Section 4 Towards strengthening locational competitiveness

In Section 1, we found that there are rising concerns about the hollowing out of industry in many major countries, and in particular, the conditions surrounding Japan have become more severe compared with the United States, Germany, and South Korea. To prevent hollowing out in an era when global business development is accelerating and companies look to the competitiveness of a country for investment, it is critical to strengthen locational competitiveness to attract businesses.

In this section, we identify first what factors affect a company in choosing its location. Next, we focus on Germany and South Korea to get an overview of the efforts made by these two countries in recent years towards strengthening their locational competitiveness and promoting high-value added export industries, as well as the effects and impacts of these efforts and future issues.

Then, we indicate how Japan should advance efforts to strengthen its locational competitiveness; necessary to ensure sustainable growth in the future and to dispel the concerns related to a hollowing out of industry. More specifically, we will clarify what challenges and solutions we may have to stimulate inward investment, to meet external demands, and to promote high-value added export industry including manufacturing, through the strengthening of locational competitiveness based on the comparisons with Germany and South Korea.

1. Factors in deciding to locate an enterprise in Japan

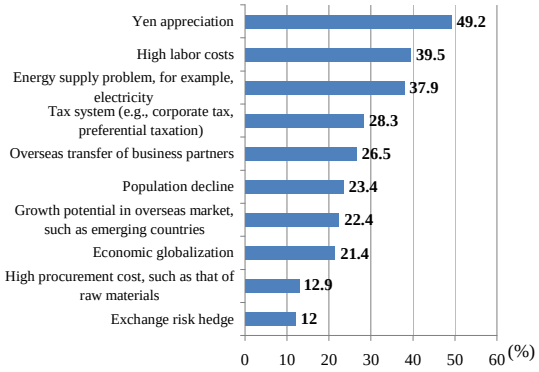
First, what factors will influence the decision regarding the location? According to Teikoku Databank (2011), to the question "Top 10 factors accelerating outflow to overseas" (multiple answers), most companies (about half of the companies) answered "strong yen" (Figure 3-4-1-1). It was followed by answers, "Labor cost (39.5%)" and "Energy supply problem" (37.9%). Also, in the oral survey conducted by the Development Bank of Japan, about 80% of companies identified "strong yen" in the question "Which of those 'sextuple whammies' have become barriers to doing business in Japan?" (Multiple answers up to three).[110]

By contrast, two points, "reduction of labor cost" and "market access," have become important factors for foreign countries/regions to attract investments from Japan. In emerging countries, the wage costs have been rising; however, at the same time, their market demand is expected to increase, and to the question "one reason behind current overseas business activities of Japanese companies," the top answer was "the demand for local products are strong and/or demand is expected to increase in the future," which far exceeded the answer, "able to secure high-quality and cheap labor." [111]

110 Hearing with business partners on the strong yen, flood in Thailand, etc. (Development Bank of Japan, 2011)

111 *41st survey of overseas business activity* (Ministry of Economy, Trade and Industry, 2011)

Figure 3-4-1-1
Top 10 factors accelerating outflow to overseas (multiple answers)



Source: *Survey on the hollowing out of industry* (Teikoku Databank, 2011).

From the above, the factors considered to be important in analyzing locational competitiveness are (1) trade environment such as exchange rate fluctuations, (2) business operating costs such as labor costs and (3) realizing high-value added services by the accumulation of industry such as access to customers. By paying attention to these factors, we can examine the efforts of each country in strengthening their locational competitiveness and study the measures required of Japan.

2. Germany's initiatives

In Germany, hollowing out became an issue in the 2000s, but currently, the concerns are disappearing. Here, we introduce Germany's initiative towards strengthening locational competitiveness and clarify the process that led to an end to the hollowing out trend. In particular, we focus on three points that played an important role in strengthening locational competitiveness, that is, 1) improvement of trade environment, 2) reduction of business operating costs, and 3) creation of high-value added industry.

(1) Improvement of trade environment (Promotion of European integration)

(A) Promotion of economic partnership

When we focus attention on the trade structure, we notice that Germany has recorded a trade surplus with European countries.[112] One reason behind this may be the fact that the market integration has progressed. Not only the elimination of tariffs but also the elimination of non-tariff barriers, such as the liberalization of the re-locating of staff and standardization of various rules, had made it easier for German companies to advance and they have built a production network within the region.

Also, the EU officially announced its new trade strategy in November 2010 aiming to create employment through further liberalization of trade and investment (See Chapter 1, Section 2).

112 For the structure of German trade investment, see "European economy" in Chapter 1, Section 2.

(B) Avoidance of exchange rate fluctuation risk by the introduction of a single currency

Another effort towards European integration is the adoption of a single currency, the euro, from 1999 (distribution of cash currency started in 2002), which brought great gains to Germany. Until that point, when exports from Germany increased, the value of the German Mark rose, which worked as an obstacle to the growth of German exports, but now the export continuously increases as it is made within the euro zone and there is no exchange rate fluctuation in the region. Also, the trend of depreciation of the euro against the dollar that began in the late 2000s has served as a spur for German exports.

Column 15 European integration as a means of postwar reconstruction

As the bedrock of European integration, it is usually emphasized that there is a political intention to maintain peace in Europe, which has experienced two World Wars. But some other views stress that European integration has contributed to promoting the economic reconstruction of postwar Europe, and to the strengthening within the member countries themselves.

In the 1950s, Western European countries were faced with a major crisis. Each country was suffering from the massive loss of lives and assets of the people during the war, from the recession that had continued since the 1930s, from the decline in international competitiveness, and economic exhaustion; nevertheless, it had to improve the social welfare system, as they had asked people to shoulder a great burden during the war. However, it was too difficult for Western European countries, which declined after the two World Wars, to deal with those issues alone, so they had to find a way towards reconstruction by joining forces. While the international competitiveness of industry of each country was declining, six original member governments of ECSC (European Coal and Steel Community) set out to promote industry, in which each country had a comparative advantage, aiming at reconstruction through integration.[113]

First of all, the formation of ECSC served the economic interests of Belgium, which was making efforts to consolidate and scale down their mining industry which had been in decline after losing out to price competition with the United States. The mutual supply of coal between ECSC member countries mitigated the decline in demand, and the social security related to the unemployment of miners was partly covered by the funds contributed by the member countries. While the trade volume started to increase within the region in the late 1950s, the formation of the European Economic Community (EEC) facilitated the unification of the markets within the region and enhanced the division of labor as well. For instance, West Germany greatly expanded its share of car sales in Western Europe, overtaking the United Kingdom, which did not participate in the customs tariff union, and made a remarkable comeback as an industrial country. The Netherlands has successfully developed its agriculture sector by securing access to the market in Germany. In France, the most important policy issue was to ensure income of the farmers, who had strong political clout, but the realization of the Common Agricultural Policy (CAP) solved the farmers' income problem which

113 A. S. Milward, an economic historian of the London School of Economics, argues in his book *The European Rescue of the Nation-State* that the regional integration saved European countries from the crisis of collapse in the 1950s.

stemmed from the decline in grain prices. By contrast, the United Kingdom did not participate either in ECSC or EEC for a long time mainly from the viewpoint of trade, due to the fear of a potential need to sacrifice the privileged relationship with the British Commonwealth, which had accounted for more than half of its trade in the 1950s, for the common market of the Western European countries. But later it steered toward participation in EEC as trade with the British Commonwealth began to give way to the trade with Europe. As seen from the above, the interests of industrial policy of each nation were the driving force of European integration, and ECSC and EEC were appropriate means of contributing to the national interests of each nation.

(2) Reduction of business operating costs

As the EU expanded in the 2000s, Germany faced further cost competition with Central and Eastern European countries. We now focus on the two domestic reforms in (1) labor market and (2) tax system implemented in Germany as a response to this situation.

