NYSE), Stuttgart						
Daewoo International Corp.	Seoul	None						
Lotte Shopping Co., Ltd.	Seoul	Berlin, Frankfurt, London, Munich						
Hyundai Merchant Marine Co., Ltd.	Seoul	Hamburg						
Hyundai Mobis	Seoul	None						
LG Chem. Ltd.	Seoul	London						

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on auditors' reports and Yahoo Finance (http://uk.finsearch.yahoo.com).

Annex table 4	4. Korea: Top 10 outward M&A	ransactions, 2007-2009 (USD	million)			
Date	Acquiror's name	Target name	Target industry	Target % o share acquir		Value
11/30/2007	Doosan Infracore Co., Ltd	Ingersoll-Rand Co Ltd- Bobcat,	Ball and roller bearings	United States	100.00	4,900.00
12/22/2009	KNOC	Harvest Energy Trust	Crude petroleum and natural gas	Canada	100.00	3,936.60
02/01/2008	Korea Investment Corp	Merrill Lynch & Co Inc	Security brokers, dealers & flotation companies	United States	8.47	2,000.00
03/31/2007	Investor Group	China Network Systems Co Ltd	Cable and other pay television services	Taiwan Province of China	100.00	1,503.00
08/05/2008	LS Cable Ltd	Superior Essex Inc	Drawing and insulating of nonferrous wire	United States	100.00	903.19
02/06/2009	Investor Group	Petro-Tech Peruana SA	Crude petroleum and natural gas	Peru	100.00	892.78
10/22/2007	STX Corp	Aker Yards ASA	Ship building and repairing	Norway	39.20	800.00
08/21/2008	STX Corp	Aker Yards ASA	Ship building and repairing	Norway	52.10	733.97
12/07/2009	Doosan Heavy Inds & Constr Co.	Skoda Power AS	Turbines and turbine generator sets	Czech Republic	100.00	658.38
12/31/2008	Kookmin Bank	Bank TsentrKredit	Banks	Kazakhstan	30.00	640.60
Total						16,968.52

Source: Adapted from Thomson ONE Banker. Thomson Reuters.

Annex table 4a. Korea: Significant FDI transactions ^a in major regions, 2009 (USD million)								
	Economy	Industry	Amount					
	Hong Kong (China)	Financial and insurance activities	632.4					
Asia	Myanmar	Petroleum and natural gas	151.9					
Asia	Hong Kong (China)	Ship and boat building & repairing	100					
	Hong Kong (China)	Establishment of non-financial affiliate company	88.8					
	Canada	Petroleum and natural gas	2,282.70					
North	US	Petroleum and natural gas	496.1					
America	US	Financial and insurance activities	200					
	US	Establishment of non-financial affiliate company	184.2					
	UK	Real estate	1,242.80					
F	Netherland	Petroleum and natural gas	361					
Europe	Ireland	Establishment of non-financial affiliate company	198.7					
	Netherland	Power generation	194.7					
South America	The Cayman Islands	Financial and insurance activities	150					
and the	Panama	Shipping and delivery service	39.1					
Caribbean	Brazil	Petroleum and natural gas	13.6					

Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea, March 2010.

^a Both M&A and greenfield transactions are included.

Annex table 4b. Korea:			-	· ·	,	
	Economy	2005	2006	2007	2008	2009
	Canada	7	294	26	53	2,381
	US	20	86	321	1,379	622
	Netherlands	4	51	65	31	392
Mining	Madagascar	0	29	134	108	285
	France	0	0	0	0	243
	Australia	3	25	72	533	162
	Total	34	485	618	2,104	4,085
	China	2,252	2,795	3,754	2,311	1,652
	US	232	533	455	972	687
	Vietnam	178	296	621	663	317
Manufacturing	Russia	18	41	112	265	261
	Hong Kong (China)	102	279	322	485	222
	India	81	82	261	135	216
	Total	2,863	4,026	5,525	4,831	3,355
	UK	8	0	6	0	1,539
	US	123	46	232	126	249
Real estate	Hong Kong (China)	4	235	14	546	157
Real estate	Cambodia	11	59	331	239	90
	Panama	132	73	0	19	86
	Total	278	413	583	930	2,121
	US	403	620	1,105	1,435	836
	Netherlands	7	5	149	284	196
Retail and wholesale	China	1	227	198	531	150
trade	United Arab Emirates	1	1	5	2	112
	Russia	0	57	29	12	99
	Total	412	910	1,486	2,264	1,393
	US	14	36	765	594	612
	Ireland	0	0	762	39	517
	Hong Kong (China)	82	116	204	385	239
IT services	Luxembourg	39	0	101	19	128
	Norway	0	0	792	486	102
	Total	135	152	2,624	1,523	1,598

Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea, March 2010.

^a Both M&A and greenfield transactions are included.
^b Note that annex table 4a lists transactions in major countries whereas 4b lists them in major industries. The two tables have different criteria, which explains why Madagascar shows up in 4b but not in 4a.

Date	Company	Destination	Industry	Value
08-May	DSECO	UAE	Real estate	4,002
09-Aug	LG	China	Electronic components	4,000
07-May	Pohang Iron & Steel (POSCO)	India	Metals	3,700
08-Jan	Pohang Iron & Steel (POSCO)	Vietnam	Metals	3,500
09-Aug	Samsung	China	Electronic components	2,21
07-Nov	Hanjin Group	Philippines	Non-automotive transport OEM	2,000
08-May	SK Energy	China	Chemicals	2,00
09-Aug	Daewoo	Myanmar	Coal, oil and natural gas	1,70
07-Jul	Hanjin Heavy Industries and Construction	Philippines	Non-automotive transport OEM	1,68
09-Oct	Daewoo Shipbuilding and Marine Engineering	Russia	Non-automotive transport OEM	1,50
07-Jul	Hynix Semiconductor	China	Semiconductors	1,50
al			1	27,79

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

^a The usual number in these tables is 10. In this case, however, there were two transactions tied for 10th place, with a value of USD 1,500 million each. So both have been included.

Annex table 6. Korea: Outward FDI flows by region (USD million and percentages) ^a								
	2005	2006	2007	2008	2009			
Asia	4160	6320	10990	11590	6360			
	18.2%	52.2%	73.9%	5.4%	(-45.2%)			
North America	1290	2200	3610	5290	5980			
North America	(-10.9%)	69.7%	64.2%	46.7%	13%			
Furene	660	1230	4420	3060	4940			
Europe	(-10.2%)	87.1%	259.9%	(-30.8%)	61.5%			
South America	650	1310	1460	1680	920			
South America	5.2%	103.2%	11.3%	14.9%	(-45.1%)			
Others (Pacific, Middle East, and Africa)	330	570	940	1290	1260			
Others (Fachic, Middle East, and Amica)	103.7%	74.4%	65%	37.4%	(-2.7%)			
Total	7080	11630	21420	22910	19450			
Iotai	9.3%	64.3%	84.2%	7%	(-15.1%)			

Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea.

^a The second row under each region for each year shows the percentage change over the preceding year.

Annex table 7. Korea: The number of new affiliates, 2005-2009									
	2005	2006	2007	2008	2009 (data to September)				
Asia	3,010	3,484	3,786	2,744	1,588				
North America	1,102	1,343	1,314	808	534				
Europe	141	168	254	196	133				
South America	57	77	101	91	85				
Pacific	80	97	113	101	58				
Africa	19	21	32	30	33				
Middle East	16	36	86	52	52				
Total	4,425	5,226	5,686	4,022	2,483				

Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea.

