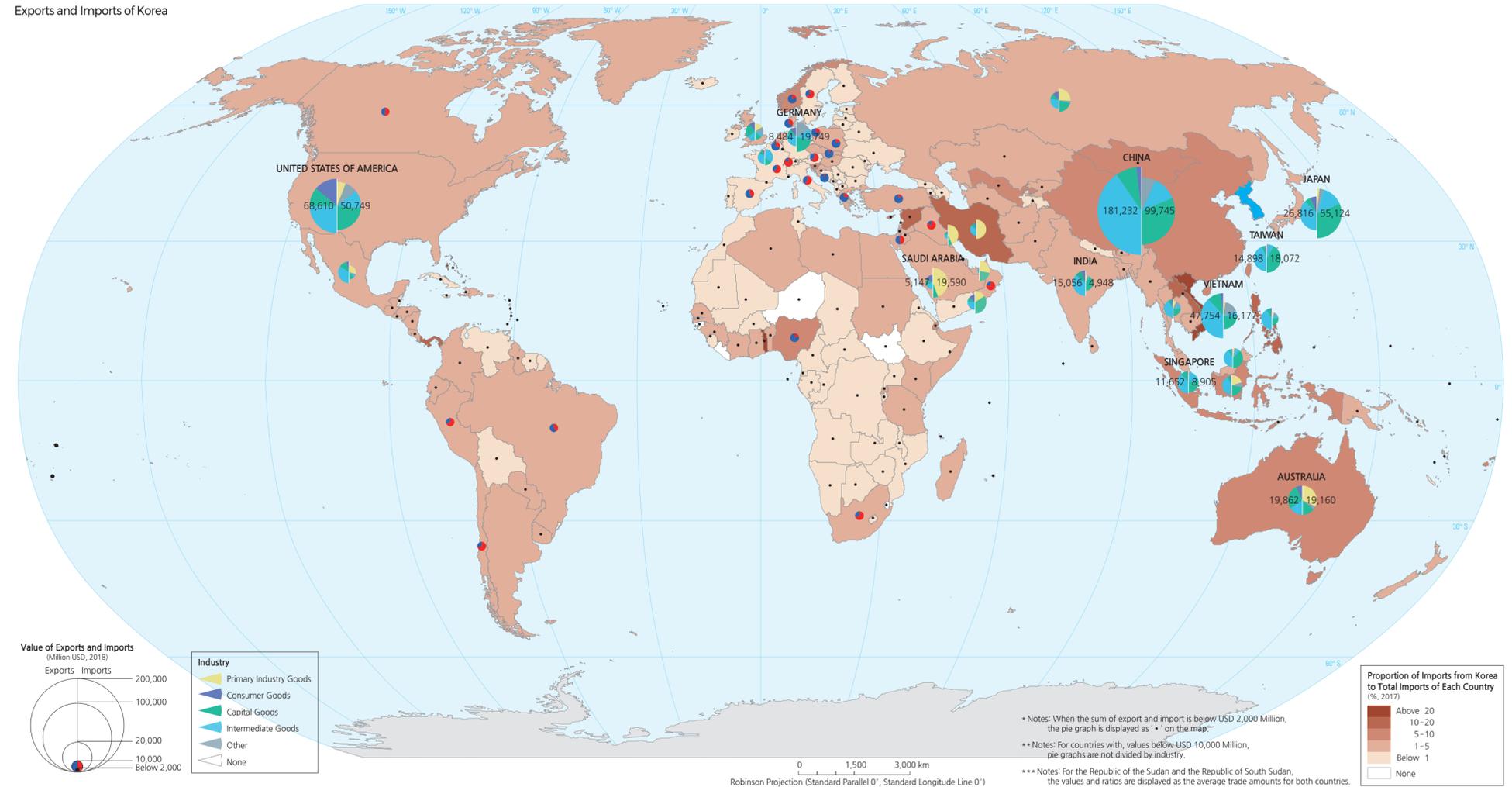


## Exports and Imports

Exports and Imports of Korea



in 2011. In 2018, the percentage of semiconductors accounted for 20.9% of all exports. Automobile exports have also increased significantly since 2010; the recent FTA with the United States and growing demand from other advanced economies boosted Korean exports. Also, the ratio of oil products has increased from 5.3% in 2016 to 7.7% in 2018 due to the increase in oil products' export prices.

Korea has also experienced significant growth in trade despite a moderate downturn during the world economic crisis in 2008 and declining oil prices in 2009. Rebounding oil prices and the importation of equipment have stimulated rising imports once again. Crude petroleum has been the most significant imported good, accounting for over 30% of total imports. Korean crude petroleum imports in 2011 surpassed USD 100 billion for the first time. Since the early 2000s, fluctuating oil prices have led energy imports into Korea to have corresponding fluctuations. Decreases in oil prices in 2015 resulted in rapid declines in energy imports from 34.4% in 2012 to 22.7% in 2015. However, as oil prices increased once again in 2017, the proportion of energy imports increased again to 26.4% in 2018. Korean crude petroleum imports increased significantly from 10.9% in 2016 to 15.0% in 2018.

The main export partners for Korea are China, the US, Japan, Singapore, Vietnam, and the European Union (EU). Exports to China have increased from USD 3.8 billion (6.1% of total exports) in 1989 to USD 208.1 billion (34.3% of total exports) in 2018. Since the late 1990s, exports to Vietnam have also increased rapidly due to the rapid growth of Korean foreign direct investments in Vietnam. Exports to advanced economies such as the US, Japan, Singapore, and the EU have decreased. Along with this pattern of exports, imports have followed a similar trend. Korea's major import partners are China, Japan, the United States, and Saudi Arabia, with China being the top importer of Korean goods since 2007.

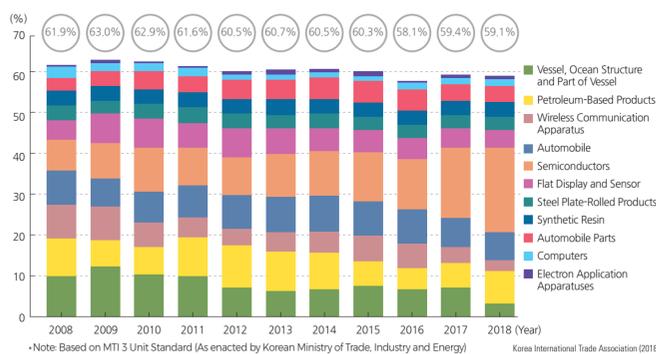
in 2011. In 2018, the percentage of semiconductors accounted for 20.9% of all exports. Automobile exports have also increased significantly since 2010; the recent FTA with the United States and growing demand from other advanced economies boosted Korean exports. Also, the ratio of oil products has increased from 5.3% in 2016 to 7.7% in 2018 due to the increase in oil products' export prices.