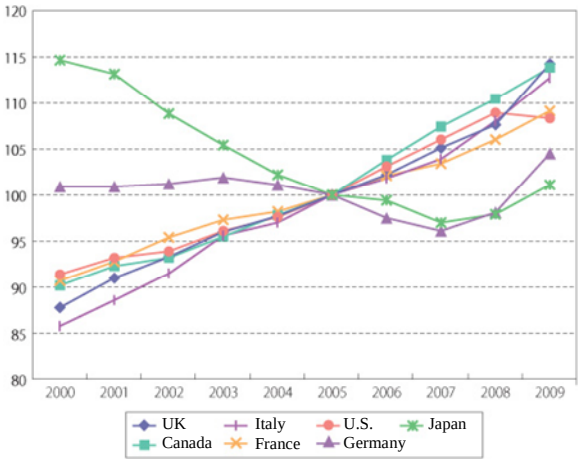
(A) Labor-market reforms

Since its inauguration in 1998, the Schroeder administration positioned lower unemployment figures as one of its most important policies. However, the traditionally generous social security system of Germany, paired with excellent unemployment insurance benefits, have resulted in less incentive on the part of the unemployed to find jobs (unemployment trap) and have caused the chronic high unemployment rate.

And so in 2002, upon beginning its second term, the Schroeder administration set up the “Committee on modernization of labor market” (also known as “Harz Committee”) by inviting Mr. Harz from Volkswagen as the chairman, and began to implement reforms to the employment system (also known as “Harz reform”) on a full scale (See Chapter 1, Section 2). The growth of labor cost per unit was decreased to a low level in the late 2000, second only to Japan among G7 countries. In the wake of the Lehman Brothers shock, they adopted the short-shift and work-share systems to stop the unemployment rate from increasing, which led to lowering of the unemployment rate to a historically low level in 2011 (Figure 3-4-2-1).

Figure 3-4-2-1

Comparison of unit labor costs by country (2005 = 100)



Source: OECD Stat.

(B) Reduction of corporate tax

In Germany, the Schroeder administration and the Merkel administration continuously reduced corporate tax. The effective corporate tax rate in Germany was reduced from about 50% to 40% in 2001, then, to about 30% in 2008 respectively, and then to the lowest level in the major Western countries at that time (28.9%), below that of France (36.0%), Italy (32.4%), and the United Kingdom (29.0%). (Figure 3-4-2-2)

Figure 3-4-2-2

Average effective corporate tax rate by country (as of 2008)

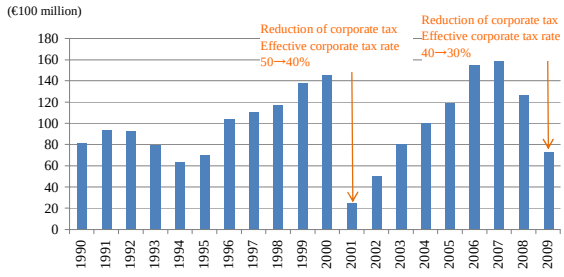
	%
United States of America (New York City)	**48.4**
Japan	**40.9**
Canada	**36.7**
Germany (2006)	**36.0**
Italy	**32.4**
France	**32.4**
Spain	**31.0**
Belgium	**29.6**
United Kingdom	**29.0**
Germany (2008)	**28.9**
Luxembourg	**25.8**
Sweden	**25.1**

Source: Cologne Institute for Economic Research website.

Although the corporate tax revenue reduced immediately after the tax reduction in 2001, it has recovered over time to the level before the tax reduction (Figure 3-4-2-3).

Figure 3-4-2-3

Corporate tax revenue in Germany



(Source) OECD Stat

Source: CEIC database.

(3) Promotion of high-value added industry

Germany was ranked number 1 in the world for export value during 2003 and 2008. Riding on the strength of the improved trade environment and reduced business operating costs as we have seen above, excellent products have been developed in the country, which further increased exports.

To help companies promote research and development, the German federal Government focuses on improving the environment for many industries to advance research and development rather than to actively support a particular industry (pick the winner).[114] In addition to the German federal Government's research and development subsidies, a similar program is provided by the EU, most of which is carried out at the level of the state government or municipality. Along with the municipality, chamber of commerce, research institutes, and universities are closely linked and are actively engaged in the introduction and transfer of advanced technologies.

Column 16　Efforts of Baden-Württemberg state to strengthen R&D

Baden-Württemberg state (BW state) in the southwestern part of Germany is an area active in R&D and holds the largest number of patents in Germany. The Chamber of Commerce in Stuttgart, the capital of BW state, actively supports R&D.

First, they distribute "technology innovation coupons" to small and medium-sized enterprises (SMEs) and provide them with information on the kind of technological innovation they could introduce by using the coupon or other information on how they could use. Especially for newly created companies, they prepare more coupons.

They also appoint "technical advisors," who visit companies to advise on using technologies and to introduce state-of-the-art technologies. The first consultation is free and becomes chargeable from the second consultation onwards, and in 2011, first advice alone was given 1,500 times. Close cooperation of industry and academia has become the basis of the state's competitiveness.

Steinbeis Foundation, a private laboratory named after the government official who led the initiative to encourage new industries in BW state in the 19th century, has been actively providing the research results to SMEs and has contributed to the industries in BW state.

Besides this, industrial clusters have contributed to strengthening of regional R&D. Originally, the

114　Hearings with the Federal Ministry of Economics and Technology

healthcare industry was concentrated around the Bodensee, and when the State government set up a research institute at a university, academic–industry partnerships were formed which further promoted R&D. Also, overseas business activities are actively carried out by each cluster, i.e. companies of BW state create a cluster in foreign countries or a whole cluster runs a booth at overseas trade fairs, etc.

Thanks to the results of such efforts in R&D, the royalty income in Germany has increased by 3.40 times compared with that of 10 years ago (Figure 3-4-2-4). During the same period, the royalty income in Japan has increased by 1.65 times, less than that of Germany (Figure 3-4-2-5).

On the other hand, in terms of patent applications, Japan overwhelms Germany by numbers (Figure 3-4-2-6). However, the amount of royalty revenue per patent application has remained at a higher level in Germany, and it can be said that Germany has been conducting highly workable R&D compared with Japan (Figure 3-4-2-7).

Figure 3-4-2-4
Germany's royalty income by region

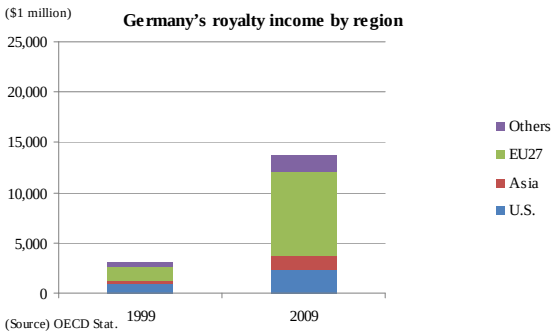


Figure 3-4-2-5
Japan's royalty income by region

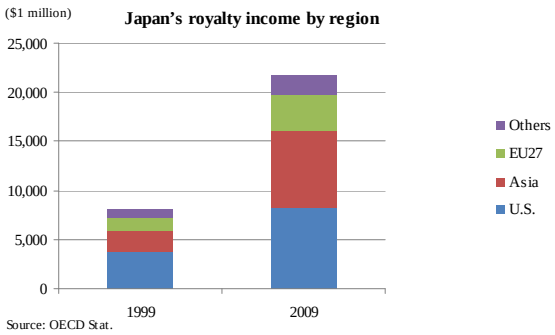
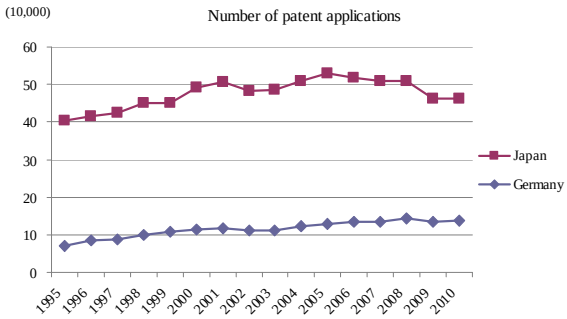


Figure 3-4-2-6

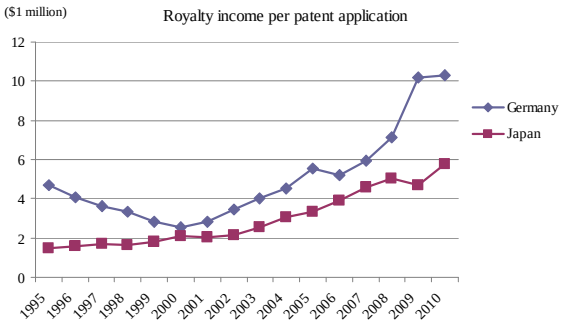
Number of patent applications in Japan and Germany



Source: OECD Stat.

