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Presentation

Korea's Economy in the Global Context

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Korea's Economy in the Global Context

1. Korea's Economic Success Today

Many people believe Korea's economy is a success; it is the only country that used to be an international aid recipient and has recently transitioned to becoming a donor. Figure 1 showcases some important numbers, Korea grew 2.7% in 2018, which left it eleventh in the world in terms of GDP. The country also ranks high in terms of foreign exchange resources and trade volume. In addition, it is trying to be financially prudent in terms of foreign exchange reserves, having learned some important lessons from the 1998 Asian financial crisis. Korea has a high and stable credit rating and is characterized as a very open economy.

Figure 1: Korea's economic status

According to Bloomberg's Innovation Index, Korea is the world's most innovative economy, and, taking into account its population, its firms have the highest number of patents filed (Table 1).

Table 1: World's most innovative countries

Based on Bloomberg's Innovation Index, 2018

Country	Place change from 2017	Total score
1 South Korea	0	89.28
2 Sweden	0	84.70
3 Singapore	+3	83.05
4 Germany	-1	82.53
5 Switzerland	-1	82.34
6 Japan	+1	81.91
7 Finland	-2	81.46
8 Denmark	0	81.28
9 France	+2	80.75
10 Israel	0	80.64

Source: Bloomberg

Korea's innovativeness is apparent through its products. Five examples will be provided. First, there are the smartphones (Figure 2). Many years have passed since Samsung overtook Apple in global sales, reaching 20% of the market share (Table 2).

Figure 2: Smartphones industry

Table 2: Global ranking of smartphone production and market share by vendors, 2017–2018

Rankings	2017 Company	Market Share	2018F Company	Market Share
1	SAMSUNG	21.9%	SAMSUNG	20.3%
2	Apple	15.2%	Apple	15.7%
3	HUAWEI	10.8%	HUAWEI	11.6%
4	OPPO	7.6%	Xiaomi	7.1%
5	vivo	6.6%	OPPO	7.0%
6	Xiaomi	6.4%	vivo	6.1%
	Others	31.6%	Others	32.2%
Total Global Production Volume (Unit: M)		1,457.5		1,498.3

Source: TrendForce, Feb., 2018

The second example is semiconductors; Korea leads the global market in semiconductor chips, which are part of cell phones and many other electronic goods (Figure 3). Samsung and Hynix hold the first and third positions in the global market, respectively (Table 3).

Figure 3: Semiconductor industry

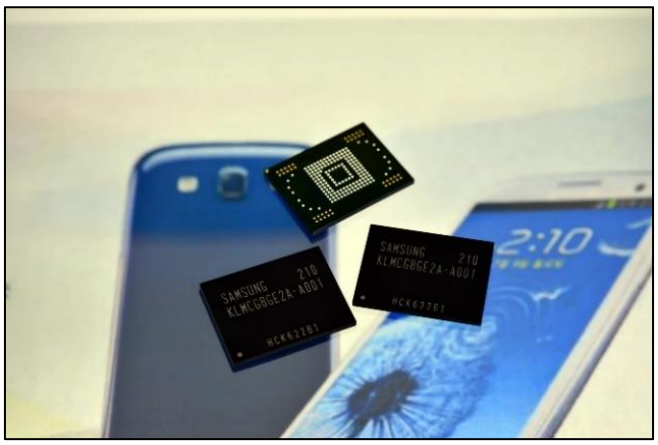


Table 3: Top 15 semiconductor sales leaders

1H18 Rank	2017 Rank	Company	Headquarters
1	1	Samsung	South Korea
2	2	Intel	U.S.
3	4	SK Hynix	South Korea
4	3	TSMC (1)	Taiwan
5	5	Micron	U.S.
6	6	Broadcom Ltd. (2)	U.S.
7	7	Qualcomm (2)	U.S.
8	9	Toshiba/Toshiba Memory	Japan
9	8	TI	U.S.
10	10	Nvidia (2)	U.S.
11	15	WD/SanDisk	U.S.
12	13	Infineon	Europe
13	11	NXP	Europe
14	12	ST	Europe
15	16	MediaTek (2)	Taiwan
—	—	Top-15 Total	