International trade and investment is the exchange of capital, goods, and services across international borders or territories. It includes the international flow of tangible and intangible commodities such as finance, insurance, transportation, distribution, and information technologies, as well as the international flow of key production elements such as capital, labor, and technology. Furthermore, it includes a series of international agreements such as the Free Trade Agreement (FTA) for international regulations or norms that have a significant influence on labor, technology, and competition in the international economic environment. Korea's level of involvement in international trade and investment has strengthened significantly over the last five decades.

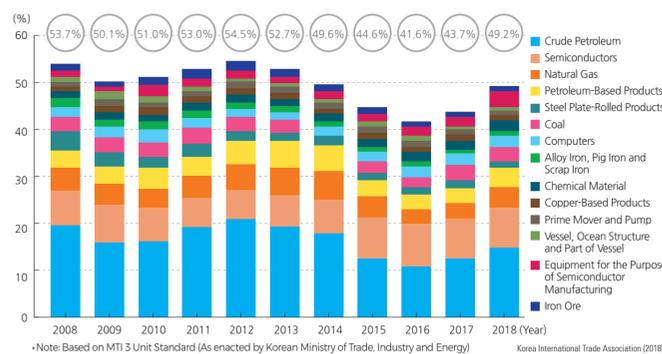
Korea's rapid growth in trade stems directly from the government-sponsored export-oriented economic development strategies that were implemented with a series of five-year plans that began in 1962. For example, trading volumes have increased significantly from around USD 100 million in 1964 to USD 1.14 trillion (export: USD 605.5 billion, import: USD 535.0 billion) in 2018. Korea is now ranked 9th in the world by trading volume. Along with the significant growth of trade, the Korean economy has become more and more dependent on international trade. A rapid increase in trade dependence dates to the early 2000s, accounting for 62.5% in 2004, 89.8% in 2011, and 70.4% in 2018.

Since the early 2000s, there has also been remarkable growth in exports. For example, exports have increased from USD 150.4 billion in 2001 to USD 605.5 billion in 2018, making the trade balance grow from USD 9.3 billion in 2001 to USD 70.5 billion in 2018. The main commodities exported by Korea between 2008 and 2018 were semiconductors, automobiles, oil products, flat-screen displays, and sensors. The export of semiconductors has also increased significantly since 2008. By 2018 semiconductors had become the largest export commodity despite a dip in market prices

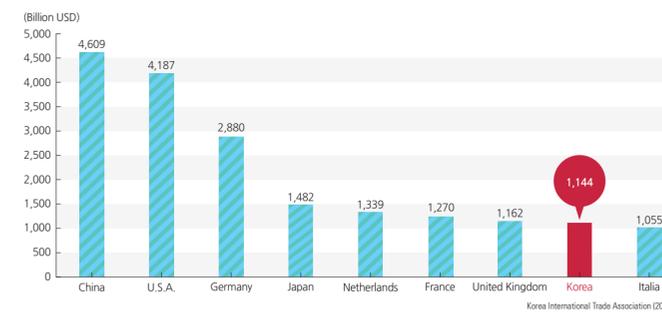
Trends in Proportion of Main Export Commodities



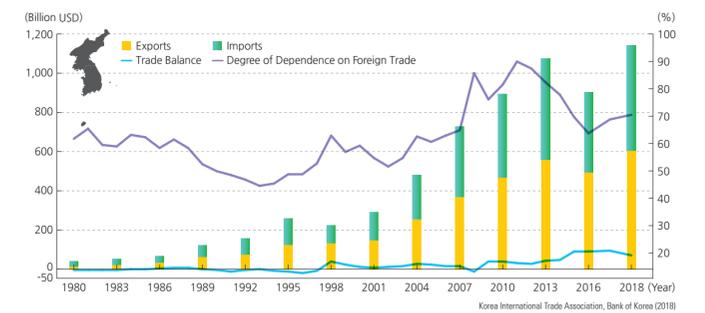
Trends in Proportion of Main Import Commodities



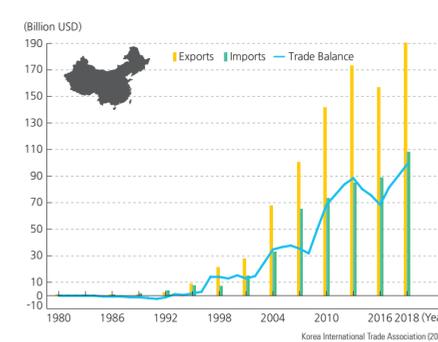
Leading Countries in World Trade



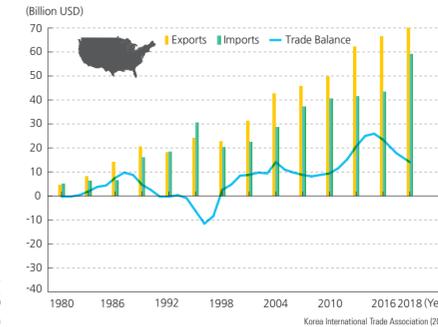
Trends for Korea's Exports, Imports, Trade Balance, and Degree of Dependence on Foreign Trade