Figure 3-4-2-7

Royalty income per patent application in Japan and Germany

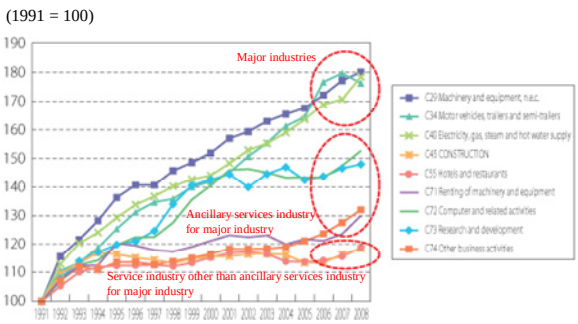


Source: OECD Stat.

Further, the creation of high-value added manufacturing has caused a wage increase in the major industries including machinery manufacturing, transport equipment, and electronic devices. In addition, along with the growth of major industries, wages are increasing in service industries related to manufacturing such as R&D, computers, machinery rental businesses etc. (Figure 3-4-2-8).

Figure 3-4-2-8

Germany's wage growth rate by industry

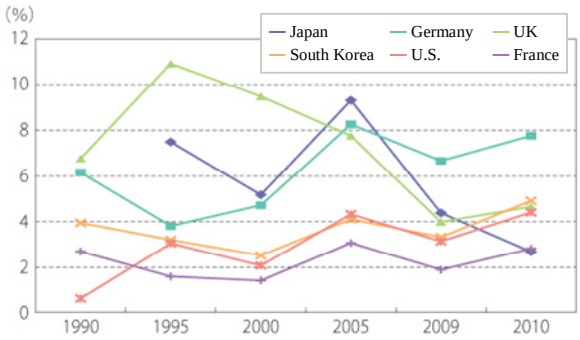


Source: OECD Stat.

Owing to such efforts, the rate of return on inward direct investment in Germany remains at the highest level in developed countries, which has created a lucrative market (Figure 3-4-2-9).

Figure 3-4-2-9

Rate of inward foreign direct investment returns in major countries



Source: *International Comparative Statistics* (Institute for International Trade and Investment).

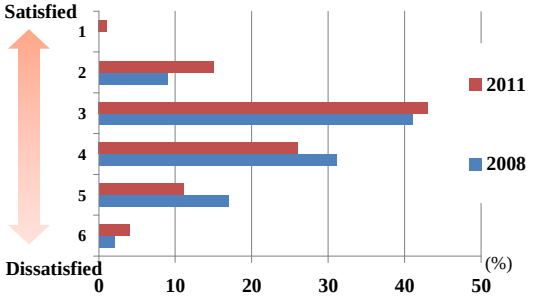
(4) Implications for Japan

Now, let us clarify which of Germany's efforts can be a useful reference for Japan. It is understood that Germany has improved both the export competitiveness and locational competitiveness through the following three efforts, (A) Improvement of export environment (avoidance of exchange rate fluctuation and elimination of tariff and non-tariff barriers by strengthening economic partnership), (B) Reduction of business operating costs (reduction of corporate tax and easing of employment restriction), and (C) Strengthening of the source of competitiveness (promotion of R&D and accumulation of mid-sized enterprises). The people's satisfaction with the German government's policy to strengthen locational competitiveness has also improved within the country (Figure 3-4-2-10).

According to the survey on what is expected of the government measures to strengthen locational competitiveness, not many answered "exchange rate fluctuation" as an important measure, while it is a big issue in Japan at the moment, and it seems that the problem Japan is currently facing has already been solved in Germany (Figure 3-4-2-11).

Figure 3-4-2-10

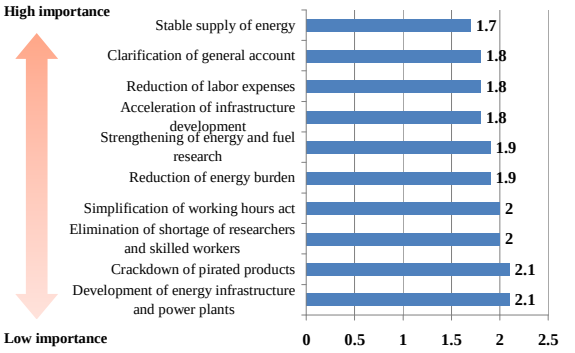
Satisfaction with Germany's policy for strengthening locational competitiveness



Source: Survey conducted by the German Association of Chambers of Commerce and Industry.
Note: The lower the number, the higher the importance.

Figure 3-4-2-11

Measures expected from the government for strengthening locational competitiveness



Note: The lower the number, the higher the importance.
Source: Survey conducted by the German Chambers of Commerce and Industry.

3. South Korea's initiatives

South Korea was under pressure to carry out large-scale domestic structural reform in the wake of the Asian currency crisis in 1997 and 1998. In addition, the South Korean economy, being highly dependent on trade, was hit hard as the volume of global trade significantly reduced in 2008 due to the world economic crisis, and South Korea was urged to further promote domestic structural reform.

The South Korean government has implemented various reforms each time it faced such a crisis and has been committed to improving the domestic business environment. Also, the South Korean government has been working on the sophistication of domestic industry and on the development of new industries in order to enhance the locational attractiveness of South Korea.

We examine South Korea's short-, mid- and long-term policy designed to contribute towards enhancement of locational competitiveness in more depth below.

(1) Improvement of domestic business environment

As a result of various reforms implemented by the South Korean government, the valuation of the business environment of South Korea has dramatically improved. Looking at the "Doing Business," the annual report of the World Bank that rates the world business environment of 183 countries, South Korea's overall ranking in 2008 was only No. 30, but it raised the ranking every year to No. 23 in 2009, No. 19 in 2010, and No. 16 in 2011, then ranked No. 8 in 2012, entering the top ten for the first time (Figure 3-4-3-1, Figure 3-4-3-2). Now it is highly ranked -No. 6 in OECD member countries and No. 3 in East Asian countries after Singapore and Hong Kong.

Here, we examine the series of reforms that have been implemented by the South Korean government in the domestic business environment; tax reform, building an FTA network, and promotion of entrepreneurship.

Figure 3-4-3-1

Comparison of business environment of Asian countries/regions

	Japan	South Korea	China	Taiwan	(Germany)
Overall ranking (2011)	20 (20)	8 (16)	91 (87)	25 (24)	19 (19)
Entrepreneurship procedure	107	24	151	16	98
Building permission	63	26	179	87	15
Power supply	26	11	115	3	2
Real-estate registration	58	71	40	33	77
Financing	24	8	67	67	24
Protection of investors	17	79	97	79	97
Procedure for tax payment	120	38	122	71	89
Customs clearance procedure	16	4	60	23	12
Contract enforcement	34	2	16	88	8
Bankruptcy procedures	1	13	75	14	36

Note: Yellow column shows the items for which South Korea was ranked highest among Japan, China, Taiwan, and South Korea. Orange column shows the items for which a country/region other than South Korea was ranked highest.

Source: *Doing Business* (World Bank).