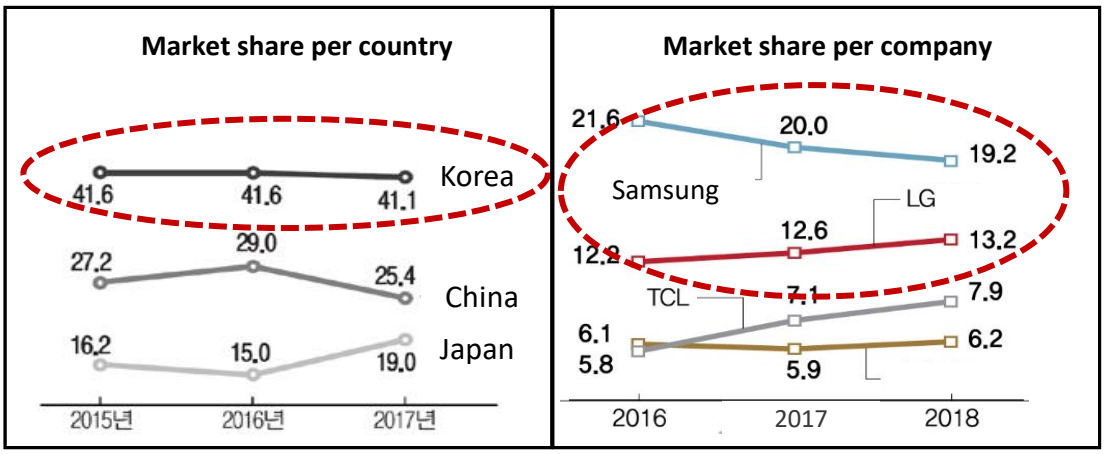
(1) Foundry (2) Fabless

Source: Company reports, IC Insights' *Strategic Reviews* datab

Third, Korea leads in highly advanced technology displays (Figure 4); it ranks first in the global market share of televisions, with a market share of 40%, and has household-name firms like Samsung and LG occupying the first two positions of market share per company (Figure 5).

Figure 4: Display industry

Figure 5: Global market share of TV



Fourth, the lithium-ion battery industry will increase following the development of environmentally friendly cars (Figure 6). Korean companies involved in this market include LG Chemical and Samsung SDI (Figure 7).

Figure 6: Lithium-ion battery industry

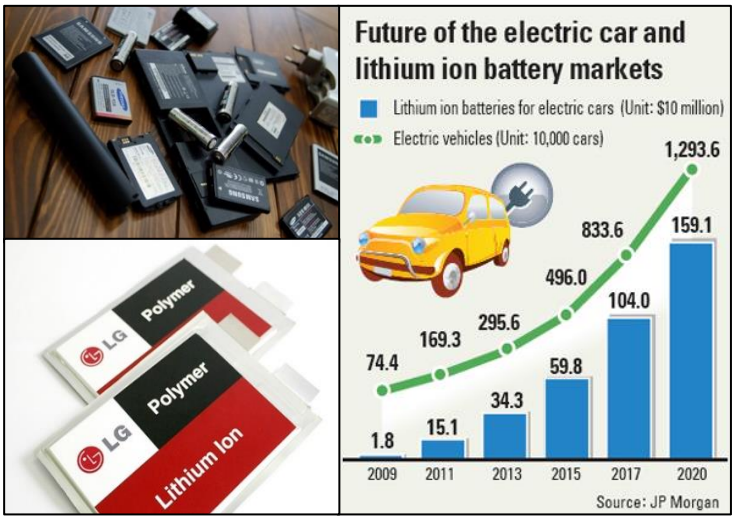
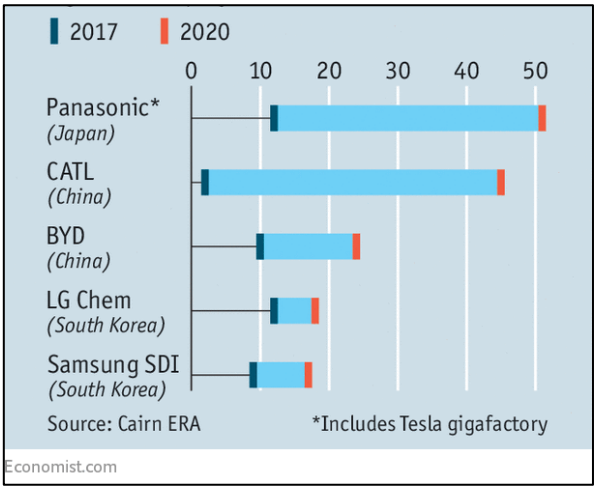
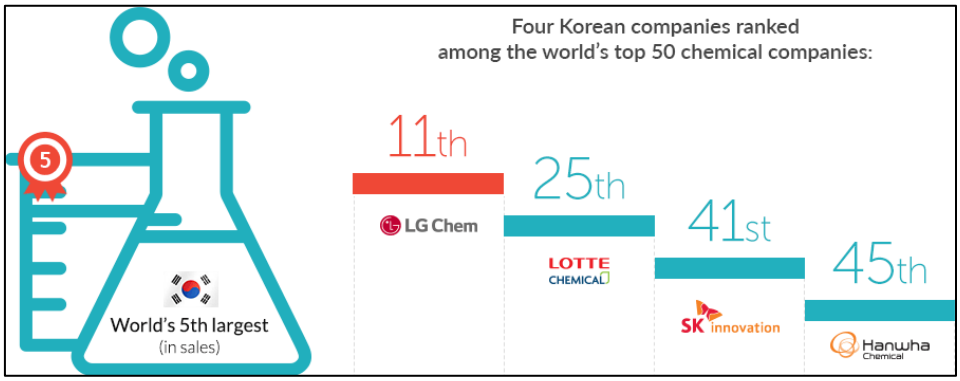