Trends in China's Exports, Imports, and Trade Balance



Trends in the United States of America's Exports, Imports, and Trade Balance

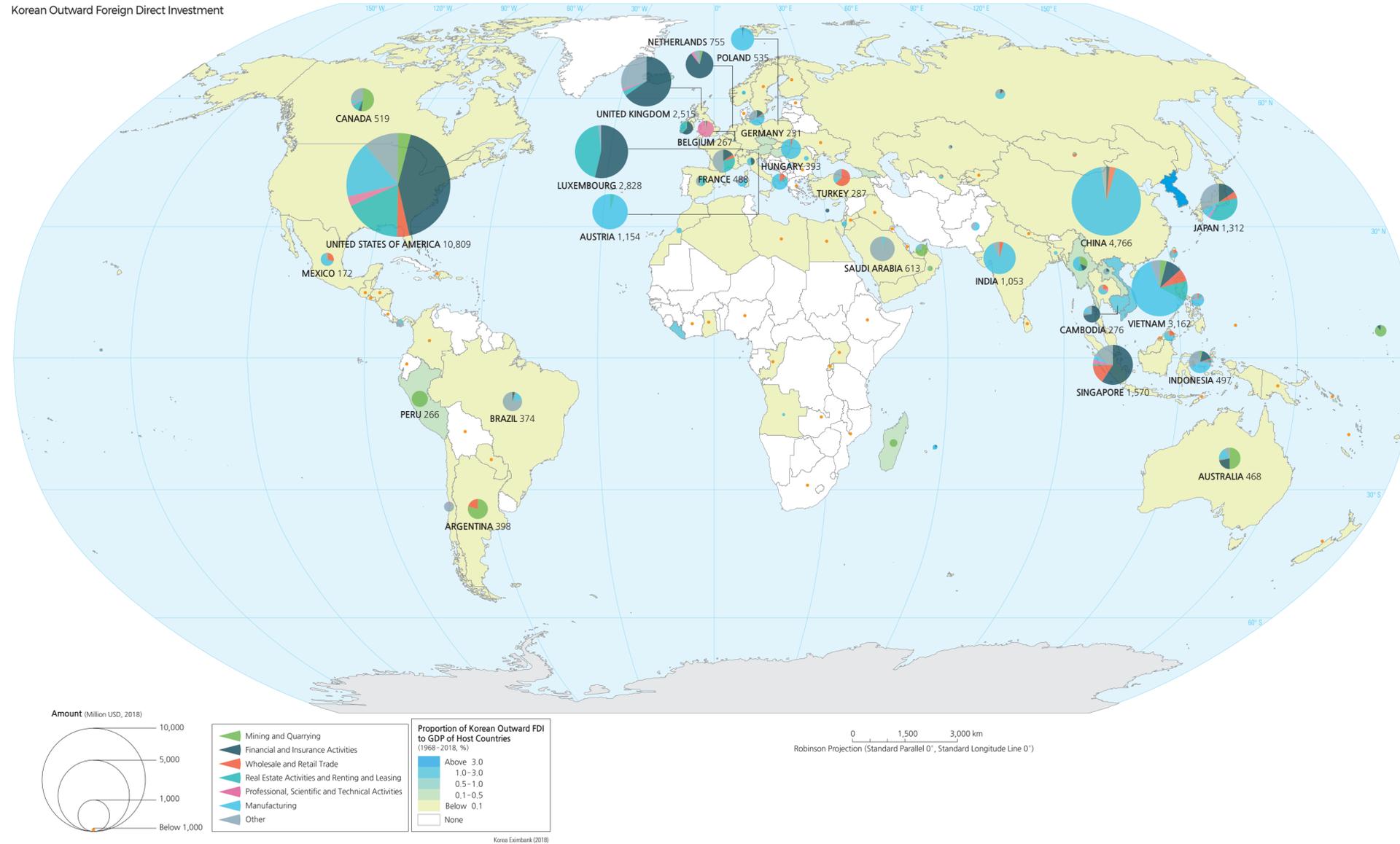


Trends in Japan's Exports, Imports, and Trade Balance



# Foreign Direct Investment

## Korean Outward Foreign Direct Investment

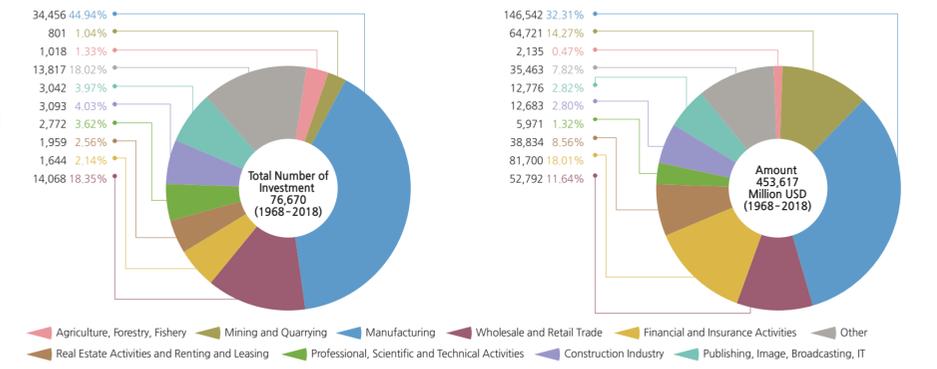


Foreign Direct Investment (FDI) is a critical business strategy for expanding a domestic firm's operations abroad via greenfield investments, mergers and acquisitions, and the expansion of existing foreign facilities. Outward FDI has become a part of the firm's progression because it provides better business opportunities matching the firm's specific strengths and location-specific advantages in foreign countries. Korean outward FDI has undergone significant growth since the late 1980s, increasing from USD 1.1 billion in 1990 to USD 49.8 billion in 2018. The amount of Korean FDI was USD 399.5 billion between 1968 and 2018.

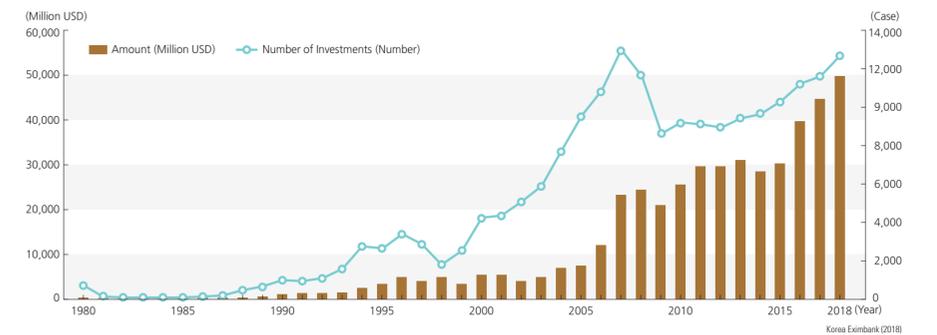
When grouped by regions, Asia, North America, and Europe accounted for 34.1%, 22.8%, and 23.5% of Korean outward FDI, respectively, in 2018. By country, the United States, China, and

Vietnam accounted for 28.1%, 12.4%, and 8.2%, respectively. Interestingly, the Korean FDI in Vietnam has increased significantly since the early 2000s with the result that Vietnam has emerged as the 3rd largest host economy for the Korean outward FDI. The Korean outward FDI has also significantly contributed to the GDPs of some host countries. For example, the proportion of Korean outward FDI was 4.1%, 2.9%, 2.1%, 1.3%, and 1.1% for Luxemburg, Liberia, Samoa, Vietnam, and Cambodia, respectively. The manufacturing sector received the largest investment, accounting for 32.3% of Korean total outward FDI in 2018. Financial and insurance, mining and quarrying, and wholesale and retail trade sectors received 18.0%, 14.3%, and 11.6%, respectively, in 2018.