Figure 3-4-3-2

Overall ranking for South Korea's business environment

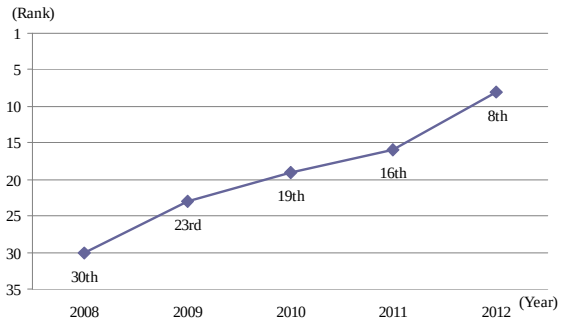


Figure 3-4-3-3

Tax system revision for corporate tax rates

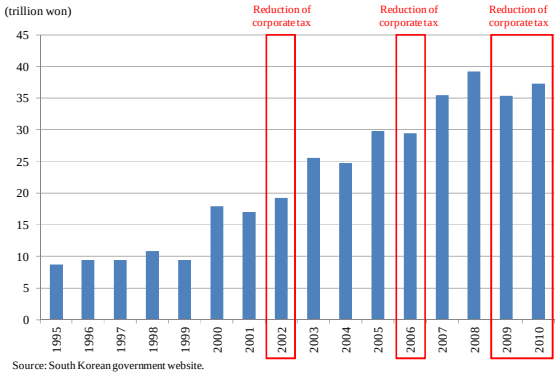
(A) 2002	• Reduced the corporate tax rate from 28% to 27%
(B) 2006	• Reduced the corporate tax rate from 27% to 25%
(C) 2009	• Raised the taxable base of the lowest tax rate from W100 million to W200 million • Reduced the corporate tax rate for a taxable base of more than W200 million from 25% to 22%
(D) 2010	• Reduced the corporate tax rate for a taxable base of less than W200 million from 11% to 10%
(E) 2012	• Reduced the tax rate for a taxable base between W200 million and W20 billion from 22% to 20%

	Taxable base of less than W200 million	Taxable base between W200 million and W20 billion	Taxable base exceeding W500 million
Corporate tax	10% of taxable base (*Reduced from 11% in 2010)	Until 2011: 22% of taxable base After 2012: 20% of taxable base	22% of taxable base (*Reduced from 25% in 2009)
Corporate inhabitant tax	10% of corporate tax	10% of corporate tax	10% of corporate tax
Total	11% of taxable base	Until 2011: 24.2% of taxable base After 2012: 22% of taxable base	24.2% of taxable base

Source: South Korean government website.

Figure 3-4-3-4

South Korea's corporate tax revenue and taxation system reform



Source: South Korean government website.

(A) Tax reform

First, we examine the tax reform implemented by South Korea through the 2000s. South Korea has gradually reduced the corporate tax rate, from 28% to 27% in 2002 and from 27% to 25% in 2006. In the wake of the world economic crisis in 2008, the trend of tax rate cut has accelerated and in 2009, they raised the taxable base[115] for the lowest tax rate from W100 million to W200 million[116], and lowered the highest tax rate from 25% to 22%, then in 2010, lowered the lowest tax rate from 11% to 10%. They plan to lower the tax rate for the taxable base between W200 million and W20 billion from 22% to 20% in 2012 (Figure 3-4-3-3).

115 Taxable base = Income for each business year – (Loss brought forward + Tax-free income + Amount of income tax deductions)

116 In the 2009 tax reform, the taxable base for the category of SMEs and large companies was raised to W200 million.

Despite such corporate tax rate cuts that took place multiple times, the corporate tax revenue has maintained an upward trend throughout the 2000s in South Korea against the background of an increased number of companies, etc., except in 2009, when the impact of the world economic crisis was felt (Figure 3-4-3-4).

(B) Building an FTA network

As described in the previous section, South Korea has encouraged companies' overseas business activities through the building of a FTA network, which is expected not only to promote export and import but also to serve as a spur to attract investment from foreign companies.

For example, according to the estimate given by the South Korean government and others, inward direct investment will increase by an average of $2.3 billion to $3.2 billion per year in 10 years after the U.S.–South Korea FTA goes into effect, which is about 20% increase from the 2011 result ($13.669 billion).

Recently, there are cases where companies that have their production base in China are returning to South Korea because of rising labor costs in China. According to the survey conducted by the Ministry of Knowledge Economy (MKE) and KOTRA in February 2012, 27 companies (6.8%) among 400 South Korean small and medium enterprises that had advanced into China responded that they are prepared to transfer their production facilities to South Korea.

(C) Promotion of entrepreneurship

To revitalize domestic industry, the entry of companies with new ideas and new technology is critical. South Korea has established the "Act on Special Measures concerning Fostering of Venture Companies" and is making efforts to foster venture companies. If a company meets any of the four criteria prescribed in the Act, as shown in the Figure 3-4-3-5, it will be designated as a venture company, and the government supports their businesses by providing various assistance measures.

Figure 3-4-3-5
Definition of a venture company in South Korea

Venture capital investment-intensive company	Company with total investment of more than 20% from the venture capital within South Korea, such as a business initiation investment company, new technology business financing company, or venture investment partnership in South Korea.
R&D-intensive company	Company with R&D expenditure of more than 5% of annual sales
Patent and new technology-oriented company	Company with sales (export value) of patent right, utility model right, and/or strategic technology development program accounting for 50% (25%) or more of total sales
Venture company with excellent evaluation	Company evaluated for excellent technology or commercializing ability by venture company rating agencies

Source: *Current status of South Korean economy and South Korean venture companies II* (Tetsuro Takahashi).

Based on the above definition, let us check the general conditions of a venture company. First, there are about 26,000 venture companies as of June 2011, about three quarters of which are in the manufacturing industry (Figure 3-4-3-6).

Figure 3-4-3-6

Distribution of number of venture companies by industry

	Number of companies	Composition ratio
Manufacturing	19,638	74.6%
Data processing (e.g., software)	3,537	13.4%
R&D service	311	1.2%
Construction/transport	414	1.6%
Wholesale/Retail	412	1.6%
Agriculture, forestry, and fisheries	65	0.2%
Others	1,936	7.4%
Total	26,313	100.0%

Source: *SME-related statistics* (Small and Medium Business Administration of South Korea).

Next, looking at the trends in export values of venture companies, they have consistently continued to increase after 2002 except 2009, and have grown to account for 3% to 3.5% of total export, and 10% of total export of SMEs (Figure 3-4-3-7).

Lastly, looking at the situation of venture companies' overseas business activities, about 850 companies, which is slightly more than 3% of total venture companies, are engaged in outward direct investment or export or both, half of which are engaged in outward direct investment (Figure 3-4-3-8).

Figure 3-4-3-7

Exports by venture companies

(Unit: $1 million)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	162,471	193,817	253,845	284,419	325,465	371,489	422,007	363,534	466,384
Large companies	94,053	112,015	163,195	192,056	220,967	257,712	291,290	245,918	312,108
SMEs	68,308	81,699	90,385	92,128	104,153	113,546	130,524	117,305	153,936
Venture companies	5,961	7,079	9,017	10,325	10,976	12,024	13,295	11,649	15,859
Venture/Whole companies	3.7%	3.7%	3.6%	3.6%	3.4%	3.2%	3.2%	3.2%	3.4%
Venture/SMEs	8.7%	8.7%	10.0%	11.2%	10.5%	10.6%	10.2%	9.9%	10.3%

Source: *SME-related statistics* (Small and Medium Business Administration of South Korea).

Figure 3-4-3-8

Overseas' development activities of venture companies

		2008	2009
Outward direct investment	Number of companies (companies)	96	126
	Ratio (%)	12.3%	15.0%
Outward direct investment + export	Number of companies (companies)	206	234
	Ratio (%)	27.0%	27.8%
Export	Number of companies (companies)	461	482
	Ratio (%)	60.4%	57.2%
Total	Number of companies (companies)	763	842
	Ratio (%)	100%	100%

Source: *SME-related statistics* (Small and Medium Business Administration of South Korea).

So far we have seen the current state of venture companies in South Korea. From here, we look at the efforts of the South Korean government that contributed to the development of venture companies, and the streamlining of administrative procedures that was carried out as part of the improvement to the entrepreneurial environment.

(a) Measures to foster venture companies in South Korea

Based on the "Second-phase measures for fostering venture companies" announced in 2009, the Small and Medium Business Administration has been promoting its effort aiming to develop 30,000 venture companies including 10,000 new venture companies and to create 200,000 jobs by 2012. It maintains policies of utilization of green technology, establishment of venture finance focusing on investment, the development of entrepreneurship vitalization activities, support for comeback of entrepreneurs, and broadening of the base for venture business startups. Concrete measures are as follows (Figure 3-4-3-9).