Figure 7: Manufacturing capacity forecasts
(Gigawatt-hours per year)



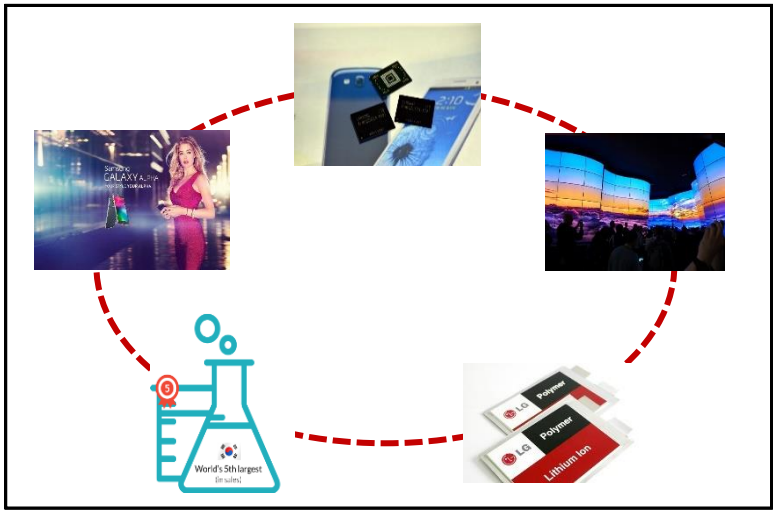
Fifth, Korea also excels in industrial chemicals; it ranks fifth in sales and has four firms among the world's top 50 chemical companies (see Figure 8).

Figure 8: Chemicals industry



It can be seen that there are some commonalities among the five leading industries in Korea (Figure 9). Semiconductors, chips, displays and batteries tend to be part of cell phones, and industrial chemicals also serve as inputs to many of these. In addition, the name of just a few firms repeatedly appears across different industries.

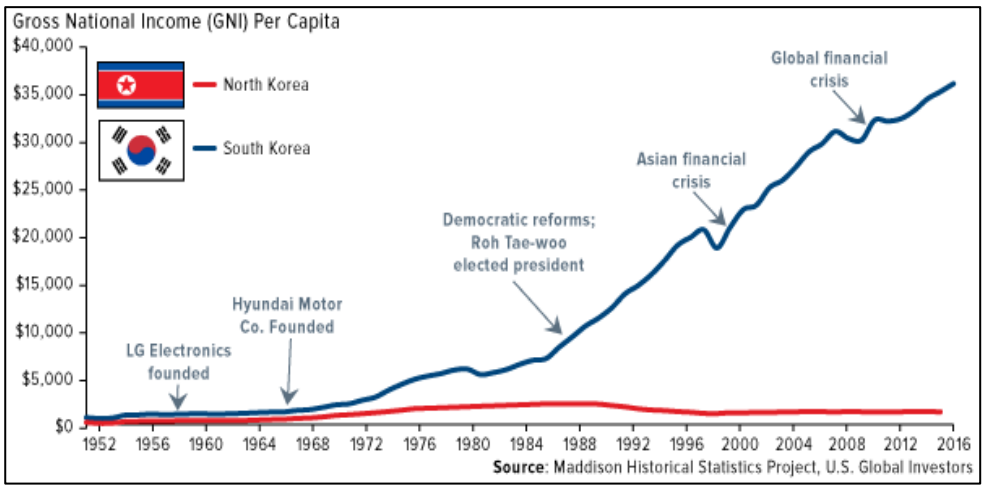
Figure 9: Connection between the top 5 industries



2. Korea's Economic Policy Drive in the Past

Seventy years ago, the two Korean economies were not so different, but after some time North Korea's economy stagnated while South Korea's took off (Figure 10). On the one hand, a few firms such as LG Electronics and Hyundai Motors were responsible for a huge proportion of the growth. On the other hand, the role of the government was very important since it heavily supported a few selected firms that strategically focused on certain industries of governmental interest.