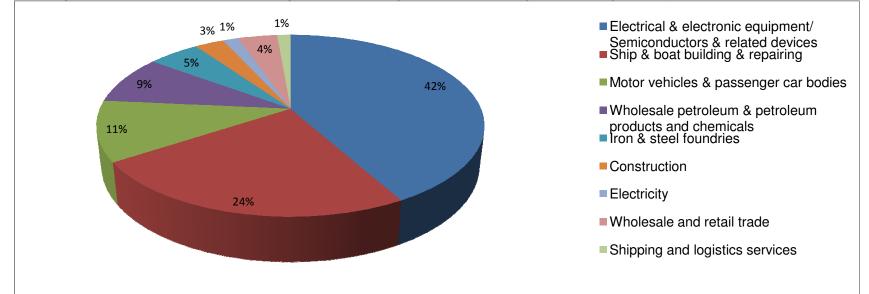
Annex table 8. Ko	orea: M&A Reg	jionality Index (p	ercentages) ^a			
	20	007	20	800	2009 (data t	o September)
Region	By invested amount	By number of new enterprises	By invested amount	By number of new enterprises	By invested amount	By number of new enterprises
Asia	30.2	51.8	46.5	56	25.5	48.3
Middle East	0.2	0.7	0.2	0.9	0.8	1.7
North America	24.7	31.2	24.8	27.8	42.3	34.1
Europe	34.9	8.7	17.1	5.7	12.1	8.6
South America	6.1	3.8	2.8	5.2	7.8	3
Africa	2.9	0.9	2	1.1	10.5	0.4
Pacific	0.9	3	6.6	3.3	1	3.9
Total (%)	100	100	100	100	100	100

Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea.

^a The Index is calculated by dividing the number of M&As in a particular region of the world by the total number of M&As and multiplying the result by 100.

Annex table 9. Korea: M&As by industry, 2007-2009 (numbers and USD million)								
Industry	Total number of M&As	Invested amount	Total number of M&As	Invested amount	Total number of M&As	Invested amount		
Agriculture, forestry, and fishing	105	358	137	801	148	1,295		
Mining and quarrying	212	1,128	266	2,062	229	955		
Manufacturing	54	239	56	230	44	911		
Services (other than trade & finance)	776	1,484	815	1,570	545	723		
Wholesale and retail trade	81	1,629	103	554	113	652		
Financial and insurance activities	830	807	1,005	1,559	686	575		
Total	2,058	5,645	2,382	6,776	1,765	5,111		

Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea.



Annex figure 1. Korea: Breakdown of the foreign assets of the top 20 multinationals, by main industry, 2009

The top multinationals by mai	n industry, 2009
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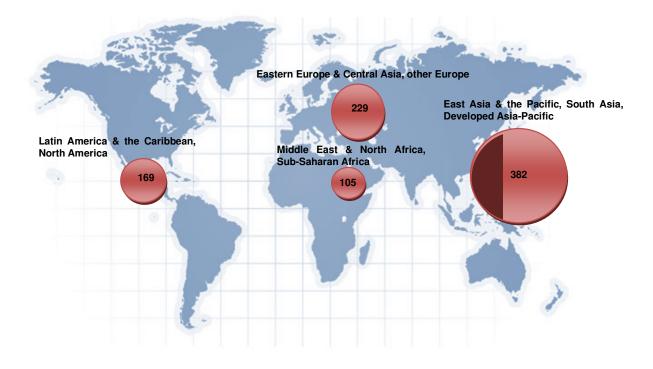
Industry	Foreign Assets (USD million)	Companies
Electrical & electronic equipment/ Semiconductors & related devices	38,924	Hynix Semiconductor Inc., LG Display, LG Electronics, Samsung Electronics Co., Ltd.
Ship & boat building & repairing	22,105	DSME Co., Ltd., Hyundai Heavy Industries Co., Ltd., Samsung Heavy Industries Co., Ltd.
Motor vehicles & passenger car bodies	9,988	Hyundai Mobis, Hyundai Motors, KIA Motors
Wholesale petroleum & petroleum products and chemicals	8,065	LG Chem. Ltd., SK Energy, S-Oil
Iron & steel foundries	4,774	POSCO
Construction	2,687.5	Doosan Heavy Industries & Construction, Samsung C&T Corp. ^a
Electricity	1,425	Korea Electric Power Corp. (KEPCO)
Wholesale and retail trade	3,645.5	Daewoo International Corp., Lotte Shopping Co., Ltd., Samsung C&T Corp. ^a
Shipping and logistics services	1,245	Hyundai Merchant Marine Co., Ltd.

Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on Korea Information Service, Inc. (www.kisline.com) and auditors' reports.