Figure 3-4-3-9
Outline of South Korea's second-phase measures for fostering venture companies

Policies and measures	Concrete measures
Application of green technology	Selection of promising areas (Solar energy generation, wind-power generation, bioenergy, LED, heat pump, green IT, energy recovery from waste, recycling of waste)
	Identifying and nurturing 1,000 venture companies specializing in green technology
	Support for R&D expenses
Establishment of venture finance focusing on investment	Establishment of venture fund of a total W3.5 trillion (by 2012)
	Relaxation of the restrictions on the venture fund investment by institutional investors
	Expansion of favorable tax climate for vitalizing M&A of venture companies
Development of entrepreneurship vitalization activities and support for comeback of entrepreneur	Enhancement of promotional activities to foster entrepreneurship
	Introduction of best practices
	Enhancement of entrepreneurship education in schools
	Establishment of new fund of about W20 billion to support the re-challenge of entrepreneurs who have failed in business
Broadening of the base for venture business start-ups	Relaxation of regulation, for example, designate a company as a SME even if 30% or more of its shares are held by a large company, as long as it is not the biggest shareholder
	Place professional entrepreneurs in job assistance centers in 69 universities nationwide.

Source: *Tsusho-Koho, December 8, 2009* (JETRO).

(b) Procedural efficiency for venture business startup

South Korea is also making efforts to enhance the efficiency of procedures necessary to establish a business to encourage entrepreneurship. In "Doing Business" of 2012, South Korea ranked higher from the previous year in 6 out of 10 evaluation items; especially in the items related to entrepreneurial business, "simplified online procedures" was highly rated and sharply raised its rating to No. 24 from the previous year's No. 60.

In February 2011, the South Korean government built an online home-startup system called "Start-biz," with which people can go through the procedures of establishing a venture business

through the Internet at home. Previously, in order to start a venture business in South Korea, people had to visit seven places, that is, a seal shop, bank, municipal office, register office, tax office, insurance organization, and labor office, but after this system was introduced, people can apply at home and no longer need to visit the five places other than the seal shop and labor office. Consequently, according to "Doing Business (2012)," the time required for starting venture business was cut in half, from 14 days to 7 days.

(2) Sophistication of domestic industry

To this point, we have seen the short- and mid-term efforts of South Korea towards strengthening locational competitiveness. These efforts are thought to have made a substantial contribution to the improvement of the domestic business environment in South Korea, but in order to continuously strengthen the competitiveness of industry and to secure employment, sophistication of domestic industry is essential. Below, we'll see the efforts towards industrial sophistication and the measures to foster new industries of South Korea.

(A) Efforts of South Korea to strengthen the parts / primary materials industry

While South Korean products such as Samsung TVs or Hyundai cars have dominated the world market, it has been pointed out that the parts/primary materials industry of South Korea has not grown enough. There is a growing awareness in South Korea that the technical capabilities of the parts / primary materials industry are important factors that affect the industrial competitiveness of the whole country, and the government is actively involved in fostering the domestic parts / primary materials industry. Let us introduce the industrial complex exclusively for parts / primary materials in South Korea below.

(a) Industrial complex exclusively for parts / primary materials

In the Japan–South Korea summit meeting held in April 2008, President Lee Myung-bak of South Korea brought up the idea of building a complex exclusively for parts / materials aiming to promote Japan's investment in South Korea in the field of parts / primary materials and to reinforce the strategic partnership between Japan and South Korea. In response, the South Korean government formed a task force tasked with envisioning a complex exclusively for parts / materials, consisting of the Ministry of Knowledge Economy, local governments, KOTRA, and other parties and has been actively engaged in investment support activities in the field of parts / primary materials.

Currently, there are complexes exclusively for parts / materials set up in four areas in South Korea, that is, Gumi City and Pohang City in Gyeongsangbuk-do, Iksan City in Jeollabuk-do, and in Busan, Jinhae Free Economic Zone. Each complex has different industrial clusters and each of them has their own strength, such as Gumi Industrial Complex in electronics and liquid crystal, Pohang Industrial Complex in steel and materials, Iksan Industrial Complex in automobiles, machinery, and science, and Busan, Jinhae Free Economic Zone in auto parts and shipbuilding materials. Adjacent to each complex, there are leading South Korean companies, such as Samsung and POSCO, which is an important factor to encourage foreign companies to move into the complex because of the potential business transactions with large companies (Figure 3-4-3-10).

Figure 3-4-3-10

Outline of industrial complexes exclusively for parts/primary materials

	Overview of the location and industrial category	Target companies to attract
Gumi Industrial Complex	• Area of industrial complex exclusive for parts/primary materials: 255,469 m^2 (Planned to expand further by adding 660,000 m^2) • Target companies to attract: Display, mobile, electronic component, etc.	• Ishizaki Press Industrial Co., Ltd. • Takahashi Techno and others
Pohang Industrial Complex	• Area of industrial complex exclusive for parts/primary materials: 330,000 m^2 • Target companies to attract: Steel, shipbuilding parts/primary materials, etc.	• Ibiden Co., Ltd. • Tokai Carbon Co., Ltd. and others
Busan, Jinhae Free Economic Zone	• Area of industrial complex exclusive for parts/primary materials: 430,000 m^2 • Target companies to attract: Auto parts, shipbuilding materials, etc.	• Tsubakimoto Chain Co. and others
Iksan Industrial Complex	• Area of industrial complex exclusive for parts/primary materials: 330,000 m^2 • Target companies to attract: Automobile, machinery and equipment, electronics, chemicals, etc.	• Yasunaga Corporation and others

Source: KOTRA website, press releases of media companies.

A company that has foreign invested shares of 30% or more and falls into the business classifications set by each industrial complex is eligible to do business in an industrial complex exclusively for parts / primary materials. The main points of the preferential treatment and the requirements for receiving preferential treatment are as follows (Figure 3-4-3-11, Figure 3-4-3-12). A generous support package is provided, such as tax exemption (corporate tax and income tax are exempted 100% for three years after moving in and 50% for the next two years) and 100% rental fee exemption, as well as recruitment subsidies, training subsidies, etc.

Figure 3-4-3-11

Measures for supporting industrial complexes exclusively for parts / primary materials (support of tax reduction or exemption)

	Requirements	Contents
Tax exemption	Manufacturing: Investment of more than $10 million	Exemption of corporate tax and income tax: for 5 years (100% for 3 years, 50% for 2 years)
	Logistics: Investment of more than $5 million	Exemption of local tax: 100% for 8 to 15 years
Rental fee exemption	Project associated with high technology with investment of more than $1 million	100% exemption
	Manufacturing with investment of more than $5 million	

Source: Websites of industrial complexes exclusive for parts/primary materials in South Korea.

Figure 3-4-3-12

Measures for supporting industrial complexes exclusively for parts / primary materials (cash support)

Support items	Requirements	Contents of support
Expense for purchasing land for plant and research facilities	Foreign invested shares of 30% or more and in the following circumstances	Support of more than 5% of total investment (FDI) after negotiation and after going through the deliberation by the Foreign Investment Committee (the cap is decided by each local government.)
Expense for construction of plant and research facilities	Establishment or extension of plant facilities for a project that requires sophisticated technologies or for the management of industrial support service business with the investment of over $10 million	
Expense for purchasing capital goods/facilities and equipment to be used in the plant/research facilities	Establishment or extension of plant facilities for the production of parts/primary materials that have a technical and industrial ramification and create high added value with investment of over $10 million	
Basic facility installation expenses to build new plant or research centers such as telecommunications facilities	Establishment or extension of plant facilities of manufacturer with more than 300 full-time employees with investment of over $10 million	
	Establishment or extension of research facilities hiring 10 or more researchers with a master's degree and more than 3-year experience	
	When approved by the Foreign Investment Committee as necessary	
Recruitment subsidies	Employ 20 or more new South Korean workers for more than 6 months	For each excess employee, up to W1 million within the 6-month period
Subsidies for training and educational facilities	After hiring 20 or more new South Korean workers, provide training *For the case of R&D, hiring of 10 or more workers.	For each trainee, up to W1 million within the 6-month period
Facility subsidies	Establishment or extension of plant facilities of more than W5 billion	For each company, up to W200 million or 2% of the cost of facilities that exceed W5 billion

Source: Websites of industrial complexes exclusive for parts/primary materials in South Korea.

(b) Case of Japanese companies' entry

Let's look at the cases where Japanese parts / primary materials companies actually advanced into South Korea.

