



The Top 20 Korean Multinationals: Changes and Continued Growth of Foreign Investment

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Graduate School of International Studies at Seoul National University in Seoul, and the Columbia Center on Sustainable Investment (CCSI), a joint center of the Columbia Law School and the Earth Institute at Columbia University in New York, are releasing the results of their survey of Korean multinationals today. The survey, conducted during 2014, is part of a long-term study of the rapid global expansion of multinational enterprises (MNEs) from emerging markets.¹ The research for this report was conducted in 2014 and covers the period from 2011 to 2013.²

Highlights

In 2013, the top 20 Korean multinationals, ranked by their foreign assets (See Table 1), jointly held US\$68.9 billion assets abroad.³ Most firms were subsidiaries of Korea's eight leading business groups (or chaebols), including Samsung, POSCO, LG, Hyundai Heavy Industries, Hyundai-Kia Motors, SK, Lotte, and Hyosung Group. Five out of the 20 multinationals were also included in UNCTAD's "Top 100 non-financial TNCs from developing and transition economies" in 2012.⁴ The average age of the top 20 firms is about 47 years, which is two times the average age of Korea's top 1,000 firms (ranked in terms of total assets).

There is a high concentration by the top players in the list in terms of foreign assets. Among the top 20 companies, Samsung Electronics, POSCO, and Hyundai Motor Company ranked in the top three in that order. There was a significant difference between first and second place, with the foreign assets of Samsung Electronics more than doubling that of POSCO. Furthermore, the top five firms together accounted for more than 60% of the foreign assets of the top 20.

 ¹ Known as the "Emerging Market Global Players" (EMGP) project, led internationally by CCSI.
 ² This paper was prepared by Hwy-Chang Moon and Wenyan Yin, Seoul National University. The international

² This paper was prepared by Hwy-Chang Moon and Wenyan Yin, Seoul National University. The international project named "Emerging Market Global Players," is led by the Columbia Center on Sustainable Investment of Columbia University and has around 15 participating economies.

³ The exchange rates used to calculate all figures for the years 2011-2013 are those provided by the International Monetary Fund for December 30th for 2011 and 2013, and December 28th for 2012.

⁴ The five multinationals are Samsung Electronics, Hyundai Motor Company, POSCO, LG Electronics, and Hynix Semiconductor.

In 2013, the top 20 had US\$340 billion in foreign sales (including exports) and 937 foreign affiliates. In terms of employment, 14 of the 20 firms together had 375,517 foreign employees (See Annex Table 1 and Tables 1a, 1b, and 1c for details).

The list of top 20 firms includes two state-controlled firms, Korea Gas Corporation (KOGAS) and Korea Electric Power Corporation (KEPCO), with more than 50% of their shares owned by the government. The remaining firms are all non-state-owned.

Although the growth rates of foreign assets and foreign sales of the top 20 MNEs decreased slightly in 2013, they still showed continuous overall growth (along with the number of foreign employees) over the three-year period from 2011 to 2013 (See Table 2 and the discussion immediately preceding it for further details). The main objective of outward FDI is to reduce production costs, secure natural resources, and expand foreign markets. After a substantial decline in 2009, Korea's total outward FDI flow increased for the next three years. However, it faced another decline in 2013 because of sharp reduction in investment in the sectors of mining and professional services (See Annex Figure 5). The outward FDI stock exceeded inward FDI stock for the first time in 2008, and the gap between the two has increased ever since (See Annex Figure 6).

Rank	Name of company	Industry	Status (% of state ownership) ^b	Foreign assets ^c
1	Samsung Electronics Co., Ltd.	Conglomerate	Listed (Nil)	18,449
2	POSCO	Conglomerate	Listed (Nil)	8,160
3	Hyundai Motor Company	Conglomerate	Listed (Nil)	6,786
4	Korea Gas Corporation	Gas utility	Listed (54.56%)	5,419
5	LG Chem Ltd.	Conglomerate	Listed (Nil)	4,239
6	LG Electronics Inc.	Conglomerate	Listed (Nil)	3,456
7	SK Hynix Inc.	Semiconductors & related devices	Listed (Nil)	3,165
8	Korea Electric Power Corporation	Electricity	Listed (51.10%)	2,670
9	Lotte Chemical Corporation	Petrochemicals	Listed (Nil)	2,045
10	Lotte Shopping Co., Ltd.	Conglomerate	Listed (Nil)	2,017
11	Samsung Display Co., Ltd.	Display panel	Unlisted (Nil)	1,955
12	Kia Motors Corporation	Motor vehicles	Listed (Nil)	1,617
13	Samsung C&T Corporation	Conglomerate	Listed (Nil)	1,591
14	LG Display Co., Ltd.	Display panel	Listed (Nil)	1,565
15	Hyundai Mobis Co., Ltd.	Automotive parts	Listed (Nil)	1,162
16	SK Telecom Co., Ltd.	Telecommunications	Listed (Nil)	1,155
17	Hyosung Corporation	Conglomerate	Listed (Nil)	896
18	Samsung SDI Co., Ltd.	Display panel and battery	Listed (Nil)	874
19	Hyundai Heavy Industries Co., Ltd.	Conglomerate	Listed (Nil)	873
20	SK Innovation Co. Ltd.	Conglomerate	Listed (Nil)	812
Total				68,907

Table 1. Rankings of the top 20 Korean multinationals investing abroad, 2013 ^a (US	D
million)	

Sources: Firms' individual annual reports

^a The percentage of state ownership shown in parentheses covers direct state holdings as well as indirect holdings through state-controlled enterprises.

^b Foreign assets represent the amount of capital investment in foreign affiliates and subsidiaries.

Profile of the top 20

Ranking changes over the past three years

As Table 1a below shows, the foreign asset rankings remained highly consistent from 2011 to 2013. LG Chem had the biggest change, jumping twelve spots in 2013, while the next biggest, KOGAS and Samsung SDI, climbed three spots in 2012 and 2013, respectively.

LG Chem's rise was due to its commitment to global expansion in recent years. The company invested 48.4 billion won into its Chinese subsidiary, Nanjing Information & Electronics Materials, in 2012. This was followed by additional financial support of 29 billion won the next year. LG Chem also invested in a large-scale petrochemical complex in Kazakhstan with local partners. It contributed 75.6 billion won in 2012 and 18.7 billion won in 2013. Furthermore, in 2013 the company established new foreign affiliates in India and Turkey, with investments of 299 million won and 174 million won respectively. Moreover, LG Chem acquired Fuel Cell Systems, a subsidiary of Rolls-Royce, with LG Corporation and LG Electronics in 2012. It subsequently enlarged its stake by investing 6.4 billion won in 2013.

For KOGAS, its growth in foreign assets can be attributed to the promotion of foreign energy development during the Lee Myung Bak administration (2008-2012). According to the Export-Import Bank of Korea, KOGAS's average overseas investment amounted to only US\$100 million from 2005 to 2009. However, this number jumped quickly to US\$700 million in 2010 and US\$1.9 billion in 2011.

Samsung SDI's rise in the ranking can be attributed to its large expansion of investments in Malaysia and Vietnam in 2013, which aimed to enhance its capabilities of small-sized rechargeable battery operations. In the same year, the company acquired SB LiMotive to strengthen its automotive battery operations. Such global expansion aims to help the firm realize its overall business transformation from displays to rechargeable batteries.

Firm	2011	2012	2013	Firm	2011	2012	2013
Samsung Electronics Co., Ltd	1	1	1	Samsung Display Co., Ltd. ^a	n/a	13	11
POSCO	2	2	2	Kia Motors Corporation	12	11	12
Hyundai Motor Company	3	3	3	Samsung C&T Corporation	11	12	13
Korea Gas Corporation	7	4	4	LG Display Co., Ltd.	13	14	14
LG Chem Ltd.	17	17	5	Hyundai Mobis Co., Ltd.	14	15	15
LG Electronics Inc.	4	5	6	SK Telecom Co., Ltd.	15	16	16
SK Hynix Inc.	5	6	7	Hyosung Corporation	16	18	17
Korea Electric Power Corporation	6	7	8	Samsung SDI Co., Ltd.	20	21	18
Lotte Chemical Corporation	10	9	9	Hyundai Heavy Industries Co., Ltd.	18	19	19
Lotte Shopping Co., Ltd.	9	8	10	SK Innovation Co. Ltd.	19	20	20

Table 1a. Rankings of the top 20 Korean multinationals by foreign assets, 2011-2013

Sources: Firms' individual annual reports

^a Samsung Display was established in 2012; data for 2011 is unavailable.

Principal industries

As shown in Annex Figure 1, the leading industry (in terms of foreign assets) among the top 20 Korean MNEs is *electrical & electronic equipment/telecommunications* (44.4%). Seven firms are included in this industry. The next industry with the largest percentage of foreign assets is *petroleum products, chemicals & gas* (18.6%), which includes five companies. This is followed by *motor vehicles* (13.9%) and *iron & steel* (11.8%), while *wholesale and retail trade, electricity, construction,* and *shipbuilding* bring up the rear, with less than 5% each.

As noted, this breakdown by industry is based on asset allocation and not firm participation. Table 1 shows that there are ten conglomerates and ten other firms in industries such as *telecommunications* and *petrochemicals*.

Electrical & electronic equipment, and telecommunications

In 2013, LG Electronics invested US\$1.5 billion in Vietnam to build a factory for manufacturing and assembling electrical and electronic products. In order to reduce manufacturing costs, Samsung Electronics built its second Vietnam-based factory in 2013, which cost US\$3.2 billion. In October 2014, Samsung Electronics announced it would invest US\$560 million to build another factory in Vietnam for manufacturing home appliances. In China, Samsung Electronics finished a semiconductor facility in Xi'an in May 2013 after 20 months of construction. It invested a total of US\$7 billion in the facility, which became the single largest foreign investment in China. The Xi'an facility was also notable for being the second largest overseas memory chip manufacturing plant after the one in Austin, Texas. Samsung Electronics also invested an additional US\$500 million for a NAND flash post-step line in Xi'an, which was aimed to be completed at the end of 2014.

Unlike Samsung Electronics, LG Electronics, and its subsidiary, SK Hynix, made aggressive acquisitions of overseas firms. In 2012, in order to strengthen its NAND Flash competitiveness, SK Hynix took over US storage solution firm LAMD. SK Hynix also established an R&D center in Italy by acquiring an Italian NAND Flash developer in 2012.

The world's two leading LCD panel makers, LG Display and Samsung Display, each made large investments in China. LG Display contributed 70% of a US\$4 billion plant in Guangzhou, which was opened in September 2014. Samsung Display invested US\$1 billion in an LCD factory in Suzhou in 2011, finishing construction in November 2013.

SK Telecom, for its part, made aggressive investments over the past 2-3 years (2011-2013) in emerging markets (mostly in Southeast Asia), while it entered other regions through partnerships in service cooperation. However, due to recent disappointing market performance, the company announced in 2013 that it would focus on improving the management of existing foreign investments over further overseas expansion.