Figure 10: Strong economic growth and government drive



Leading Korean industries have varied over the years (Table 4). During the 1950s, Korea started processing natural resources like sugar, cotton, and timber, while promoting basic industries such as cement. Then, the country shifted its focus to increasing

international exchanges through trading companies and construction-related businesses. Subsequently, it moved on to more advanced manufacturing such as electronics or automobiles and, in more recent times, it has focused on services like telecommunications and finance while keeping some strong manufacturing industries. In this upscaling, Korean companies worked closely with international ones. First, they supplied equipment or manufacturing under the brands of more advanced countries, gradually learned how to do things, and then they succeeded in selling products under their own Korean brands.

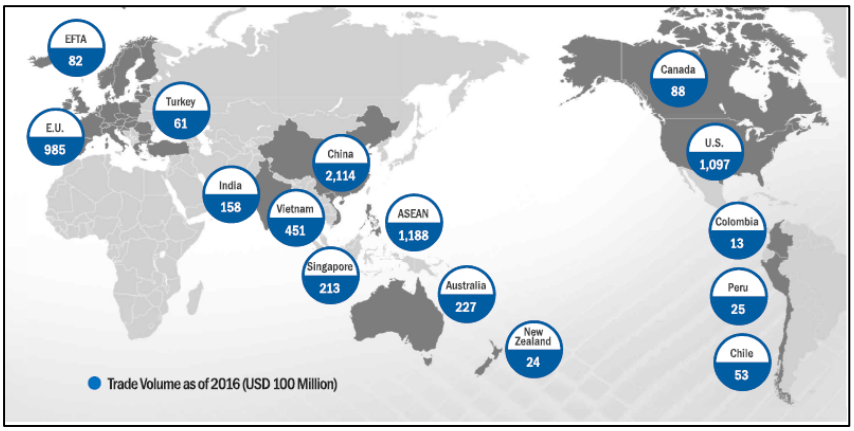
Table 4: Korea's leading industries and companies by era

	1955-70	*1971-87*	*1988-97*	*1998-present*
Industry	Milling, sugar, cotton, Timber, cement	Trading, construction, steel, refinery	Electronics (semiconductors), automobile	Electronics, telecommunication, finance, automobile
Companies	Cheil Jedang, Samyang, Taihan Textile, Tongmyong Timber, Keumseong Textile	Samsung C&T, Daewoo International, Hyundai E&C, Yukong, Honam Petrochemical	Samsung Electronics, LG Electronics, Hyundai Motor, Kia Motors	Samsung Electronics, LG Electronics, Posco, SK Telecom, Hyundai Motor, Samsung Life Insurance

Source: SERI

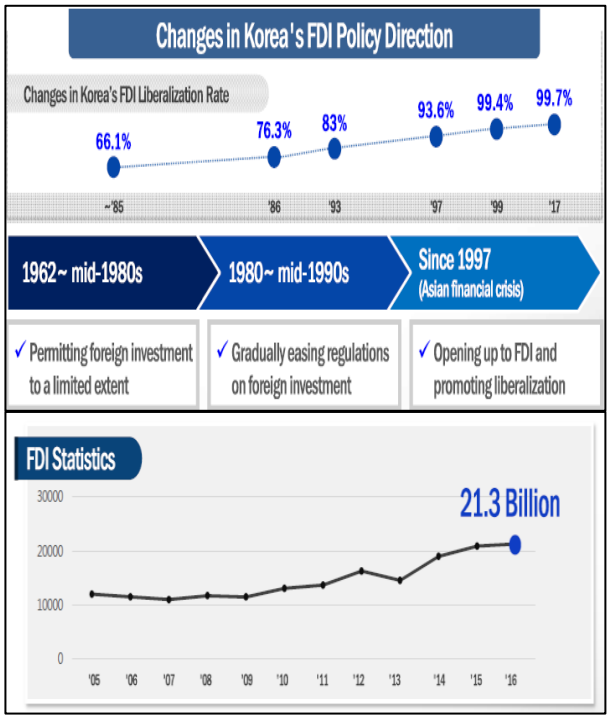
Considering that the size of the Korean market was limited, companies started to sell overseas, and over time they built an extensive free trade agreement network which covers 75% of global geographical territory (Figure 11).

Figure 11: Korea's FTA network



In addition, Korea has gradually carried out economic liberalization of inward FDI, which has been marked by two major events: joining the OECD in the 1980s, and the Asian financial crisis (Figure 12). There is some controversy over the desirability of the process of liberalization; some argue that joining the OECD might have contributed to the Asian financial crisis in Korea. Nonetheless, Korea tried to benefit as much as it could from the experience and decided to carry out measures such as increasing regulatory transparency.

Figure 12: Economic liberalization on inward FDI



3. Korea's Current Economic Challenges and Future

Figure 13 showcases that in 2018 Korea's economic growth was similar to that of Japan and other OECD countries with more mature economies. This happens not only in terms of economic growth but also of unemployment. Figure 14 illustrates that during 2017–2018, Korea's unemployment rate rose while that in more advanced economies like the US decreased.