(Company A)

Company A established a joint venture company in South Korea in the 1960s and has a long history of business in South Korea. Currently, it maintains a wholly owned subsidiary and has been developing business in South Korea.

In 2011, it decided to build a new plant in Gumi City in Gyeongsangbuk-do (about ¥5 billion). It planned to start construction in early 2011 and start operation in 2013. Further, it planned to sign an Investment Memorandum of Understanding with Gyeongsangbuk-do and others in June 2011, and to invest W1.3 trillion (about ¥104 billion) for 10 years starting from 2013 in the construction of a primary material production plant in Gumi Industrial Complex.

According to Company A, the business opportunity with large users that are engaged in global

business like Samsung, LG, and Hyundai, is a big attraction for locating in South Korea, and, even if the demand in South Korea is decreased, they can expect that their offices in South Korea will function as their export base to use the FTA network of South Korea, including the EU–South Korea FTA and the U.S.–South Korea FTA. By advancing global operation under the Tetrapolar Global Production Structure consisting of Japan, France, the United States, and South Korea, Company A intends to capture a growing market and further expand its business in the future.

(Company B)

In May 2011, Company B decided to set up new manufacturing facilities for the next generation touch sensor panel in South Korea, and started construction. As the first phase, they planned to invest about ¥19 billion and start mass production from the first quarter of 2012. The company targeted annual sales of ¥15 billion in the first year.

All of the products will be supplied to Samsung Group who, in turn, will secure a stable supply of highly functional touch panels intending to differentiate itself from other companies' products such as smartphones.

(c) Trends of exports and imports of the South Korean parts/primary materials industry

The outcome of such efforts by the South Korean government toward fostering the parts/primary materials industry is shown in some indicators. Looking at the trends in export value of the parts / primary materials industry in South Korea, it has been steadily increasing its share in total export; $79.9 billion in 2000 that accounted for 46.4% of total export, $148.7 billion in 2006 (45.7% of total), and $229 billion in 2010 (49.1% of total) (Figure 3-4-3-13). In contrast, looking at the share of the import value of the parts / primary materials industry in total import value, we can see that its share has been decreasing: 44.0% in 2000, 36.8% in 2006, and 35.6% in 2010. The trade balance of the parts/primary materials industry has turned a profit far exceeding the amount of the entire trade balance ($16.1 billion in 2006, $41.2 billion in 2010): $9.3 billion surplus in 2000, $34.7 billion surplus in 2006, and $77.9 billion surplus in 2010.

Figure 3-4-3-13

Exports and imports by the parts/primary materials industry

(Unit: $100 million)

		2000	2004	2006	2008	2010
Export	Whole industry	1,723	2,538	3,255	4,220	4,664
	Parts/primary materials	799	1,079	1,487	1,835	2,290
	Proportion (%)	46.4	42.5	45.7	43.5	49.1
Import	Whole industry	1,605	2,245	3,094	4,353	4,252
	Parts/primary materials	706	927	1,140	1,488	1,512
	Proportion (%)	44	41.3	36.8	34.2	36
Trade balance	Whole industry	118	294	161	-133	412
	Parts/primary materials	93	152	347	348	779
	Proportion (%)	79.3	51.8	216	-	189.1

Source: *Competitiveness of South Korean parts/primary materials industry and policy issues* (Kim, Bong Gil).

Let's focus on electric machinery, which is the main export sector in South Korea, in the parts / primary materials industry. If we compare the share of import value of intermediary goods for electric machinery into each country from Japan and South Korea in both 2000 and 2010, Japan retained a greater share than South Korea in almost all countries, and held 15.2% share of the total world market

in 2000. But in 2010, South Korea captured a larger share than Japan in some emerging countries such as China, Singapore, Mexico, Hungary, Brazil, etc., and South Korea's share of 10.5% is catching up with Japan's share of 10.8% of the world market (Figure 3-4-3-14).

However, just from the figures of the above-mentioned export of intermediary goods, we cannot conclude that South Korea has acquired international competitiveness in its parts / primary materials industry. One point to keep in mind is that the above-mentioned outcome possibly came from the difference in the parts procurement strategies of both countries, not because of the difference of capacity to supply parts between Japanese and South Korean companies. That is to say, while more and more Japanese companies procure parts from their own plant overseas or in a third country, it is likely that South Korean companies procure much more parts from their home country than Japan.

The second point to keep in mind is that South Korea is dependent on imports from Japan in the procurement of core parts. It seems that they use core parts imported from Japan for the intermediary goods of electric machinery, which will be exported from South Korea, but it is not clear how much value they can add within South Korea before they export them.

As seen from the above, there are some points we should keep in mind, but it is true that South Korea has increased its export share of intermediary goods of electric machinery in a wide range of countries and regions. Japan cannot afford to be idle in such a situation.

Figure 3-4-3-14

Exports of electric machinery / intermediary goods (left: 2000, right: 2010)

→ Japan has higher share

Destination country/region	Share of exporting country	Trade volume share	
		South Korea	Japan
World total	100.0	5.6%	15.2%
EU15	23.8	2.7%	9.3%
U.S.	16.1	8.8%	18.8%
Singapore	6.7	5.7%	19.4%
Hong Kong	6.4	6.6%	19.6%
Japan	5.4	10.4%	X
Mexico	5.4	3.2%	4.3%
China	5.3	12.9%	30.7%
Malaysia	5.2	5.4%	21.0%
Taiwan	4.9	9.0%	25.2%
South Korea	4.4	X	28.9%
Canada	3.4	3.0%	7.9%
Countries/regions other than above	3.1	2.7%	5.6%
Thailand	2.0	5.0%	29.3%
Philippines	1.8	8.9%	17.2%
Brazil	1.0	7.6%	15.0%
Hungary	0.7	2.2%	15.0%
Czech + Slovakia	0.7	0.3%	4.2%
Australia	0.6	2.8%	14.5%
Poland	0.4	2.5%	4.4%
Turkey	0.4	2.5%	3.0%
India	0.3	6.3%	10.1%
Argentina	0.2	5.8%	11.0%
Romania	0.2	0.9%	4.8%
Vietnam	0.2	5.4%	58.8%
Indonesia	0.1	4.4%	26.0%
Russia	0.1	2.2%	3.6%
Chile	0.1	2.9%	4.1%

Source: *RIETI-TID2011* (RIETI).

→ South Korea has higher share

Destination country/region	Share of exporting country	Trade volume share		
		Germany	South Korea	Japan
World total	100.0	6.6%	10.5%	10.8%
EU15	18.1	13.6%	3.5%	4.8%
China	17.1	3.4%	23.8%	19.1%
Hong Kong	11.5	0.8%	7.1%	9.7%
U.S.	7.5	4.8%	5.4%	11.7%
Singapore	6.4	2.7%	14.8%	8.7%
Taiwan	4.2	1.6%	14.2%	22.9%
Japan	4.2	2.3%	11.0%	X
Malaysia	4.1	6.6%	9.7%	12.9%
South Korea	4.0	3.0%	X	16.6%
Countries/regions other than above	3.8	14.1%	3.3%	3.1%
Mexico	3.8	2.7%	15.4%	9.4%
Czech + Slovakia	2.1	20.0%	11.8%	5.0%
Thailand	1.9	2.6%	6.8%	32.4%
Philippines	1.5	3.3%	11.4%	12.7%
Canada	1.4	3.1%	5.6%	5.6%
Hungary	1.2	32.6%	13.5%	5.8%
Brazil	1.1	5.9%	15.3%	6.5%
Poland	1.1	13.7%	17.1%	3.8%
Indonesia	0.9	3.7%	7.7%	18.4%
Russia	0.7	12.8%	10.0%	4.0%
India	0.6	10.7%	8.7%	6.8%
Australia	0.5	6.3%	5.0%	8.9%
Romania	0.4	33.2%	0.4%	1.3%
Turkey	0.4	17.1%	2.7%	4.0%
Vietnam	0.3	1.9%	6.5%	28.9%
Argentina	0.2	12.4%	6.8%	2.3%
Chile	0.1	6.3%	4.6%	2.2%

Note: Figures/shares for Vietnam are of 2008.
Source: *RIETI-TID2011* (RIETI).