Finally, Samsung SDI expanded its overseas investment and thus strengthened its production capabilities for small-sized rechargeable batteries in Malaysia and Vietnam. In 2014, it invested in Xi'an for manufacturing medium-to-large rechargeable batteries.

Petroleum products, chemicals & gas

South Korea strongly promoted investment in energy during the five years of the Lee Myung Bak administration. KOGAS acquired stakes in Australia, Uzbekistan, and Iraq over the five years from 2008 to 2012, but has performed poorly and is now considering selling some of its current foreign assets. Due to poor profitability of these investments, the current government is reviewing its overseas investments in oil and gas by focusing on the quality of investment over expansion.

Lotte Chemical was newly formed in 2012 by merging Honam Petrochemical and KP Chemical. It subsequently expanded overseas into the Chinese and Southeast Asian markets. The company claimed in 2012 that it would invest US\$5 billion in Indonesia for a large-scale petrochemical complex, but because of difficulty in buying the land, it is still negotiating with local partners. LG Chem and KPI (Kazakhstan Petrochemical Industries) jointly invested US\$4 billion in Atyrau, Kazakhstan, to secure access to low-cost raw materials for producing polyethylene.

Rounding out the list, SK Innovation has been looking for new opportunities for overseas investment in energy after selling off three offshore oil fields in Brazil. Recently, it acquired two oil fields in Oklahoma and Texas, becoming the first Korean company to produce shale gas/oil overseas. In 2013, SK Innovation formed a joint venture with China's largest national oil company, Sinopec, to establish the Wuhan Ethylene Corporation.

Motor vehicles

Hyundai Motor, third in the ranking, expanded its global factories in emerging markets, particularly China and Brazil. The company finished its third plant in China in 2012 and, in early 2014, announced that it would construct two new plants in Chongqing and Changzhou. Hyundai Motor also opened a US\$700 million plant in Sao Paulo in September 2012, in order to expand its presence in Brazil and the Latin American region in general.

Kia Motors, twelfth in the ranking, in 2012 announced a plan to invest US\$1.6 billion on new equipment and tools for enhancing the production efficiency of WestPoint factory. Kia also decided to invest US\$1 billion in 2014 to build a new factory in Mexico to meet the demand of the Americas region.

Finally, Hyundai Mobis, fifteenth among the top 20, actively expanded its overseas factories, thanks to the increasing demand for Hyundai and Kia's automobiles. In 2012, Hyundai Mobis invested US\$33 million for building module manufacturing plant in Izmir, Turkey. Construction was completed in September 2013. In 2014, it announced that it would build an automobile lamp plant in the Czech Republic by 2017. With this it hopes to reduce logistics costs while serving the European regional market.

Iron and steel

POSCO, at number two in the list, actively expanded overseas investment in order to reduce its reliance on the domestic market. In 2012, POSCO took a 15% stake in Gina Rinehart's iron ore mining project, Roy Hill, for roughly US\$1.7 billion. Also that year, it invested

US\$12 billion in a project in Odisha, India, which was India's largest FDI inflow by a single investor at that time. In 2013, POSCO formed a joint venture with Chongqing Iron and Steel Company in China to build a 3-million-ton capacity FINEX integrated steelwork facility. However, these acquisitions have left POSCO with a debt burden and performance deterioration..

Geographic distribution of foreign affiliates

Although the geographic distribution of Korean foreign affiliates varies by industry, about half of them are located in East Asia, South Asia, and the Pacific (including Oceania) (46.5%). This is followed by Europe & CIS (21.9%), North America (20.3%), and South America (6.4%). Middle East and Africa is the region with the lowest number at 4.9%. (See Annex Figure 2)

Transnationality Index (TNI)

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 (See Annex Table 1d). As foreign employment data for six companies were not available (POSCO, Samsung Display Co., Ltd., Samsung C&T Corp., Hyosung Corp., Hyundai Heavy Industries Co., Ltd., and SK Innovation Co., Ltd.), only 14 multinationals are included in the ranking by TNI scores. Samsung Electronics had the highest TNI at 56.1, followed closely by SK Hynix (54.1) and Samsung SDI (48.8). All of the top three companies belong to the electronics industry. The next three firms in terms of their TNIs have TNIs in the 40s, and belong to either the chemical or electronics industries (LG Chem, 47.9; LG Display, 46.1; and Lotte Chemical, 44.7). The 7th to 11th firms have TNIs in the 20s and 30s. These firms mostly belong to the automobile and wholesale & retail trade industries. KOGAS, KEPCO, and SK Telecommunications ranked in the bottom, with two of the three being state-owned companies. The TNIs of these firms are all lower than 8, which is far lower than the other 11 firms.

Ownership and public status

Box 1: Common governance structures among the top 20

An important characteristic of Korea's top 20 multinationals is that most of them belong (or recently belonged) to what are known in Korea as *chaebols*. A *chaebol* is a loosely organized family-controlled business group, much like the Japanese *keiretsu* (formerly *zaibatsu*). Unlike *keiretsus*, however, *chaebols* are not centered on banks. The *chaebols* were strongly supported by the government in the beginning of Korea's economic development in the 1960s, and they played a key role in Korea's emergence as one of the "newly industrialized economies (NIEs)." However, after the 1997 Asian financial crisis, the previously close relationships between the government and *chaebols* were strained. *Chaebols* are regarded as the cause of crisis, and barriers to a fair and competitive market system. Therefore, the government strengthened regulations and monitoring of *chaebols*, and promoted a series of structural reforms for corporate governance. Public support for the *chaebol* system declined, and as a result, *chaebols* were forced to become more transparent, operate on a market-based system, and cooperate with small and medium sized enterprises for sustainable and balanced growth.

Most of the top 20 firms belong to the following eight *chaebols* below (in italics): Samsung Group: Samsung Electronics, Samsung SDI, Samsung C&T POSCO Group: POSCO Hyundai Heavy Industries Group: Hyundai Heavy Industries Hyundai-Kia Motors Group: Hyundai Motor, KIA Motors, Hyundai Mobis LG Group: LG Chem, LG Electronics, LG Display SK Group: SK Hynix, SK Telecom, SK Innovation Lotte Group: Lotte Chemical, Lotte Shopping Hyosung Group: Hyosung Corporation

Lotte Chemical was formed when Honam Petrochemical and KP Chemical merged in 2012. Honam Petrochemical started as a state-run firm in 1976 but became a part of Lotte Group in 1979 when it sold half of its shares to Lotte in response to privatization efforts by the Korean government.

All of the top 20 multinationals (except Samsung Display) are listed on the Korea Exchange (KRX), with 13 of them also listed on foreign stock exchanges. Among the top 20 firms, two firms (KOGAS and KEPCO) are state-controlled. The major shareholders of KOGAS are the state government (26.15%), KEPCO (20.47%), and the local government (7.94%), totaling 54.56% in public shares. KEPCO has 21.17% direct state ownership with another 29.93% owned indirectly through the Korea Finance Corporation (KoFC), a wholly state-owned enterprise. The remaining 18 firms are privately-owned companies.

The average foreign share of ownership for the 20 multinationals is 31.55%. Eleven of the top 20 firms have 30% or higher foreign shareholdings. POSCO (52.9%) and Samsung Electronics (51.0%) have the highest share, with foreign majority ownerships exceeding 50%. Next is Hyundai Mobis (48.1%), followed by Hyundai Motor (43.6%), SK Telecom (43.5%), SK Hynix (42.8%), Kia Motors (33.9%), LG Chem (33.6%), SK Innovation (32.6%), and Hyosung (30.8%). Samsung Display, Samsung SDI, LG Display, KEPCO, and Samsung C&T have foreign shareholdings exceeding 20%, while LG Electronics, Lotte Shopping, and Hyundai Heavy Industries exceed 10%. KOGAS ranked last among the 20 firms at 7.51%.

Head office locations

Among the 20 multinationals, 13 of the headquarters are located in Seoul and seven in other Korean cities (Annex Figure 4). Of these seven, five are located close to Seoul, with Samsung Electronics in Suwon, SK Hynix in Icheon, KOGAS in Seongnam, and both Samsung Display and Samsung SDI in Yongin. The remaining two are located in the southeast of Korea – POSCO in Pohang and Hyundai Heavy Industries in Ulsan.

Official language and nationality of the CEO and top management

Korean is the official language at the headquarters of all firms. The nationalities of top management figures are also mostly Korean, but there has been an increasing number of foreigners both in Korea and abroad. Although the language in foreign affiliates depends on the location, most still use Korean as the primary language for communications convenience with headquarters. Headquarters also periodically send top officials or specialists to overseas subsidiaries with foreign managers in order to promote communications and enhance management and control.

Drivers of outward FDI

There are several motivations for FDI by the top 20 firms. One is to exploit lower labor costs of the host country. China has historically been the key destination for this purpose, but increases in Chinese labor costs over the last few years have prompted Korean firms to shift production to other countries like Vietnam. Samsung Electronics, for example, has already

established two plants in Vietnam, and the company has recently announced plans to build another plant of US\$560 million in Ho Chi Minh City. Following this trend, LG Electronics and other Korean electronics firms are also making ventures into Vietnam.

The second motivation is to seek natural resources. As shown in Annex Figure 1, "petroleum products, chemicals & gas" is the second largest industry in terms of foreign assets among the top 20 firms. As this industry is dependent on natural resources and energy, Korean firms have actively committed to securing natural resources overseas. During the Lee Myung Bak administration, the government promoted overseas investments in the resources and energy field. Because of the poor performance of these investments, however, firms began to reduce or sell off existing shares. Recently, discovery of shale oil in the United States has prompted some leading companies to invest in unconventional natural resources.

The third driver is to search for the potential markets. As shown in Annex Figure 2, the Asian region has become the largest destination for overseas investment. This is not just due to low costs, but local Asian markets. For example, Hyundai Motor has committed to additional investment in Western China to tap into its less developed provinces. Because of the financial crisis and declining demand in the advanced countries, developing countries have become important options for market seeking investment by Korean firms. Kia Motors and Hyundai Motor have established new plants in Mexico and Brazil respectively, to explore untapped markets in the Americas. Another related motivation is expansion into the neighboring markets of investment countries. For instance, more than 90% of Samsung Electronics' production in Vietnam is exported to other neighboring countries.

Changes in assets, sales, and employment during 2011-2013

Table 2 shows a snapshot of changes in the collective assets, sales, and employment of the top 20 multinationals from 2011 to 2013. Annex tables 1a, 1b, and 1c provide detailed information for each company over the same period.

Foreign assets grew by 20.7% in 2012. They continued to grow in 2013, albeit at a decreased rate of 17.4%. Total assets, in turn, grew by 15.6% in 2012 and a lesser 7.5% in 2013. The respective differences between the growth rates of foreign assets and total assets for each year imply that companies have accelerated their overseas investments over domestic investments over the past three years.