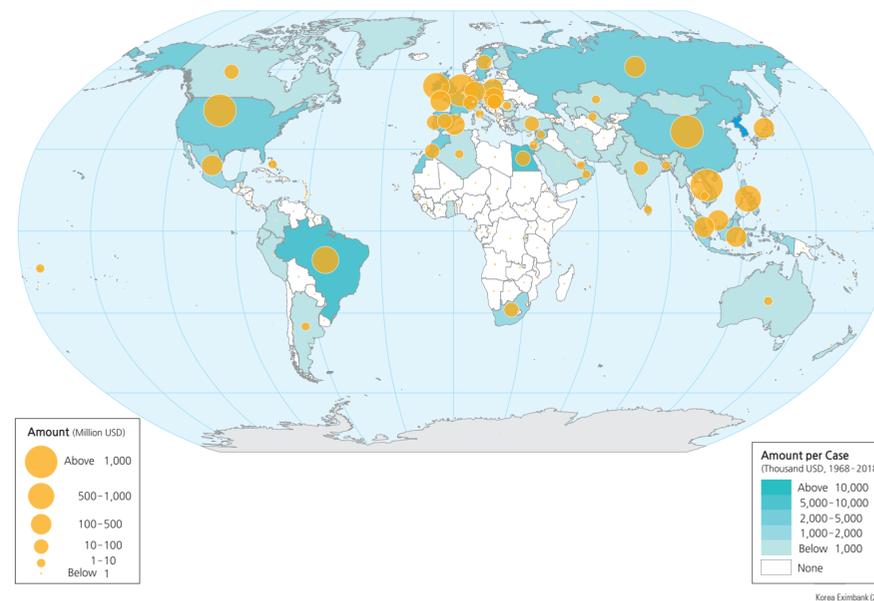
### Korean Outward FDI by Industry



### Trends in Korean Outward FDI

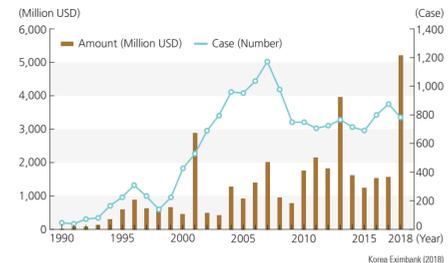


## Korean Outward FDI of Electronic Components, Computer, Radio, Television, and Communication Equipment and Apparatuses



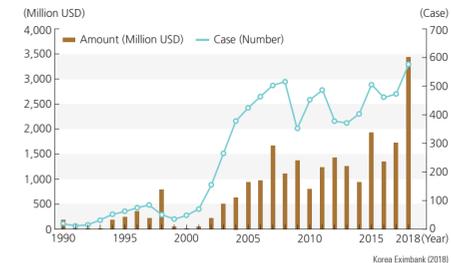
Korean outward foreign direct investment (FDI) to the manufacturing sector has been mainly dominated by two categories: the manufacture of electronic components, computer, radio, television, and communication equipment, and the manufacture of motor vehicles, trailers, and semitrailers, which accounted for 10.5% and 6.9% of cumulative manufacturing FDI as of 2018. Investment in the manufacture of electronic components, computers, radio, television, and communication equipment and related technologies amounted to USD 36.7 billion in 78 countries in 2013, showing significant growth since the mid-1990s. It increased from USD 20 million in 1990 to USD 5.2 billion in 2018. Geographically, investments in these areas are concentrated in China (including Hong Kong), the United States, and Vietnam, and accounted for 51.1%, 12.2%, and 8.0% of the total Korean outward 2018 FDI, respectively.

### Trends in Korean Outward FDI of Electronic Components, Computer, Radio, Television, and Communication Equipment and Apparatuses

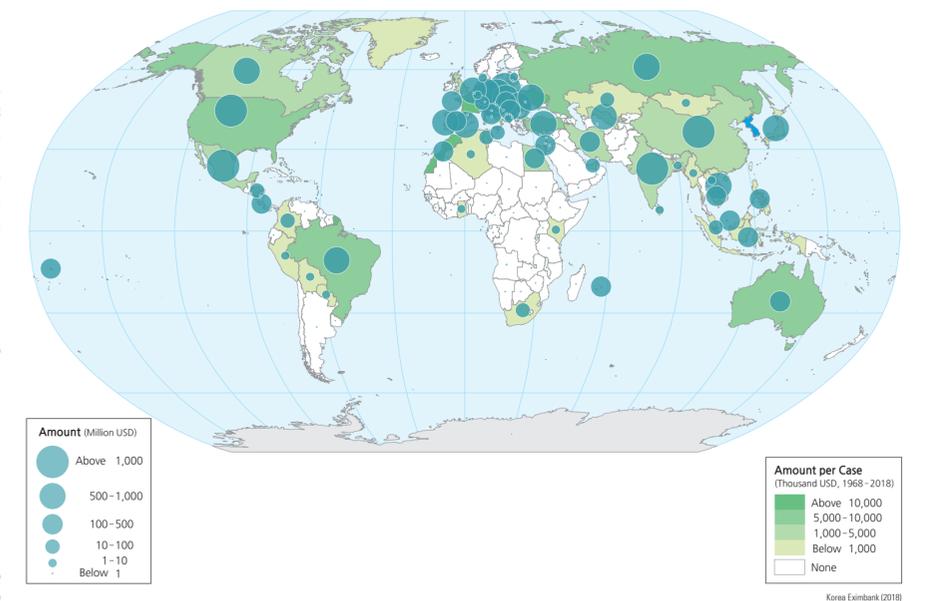


There are fluctuations in the manufacture of motor vehicles, trailers, and semitrailers. Investment in this category increased from USD 100 million in 1990 to USD 800 million in 1998, but it decreased to USD 40 million in 2001. In 2018, it increased again to USD 3.5 billion. Geographically, this kind of investment is concentrated in China (including Hong Kong), which accounts for 31.1% of total Korean manufacturing FDI in the world. The United States, India, Austria, Poland, and the Czech Republic followed with 12.3%, 10.9%, 5.1%, 5.0%, and 4.8%, respectively, in 2018.