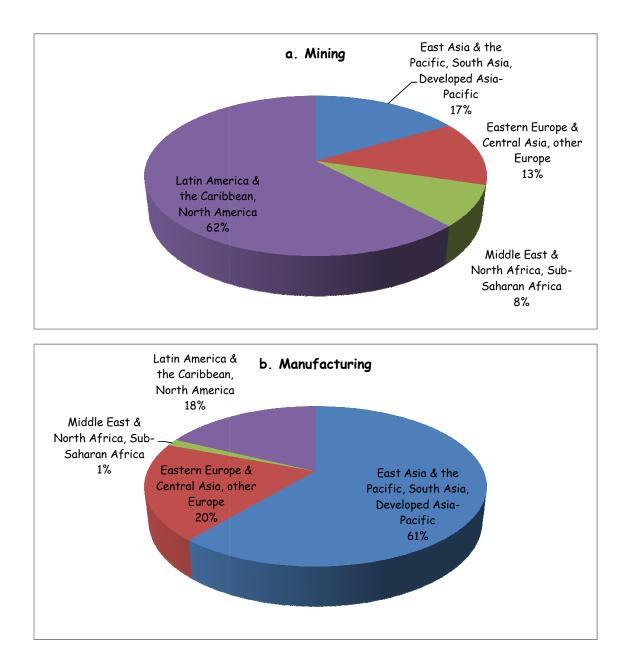
^a Half of Samsung C&T Corp.'s foreign assets are included in construction and the other half in wholesale & retail trade, as the exact division of assets is unclear.

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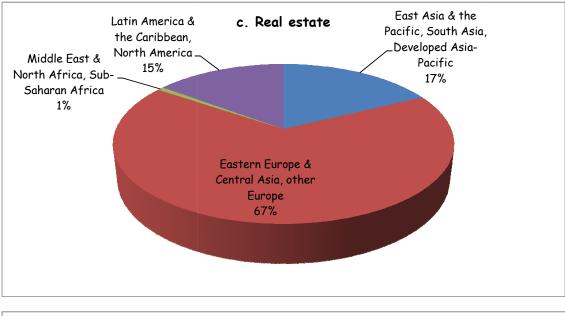
Annex figure 2. Korea: Foreign affiliates of the top 20 multinationals, by region, 2009 (number of affiliates)



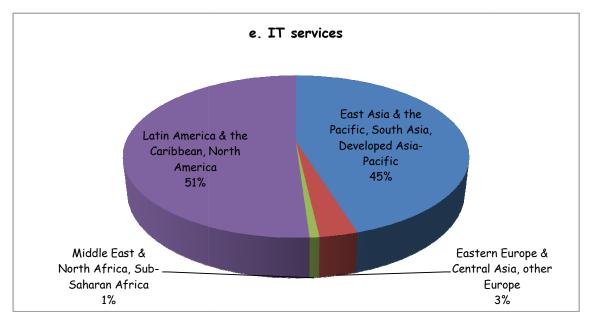
Source: GSIS-VCC research on leading Korean multinationals, 2010, drawing on company websites.



Annex figure 3. Korea: Geographic distribution of the assets of total outward FDI, by main industry, 2009^a



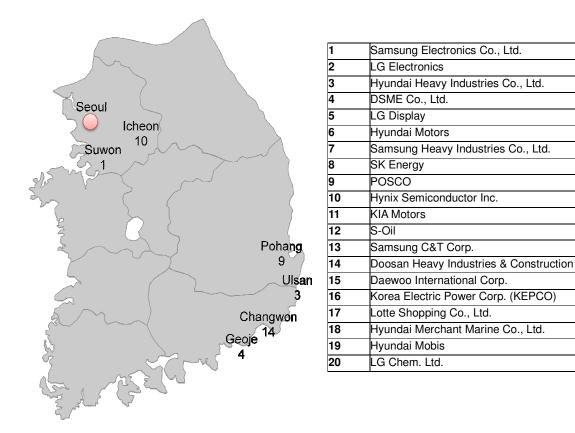




Source: Adapted from Overseas Investment Statistics, The Export Import Bank of Korea.