In the case of sales, the trend is similar to that of foreign and total assets. The growth rates of foreign sales and total sales in 2013 decreased compared to 2012, but the gap between the two increased over the same period. As was the case for assets, the growth rates of foreign sales in both 2012 and 2013 are higher than that of total sales.

In contrast to assets and sales, the growth rates of both foreign and total employment are higher in 2013 than 2012. This is because two key sources (Samsung Electronics and Lotte Shopping) of foreign employment among the 14 firms expanded their overseas employment dramatically in 2013. The number of foreign employees of Samsung Electronics, for example, increased by 14,142 in 2012, and increased substantially by more than 50,000 in 2013 because of its active commitment to construction of overseas factories. The expansion of Lotte Shopping's foreign employment is more aggressive, particularly in China, Indonesia,

and Vietnam. The overall foreign employees increased by only 917 in 2012, but went up by 11,038 in 2013, which is more than 10 times that of the preceding year.

Comparing the foreign shares of the three indices, it is evident that the ratio of foreign to total assets is much lower than that of the other two (about 1/6 level of the other two). The same data for the "100 largest non-financial TNCs from developing and transition economies" shows the foreign shares for all three variables are around 60% in 2013. Korea's level of internationalization in terms of sales and employment is similar to the global standard, but internationalization of assets lags far behind. Consequently, there is much potential for Korean firms to expand foreign investment in the future.

Variable	2011	2012	2013	% change (2011- 2012)	% change (2012- 2013)	% change (2011- 2013)
Assets ^a				•	•	
Foreign	47,249	57,042	66,952	20.7%	17.4%	41.7%
Total	518,765	599,643	644,671	15.6%	7.5%	24.3%
Share of foreign in total (%)	9.1%	9.5%	10.4%			
Sales ^a						
Foreign	240,707	283,929	317,036	18.0%	11.7%	31.7%
Total	426,352	493,885	525,811	15.8%	6.5%	23.3%
Share of foreign in total (%)	56.5%	57.5%	60.3%			
Employment ^b						
Foreign	287,722	327,877	375,517	14.0%	14.5%	30.5%
Total	644,647	684,015	747,709	6.1%	9.3%	16.0%
Share of foreign in total (%)	44.6%	47.9%	50.2%			

 Table 2. Korea: Snapshot of the top 20 Korean multinationals, 2011-2013 (USD million and numbers of employees)

Sources: Firms' individual annual reports and sustainability reports, KORCHAMBIZ (www.korchambiz.net).

^a Because Samsung Display has no data for 2011, it is excluded for all data (assets, sales, and employment) in the table, in order to make comparison for the three years.

^b Employment figures only include 14 companies. POSCO, Samsung Display, Samsung C&T, Hyosung, Hyundai Heavy Industry, and SK Innovation are omitted due to lack of data.

The big picture

Korea's first recorded outward FDI took place in 1959 when a South Korean firm invested in real estate in New York. The first non-real estate investment involved an Indonesian forestry development project by the Korea Southern Area Development Company in 1968. Most investments from the 1960s to mid-1980s targeted natural resources, forestry, and trading, but the total amount remained marginal.

Despite the 1997 Asian financial crisis, Korea's FDI increased dramatically between 1995 and 1999. The increase can be attributed to several factors, such as the liberalization of government policy, domestic wage increases, appreciation of the Korean won, and efforts made by large Korean firms to overcome the economic downturn.

Table 3. Korea: Outward FDI, 2009-2013 (US\$ million)

Year	2009	2010	2011	2012	2013
Investment	20,420	24,468	27,591	25,119	24,054
Growth (%)	-14.7	19.8	12.8	-9.0	-4.2

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

Korea's outward FDI declined in 2009 because of the 2008 global financial crisis but recovered quickly with a 19.8% growth rate in 2010. Outward FDI continued to grow until 2011, albeit at a lower rate. However, several years of domestic and global economic recession, caused Korea's overseas investments to shrink in 2012 and 2013 by 9% and 4.2% respectively.

Until the 1990s, Korean investors targeted developed countries for investment, doing so in order to gain access to advanced technology, a better business environment, and a sophisticated and large consumer market. Since 2000, however, Korean investors have been turning more to untapped markets in Africa and Asia. The rapid growth in demand in these regions along with their large and inexpensive labor pools are big draws for Korean investors. In 2013, Asia became the largest destination for Korea's FDI, accounting for almost half of all overseas investment. This was much higher than second and third recipient regions, North America (16.1%) and Europe (14.6%). The three regions together accounted for 77.2% of foreign investment in 2013, which is lower than the 88.8% in 2009. This reflects the diversification of Korean firms' investments to other regions such as Oceania and Latin America & the Caribbean (See Annex Table 4).

The Asian investment boom in 2013 was largely due to the substantial increase in investment in the manufacturing sector (42.2% compared to 2012). Investment increased for the top five Asian recipients except for Hong Kong. Also, the 2013 investment by Samsung Electronics in the semiconductor factory in Xi'an was the largest in the country since 2007. In contrast, investment in North America decreased because of a decline in investment in mining sector (49.4% compared to 2012). Oceania surpassed North America as the largest target of Korean firms' investment in mining. Meanwhile, investment in Europe and Oceania experienced growth in 2013, with the rise of investment in the finance & insurance sector (See Annex Table 4a and 4b).

Turning now to an analysis by industry, the top three targets for Korea's overseas investments were manufacturing, mining, and finance & insurance. These three industries accounted for 71.5% of total investments in 2013, and this share has increased over the previous five years (See Annex Table 5). The manufacturing industry maintained its status as the top investment sector, except for in 2009 and 2010. Although China remains the dominant destination, accounting for about half of total investments in the manufacturing sector, investments in other countries such as India, Germany, and Singapore grew at a faster rate. Also, despite financial firms not being included in the top 20 list, the finance industry ranked third in outward FDI with the highest growth rate among all industries. As for the wholesale and retail industry, most of the targets were advanced countries. The recent notable increase in Japan was due to the mergers and acquisitions of Japanese food and cosmetic companies (See Annex Table 5 and 5a).

In the five years from 2009 to 2013, more than 70% of Korea's outward FDI was taken as majority equity ownership (more than 50%), which implies that Korean firms favor control of

local operations (See Annex Table 6). Regarding the scale of outward FDI, the share of investments exceeding US\$100 million decreased from 45.2% in 2010 to 28.0% in 2013, suggesting a relative growth of small projects (See Annex Table 7). As shown in Annex Table 8a and 8b, the overall value of foreign investments decreased by 4.2% from 2012 to 2013, but the number of newly established foreign affiliates increased by 10.1% during the same period.

Box 2. The development of outward FDI policies

Korea's outward FDI policies have continuously been adapted to changes in the country's external environment and economic development. In 1968, the Bank of Korea authorized private foreign investments for the first time, albeit under quite severe restrictions. They required strict government approval and had to be aimed at developing natural resources, securing raw materials, or boosting exports. In 1981, the government 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 assisted their efforts by liberalizing outward investment policies. The pre-authorization system was replaced by a reporting system, particularly in labor-intensive industries. Moreover, the positive specification of acceptable investment areas was dropped in favor of a negative system, which defined a few forbidden industries. Investment procedures were also simplified greatly.

After becoming an official member of the Organization for Economic Co-operation and Development (OECD) in 1996, Korea relaxed restrictions even further, but it was the 1997 Asian financial crisis and subsequent conditionality agreement with the International Monetary Fund (IMF) that forced the government to take the most drastic liberalization measures. A number of changes were made to both inward and outward FDI policies. Changes in outward FDI policies at this point included the introduction of a deferred payment system, increased and liberalized financial support for investment in developing countries, and collateral insurance and mortgage systems. In order to strengthen ties with developing countries and secure natural resources from them, the Economic Development Cooperation Fund (EDCF) and the Korea International Cooperation Agency (KOICA) were established in 1987 and 1991, respectively.

In 2003, a new enforcement ordinance in foreign trade law was established, which expanded the mission of reducing restrictions on overseas investment. The main supporting measures included financial support, exemption on taxes paid overseas, institutionalized information and administrative services, and special support for small and medium-sized enterprises wishing to invest abroad. In addition, investment insurance services were introduced to protect firms against losses through expropriation, war, and other such contingencies.

In 2008, due to the increase in oil prices, the government prompted Korean firms to invest in natural resource development through various policy tools and relevant government departments. However, because of deteriorating financial statements of these investment firms, the government promoted firms' restructuring their overseas investment by selling or reducing existing investments. The current Park Geun-hye administration promotes overseas investment through free trade agreements (FTA), investment information and financial support for small and medium-sized enterprises, and advocacy of investment diversification from manufacturing to services such as culture, contents, and medical.

Note: The above information was abstracted and modified from the following references: OECD (2013), "Lessons from Investment Policy Reform in Korea"; Korea Institute for Industrial Economies and Trade, KIET) (2010), "The Trend of Korea's Outward Foreign Direct Investment and Structural Characteristics" (in Korean); Korea Eximbank Overseas Research Institute, KERI) (2012), "The Status and Implications of Korean Public Firms' foreign investment in natural resources" (in Korean).

The future of Korea's outward FDI

With the increasing uncertainty of the global investment environment, Korean firms are likely pressured to adopt the following three characteristics.

First, given the increasing financial burden due to their poor operation of overseas investment in natural resources, public firms will pay more attention to the quality of management than the quantity of expansion. As a result, new investments projects by government-owned mulinationals in the mining sector are unlikely to grow substantially for the next several years.

Second, Korean firms will diversify in terms of both the regions and industries of investment. They will venture more actively into the untapped markets of both developed and developing countries to diversify their sources of revenue. With the changing pattern of competition, Korean firms will also aggresively enter service sectors to strengthen current businesses or seek new competencies, with the support of the Korean government.

Third, the composition of Korean firms participating in overseas investment will change. Currently, about 90% of Korea's overseas investments are made by large firms. Economic democracy is a main objective of the current government, which aims to promote the co-development of large firms with small and medium sized enterprises. This economic philosophy can also be applied to overseas investment. Therefore, there will likely be a substantial growth of FDI by small and medium sized-enterprises, either by themselves or together with large firms as component suppliers.

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Emerging Markets Global Players Project

This report on Korean multinationals was prepared under the framework of the Emerging Market Global Players (EMGP) Project, a collaborative effort led by the Columbia Center on Sustainable Investment (CCSI). 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 (some with multiple reports): Argentina, Brazil, Chile, China, Hungary, India, Israel, Korea, Mexico, Poland, Russia, Slovenia, Taiwan, and Turkey. For further information, visit: http://www.ccsi.columbia.edu/content/emerging-market-global-players.