Figure 13: Stagnating economic growth

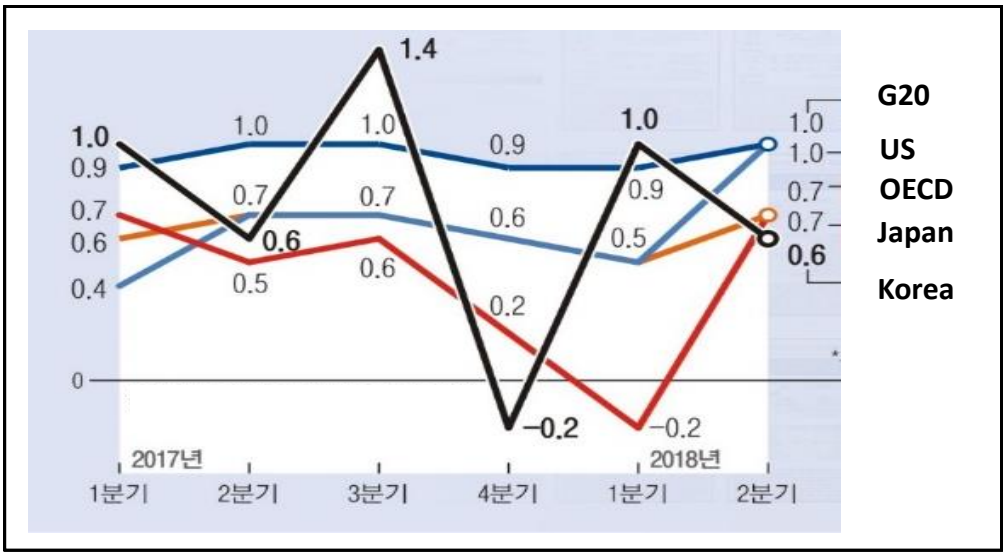
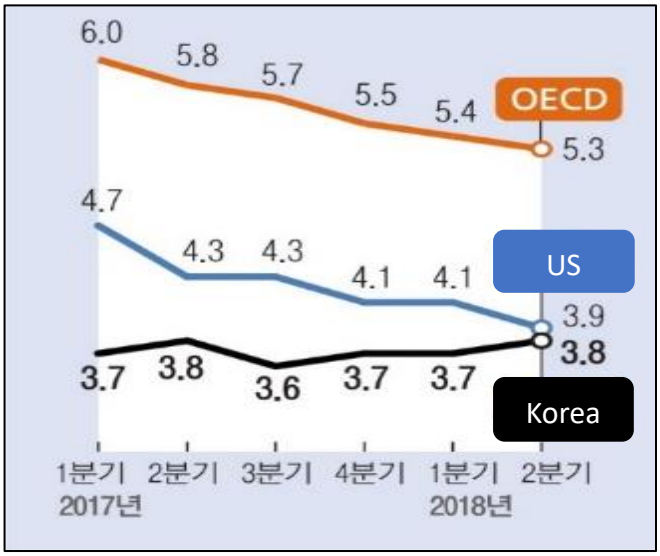