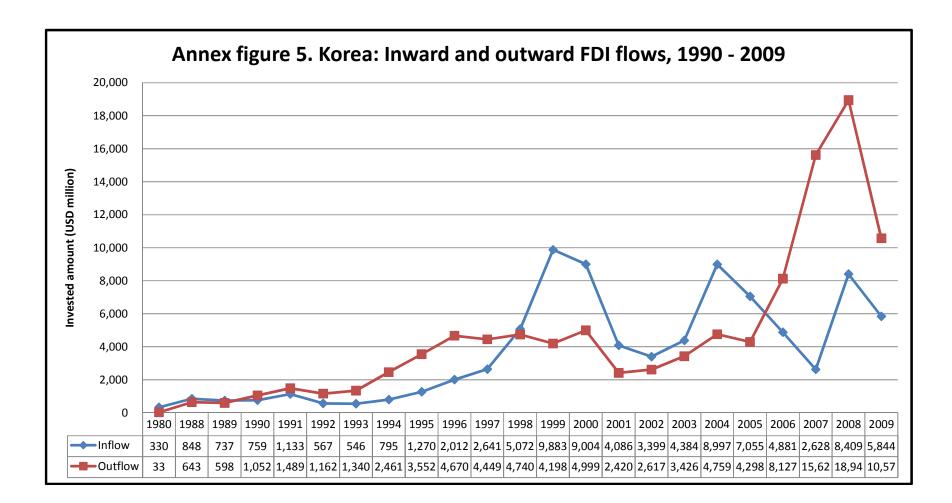
^a Data on the geographic distribution of the assets of the top 20 by main industry were unavailable. The distribution for *total* outward FDI in 2009 is provided instead.



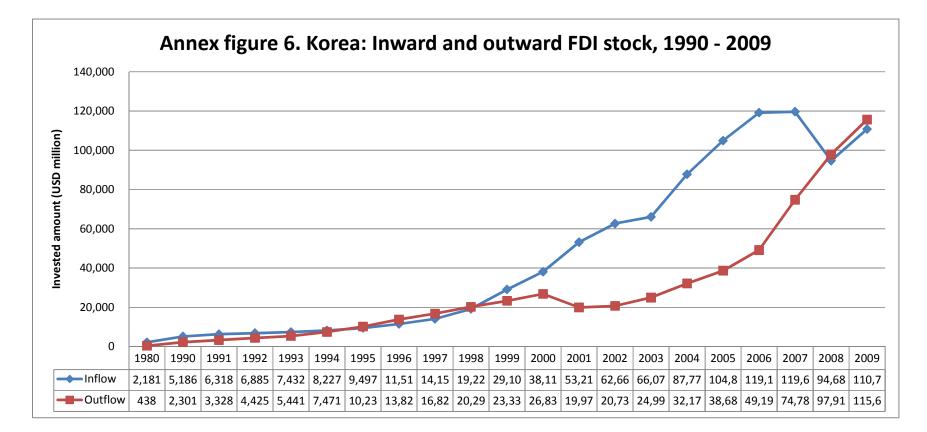


Sources: GSIS-VCC research on leading Korean multinationals, 2010, drawing on company websites.

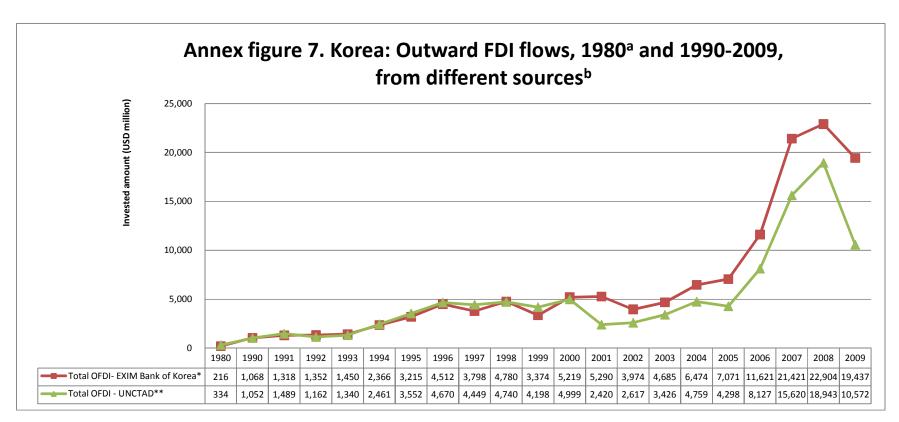
^a Companies whose numbers do not appear on the map have their head offices in Seoul.