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This report was prepared by Hwy-Chang Moon and Wenyan Yin at the Graduate School of International Studies, Seoul National University. This school is the premier graduate school of international affairs and area studies in Korea. As both a professional and academic institution, its mission is to promote academic research in the area of international studies and to educate its students to assume leading roles in government and non-government organizations, international organizations, multinational corporations, and the media, as well as research institutes and universities. The school offers both Master's and Doctoral degree programs, specializing in international commerce, international cooperation, international area studies, and Korean studies. For more information, see http://gsis.snu.ac.kr/.

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The Columbia Center on Sustainable Investment (CCSI), a joint center of Columbia Law School and the Earth Institute at Columbia University, is a leading applied research center and forum dedicated to the study, practice and discussion of sustainable international investment. The mission of the Center is to develop and disseminate practical approaches and solutions, as well as to analyze topical policy-oriented issues, in order to maximize the impact of international investment for sustainable development. The Center undertakes its mission through interdisciplinary research, advisory projects, multi-stakeholder dialogue, educational programs, and the development of resources and tools. For more information, visit http://www.ccsi.columbia.edu/.

Annex 1: Tables and figures

20	19	18	17	16	15	14	13	12	11	10	6	8	7	6	5	4	3	2	1	foreign assets	Rank by
SK Innovation Co. Ltd.	Hyundai Heavy Industries Co., Ltd.	Samsung SDI Co., Ltd.	Hyosung Corporation	SK Telecom Co., Ltd.	Hyundai Mobis Co., Ltd.	LG Display Co., Ltd.	Samsung C&T Corporation	Kia Motors Corporation	Samsung Display Co., Ltd.	Lotte Shopping Co., Ltd.	Lotte Chemical Corporation	Korea Electric Power Corporation	SK Hynix Inc.	LG Electronics Inc.	LG Chem Ltd.	Korea Gas Corporation	Hyundai Motor Company	POSCO	Samsung Electronics Co., Ltd		Firms
812	873	874	968	1,155	1,162	1,565	1,591	1,617	1,955	2,017	2,045	2,670	3,165	3,456	4,239	5,419	6,786	8,160	18,449	Foreign	Assets
13,724	30,439	9,593	7,436	21,625	18,842	19,557	20,813	25,448	33,872	24,945	9,317	93,075	18,848	23,656	14,577	40,045	54,674	51,385	146,671	Total	ots
745 ^d	20,588	3,370	6,283	33 ^d	5,938	23,549	10,310	18,297	$23,288^{e}$	1,695	7,627	$2,682^{d}$	12,126	18,937	14,653	553 ^d	24,175	11,739	133,736	Foreign	Sales
1,415	23,004	3,779	8,590	12,183	16,590	24,492	17,852	26,840	27,839	15,691	11,627	50,864	13,164	26,600	19,189	35,470	39,495	28,935	150,030	Total	es
n/a	n/a	7,920	n/a	103	12,823	17,470	n/a	14,553	n/a	31,425	2,456	384	43,992	3,985	7,834	248	41,838	n/a	190,486	Foreign	Employment
6,350	27,246	16,449	7,930	4,203	20,534	51,205	16,558	48,089	26,962	60,365	5,274	19,644	82,432	24,683	20,430	3,386	104,731	17,823	286,284	Total	yment
n/a	n/a	48.8	n/a	2.7	34.8	46.1	n/a	34.9	n/a	23.6	44.7	3.4	54.1	34.0	47.9	7.5	37.9	n/a	56.1		TNI (%)

Annex Table 1. Korea: The top 20 multinationals – Key variables, 2013 (US\$ million and number of persons)

Sources: Firms' individual annual reports and sustainability reports, CEO Score (http://ceoscore.co.kr/bbs/login.php), and KORCHAMBIZ (www.korchambiz.net). ^a All calculations use exchange rates provided by the IMF for December 30th 2013.

^b n/a indicates non-availability of data.

^e TNIs of six firms missing employment data are calculated as the average of foreign assets to total assets and foreign sales to total sales. ^d Foreign sales are calculated as total sales of 2013 multiplied by the foreign sales ratio, which is based on consolidated financial statement. ^e Foreign sales are calculated as total sales of 2013 multiplied by the foreign sales ratio, which is based on the first three quarters of 2013.

11 Samsung Display Co., Ltd. 12 Kia Motors Corporation 13 Samsung C&T Corporation 14 LG Display Co., Ltd. 15 Hyundai Mobis Co., Ltd. 16 SK Telecom Co., Ltd. 17 Hyosung Corporation 18 Samsung SDI Co., Ltd. 19 Hyundai Heavy Industries Co., Ltd. 20 SK Innovation Co. Ltd.								11 Samsung Display Co., L 12 Kia Motors Corporation	11 Samsung Display Co., L		10 Lotte Shopping Co., Ltd.	9 Lotte Chemical Corporation	8 Korea Electric Power Corporation	7 SK Hynix Inc.	6 LG Electronics Inc.	5 LG Chem Ltd.	4 Korea Gas Corporation	3 Hyundai Motor Company	2 POSCO	1 Samsung Electronics Co., Ltd	assets	Rank by foreign
L. Lion I. I. es Co., Ltd.	L. Ltd.	I.	I.	I. tion	tion	tion	.td.	td.	l. Jtd.			tion	orporation					ıy)., Ltd		
1,606 n/a 1,314 1,319 1,008 987 921 921 894 630 746 650	1,606 n/a 1,314 1,319 1,008 987 987 921 894 894 630 746	1,606 n/a 1,314 1,319 1,008 987 987 921 894 630	1,606 n/a 1,314 1,319 1,008 987 921 894	1,606 n/a 1,314 1,319 1,008 987 921	1,606 n/a 1,314 1,319 1,008 987	1,606 n/a 1,314 1,319 1,008	1,606 n/a 1,314 1,319	1,606 n/a 1,314	1,606 n/a	1,606		n/a	2,380	2,579	3,063	791	2,174	5,610	5,631	13,607	Foreign	2011
$\begin{array}{c c} 24,945\\ \hline 33,872\\ 25,848\\ 20,813\\ 19,557\\ 18,842\\ 21,625\\ 7,436\\ 9,593\\ 30,439\\ 13,724 \end{array}$	24,945 33,872 25,448 20,813 19,557 18,842 21,625 7,436 9,593 30,439	24,945 33,872 25,448 20,813 19,557 18,842 21,625 7,436 9,593	24,945 33,872 25,448 20,813 19,557 18,842 21,625 7,436	24,945 33,872 25,448 20,813 19,557 18,842 21,625	24,945 33,872 25,448 20,813 19,557 18,842	24,945 33,872 25,448 20,813 19,557	24,945 33,872 25,448 20,813	24,945 33,872 25,448	24,945 33,872	24,945		9,317	93,075	18,848	23,656	14,577	40,045	54,674	51,385	146,671	Total	
$\begin{array}{r} 1,607\\ 2,040\\ 1,405\\ 1,524\\ 1,524\\ 1,218\\ 1,218\\ 1,122\\ 1,001\\ 947\\ 947\\ 688\\ 688\\ 900\\ 757\end{array}$	1,607 2,040 1,405 1,524 1,524 1,476 1,218 1,122 1,001 1,001 947 688 900	1,607 2,040 1,405 1,524 1,476 1,476 1,218 1,122 1,001 947 688	1,607 2,040 1,405 1,524 1,524 1,476 1,218 1,122 1,001 1,001	1,607 2,040 1,405 1,524 1,476 1,218 1,122 1,001	1,607 2,040 1,405 1,524 1,476 1,476 1,218 1,122	1,607 2,040 1,405 1,524 1,476 1,218	1,607 2,040 1,405 1,524 1,476	1,607 2,040 1,405 1,524	1,607 2,040 1,405	1,607 2,040	1,607		2,500	3,032	3,315	987	4,090	6,605	6,886	16,345	Foreign	2012
23,126 31,508 22,825 21,612 22,193 17,007 20,745 7,669 10,029 10,029 114,269	23,126 31,508 22,825 21,612 22,193 17,007 20,745 7,669 10,029 28,567	23,126 31,508 22,825 21,612 22,193 17,007 20,745 7,669 10,029	23,126 31,508 22,825 21,612 22,193 17,007 20,745 7,669	23,126 31,508 22,825 21,612 22,193 17,007 20,745	23,126 31,508 22,825 21,612 22,193 17,007	23,126 31,508 22,825 21,612 22,193	23,126 31,508 22,825 21,612	23,126 31,508 22,825	23,126 31,508	23,126	,	8,858	89,729	16,973	22,221	13,785	36,696	50,299	48,784	124,256	Total	
2,017 1,955 1,617 1,591 1,565 1,162 1,155 876 874 873 873	2,017 1,955 1,617 1,591 1,565 1,162 1,155 896 874 873	2,017 1,955 1,617 1,565 1,162 1,162 1,155 896 874	2,017 1,955 1,617 1,591 1,565 1,162 1,155 1,155 896	2,017 1,955 1,617 1,591 1,565 1,162 1,155	2,017 1,955 1,617 1,591 1,565 1,162	2,017 1,955 1,617 1,591 1,565	2,017 1,955 1,617 1,591	2,017 1,955 1,617	2,017 1,955	2,017	7 n n	2,045	2,670	3,165	3,456	4,239	5,419	6,786	8,160	18,449	Foreign	2013
20,813 19,557 18,842 21,625 7,436 9,593 30,439 13,724	20,813 19,557 18,842 21,625 7,436 9,593 30,439	20,813 19,557 18,842 21,625 7,436 9,593	20,813 19,557 18,842 21,625 7,436	20,813 19,557 18,842 21,625	20,813 19,557 18,842	20,813 19,557	20,813	c10 010	25,448	33,872	24,945	9,317	93,075	18,848	23,656	14,577	40,045	54,674	51,385	146,671	Total	3

Annex Table 1a. Korea: Foreign and total assets of the top 20 multinationals, 2011-2013 (US\$ million)^a

Sources: Firms' individual annual reports ^a All calculations use exchange rates provided by the IMF for December 30th for 2011 and 2013, and December 28th for 2012.