Figure 14: Unemployment rate

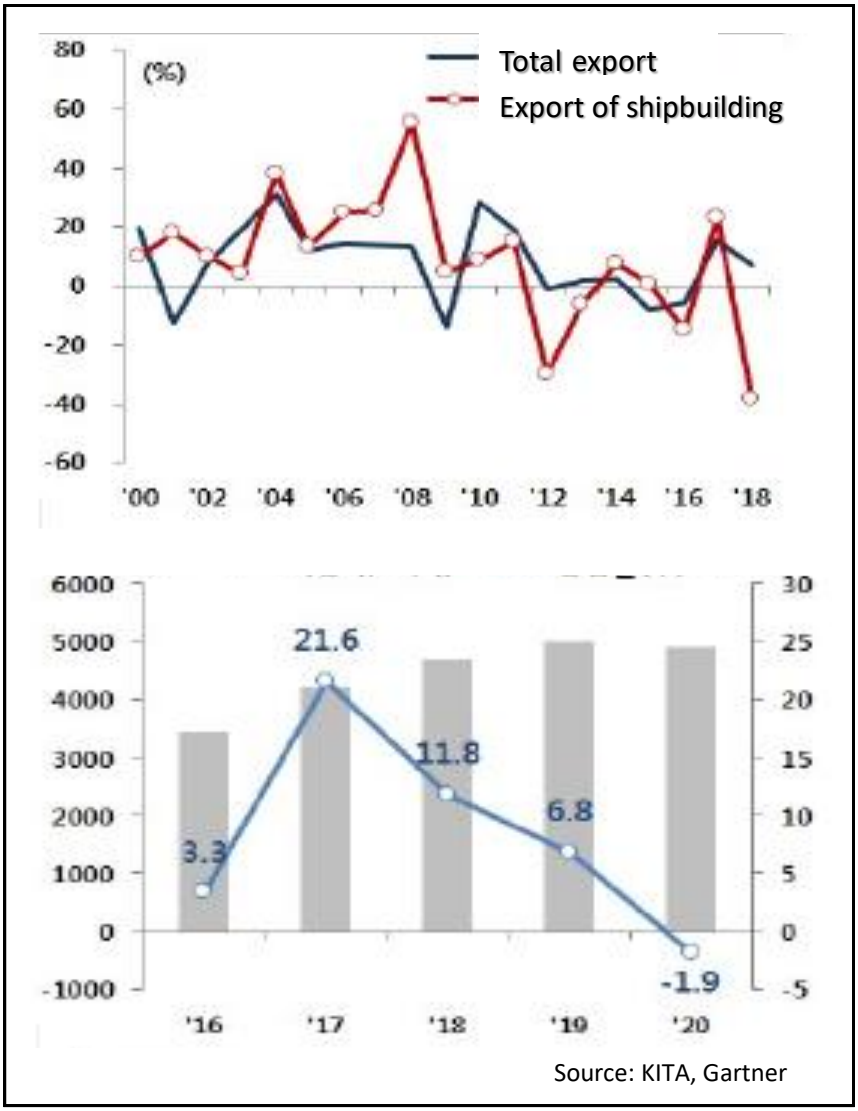


One explanation for these figures is Korea's high trade dependency, which reached over 90% in 2012 and then decreased due to the economic contraction (Figure 15). Besides, Korea's exports rely on the US and China, and depend on a few major products, especially semiconductors (Figure 16). Moreover, the time series trend of total exports is highly correlated with the fluctuation of major products that Korea exports. This is worrisome considering that some markets, such as that of semiconductors, are expected to decrease (Figure 17).

Figure 15: Korea's trade dependency

Figure 16: Export dependence on major products

Figure 17: Dependency and market trend for semiconductors



The US and China are Korea's major trading partners, but China is overtaking the US in both exports and imports (Figure 18). A more detailed analysis of Korea and China's competitiveness shows that in terms of price China is more competitive, and they are catching up on Korea very fast on quality and technology (Table 5). Numbers over 100 mean that China is more competitive than Korea.

Figure 18: Korea's export and import market

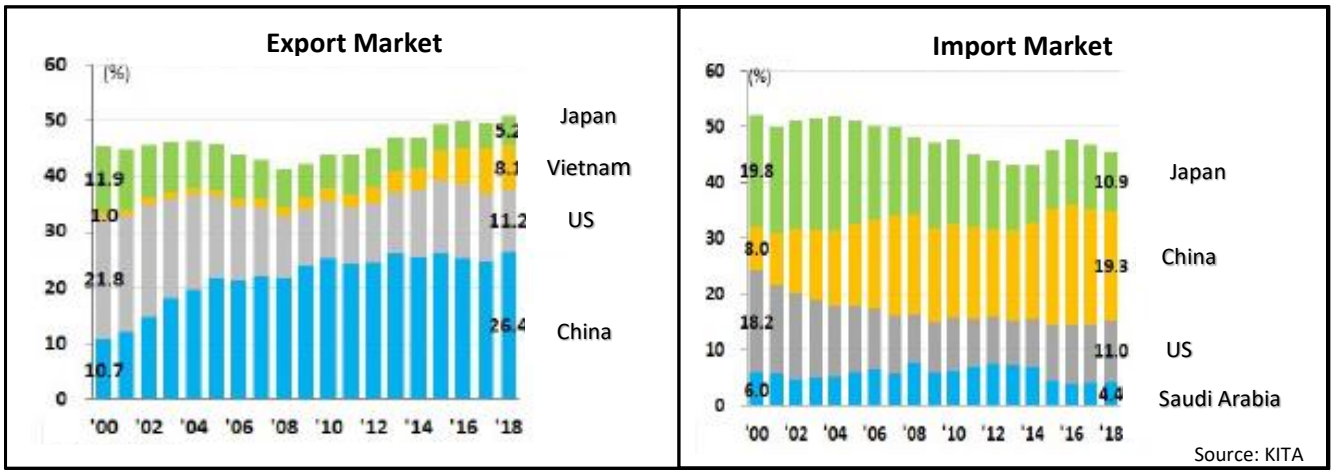


Table 5: China's industrial catch-up

Industrial competitiveness between S. Korea and China			
(Data: Korea Institute for Industrial Economics & Trade) 100 indicates S. Korea's level; numbers higher than 100 indicate that China is ahead of S. Korea			
Industry	Price	Quality	Technology
Automobiles	120	80	80
Shipbuilding	110~120	80~85	75~80
Steel	110	98	95
Petrochemicals	150	100	90
Oil refining	80	86	86
Home appliances	130	90	90
Telecommunications	125	90	92
Display	95	90	80
Semiconductors	110	80	110