Source: Adapted from UNCTAD, Annex tables to World Investment Report 2010, http://www.unctad.org/Templates/Page.asp?intltemID=5545&lang=1.



Source: Adapted from UNCTAD, Annex tables to World Investment Report 2010, http://www.unctad.org/Templates/Page.asp?intltemID=5545&lang=1.

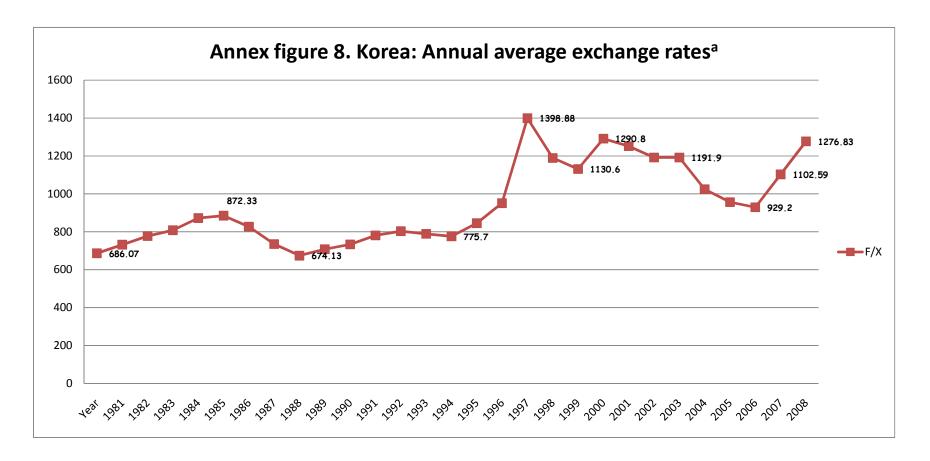


Sources: *The Export Import Bank of Korea

** UNCTAD (http://stats.unctad.org/fdi/ReportFolders/reportFolders.aspx), accessed on June 25. 2010.

^a The amounts indicated for 1980 are the average amounts from 1980 to 1989.

^{b.} 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 2001. Differences in OFDI trends can also be seen in 2001, 2002, and 2005. The differences are partly a matter of different sources, UNCTAD' 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 2010*. The EXIM Bank data presented here are thus more reliable.



Source: Bloomberg, L.P.

^a. The 1981 figure was calculated from data for April to December of 1981.

No.1. Samsung Electronics Co., Ltd. (SEC) 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 system integration. It was founded on March 1st, 1938 with an investment of KRW 30,000. SEC has diversified and expanded its core businesses globally since the late 1970s and has won the top global market share for 13 products, including semiconductors, TFT-LCDs, monitors and CDMA mobile phones. Samsung Life holds the largest share (6.5%), followed by Samsung C&T Corp. with 4.02%. The largest individual shareholder is Lee Gun-Hee, the chairman of Samsung Group, with 3.42%. Overall, foreigners hold 47.71%, domestic firms hold 15% and SEC's subsidiaries hold 13% of the total shares.

No.2. LG Electronics (LGE)

http://www.lge.com/

LG Electronics, Inc. is a global leader and technology innovator in consumer electronics, mobile communications and home appliances, employing more than 80,000 people working in over 115 affiliates around the world. LGE comprises five business units - Home Entertainment, Mobile Communications, Home Appliance, Air Conditioning and Business Solutions. The firm was established in 1958 and has led the way into the advanced digital era. It is now the world's second-largest manufacturer of television sets and the third-largest producer of mobile phones. LG Corp. owns 31% of its total shares, whereas foreign and domestic investors hold 27% and 42% respectively.