Rank by foreign	1 .	2011	-	2012		2013	3
assets	FIFMS	Foreign	Total	Foreign	Total	Foreign	Total
1	Samsung Electronics Co., Ltd	^в 168'28	104,757	112,574	131,661	133,736	150,030
2	POSCO	9,381 ^b	33,965	13,326	33,254	11,739	28,935
3	Hyundai Motor Company	18,655 ^b	37,088	24,890	40,245	24,175	39,495
4	Korea Gas Corporation	187 ^b	24,499	453 ^b	32,183	553 ^b	35,470
5	LG Chem Ltd.	10,870 ^b	17,177	12,163 ^b	19,061	14,653	19,189
9	LG Electronics Inc.	20,196 ^b	24,362	19,085 ^b	23,708	18,937	26,600
Т	SK Hynix Inc.	8,233 ^b	8,834	8,617 ^b	9,326	12,126	13,164
8	Korea Electric Power Corporation	2,148 ^b	37,471	2,489 ^b	46,000	2,682 ^b	50,864
9	Lotte Chemical Corporation	4,167 ^b	7,338	3,687	8,481	7,627	11,627
10	Lotte Shopping Co., Ltd.	1,068	13,164	1,326	15,032	1,695	15,691
11	Samsung Display Co., Ltd.	n/a	n/a	19,704 ^b	20,797	$23,288^{\circ}$	27,839
12	Kia Motors Corporation	18,835 ^b	24,055	17,288	26,115	18,297	26,840
13	Samsung C&T Corporation	8,117	13,610	10,731	16,076	10,310	17,852
14	LG Display Co., Ltd.	18,703	20,351	24,783 ^b	26,734	23,549	24,492
15	Hyundai Mobis Co., Ltd.	^d 628'L	13,775	5,743	15,726	5,938	16,590
16	SK Telecom Co., Ltd.	29	10,904	35 ^b	11,499	33 ^b	12,183
17	Hyosung Corporation	6,108	8,049	6,306	8,657	6,283	8,590
18	Samsung SDI Co., Ltd.	2,595 ^b	3,936	3,227	4,576 ^b	3,370	3,779
19	Hyundai Heavy Industries Co., Ltd.	15,075 ^b	21,694	16,087	23,361 ^b	20,588	23,004
20	SK Innovation Co. Ltd.	570 ^b	1,323	1,117	2,191 ^b	745 ^b	1,415
Total		236,540	419,013	280,242	485,404	309,408	514,184

Annex Table 1b. Korea: Foreign and total sales of the top 20 multinationals, 2011-2013 (US\$ million)^a

Sources: Firms' individual annual reports, CEO Score (http://ceoscore.co.kr), KORCHAMBIZ (<u>www.korchambiz.net</u>). ^a All calculations use exchange rates provided by the IMF for December 30th for 2011 and 2013, and December 28th for 2012. ^b Foreign sales are calculated as total sales of 2013 multiplied by the foreign sales ratio, which is based on consolidated financial statement. ^c Foreign sales are calculated as total sales of 2013 multiplied by the foreign sales ratio, which is based on the first three quarters of 2013.

Rank by	1	2011		2012	2	2013	
toreign assets	Firms	Foreign	Total	Foreign	Total	Foreign	
1	Samsung Electronics Co., Ltd	119,753	221726	145,166	235,868	190,486	
2	POSCO	n/a	17553	n/a	17,623	n/a	
3	Hyundai Motor Company	29,125	86428	38,318	98,348	41,838	
4	Korea Gas Corporation	187	3014	210	3,193	248	
s	LG Chem Ltd.	3,776 ^a	10775	8,924	20,661	7,834	
6	LG Electronics Inc.	$3,420^{b}$	23430	3,736	24,287	3,985	
7	SK Hynix Inc.	55,759	91045	50,319	86,697	43,992	
8	Korea Electric Power Corporation	212	19303	244	19,278	384	
9	Lotte Chemical Corporation	1,964	4557	2,209	4,967	2,456	
10	Lotte Shopping Co., Ltd.	22,938	48,410	23,178	49,327	31,425	
11	Samsung Display Co., Ltd.	n/a	n/a	n/a	26,911	n/a	
12	Kia Motors Corporation	12,756	45312	14,183	47,104	14,553	
13	Samsung C&T Corporation	n/a	12759	n/a	14,359	n/a	
14	LG Display Co., Ltd.	21,136	56029	20,876	55,621	17,470	
15	Hyundai Mobis Co., Ltd.	9,559	16586	11,951	19,132	12,823	
16	SK Telecom Co., Ltd.	246	3877	155	4,081	103	
17	Hyosung Corporation	n/a	7363	n/a	8,577	n/a	
18	Samsung SDI Co., Ltd.	6,892	14155	8,408	15,451	7,920	
19	Hyundai Heavy Industries Co., Ltd.	n/a	24943	n/a	26,255	n/a	
20	SK Innovation Co. Ltd.	n/a	5943	n/a	6,346	n/a	
Total		287,722	644,647	327,877	684,015	375,517	

Annex Table 1c. Korea: Foreign and total employment of the top 20 multinationals, 2011-2013 (number of persons)^a

Sources: Firms' individual annual reports and sustainability reports. ^a Foreign employment is calculated as total employment of 2011 multiplied by the foreign employment ratio, which is the average of foreign assets to total assets and foreign sales to total sales in 2011 (This is because such calculation makes it the most similar to the foreign employment ratio of 2012 and 2013). ^b Foreign employment is calculated as total employment of 2011 multiplied by foreign employment ratio, which is the ratio of foreign assets to total assets in 2011 (This is because such calculation makes it the most similar to the foreign employment ratio, which is the ratio of foreign assets to total assets in 2011 (This is because such calculation makes it the most similar to the foreign employment ratio of 2012 and 2013).

Rank by foreign assets	1 Samsung Electronics Co., Ltd	2 POSCO	3 Hyundai Motor Company	4 Korea Gas Corporation	5 LG Chem Ltd.	6 LG Electronics Inc	7 SK Hynix Inc.	8 Korea Electric J	9 Lotte Chemical Corporation	10 Lotte Shopping Co., Ltd.	11 Samsung Display Co., Ltd	12 Kia Motors Corporation	13 Samsung C&T Corporation	14 LG Display Co., Ltd.	15 Hyundai Mobis Co., Ltd	16 SK Telecom Co., Ltd.	17 Hyosung Corporation	18 Samsung SDI Co., Ltd.	19 Hyundai Heavy	
Firms	ronics Co., Ltd		Company	poration		Inc.		Korea Electric Power Corporation	Corporation	; Co., Ltd.	ay Co., Ltd.	rporation	Corporation	., Ltd.	s Co., Ltd.	o., Ltd.	oration	Co., Ltd.	Hyundai Heavy Industries Co., Ltd.	CV Innovation Co I to
Assets (Foreign/Total)	12.6%	15.9%	12.4%	13.5%	29.1%	14.6%	16.8%	2.9%	22.0%	8.1%	5.8%	6.4%	7.6%	8.0%	6.2%	5.3%	12.1%	9.1%	2.9%	20%
Sales (Foreign/Total)	89.1%	40.6%	61.2%	1.6%	76.4%	71.2%	92.1%	5.3%	65.6%	10.8%	83.7%	68.2%	57.8%	96.1%	35.8%	0.3%	73.1%	89.2%	89.5%	20 62
Employment (Foreign/ Total)	66.5%	n/a	39.9%	7.3%	38.3%	16.1%	53.4%	3.2%	46.6%	51.6%	n/a	30.3%	n/a	34.1%	62.4%	2.5%	n/a	48.1%	n/a	n/a
TNI (%)	56.1	n/a	37.9	7.5	47.9	34.0	54.1	3.8	44.7	23.5	n/a	34.9	n/a	46.1	34.8	2.7	n/a	48.8	n/a	n/a

Annex Table 1d. Korea: The top 20 multinationals – Detailed TNI Data, 2013

Rank by	Firms	Asia & the Pacific	& the ific	Europe & CIS	& CIS	North America	merica	South America	merica	Middle East & Africa	East & ica	To	Total
foreign assets		No.	Index	No.	Index	No.	Index	No.	Index	No.	Index	No.	Index
1	Samsung Electronics Co., Ltd	55	40.7%	45	33.3%	17	12.6%	8	5.9%	10	7.4%	135	14.4%
2	POSCO	108	62.8%	15	%2.8	28	16.3%	91	9.3%	5	2.9%	172	18.4%
3	Hyundai Motor Company	13	21.3%	20	%8°7£	25	%0.11	3	4.9%	0	0.0%	61	6.5%
4	Korea Gas Corporation	8	42.1%	7	%8.95	3	%8.51	0	0.0%	1	5.3%	19	2.0%
5	LG Chem Ltd.	15	71.4%	3	14.3%	3	14.3%	0	0.0%	0	0.0%	21	2.2%
6	LG Electronics Inc.	45	36.3%	28	0%9°757	20	16.1%	13	10.5%	18	14.5%	124	13.2%
7	SK Hynix Inc.	12	63.2%	4	21.1%	3	15.8%	0	0.0%	0	0.0%	19	2.0%
8	Korea Electric Power Corporation	0	0.0%	6	16.7%	23	%63.9	2	5.6%	5	13.9%	36	3.8%
9	Lotte Chemical Corporation	9	66.7%	2	22.2%	1	11.1%	0	0.0%	0	0.0%	9	1.0%
10	Lotte Shopping Co., Ltd.	32	97.0%	0	0.0%	0	0.0%	1	3.0%	0	0.0%	33	3.5%
11	Samsung Display Co., Ltd.	4	80.0%	1	20.0%	0	0.0%	0	0.0%	0	0.0%	5	0.5%
12	Kia Motors Corporation	2	9.5%	16	76.2%	3	14.3%	0	0.0%	0	0.0%	21	2.2%
13	Samsung C&T Corporation	30	35.7%	19	22.6%	31	36.9%	3	3.6%	1	1.2%	84	9.0%
14	LG Display Co., Ltd.	12	70.6%	2	11.8%	3	17.6%	0	0.0%	0	0.0%	17	1.8%
15	Hyundai Mobis Co., Ltd.	10	40.0%	6	24.0%	6	24.0%	1	4.0%	2	8.0%	25	2.7%
16	SK Telecom Co., Ltd.	7	53.8%	0	0.0%	3	23.1%	3	23.1%	0	0.0%	13	1.4%
17	Hyosung Corporation	27	50.9%	13	24.5%	9	17.0%	3	5.7%	1	1.9%	53	5.7%
18	Samsung SDI Co., Ltd.	9	60.0%	3	20.0%	2	13.3%	1	6.7%	0	0.0%	15	1.6%
19	Hyundai Heavy Industries Co., Ltd.	16	43.2%	10	27.0%	5	13.5%	3	8.1%	3	8.1%	37	3.9%
20	SK Innovation Co. Ltd.	25	65.8%	5	13.2%	5	13.2%	3	7.9%	0	0.0%	38	4.1%
Total		436	46.5%	205	21.9%	190	20.3%	60	6.4%	46	4.9%	937	100.0%

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Sources: Firms' individual annual reports, sustainability reports, and websites. ^a The Regionality index is calculated by dividing the number of a firm's foreign affiliates in a particular region by its total number of foreign affiliates, and multiplying the result by 100.