Korea also believes that trade diversification with countries such as those of Latin America is required (Figure 19). In terms of inward FDI, it is focused on finance and has the European Union as its main investor (Figure 20). Furthermore, Korea has half of all 500 Fortune global companies already investing in it, mostly in finance, motor vehicles, technology, and energy.

Figure 19: Trade diversification with non-major partners

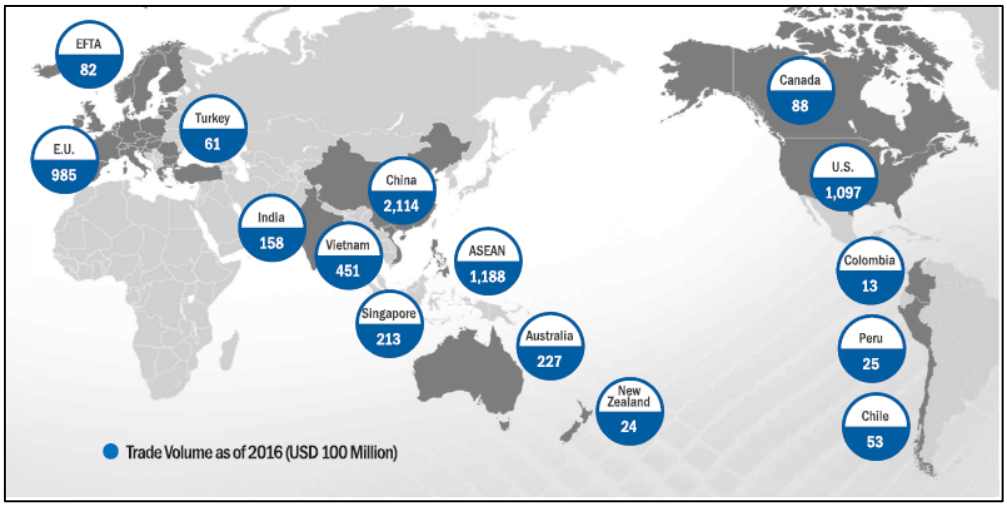
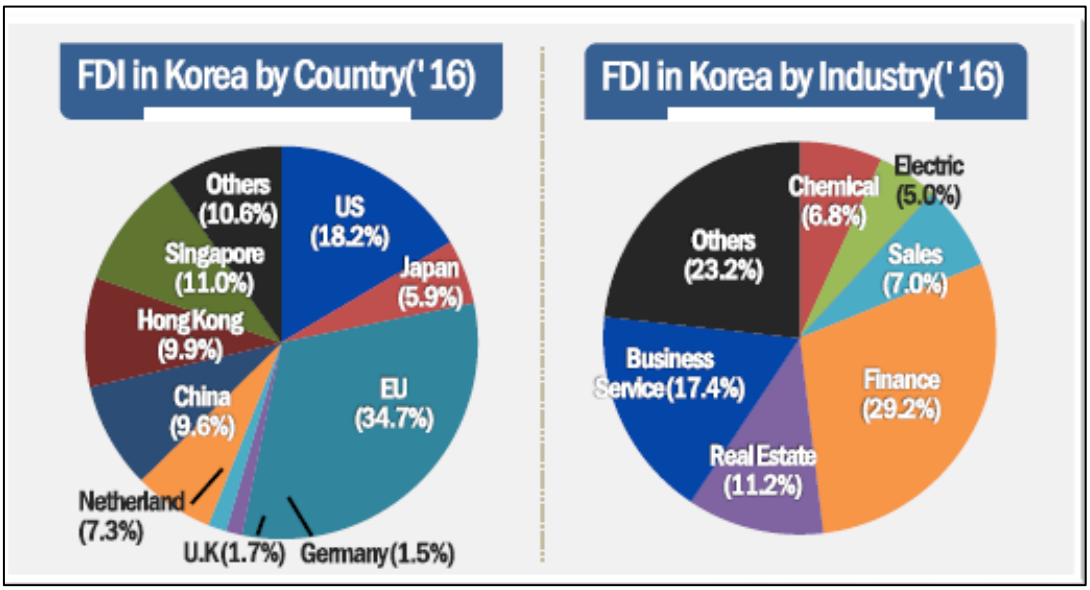


Figure 20: Korea's FDI



In Asia, Korea offers investors the prospect of a cost-efficient testbed market before entering the very mature, somewhat stagnant Japanese market or the large, diverse Chinese one (Figure 21). Figure 22 indicates how advanced Korea's business environment is; the country has 390 million consumers who are very open to purchasing new products and to ideas and offers advanced infrastructure and highly educated talent. Besides, it ranks fourth for ease of doing business and offers ways to use its well-developed internet to introduce businesses.