No.3. Hyundai Heavy Industries Co., Ltd. (HHI)

http://www.hhi.co.kr/

Chung Ju-yung, the founder of the Hyundai Group, created Hyundai as a construction company in 1947. He then decided, without any experience, capital or technology, to enter the shipbuilding industry in the 1970s. Despite these challenges, the company started its shipbuilding operation in Ulsan in March 1972, which is now the world's largest shipyard. It has since set several world records, including the building of one ship every four days on average, and has around 15% of the global market share in shipbuilding. HHI has six business divisions: shipbuilding, offshore engineering, industrial plant engineering, engines & machinery, electro electric systems, and construction equipment. Major shareholders who hold more than 5% of HHI shares are Mong-Joon Chung, the chairman of Hyundai Group; the KCC Corporation; and the Hyundai Mipo Dockyard.

No.4. Daewoo Shipbuilding & Marine Engineering Co., Ltd (DSME)

www.dsme.co.kr/

DSME, established in 1973 at Okpo Bay, Geoje Island, in Korea, has developed into the world's premium specialized shipbuilding and offshore contractor that builds offshore platforms, drilling rigs, floating oil-production units, submarines, destroyers and other ships. DSME employs approximately 1,500 design and R&D personnel and more than 15,000 skilled workers. Reborn as an independent company (after having been a part of Daewoo) in October 2000, it seeks to become the world's integrated heavy industry leader. Private institutions own 31.27% of DSME, while the state and state-controlled institutions own 19.11%.

No.5. LG Display

http://www.lgdisplay.com/

LG display was established in January 1985 under the name of Geumsung Software (changed to LG Display in 2008). It started developing TFT-LCD in 1987 and launched LCD modules for the first time in 1995. Since then it has been leading the world's display industry. Recently, it has become the world's no. 1 company even in the area of eco-friendly technology by expanding its business to the thin film solar cells related to display technology. LG Electronics holds 37.9% of LG Display and foreign and domestic investors hold 33.7% and 28.4%, respectively.

No.6. Hyundai Motors

http://worldwide.hyundai.com/

Hyundai Motors was founded under the Hyundai Group in 1967 and has grown into a world-class automaker. Despite the volatility in the currency exchange markets and the rising oil and commodity prices, Hyundai Motors cemented its global position by posting worldwide sales of 2.6 million units in 2007, through its 6,000 dealerships in over 196 countries. With 10 manufacturing plants, 11 research centers, and more than 6,000 sales networks throughout the world, Hyundai Motors has now truly become a global company. Foreign investors hold the largest share of the company with 33.49%, followed by related parties with 25.98% and institutional investors with 20%.

No.7. Samsung Heavy Industries Co., Ltd.

http://www.shi.samsung.co.kr/Eng/default.aspx

Samsung Heavy Industries, established in 1974, has the world's largest market share in the high-tech and high-value shipbuilding sectors. Its main businesses are shipbuilding, offshore engineering, construction, and wind power. The largest shareholders are SEC, Samsung Life (an insurance affiliate of the Samsung Group), and Samsung Electro-Mechanics (another affiliate of the Group). Foreigners own 20.39% of the total share.

No.8. SK Energy

http://eng.skenergy.com/

SK Energy was founded in December 1962 as Korea Oil Corp. and started operating an oil refinery in 1964. It became a member of the SK Yukong Group in 1980 and began to take the challenging steps that would turn it into a world-class general energy and chemical company. Today, the company is exploring oil in 51 blocks in 24 countries and has recently launched the ZIC line of lubricants. In 2006, it became Korea's first refinery company to exceed the USD 11 billion mark in the exports of petroleum, chemicals and lubricants. The firm holds 33.40% of its total shares. Other major shareholders are Templeton (6.29%) and the National Pension Service (5.58%).

No.9. POSCO

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

With the support of the government, the founder, Tae-Joon Park, established the company on April 1st, 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.10. 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 Inc. Today, Hynix offers a full range of products from 4M to 1 GB with 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.11. KIA Motors

http://www.kia.co.kr/Index.htm

From its humble beginnings as a manufacturer of bicycle parts – by hand – 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 34.58% of KIA's stock, individual investors own 21.96% and foreigners own 19.55%.