### Trends in Korean Outward FDI of Motor Vehicles, Trailers, and Semitrailers

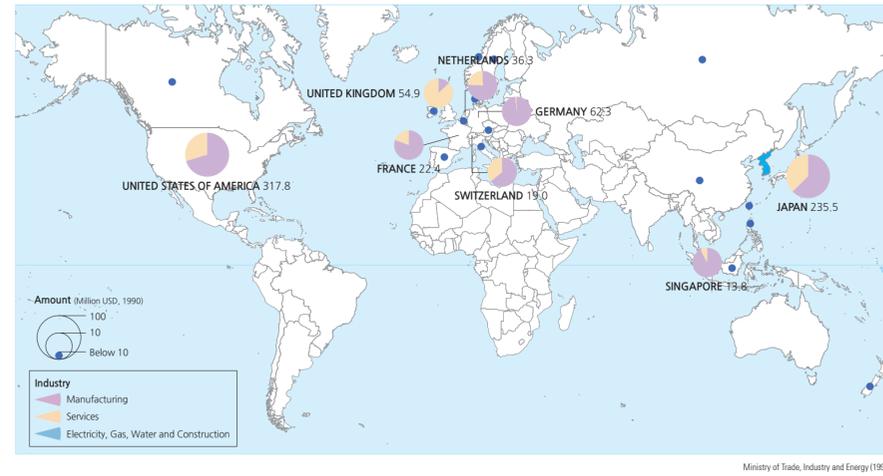


## Korean Outward FDI of Motor Vehicles, Trailers, and Semitrailers



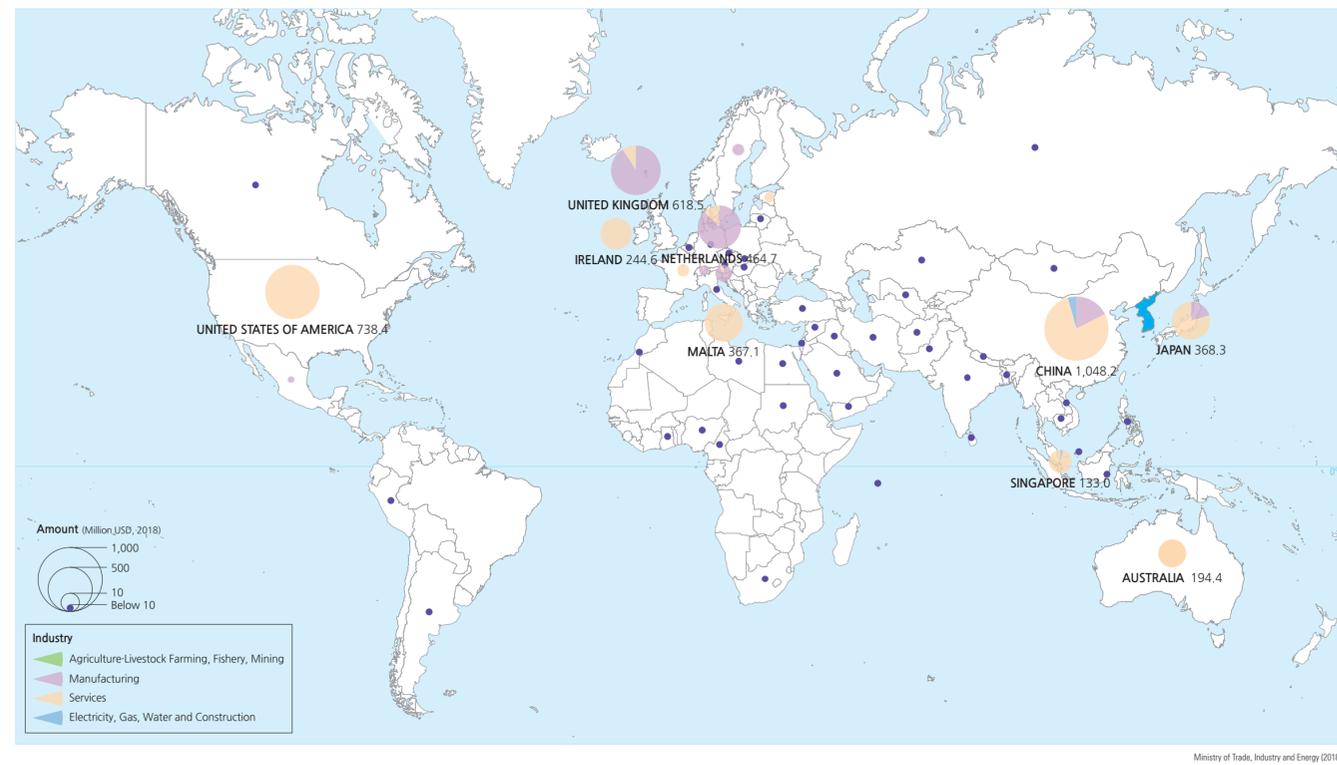
## Inward Foreign Direct Investment in Korea

Korean Inward Foreign Direct Investment by Industry (1990)



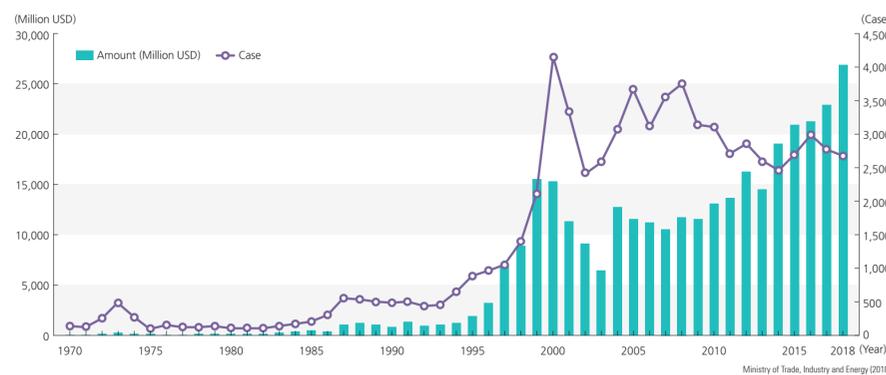
The foundation of inward foreign direct investment (FDI) in Korea was established early in the 1980s. It has become effective after various governmental stimulation policies were introduced in the late 1990s. The Korean Congress passed the Foreign Investment Promotion Act in 1998 that improved upon the former Foreign Investment and Foreign Capital Inducement Act. According to the new act, the inward foreign direct investment system became more favorable to investors, and the Korean government was then able to provide multiple incentives to foreign investors. Furthermore, the revision of the Foreign Investment Promotion Act in 2010 allowed local governments in Korea to invite foreign direct investments. As a result, the inward FDI increased dramatically from USD 0.8 billion (based on investment reports) in 1990 to USD 26.9 billion in 2018. The number of countries investing in Korea increased from 26 countries in 1990 to 69 countries in 2018. According to the Ministry of Trade, Industry, and Energy, the ranking of Korea on the "doing business" index developed by the World Bank rose from 23rd in 2008 to 5th in 2018, and the ranking of the trust index of FDI developed by AT Kearney was also improved from 24th in 2007 to 17th in 2018.

Korean Inward Foreign Direct Investment by Industry (2018)