(B) Attraction of foreign companies

In an effort to increase the sophistication of the domestic industry, the South Korean government is actively promoting its activities to attract foreign businesses. Here we examine the efforts by KOTRA and the Free Economic Zone.

(a) Efforts by KOTRA

KOTRA, which we mentioned in the previous section, has been working actively to attract foreign companies by internally forming an organization called “Invest Korea,” an organization dedicated to help foreign companies expand their businesses to South Korea and their business activities.

The South Korean government has set a target amount for inward direct investment to KOTRA, which uses a target quota, allocating capital to 42 business centers out of 119 business centers in the world. The quota performance is partly reflected in the staff’s wages, which encourages competition among them.

As a strategy to attract foreign companies, KOTRA is working to match foreign companies with large South Korean companies to help them work on joint projects. By doing so, investment by large companies into South Korea will increase and will pave the way to create new industries within the country. If large South Korean companies are engaged in a project, there is another merit for foreign companies advancing into South Korea to secure the opportunity to supply goods.

Here, let us discuss the Investment Ombudsman, a distinctive example of KOTRA’s measures to support business activities of foreign companies. The Investment Ombudsman is an organization formed within KOTRA in 1989 to help foreign companies overcome any obstacles that foreign investment companies experience in carrying out business, from consultation regarding deregulation or investment incentives to arbitration of labor disputes with the government when a labor dispute has arisen. The “Complaint handling team for foreign companies,” which is a body handling grievances from foreign companies, sends “Home Doctors”, consisting of experts in various fields, to provide one-to-one service and support, until the issue is resolved.

It also raises major issues for discussion with regard to the basic policy of foreign investment and investment incentive systems with the “Foreign Investment Committee,” the supreme organ of the state regarding foreign investment, and if there is a project that requires coordination among government ministries, it requests arbitration between the relevant ministries and helps foreign companies solve the complaint.

(b) Free Economic Zone

Next, we examine the Free Economic Zones that are the basis for attracting foreign companies. The Free Economic Zones are special areas developed to improve the business environment, such as a high-tech industrial complex and adjacent land, to support business activities of foreign companies in the manufacturing, logistics, and tourism industries, as well as to improve the living environment of foreigners. The “Act for Designation and operation of Free Economic Zones,” provides various incentives including permission of establishment and operation of foreign educational institutions and hospitals, foreign language service, foreign currencies, and foreign broadcasting, as well as reduction or exemption of tax, monetary assistance, etc. (Figure 3-4-3-15, Figure 3-4-3-16).

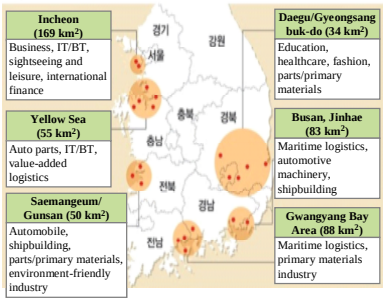
Three areas, Incheon, Busan/Jinhae, and Gwangyang Bay Area, were designated as Free Economic

Zones in 2003, and three other areas, Yellow Sea, Daegu/Gyeongsangbuk-do, and Saemangeum/Gunsan, were added in 2008.

The South Korean government has a policy to promote development of these zones by sharing roles; Incheon as a finance/logistics/international business center centering around the international airport; Busan/Jinhae and Gwangyang Bay Area as an area to be developed as the port logistics/industrial complex rivaling Shanghai, and also as a center of international business combined with multiple hubs, such the distribution hub of North East Asia, international business complexes, educational institutions, residential complexes, and sightseeing and leisure hubs. Further, they are promoting industrial development by specializing in business categories to attract particular companies, such as Yellow Sea for manufacturing (Automobile, IT, BT), value-added logistics and biotechnology; Daegu/Gyeongsangbuk-do for service (education, medical services, fashion); and Saemangeum/Gunsan for manufacturing (automobile, shipbuilding, aviation) and environment-friendly industry.

Figure 3-4-3-15

Location and outline of South Korea's economic free zones



Category		Kyonggi/Chungnam	Daegu/Gyeongbuk	Jeonbuk	Incheon	Busan/Gyeongnam	Jeonnam/Gyeongnam
Name		Yellow Sea	Knowledge creating industry	Saemangeum/Gunsan	Incheon	Busan/Jinhae	Gwangyang Bay Area
Location		Chungnam (Dangjin/Asan/Seosan) Kyonggi (Pyeongtaek/Hwaseong)	Daegu/Gyeongbuk (Gyeongsan/ Yeongcheon/Gumi/ Pohang)	Jeonbuk (Gunsan/Buan)	Incheon (Yeonsu-gu/ Jung-gu/Seo-gu)	Busan (Gangseo-gu) Gyeongnam (Jinhae City)	Jeonnam (Yeosu/Sunchon/ Gwangyang) Gyeongnam (Hadong County)
Area		55.051 km²	39.546 km²	66.986 km²	209.4 km²	104.8 km²	90.48 km²
Airports/Seaports		Pyeongtaek/Dangjin ports	Daegu International Airport	Gunsan/Gun-Jang New port	Incheon International Airport/Port	Gimhae International Airport/ Busan New Port	Gwangyang Port
Time of development completion		2025	2020	2030	2020	2020	2020
Financial resources		W7,445.8 billion	W4,607.8 billion	W5,301.7 billion	W26,593.0 billion	W8,440.6 billion	W13,547.3 billion
Fund procurement	Central government	475 (0.6%)	5,210 (11%)	4,529 (8.5%)	16,775 (6%)	21,901 (26%)	56,030 (42%)
	Local government	4,779 (6.4%)	11,656 (26%)	4,790 (9.0%)	70,600 (27%)	27,695 (33%)	38,365 (28%)
	Private sector /Foreign investment	69,204 (93.0%)	29,212 (63%)	43,698 (82.5%)	178,555 (67%)	34,810 (41%)	41,078 (30%)
Basic concept		• Manufacturing (Automobile, IT, BT) • Value-added logistics • Biotechnology	• Service (Education, healthcare, fashion) • Manufacturing (IT, parts/primary materials)	• Manufacturing (Automobile, aviation, shipbuilding) • Environment-friendly industry • Tourism and leisure industry for China	• International business and logistics hub • Cutting-edge indstries such as IT and BT • Tourism and leisure	• International business and logistics hub • State-of-the-art parts /primary materials and R&D • Tourism and leisure	• Production base of international logistics • Fine chemicals and new materials • Tourism and leisure

Source: *Invest Korea* (Ministry of Knowledge Economy).

Figure 3-4-3-16

Incentives for economic free zones

Category	Tax classification		Exemption period/ exemption rate	Requirements for corporate tax exemption
Foreign investment companies moving into the Free Economic Zone	National tax	Corporate tax	• 5 years: 100% • 2 years: 50%	• Manufacturing: $30 million • Tourism: $20 million • Logistics: $10 million • R&D: $2 million
		Corporate income tax	• 3 years: 100% • 2 years: 50%	• Manufacturing: $10 million • Tourism: $10 million • Logistics: $5 million • Medical institution: $5 million • R&D: $1 million
		Customs duty	• Exemption for 5 years from the date of import declaration	• Imported capital goods
	Local tax	Acquisition tax	• 15 years: 100%	• Manufacturing: $10 million • Tourism: $10 million • Logistics: $5 million • Medical institution: $5 million • R&D: $1 million
		Property tax	• 15 years: 100%	
Builder of development project in the Free Economic Zone	National tax	Corporate tax Corporate income tax	• 3 years: 100% • 2 years: 50%	• More than $30 million of foreign investment, or foreign investment rate of 50% and total project cost of $500 million or more
		Customs duty	• Exemption for 5 years from the date of import declaration	• Imported capital goods
	Local tax	Acquisition tax	• 15 years: 100%	• More than $30 million of foreign investment, or foreign investment rate of 50% and total project cost of $500 million or more
		Property tax	• 15 years: 100%	
Financial support	Exemption of burden on the builder of the development project such as farmland development expenses Government support for basic facilities Rental fee exemption for foreign investment company (up to 100%), etc.			
Improvement of business environment for foreign investment companies	Exempted from restrictions of various acts such as aggregate constraint on the number of factories to suppress overcrowded metropolitan area No obligation to hire people who contributed to the country or people with disabilities Unpaid monthly leave, expansion of business categories for dispatched workers, and extension of period			
Improvement of business environment for foreign companies	Establishment of foreign educational institute (primary, middle, and high schools, colleges, and universities) is permitted Establishment of foreign hospital is permitted (South Koreans can receive treatment) Foreign-language service of public offices, retransmission of foreign broadcasts, etc.			
Simplification of administrative procedures	Upon approval of the project plan, 36 types of permission and authorization are handled in a package Each Free Economic Zone Authority provides one-stop service			

Source: Invest Korea.