Figure 21: Korea as a gateway to the Asian market

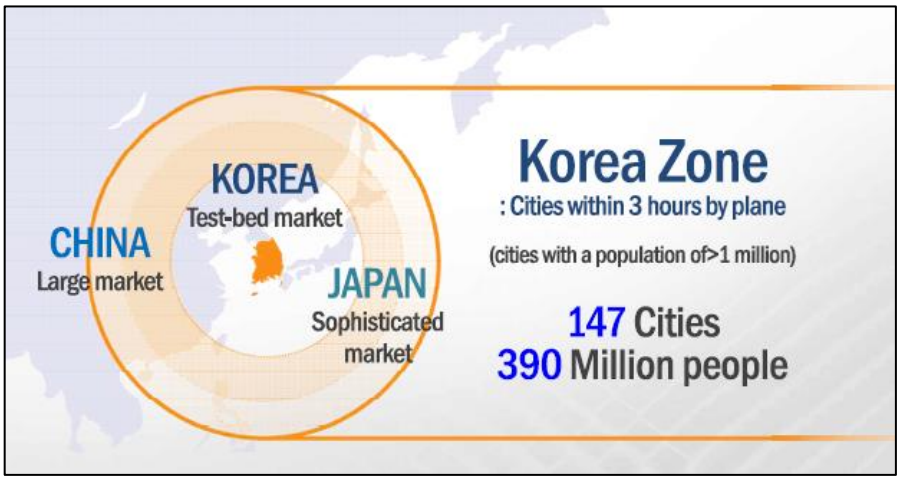
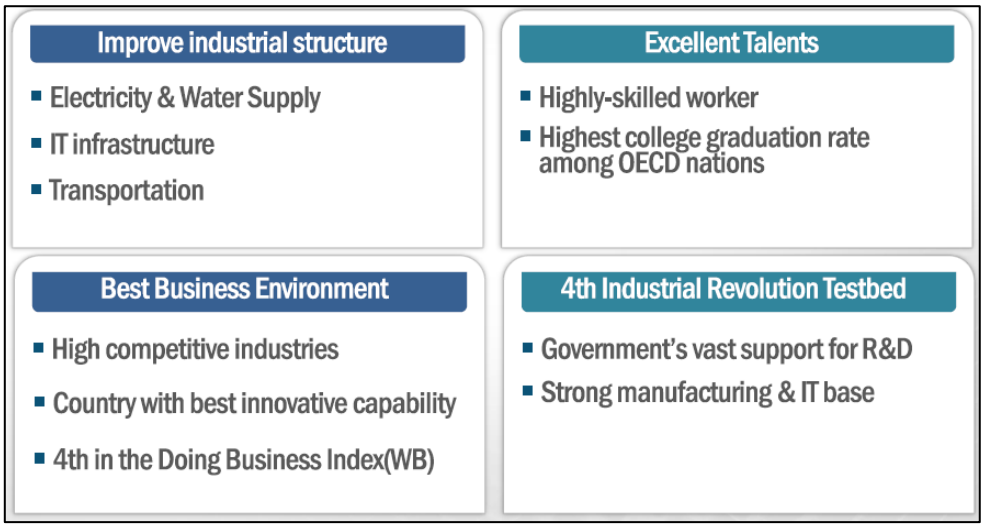


Figure 22: Korea's advanced business environment



Finally, based on its experience, Korea can provide some recommendations for other countries. First, securing government support in exports and focusing on a few strategic industries and firms, when resources are limited, might help. Second, it seems plausible to start by exporting light industrial products and searching for ways to collaborate with international firms to then expand business through related diversification. Third, learning from mistakes and never giving up is extremely important.

4. Biography of the author

Dr. YOO is a Research Professor at Korea University. She has been researcher at the Korea National Oil Company (KNOC) and Assistant Researcher at the Organisation for Economic Cooperation and Development (OECD), Korea Trade-Investment Promotion Agency (KOTRA) and has conducted many market and economic policy analyses. She holds a PhD in International Business Management & Strategy from Korea University and a Master of Arts in International Trade from Ewha Womans University. Her recent publications include topics on Corporate Social Responsibility Practices within firms, Internationalizations of developing countries' firms into developed countries and International Business Environment and Institutions.