Firms	Domestic	Foreign
Samsung Electronics Co., Ltd	Seoul	Luxembourg
POSCO	Seoul	London, New York, Tokyo
Hyundai Motor Company	Seoul	London, Luxembourg
Korea Gas Corporation	Seoul	None
LG Chem Ltd.	Seoul	London
LG Electronics Inc.	Seoul	London
SK Hynix Inc.	Seoul	Luxembourg
Korea Electric Power Corporation	Seoul	New York
Lotte Chemical Corporation	Seoul	None
Lotte Shopping Co., Ltd.	Seoul	London
Samsung Display Co., Ltd.	None	None
Kia Motors Corporation	Seoul	Luxembourg
Samsung C&T Corporation	Seoul	London
LG Display Co., Ltd.	Seoul	New York
Hyundai Mobis Co., Ltd.	Seoul	None
SK Telecom Co., Ltd.	Seoul	New York
Hyosung Corporation	Seoul	None
Samsung SDI Co., Ltd.	Seoul	Luxembourg
Hyundai Heavy Industries Co., Ltd.	Seoul	None
SK Innovation Co. Ltd.	Seoul	None

Annex Table 3. Korea: The top 20 multinationals – Stock exchange listings, 2013

Sources: Firms' individual annual reports

Region	2009	2010	2011	2012	2013	% change 2012-2013
Asia		10,139	11,318	10,877	11,172	2.7
North America	6,005	4,630	7,300	5,051	3,867	-23.4
Europe	5,338	6,143	4,355	3,405	3,524	3.5
Oeania	549	779	1,542	2,348	2,589	10.3
Latin America & the Caribbean	1,039	2,138	2,385	2,703	2,248	-16.8
Middle East	322	349	419	370	482	30.4
Africa	374	291	372	365	172	-52.8
Total	20,420	24,468	27,591	25,119	24,054	-4.2
% of top 3 regions	88.8	85.5	82.9	77.0	77.2	

Annex Table 4. Korea: Outward FDI by region (US\$ million and percentage)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

Region	Industry	2009	2010	2011	2012	2013	% change 2012- 2013
	Manufacturing	2,794	5,571	5,859	5,200	7,394	42.2
	Mining	887	1,172	939	1,393	933	-33.1
Asia	Wholesale & retail	379	468	562	792	824	4.0
	Finance & insurance	1,154	900	929	495	435	-12.1
	Professional services	378	859	1,499	608	386	-52.2
	Mining	3,016	1,303	3,192	2,440	1,234	-49.4
	Wholesale & retail	841	419	1,420	401	676	68.8
North America	Manufacturing	717	372	568	870	537	-38.3
	Real estate & leasing	109	94	34	23	359	1,487.4
	Professional services	645	279	343	463	294	-36.6
	Finance & insurance	203	15	598	36	941	2,515.5
	Manufacturing	903	816	1,307	843	906	7.5
Europe	Mining	775	3,304	1,504	297	423	42.4
	Professional services	1,105	380	501	1,498	353	-76.4
	Real estate & leasing	1,607	1,077	30	3	279	10,325.8
	Mining	257	402	1,265	2,150	1,699	-21.0
	Real estate & leasing	105	12	87	3	579	22,444.9
Oceania	Finance & insurance	-	175	25	60	183	205.6
	Accommodation and food service	2	2	25	12	49	299.4
	Agriculture, forestry, and fishing	2	2	9	12	28	133.4

Annex Table 4a. Korea: Outward FDI by major industry sector and region (US\$ million and percentages)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

Region	Economy	2009	2010	2011	2012	2013	% change 2012- 2013
	China	2,201	3,660	3,686	3,609	5,046	39.8
	Vietnam	609	855	1,048	965	1,115	15.6
Asia	Hong Kong	1,567	1,286	1,631	1,581	800	-49.4
	Japan	377	321	252	646	691	7.1
	India	241	198	452	311	541	73.6
North Amorico	United States	3,571	3,397	5,979	4,407	3,418	-22.4
	Canada	2,434	1,233	1,320	643	499	-30.3
	Netherlands	1,057	702	761	1,212	1,570	29.6
	Jersey		1	336	1	722	
Europe	United Kingdom	1,717	3,281	1,323	259	604	133.4
	Germany	292	762	274	142	263	84.7
	Belgium	97	317	350	305	180	-40.9
	Australia	266	564	1,382	2,234	2,000	-10.5
Oeania	Marshall Islands	240	103	85	73	475	547.8
	New Zealand	12	12	12	11	42	269.7

Annex Table 4b. Korea: Outward FDI by major economy and region (US\$ million and percentages)

Sources: Data for Asia, North America, and Oceania: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014; Data for Europe: Korea Eximbank Foreign Investment Statistics.

Industry	2009	2010	2011	2012	2013	% change 2012-2013
Manufacturing	4,621	7,241	8,987	7,923	9,517	20.1
Mining	5,449	7,342	7,585	7,273	5,459	-24.9
Finance & insurance	2,085	3,272	3,400	1,390	2,219	59.6
Wholesale & retail	1,703	1,254	2,163	1,541	1,861	20.8
Real estate & leasing	2,363	1,593	678	1,052	1,610	53.0
Professional sevices	2,130	1,622	2,381	2,961	1,037	-65.0
Total	20,420	24,468	27,591	25,119	24,054	-4.2
% of top 3 industries	59.5	73.0	72.4	66.0	71.5	

Annex Table 5. Korea: Outward FDI by industry sector (US\$ million and percentages)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

Industry	Economy	2009	2010	2011	2012	2013	% change 2012-2013
e	China	1,725	2,777	2,835	2,542	4,488	76.6
	Vietnam	311	464	523	527	742	40.8
	India	216	154	421	234	495	111.0
	Brazil	9	133	919	639	463	-27.6
	United States	711	366	527	825	448	-45.8
Manutacuring	Philippines	26	151	88	892	415	-53.5
	Germany	173	45	256	27	250	843.9
	Hong Kong	225	193	88	87	236	170.2
	Indonesia	74	189	883	505	225	-55.4
	Singapore	35	162	268	16	188	1057.2
	Australia	162	367	1,242	2,078	1,612	-22.5
	United States	622	138	2,114	1,981	993	-49.9
	Mexico	I	I	96	369	466	26.2
	Myanmar	348	162	352	230	375	63.4
Mining	Netherlands	501	282	646	157	305	94.1
8 IIIIIN	Malaysia	119	129	136	650	266	-59.0
	Peru	39	45	47	52	261	402.8
	Canada	2,394	1,164	1,077	459	241	-47.6
	Iraq	1	43	33	78	168	114.1
	Madagascar	285	166	296	272	146	-46.2
	Netherlands	200	2	5	-	716	-
	Cayman Islands	440	494	334	246	374	52.3
Finance & insurance	United States	249	1,603	1,195	409	205	-49.9
	Australia		175	25	60	182	205.2
	Singapore	32	48	470	23	155	584.6
	United States	816	418	1,420	400	657	64.2
	Japan	22	59	14	207	348	67.7
Wholesale & retail	China	160	219	205	170	266	56.8
	Netherlands	101	166	39	64	151	134.6
	Hong Kong	71	51	81	86	49	-42.8

Annex Table 5a. Korea: Outward FDI by major economy and industry, 2009-2013 (US\$ million and percentages)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

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% of ownership	2009	2010	2011	2012	2013	% change 2012-2013
Less than 10%	289	254	192	232	168	-27.4
More than 10%-less than 50%	1,585	2,934	3,362	2,494	2,999	20.3
50%	099	197	607	683	584	-14.5
More than 50%-less than 100%	1,694	3,657	3,781	3,149	3,382	7.4
100%	16,191	17,426	19,650	18,561	16,921	-8.8
Total	20,420	24,468	27,591	25,119	24,054	-4.2

Annex Table 6. Korea: Outward FDI amount by ownership percentage (US\$ million and percentages)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

-4.2	24,054	25,119	27,591	24,468	20,420	Total
-8.9	6,741	7,404	9,622	11,054	7,801	More than US\$100 million
-0.3	4,033	4,044	3,778	2,044	2,101	US\$50 million- US\$100 million
2.0	6,625	6,496	6,741	4,567	4,391	US\$10 million- US\$50 million
-20.2	1,827	2,289	2,332	1,667	1,489	US\$5 million- US\$10 million
-1.2	4,825	4,885	5,116	5,134	4,637	Less than US\$5 million
% change 2012-2013	2013	2012	2011	2010	2009	Investment amount
			-			

Annex Table 7. Korea: Outward FDI by scale of investment (US\$ million and percentages)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

-4.2%	24,054	25,119	27,591	24,468	20,420	Total
152.4%	1,802	714	798	231	217	Others (NGOs, etc)
-28.2%	295	410	324	392	295	Individuals
1.0%	37	37	49	62	46	Individual companies
-1.6%	2,722	2,765	3,511	2,988	2,818	Small and medium-sized firms
-9.4%	19,198	21,192	22,908	20,795	17,043	Large firms
% change 2012-2013	2013	2012	2011	2010	2009	

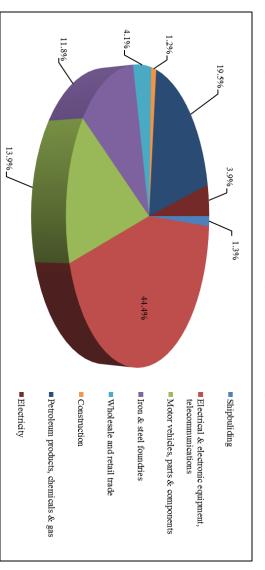
Annex Table 8a. Outward FDI amounts by size of investor, 2009-2013 (US\$ million)

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014. ^a According to *Act of Small and Medium Business*, the small and medium-sized firm is a form of business entity, which is not applicable to any one of the threeconditions; 1) firms with more than 1,000 full-time employees; 2) firms with more than 500 billion Korean won asset; 3) firms with more than 100 billion Korean won equity capital. The large firm refers to the business entity other than the small and medium-sized firm. The individual company is a form of business entity, which is owned and operated by individuals.

			_			
	2009	2010	2011	2012	2013	% change 2012- 2013
Large firms	324	432	423	390	422	8.2%
Small and medium-sized firms	1,118	1,268	1,220	1,067	1,283	20.2%
Individual companies	111	118	111	94	72	-23.4%
Individuals	917	1,047	086	940	949	1.0%
Others (NGOs, etc)	10	20	23	30	50	66.7%
Total	2,480	2,885	2,757	2,521	2,776	10.1%

Annex Table 8b. Number of newly established foreign affiliates, 2009-2013

Source: Abstracted from the 2013 FDI Trend Analysis, the Export-Import Bank of Korea, March 2014.