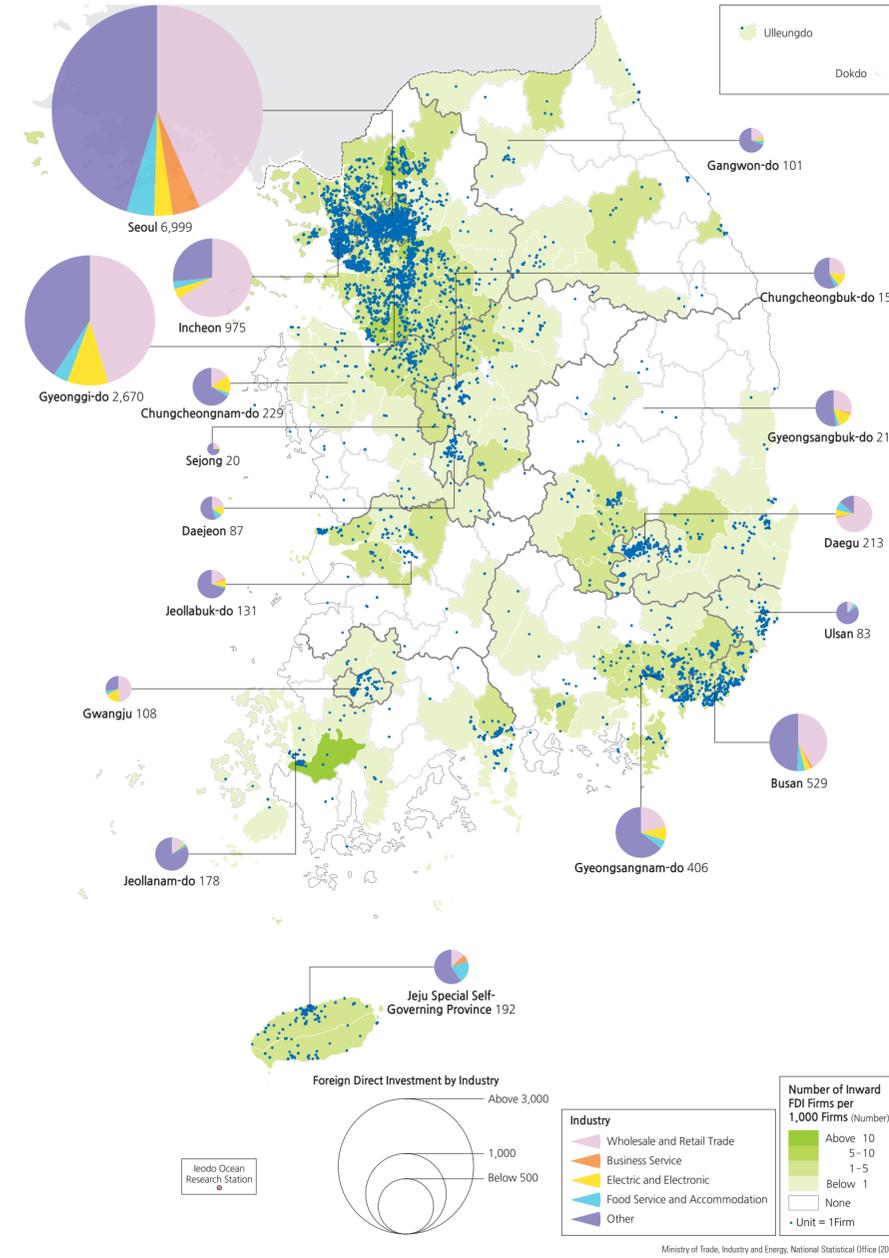


Geographically, Korea's inward FDI was dominated by the United States and Japan in 1990, but it was diversified due to the recent growth of investments from the United States, China, and European countries. For example, the proportion of investments from the US and Japan decreased significantly from 39.8% and 29.5%, respectively, in 1990 to 15.4% and 7.8% in 2018. Concurrently, the inward FDI from China, the United Kingdom, and the Netherlands increased to 21.9%, 12.9%, and 9.7%, respectively. The focus of the inward FDI has also shifted from manufacturing to the service industry. In the 1990s, the inward FDI focus on the service industry was not popular except in countries such as the United Kingdom, Canada, and Denmark; however, the 2018 statistics now show that the majority of the inward FDI was in the service industry.

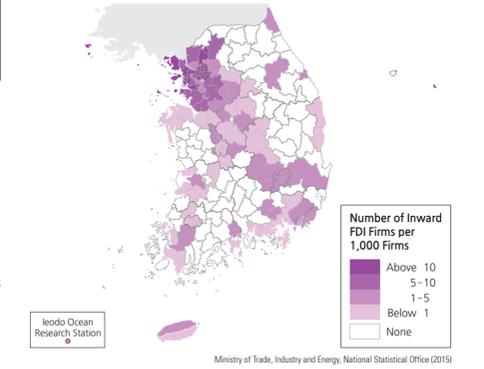
Trends in Korean Inward Foreign Direct Investment



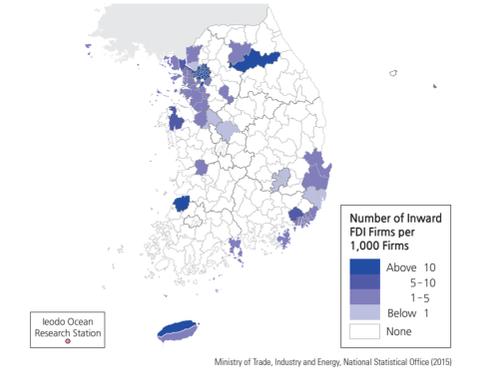
Distribution of Inward Foreign Direct Investment Firms in Korea



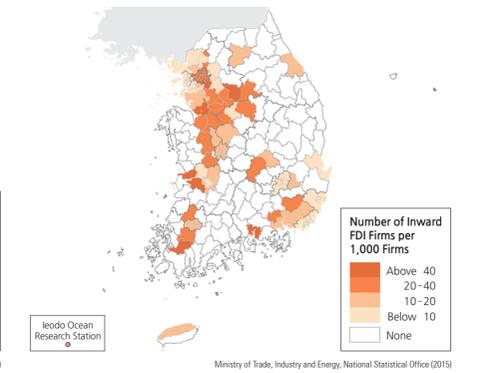
Distribution of Wholesale and Retail Trade Inward Foreign Direct Investment Firms in Korea



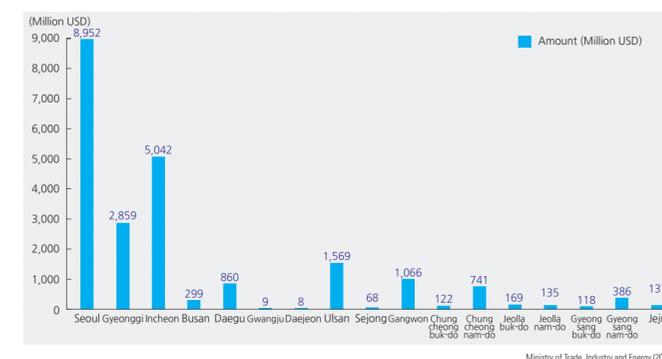
Distribution of Business Service Inward Foreign Direct Investment Firms in Korea



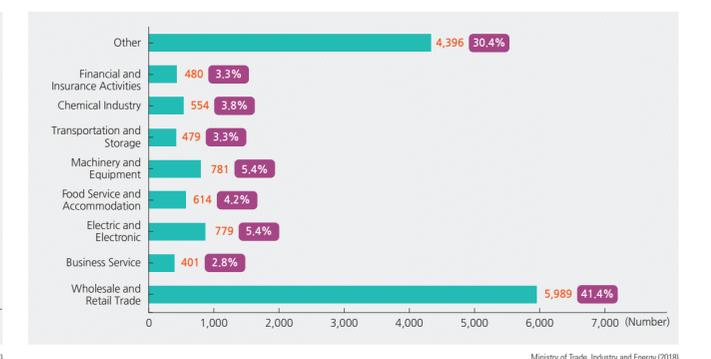
Distribution of Electric and Electronic Inward Foreign Direct Investment Firms in Korea



Inward Foreign Direct Investment by Region (2018)



Inward Foreign Direct Investment by Sector (2018)



In 2018, the amount of inward FDI in Korea accounted for USD 26.9 billion. Most of the inward FDI was concentrated on the metropolitan areas, accounting for 62.6% (USD 16.85 billion) of the total inward FDI. For example, Seoul, Incheon, and Gyeonggi Province received 33.3% (USD 8.95 billion), 18.7% (USD 5.04 billion), and 10.6% (USD 2.86 billion), respectively. Apart from the metropolitan areas, Ulsan (5.8%, USD 1.57 billion) attracted the most foreign investors.