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 the steady supply of petroleum products. The construction of an oil refinery began inside an industrial complex located in Ulsan in 1976. 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/day. The Saudi Aramco Overseas Company (AOC) owns 35% of S-OIL stock and Hanjin Energy owns 28.41%.

No.13. 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.

No14. Doosan Heavy Industries & Construction

http://www.doosanheavy.com/

Doosan Heavy Industries & Construction's products include castings 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 accounted for Korea's first industrial complex in Changwon. It renamed itself 'Hanjung' in 1980 and integrated domestic power and engine industries (Hyundai Heavy Industries) into Hanjung in 1999. After going public in 2000, it renamed itself 'Doosan Heavy Industries &

Construction'. The company ranks 1st in the global desalination market. Its largest shareholder is Doosan Co., Ltd., which holds 48.63% of the stock.

No.15. Korea Electric Power Corporation (KEPCO)

http://www.kepco.co.kr/

Although its history reaches back to 1898, the modern Korea Electric Power Corporation was founded in 1961 and started the transmission of electricity in 1964. It had achieved nationwide rural electrification by 1979. KEPCO was listed on the New York Stock Exchange in 1994 and won the bid to operate the Malaya Power Plant in the Philippines in 1995, its first overseas project. Its current overseas operations cover a wide range of countries, including China, the Philippines, Saudi Arabia and Nigeria. On December 27, 2009, KEPCO won a landmark contract to build a nuclear power plant valued at USD 18.6 billion in the UAE. The state and the state-controlled Korea Finance Corporation between them own just over 51% of KEPKO stock.

No.16. Daewoo International Corporation (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 and include trading, manufacturing and the development of natural resources in a number of countries, including Australia, Mexico, Myanmar and Uzbekistan.

No.17. 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 began to branch out into overseas markets. In 2008, its Singapore affiliate, Lotte Shopping Holdings (Singapore) bought PT Makro Indonesia for USD 212.6 million. It has also recently bought the Chinese supermarket chain, Times Ltd., for USD 629 million. In addition, it has established a department store in Moscow (in 2007) and one in Beijing (in 2008).

No.18. Hyundai Merchant Marine Co., Ltd. (HMM)

http://www.hmm21.com/

Hyundai Merchant Marine Co., Ltd. provides shipping and logistics services. Its principal activity is to provide marine transport. Its fleet includes full container carriers, LNG carriers, oil tankers, bulk carriers, and so forth. HMM was first established as Asia Merchant Marine on March 25th, 1976, with a capital of KRW 200 million. Today, it has formed a global business network with four international headquarters, 28 subsidiaries, 76 branches, six overseas offices and 10 liaison offices. It was the first conventional liner service opened between the Far East and the Middle East: in 1978. The major shareholders are Hyundai Elevator (19.3%), Hyundai Heavy Industries (17.6%), and Hyundai Engineering & Construction (8.3%).

No.19. 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, switched to the automobile business. It produced finished automobiles (four-wheel drivers like Galloper and Santamo) until the 1997 Asian financial crisis, after which 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 by renaming itself 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 A/S parts sales, auto parts exports, and module parts manufacture as its operating areas. Major shareholders are KIA Motors, with 16.8% of stock; followed by Mong-Ku Chung, the former Chairman of Hyundai Group, with about 6.96%; and Hyundai Steel, with 5.66%. Foreign investors hold 35.92% of HM shares.

No.20. LG Chem. Ltd.

http://www.lgchem.co.kr/

LG Chem. Ltd. is the largest Korean chemical company. It manufactures a wide range of products from petrochemicals to high-value-added plastics and high-performance industrial materials. Its businesses operate in three major areas: chemicals and polymers; industrial materials; and information technology and electronic materials. The company recently reoriented its investment away from general chemical products to organic light-emitting diodes (OLED) and other display-related materials. Its main shareholders are Korean institutional and individual investors (39.15%) and the LG Group (33.53%). Of the remaining shares, nearly all (26.78%) are owned by foreign investors.