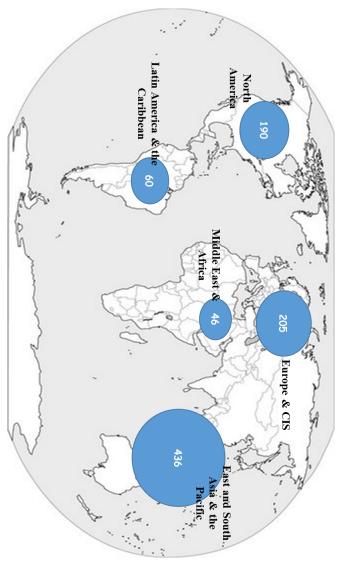


Annex Figure 1. Korea: Breakdown of foreign assets of the top 20 multinationals, by industry, 2013

The top multinationals by main industry, 2013 (US\$ million)

Industry	Foreign Assets	Companies
Shipbulding	873	873 Hyundai Heavy Industries
Electrical & electronic euqipment,	30 619	Samsung Electronics, LG Electronics, SK Hynix, Samsung Display, LG Display, SK Telecom,
telecommunications		Samsung SDI
Motor vehicles, parts & components	9,565	9,565 Hyundai Motor, Kia Motors, Hyundai Mobis
Iron & steel foundries	8,160	POSCO
Wholesale and retail trade	2,812	2,812 Lotte Shopping, Samsung C&T ^a
Construction	795	795 Samsung C&T ^a
Petroleum products, chemicals & gas	13,412	13,412 KOGAS, Lotte Chemical, LG Chem, Hyosung, SK Innovation
Electricity	2,670	2,670 Korea Electric Power Corporation
		-

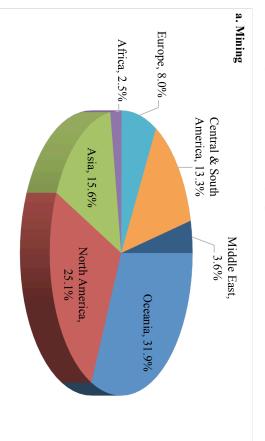
Sources: Firms' individual annual reports ^a Samsung C&T Corporation's foreign assets are divided into two broad business areas: wholesale & retail trade and consutruction. As the exact division of assets is unclear, half of Samsung C&T Corporation's foreign assets are inlcuded in wholesale & retail trade, and the other half in construction.



Annex Figure 2. Korea: Foreign affiliates of the top 20 multinationals, by region, 2013 (number of affiliates)

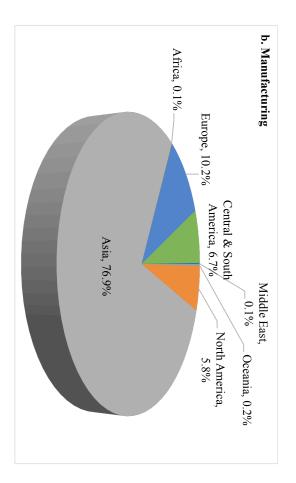
Sources: Firms' individual annual reports and websites.

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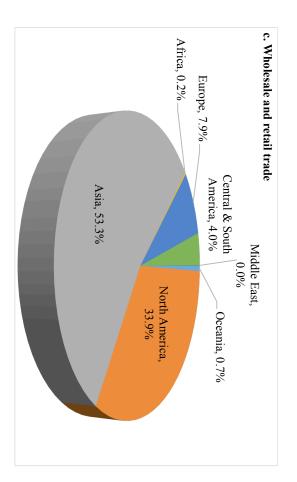


Annex Figure 3. Korea: Geographic distribution of the assets of total outward FDI, by industry, 2013

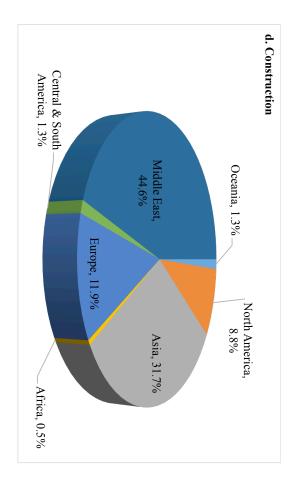
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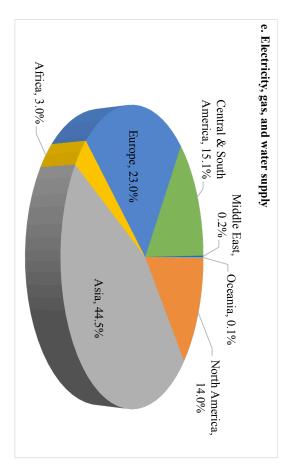
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Source: Korea Eximbank Foreign Invesmtent Statistics.

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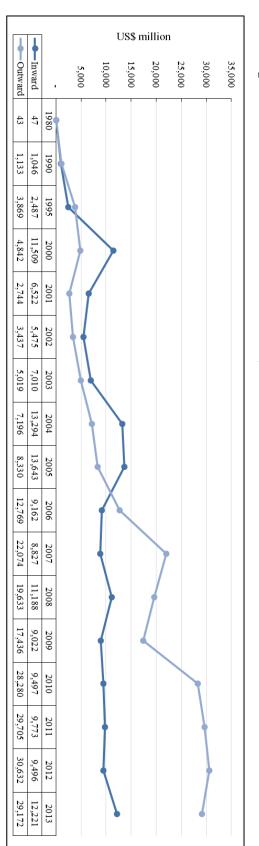




20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Rank
SK Innovation Co. Ltd.	Hyundai Heavy Industries Co., Ltd.	Samsung SDI Co., Ltd.	Hyosung Corporation	SK Telecom Co., Ltd.	Hyundai Mobis Co., Ltd.	LG Display Co., Ltd.	Samsung C&T Corporation	Kia Motors Corporation	Samsung Display Co., Ltd.	Lotte Shopping Co., Ltd.	Lotte Chemical Corporation	Korea Electric Power Corporation	SK Hynix Inc.	LG Electronics Inc.	LG Chem Ltd.	Korea Gas Corporation	Hyundai Motor Company	POSCO	Samsung Electronics Co., Ltd	Firm
Seoul	Ulsan	Yongin	Seoul	Seoul	Seoul	Seoul	Seoul	Seoul	Yongin	Seoul	Seoul	Seoul	Icheon	Seoul	Seoul	Seongnam	Seoul	Pohang	Suwon	HQ Location

Sources: Firms' annual reports ^aCompanies whose numbers do *not* appear on the map have their head offices in Seoul. The number in parentheses represents the rank of the 20 firms in the table.

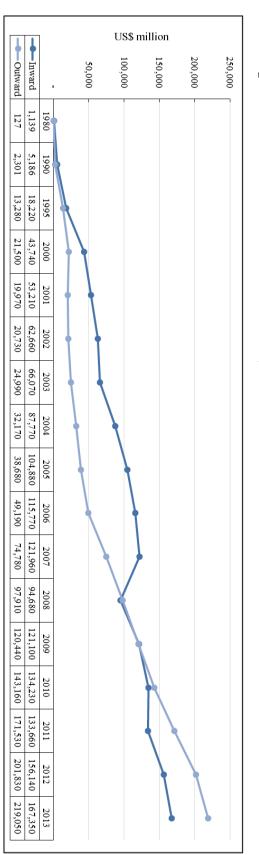
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Source: UNCTAD FDI Statistics, http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sRF_ActivePath=p,5&sRF_Expanded=,p,5.

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Source: UNCTAD FDI Statistics, http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sRF_ActivePath=p,5&sRF_Expanded=,p,5.

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Annex II : Brief profiles of the top 20 multinationals⁵

No. 1. Samsung Electronics Co., Ltd.

http://www.samsung.com/sec

From its inception as a small export business in Daegu, Korea, Samsung Electronics Co. (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 KRW30,000. 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 (7.55%), followed by Samsung C&T corp. (4.06%). The largest individual shareholder is Gun-Hee Lee, the chairman of Samsung Group, with a share of 3.38%. Overall, foreigners hold 55% of the total shares, major shareholders & related parties 15%, domestic institutions 15%, SEC's subsidiaries 11%, and the remaining 4% by general public in Korea (by June 60, 2014).

No. 2. POSCO

http://www.posco.co.kr/homepage/docs/eng3/jsp/s91a0010001i.jsp

With the support of the government, Tae-Joon Park established POSCO 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 order to reduce the reliance on the domestic market, POSCO has aggressively invested in downstream assets abroad, with more than 200 subsidiaries in over 170 countries around the world by 2014. Foreigners hold 52.92% of its stock shares and domestic institutions own 31.61%. The other shares are taken by treasury stocks (8.49%) and domestic individuals (6.98%).

No. 3. Hyundai Motor Company

http://worldwide.hyundai.com/

Hyundai Motor was created in 1967 under the Hyundai Group. The company established its first overseas plant in Turkey, and in 2010 its overseas production capacity surpassed domestic production capacity. In 2013, more than 60% of its vehicles were produced in overseas factories. Hyundai produces high quality automobiles and provides excellent customer service, which suits the needs of customers in different regions. Thanks to Hyundai's focus on ensuring the highest quality, it received the 2nd highest score on Germany's Autobild's 2013 quality satisfaction report, and ranked 43rd in the Best Global Brands 2013 by Interbrand, putting it the into the top 50th for the first time. The largest shareholders with more than 5% include Hyundai Mobis (20.78%), National Pension Service (7.57%), and Chung Mong-Koo (5.17%). Foreigners hold 43.59%⁶. The remaining shares are owned by domestic institutions and individuals.

No. 4. Korea Gas Corporation

http://www.kogas.or.kr/

The Korea Gas Corporation was incorporated by the Korean governemnt in 1983 and has grown to

⁵ Information is taken from the company websites.

⁶ The basic date of the figure is December 30, 2013, which is obtained from Daum Finance (http://fin ance.daum.net/index.daum?nil_profile=title&nil_src=stock), due to the lack of information in the company 's annual report.

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 pipline network spanning over 3,562km to ensure a stable supply of clean, safe, and conveninet 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 54.56%, and are held by the Central Government, KEPCO, and local governments at 26.15%, 20.47%, and 7.94% respectively. Other shareholders include Korean individuals & institutions, foreigners, the treasury, and employees, taking 27.98%, 7.51%, 5.07%, and 4.88% respectively.

No. 5. LG Chem Ltd.

http://www.lgchem.com/kr/main

LG Chem was established as Lucky Chemical Industrial Coporation in 1947. It began to produce petrochemical products in Yeosu and Ulsan in the late 1970s and expanded petrochemical plants in Yeosu and Naju. In 1990s, it was renamed as LG Chem and began producing IT & electronic materials. LG Chem completed its vertically integrated structure in the petrochemical business by merging with LG Daesan Petrochemicals in 2006 and LG Petrochemical in 2007. Today it is the largest Korean chemical company, and one of the world's top 30 chemical makers. It currently operates in three major industries: petrochemicals, IT & electronic materials, and energy solutions. LG Corp. is the largest shareholder, accounting for 33.5% of LG Chem's total stocks. Foreigners own 33.1%, domestic institutions and individuals 32.9%, and treasury stocks 0.5%.

No. 6. LG Electronics Inc.

http://www.lge.com/

LG Electronics was established in 1958 and has led Korea into the advanced digital area. The company is a global leader and technology innovator in consumer electronics, mobile communiations, and home appliances. Currently, it has five business divisions: home entertainment, mobile communications, home appliance, air conditions & energy solution, and, most recently established, vehicle components. It employs more than 200,000 people in more than 200 countries aournd the world (including domestic employees). The shareholder structure is as follows: 34% by LG Corp., 49% by domestic investors, and 17% by foreign investors.