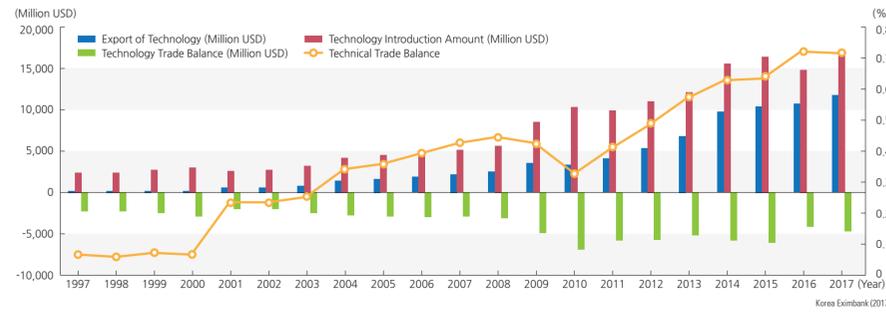
According to the status of foreign investment firms issued by MTIE (July 2019), there are 14,473 foreign firms in Korea. The main investment sectors are wholesale and retail trade, followed by R&D and science and technology services, accounting for 41.4% (5,989 firms) and 7.1% (1,032 firms), respectively. Information and communication, machinery and equipment, electric and electronic, and food service and accommodation sectors received 6.7%, 5.4%, 5.4%, and 4.2%, respectively, of total inward FDI in Korea as of July 2019.

## Technology Trade

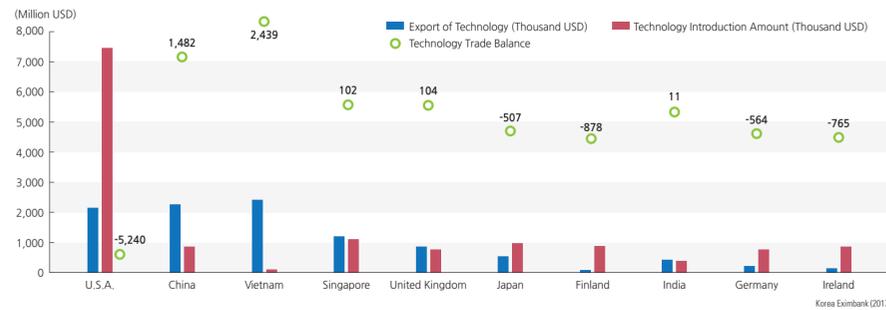
The technology balance of payments may be defined as commercial transactions related to international technical knowledge and technology-related services between partners in different countries. It consists of money paid or received for the use of patents, licenses, know-how, trademarks, patterns, designs, technology service, and assistance, and for industrial R&D carried out abroad. It is an important indicator that enables us to measure technology transfer among countries, restructuring in technology and industrial structure, and level of technology in the macro-perspective. In particular, technology balance of payments ratio (technology receipts/technology payments), the amount of money used to purchase foreign technology divided by technology sold to other countries, could be used as an indicator of national technology competitiveness.

The technology balance of payments has increased dramatically since 1997. For example, it increased from USD 2.58 billion in 1997 to USD 28.27 billion in 2017, a growth of over 20 times in 20 years. The amount of technology payments as a percentage of total technology balance of payments increased significantly from 6.3% in 1997 to 41.7% in 2017. Also, the technology balance of payments ratio increased from 0.07 to 0.72 in 2017. In terms of the performance of Korean technology balance of payment by countries, the leading technology trade partners for Korea are the United States, China, Vietnam, Singapore, the United Kingdom, Japan, Finland, India, Germany, and Ireland. Vietnam was the top technology exporting country in 2017, accounting for 99.9% of the technology balance of payments.

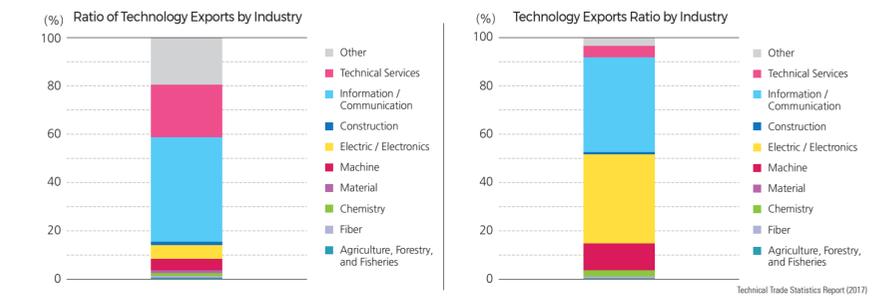
### Technical Trade Trends



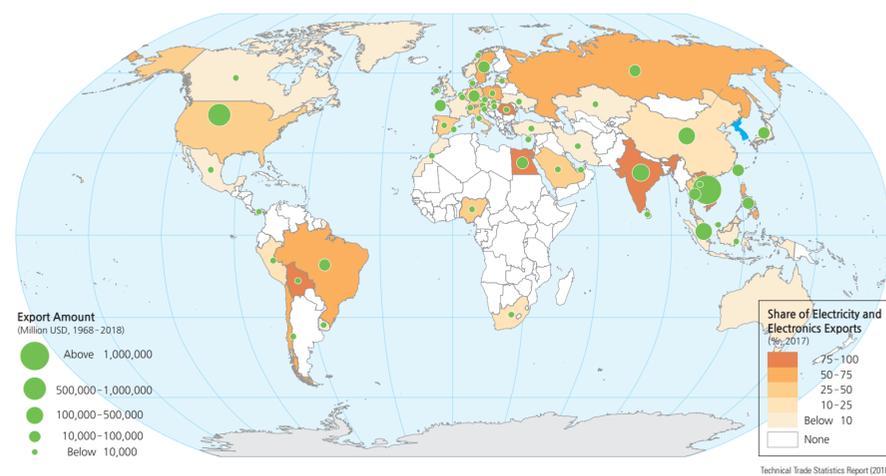
### Technology Trade Trends in Top 10 Countries