No. 7. SK Hynix Inc.

http://www.skhynix.com/en/index.jsp

SK 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 1997, it merged with LG Semiconductor and in 2001 became an idependent firm under the name of Hynix Semiconductor. In 2012, SK Telecom took over Hynix Semiconductor, by buying 21.05% of total shares. After that acquisition, the company became a member of the SK Group and its official name was changed to SK Hynix. Through its global manufacturing and sales support network, SK Hynix has strengthened its status as a leading semiconductor firm in many regions. In 2013, SK Hynix became the world's 5th largest semiconductor manufacturer in terms of market share, after Intel, Samsung Electronics, Qualcomm, and Micron Technology. The largest shareholders with more than 5% are SK Telecom (20.6%) and National Pension Service (9.4%). Foreigners hold 42.8%. Domestic institutions and individuals own 13.9% and 13.3%, respectively.

No. 8. Korea Electric Power Corporation

http://cyber.kepco.co.kr/kepco/EN/main.do

Although its history reaches back to 1898, the modern Korea Electric Power Corporation (KEPCO) was founded in 1961 and started transmission of electricity in 1964. It achieved nationwide rural

electrification by 1979. KEPCO was listed on the Korea Exchange in 1989, and the New York Stock Exchange in 1994. It won the bid to operate the Malaya Power Plant in the Philippines in 1995, its first overseas project. Currently it has 10 subsidiaries in Korea and 27 overseas subsidiaries. KEPCO was named the Best Public Company for six consecutive years in the Korea Corporate Governance Service's assessment. Korea Finance Corporation holds 29.93% of its stock, central government owns 21.17%, and foreigners own 25.90%. The remaining 25.43% are held by treasury stocks and the public.

No. 9. Lotte Chemical Corporation

http://english.lottechem.com/contents/main/main.asp

Lotte Chemical was founded in 1976 as Honam Petrochemical Corporation. In the 1980s, the company focused on the expansion of downstream facilities, and by 1990 it completed vertical integration through continuously expanding plants, businesses, and products. Since 2000, it has enthusiastically committed to M&A and global expansion. In 2012, Honam Petrochemical merged with KP Chemical and officially changed its name to Lotte Chemical. The Surgil project in Uzbekistan became a milestone in its global expansion, as the investment provided access to low-priced raw materials and enhanced its overall global competitiveness. It now manufactures a variety of products, such as basic chemical materials, chemical synthetics, synthetic resins, and functional materials. The major shareholders include Lotte Corporation, Hotel Lotte, Lotte Holdings, and the National Pension Service, having 31.27%, 12.68%, 9.3%, and 7.43% of its total stock, respectively. Other minority shareholders own the remaining 39.32%.

No. 10. Lotte Shopping Co., Ltd.

http://www.lotteshopping.com/

Lotte Shopping opened its first Lotte Department Store in 1979, and over several decades has expanded its business scope to discount stores (Lotte Mart), grocery stores (Lotte Super), and movie theaters (Lotte Cinema). Today Lotte Shopping is Korea's most renowned distribution company. Internationally, Lotte Shopping Co. expanded its business presence into major global markets, including China, Russia, Vietnam, and Indonesia. As of June 2013, Lotte Shopping had 165 global stores. In 2013, it was selected as the third best department store in Forbes Global 2000. By the end of 2014, 16.19% of its stock was held by foreigners.

No. 11. Samsung Display Co., Ltd.

http://www.samsungdisplay.com/eng/index/index.jsp

Samsung Display was established in 2012 when three display affiliates of Samsung Group (Samsung Display, Samsung Mobile Display, and S-LCD) merged in order to create synergy within the group. In April 2012, the LCD unit of Samsung Electronics became independent, and acquired Samsung Mobile Display (a joint venture between Samsung Electronics and Samsung SDI) and S-LCD in July of the same year. Samsung Display is the world's number one display company, producing the TFT-LCD and OLED used in various electronic devices. Currently, three plants are located in Korea, three in China, and one in Slovakia. More than 80% of its revenues are generated through foreign sales. The largest shareholders together own 20.38% of shares, followed by Korean institutions (27.25%), foreign investors (28.59%), domestic individuals (19%), and the treasury stock (4.78%).

No. 12. Kia Motors Corporation

http://www.kia.com/worldwide/

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 Korea's first automobile exporter in 1975. It later merged with Hyundai, forming the Hyundai-Kia Group in 1999. Now it has

grown into a global producer with 18 foreign subsidiaries and a network of 4,716 distributors and dealers around the world. Today, Kia Motors is the world's 9th largest automaker by sales volume. Hyundai Motor owns 33.88% of Kia's stock, foreigners 33.98%, and domestic private investors 15.91%. Employees and others (e.g., financial institutions) hold 1.61% and 14.62%, respectively.

No. 13. Samsung C&T Corporation

http://www.samsungcnt.com/EN/cnt/index.do

Samsung C&T Corp., founded in 1938, is the original company of Samsung Group. In 1975, it was designated as the first general trading company in Korea to lead overseas sales operations. 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 combination of the two different businesses resulted in positive synergies, which allow the company to effectively respond to external environmental changes. As of 2013, 31.3% of its stock was held by domestic institutions and 23.8% by foreigners. Domestic individuals and corporates own 22.4% and subsidiaries (Samsung SDI, etc.) own 16.6%. Employees and treasury stocks own the rest at 5.8% and 0.1% respectively.

No. 14. LG Display Co., Ltd.

http://www.lgdisplay.com/eng/main

LG Display was established in January 1985 under the name of Geumsung Software. In 1987, the company started developing TFT-LC and, in 1995, it 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 thin film solar cells related to display technology. LG Display won the world's largest market share in key products, such as LCD. The shareholder structure is as follows: LG Electronics, foreign investors, and domestic investors (individuals and institutions) own 37.9%, 25.9%, and 26.6% of shares respectively. The National Pension Service and ADR hold the remaining 9% of total shares.

No. 15. Hyundai Mobis Co., Ltd.

Http://www.mobis.co.kr/eng/

Hyundai Mobis was established in July 1977 as Hyundai Precision Industry. The company grew into the top container manufacturer in the world and, in the 1990s, moved to the automobile business. It produced complete automobiles (four-wheel drive vehicles like Galloper and Santamo) until 1997. After the Asian financial crisis, it ceded its automobile division to Hyundai Motor 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. Currently it has three business domains, including module parts manufacturing, core parts manufacturing, and after sales parts. By 2013, it was ranked 8th among global OEM parts suppliers. Major shareholders are Kia Motors (16.88%), Mong-Koo Chung (the former chairman of Hyundai Group; 6.96%), and Hyundai Steel (5.66%). The shares owned by Hyundai Glovis and treasury stocks are 0.67% and 1.86% respectively. The rest of the shares (including the public, foreigners, etc.) comprise 67.98%.

No. 16. SK Telecom Co., Ltd.

http://www.sktelecom.com/index_real.html

A leading wireless telecommunications services provider, SK Telecom, was established in 1984 as Korea Mobile Telecommunications Service Corporation, which was later renamed to Hankuk Idong Tongshin Corp in 1988. It was a subsidiary of a state-controlled company before it became a member of SK Group 1997. It was the first Korean firm to develop the earliest generation of analog mobile phones and also the first to successfully commercialize CDMA technology. In 2013, SK Telecom commercialized the world's first 150 Mbps LTE-A technology, which provided a foundation for further growth. SK Telecom's network extends throughout the world, including countries like US,

China, Singapore, Japan, Vietnam, Indonesia, and Malaysia. The major shareholder structure is as follows: SK Corp., Citibank ADR, SK Telecom, and the National Pension Corporation representing 25.22%, 16.94%, 12.15%, and 5.90% of total ownership. Others account for 39.80% of its total shares.

No. 17. Hyosung Corporation

http://www.hyosung.com/en/index.do

Hyosung Corporation was founded in 1966, and has become Korea's leading industrial conglomerate. Hyosung established Korea's first private technology research institute in 1971 and has committed to developing world-class technology, which became its foundation for rapid growth over the last decades. Since the 1970s it began to diversify its business into various areas by acquiring other firms. Due to its rapid growth, the company was included in the Fortune Global 500 for the first time in 1984. Since 2000, it has actively pursued global market expansion by establishing foreign manufacturing bases in numerous regions. It currently operates in seven industries, including power & industrial systems, industrial materials, textiles, chemicals, construction, trading, and information & communication. The largest shareholder⁷ owns 30.3% of stocks, followed by foreigners (30.8%), individuals (17.5%), domestic intuitions (14.3%), treasury stocks (5.3%), and other corporations (1.9%).

No. 18. Samsung SDI Co., Ltd.

http://www.samsungsdi.com/main

Samsung SDI, established in 1970, has led Korea's electronic display industry for the past 40 years. In the beginning the company mainly manufactured vacuum and cathode ray tubes, but it later expanded its businesses to cutting-edge innovations, including LCD, PDP, and AMOLED. It operates several business divisions, including Cell, Pack, Automotive Battery Systems, Energy Solution, and PDP. Currently Samsung SDI owns 10 production plants and four sales subsidiaries, as well as many branches and offices, in 12 countries in the world. Samsung Electronics is the largest shareholder, representing 19.68% of its total shares. The other major shareholders are the National Pension Service, Capital Research, and Korea Investment Management, accounting for 9.46%, 5.24%, and 4.51% respectively. Foreign investors own 28.0%, domestic institutions 27.6%, retail investors 19.9%, and the treasury 4.9%, respectively.

No. 19. Hyundai Heavy Industries Co., Ltd.

http://www.hhiir.com/EN/index.asp

As a construction company, Hyundai Heavy Industries was created by the founder of the Hyundai Groups, Ju-Yung Chung in 1947. Despite many difficulties, 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 shipbuilding rates (about one every four days), the world's largest carrier, and the world's most powerful ship engine. It was featured in the Fortune Global 500 for seven consecutive years. The company's major stockholders are Mong-Joon Chung (10.15%), Hyundai Mipo Dockyard (7.98%), KCC Corporation (3.12%), Hyundai Motor (2.88%), the Asan Foundation (2.53%), POSCO (1.94%), and the Asan Nanum Foundation (0.65%). Treasury stocks and others account for the remaining shares, 19.36% and 51.39%.

No. 20. SK Innovation Co. Ltd.

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. After becoming a member of SunKyong Group in 1980, the company began

⁷ Chairman of Hyosung Group and his relatives.

taking the challenging steps needed to become a world-class general energy and chemical company. SK Innovation continues to be a pioneer within the paradigm shift taking place in Korea's petroleum industry. In 2013, SK Innovation realigned its business system by launching SK Incheon Petrochemical and SK Trading International as new subsidiaries in order to enhance its overall competitiveness. The major shareholders consist of SK Co. and the National Pension Service, accounting for 33.40% and 8.58%, respectively. Domestic institutions, individuals, and foreign investors hold the remaining 58.02% of shares.