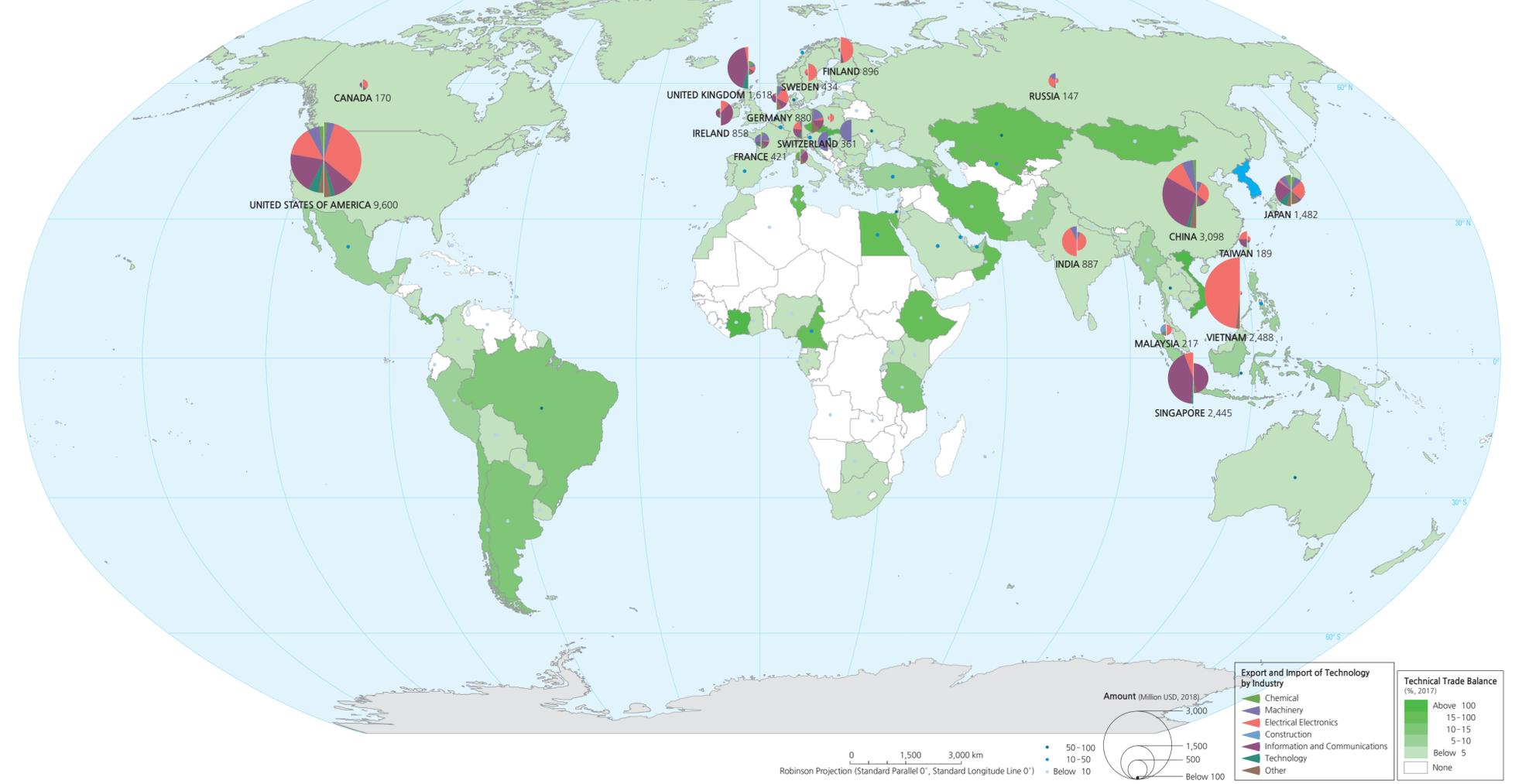
### Status of Technology Exports by Industry



### Export of Electrical and Electronics Technology



### Technology Export and Import

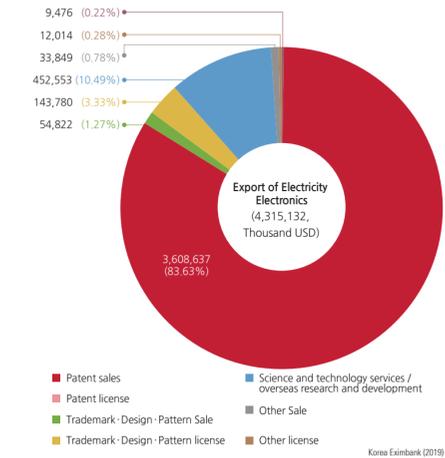


Technology payments have increased significantly since the early 2000s. Their volumes have increased dramatically, from around USD 160 million in 1978 to USD 11.8 billion in 2017. Technology payments in Korea have increased by more than 70 times in 20 years. In terms of Korean technology payments by industries, the leading technology exporting industries were the electrical and electronics industry (46.8%) and the machinery industry (19.8%) in the early 1990s. However, the information and communication

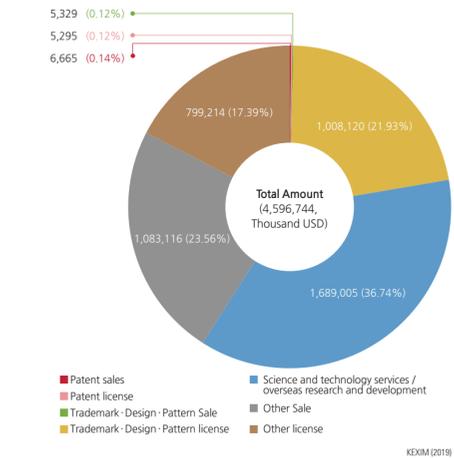
industry jumped to 39.0%, and the electrical and electronics industry jumped to 36.6% in 2017. Since the late 1980s, technology receipts have increased along with increases in needs for new technologies as the development of the electrical and electronics industry races forward. The significant increase in the amount of technology receipts has led to the liberalization of technology receipts since the late 1990s. For example, technology receipts as a percentage of total technology

balance of payments were 93.7% in 1997. In terms of Korean technology receipts by country, Korea's technology dependence on Japan was highest until the late 1970s. Since the 1980s, its dependence on the United States has been growing dramatically because of the rapid progress in the introduction of high-tech instruments in the electrical and electronics industry. As a result, in 2017, the percentage of technology receipts from the United States was 45.0%, whereas that from Japan was only 6.0%.

### Export Status by Technology Type of Electric and Electronic Industry



### Export Status by Information and Communication Technology Type



### Export of Information and Communication Technology