(C) Measures to promote new industry

Measures to promote new industry, among others, are being addressed with the longest-term perspective towards strengthening locational competitiveness. The South Korean government has been intensively working toward the development of new industry and in January 2009 invested W97 trillion (including W7.3 trillion government investment) for 5 years to 17 businesses it had identified as the new engines for growth in the green technology industry, advanced fusion industry, and high-value added service industry. Through this project, they expect that the related industries will increase the annual added value to W700 trillion, the export value will reach $900 billion, and 3.5 million jobs can be created by 2018 (Figure 3-4-3-17).

In 2011, the government announced its policy to implement this project centering on the IT fusion industry and green technology industry, focusing on steady performance of the project. As for the IT fusion industry, they are trying to strengthen competitiveness by developing the system semiconductor

industry in conjunction with the software industry, of which industrial infrastructure is weak. Also, in order to facilitate the launch of new IT fusion products onto the market, they are considering introduction of a fast-track certification system. Fast-track certification is a system with which the certification procedures can be handled collectively when there is no specific law to give certification to new products or when it is inappropriate to apply any existing law.

As for the green technology industry, they are considering enactment of the "Act on Supporting Greenhouse Gas Emission Reduction" to legally support SMEs to reduce greenhouse gas and to expand/commercialize related R&D, in their efforts to strengthen the foundation of the industry.

Figure 3-4-3-17
Outline of the plan to foster the "New Growth Engine"

3 major areas	Green technology industry	Advanced fusion industry	High value-added service industry
Number of issues	79	62	59
Government expenditures	W6.7 trillion (including W3.7 trillion for R&D)	W12.2 trillion (including W8.8 trillion for R&D)	W5.5 trillion (including W1.6 trillion for R&D)
17 new growth engines	New renewable energy Reduction of CO_2 High-tech water treatment LED application Green transport Advanced green city	Broadcasting and communications convergence IT fusion Robot application New materials/Nanotechnology Biotechnology/Medical technology High-value added food products	Healthcare Education service Green finance Contents/Software MICE (Note 1)/Tourism
Government policies	Technology development of high-risk items such as silicon, thin film, solar battery technologies	Enactment of Broadcasting and Communications Basic Law within the year	Introduction of an international certification scheme for medical institutions that conform to international standards to attract foreign patients
	Expansion of the spread of domestic solar cell, domestic production of manufacturing equipment	Consideration for tax assistance to small and medium-sized program providers	Permission of telemedicine between physicians and patients and delivery sales of medical supplies
	Building of bioethanol pilot plant	Formation of investment partnership to activate investment in broadcast contents	Establishment of green fund of about W200 billion
	Certification of green car parts, building of technical support center	Building of Robot Land to create large-scale demand for robots	

Source: Data of JETRO Seoul.

(3) Implications for Japan

So far, we have seen the efforts of South Korea towards strengthening locational competitiveness. South Korea has improved the domestic business environment in a short period of time through tax reform, expansion of the FTA network, and the encouragement of entrepreneurship. It is also working to develop the parts / primary materials industry, which was seen as a weak point for South Korean industry, aiming to enhance the competitiveness of industry as a whole. As a result, one effect has been seen in the export of intermediary goods for electric machinery and, in fact, South Korea has acquired a leading share in the world, close behind Japan. Although South Korean imports of parts / primary materials from Japan have not declined yet, and it cannot be said that the South Korean parts / primary materials industry has sufficiently built an international competitiveness, Japan cannot afford to be idle. Lastly, we can see that South Korea is aiming to improve the potential for growth by focusing on new industry in the long-term.

An implication for Japan is that it is important to improve the domestic business environment by simplifying tax procedures, entrepreneurial procedures, etc., in which Japan scored low on the World

Bank's "Doing Business (2012)" and to correct the high-cost business environment. Also, in order to increase the current image of investment in Japan, not only from within but also from foreign companies, we need to develop an attractive incentive plan that is competitive with other countries. In addition, it is strongly recommended to rebuild differentiated measures, for example, targeting the special zone system to develop new industry or the local industry cluster policy, with the competitive situation of South Korea in mind.

Column 17　Efforts by Daegu Technopolis

In order to take a closer look at the Free Economic Zones, let us introduce the efforts of Daegu Technopolis located in Daegu-Gyeongbuk Free Economic Zone. Daegu Technopolis is an integrated city that provides people with a suitable environment to settle down, with residential, commercial, educational, and cultural facilities centering on research institutes, a university for science, and companies with advanced technologies (Column Figure 17-1).

The target industrial categories they are trying to attract are green energy, automobile, mechatronics, IT fusion compound industry, etc. According to Daegu Technopolis, Daegu Metropolitan City, where Daegu Technopolis is located, is an area that has strength in the field of machinery with a lot of IT professionals; therefore, they are making good use of the regional characteristics, for example in developing the IT-machinery fusion industry.

Incentives, such as tax benefits, rental fee exemptions, cash grants, employment support, support for R&D, etc., are provided to the companies that decide to locate there, and two Japanese companies have already decided to move in (as of February 2012).

Daegu Technopolis has also contributed to the revitalization of the regional economy, and is expected to facilitate technology transfer to the local industry, prompt more active flow of goods, create more jobs in the region, etc. For example, it is said that an Israeli company, Taegu Tec, alone could create 2,000 jobs in the region, according to Daegu Technopolis.

Column Figure 17-1
Development design for Daegu Technopolis

Source: Invest Daegu website.

Column 18　Efforts of Daegu Technopark

As one example of efforts towards sophistication of local industries, let us introduce the Daegu Technopark. Daegu Technopark is an industrial complex established in December 1998, funded by the Ministry of Knowledge Economy (MKE), Daegu Metropolitan City, and three local universities aiming to increase the sophistication of local industries by developing venture companies.

The characteristics of Daegu Technopark are that they provide one-stop assistance for R&D, business incubation, and post business incubation. Also, their strength is that they can customize their support according to the characteristics of local companies.

More specifically, they are making efforts to develop venture companies, likening the whole area to incubation facilities; for example, three local universities set up business incubation facilities on the campus and provide R&D assistance and market development assistance by making full use of the characteristics of each, and, for companies that want to expand their business, they provide offices, etc. in the central part of Daegu City, and for companies that need production facilities, they provide a high-tech industrial complex, and so forth.

At this point, it has come to fruition; in 1999, there were 36 tenants and 209 workers with sales of W4.5 billion, which steadily grew to 186 tenants and 1,894 workers with sales of W201.7 billion in 2011.

Column 19　Efforts of Yeungjin Junior College

Human resource development is essential in providing a platform for the development of new business. Here, we introduce the efforts of Yeungjin Junior College located in Daegu Metropolitan City.

Yeungjin Junior College is characterized by its unique system where it provides “education to order” to train professional engineers upon receiving orders from companies for the curriculum or the number of graduates they will hire. Having business tie-ups with 278 South Korean companies including Samsung and LG, they have a record of placing 4,660 graduates into employment (as of February 2012).

They provide education that matches the needs of each company by classifying the classes such as Samsung Class, Hyundai Class, LG Class, and so on, in accordance with the requests for students. In addition to the engineering course, there are specialized courses for child education, tourism, and service industries.

Also, Yeungjin Junior College has been promoting partnership not only with South Korean companies but also with foreign companies and to this point they have produced 962 international students of education to order for 55 companies of four countries: Japan, China, the United States, and Germany. In Japanese classes, they provide education that meets the needs of Japanese companies, not only professional skills but also education that includes conversation, JPT (Japan version of TOEIC), daily habits, etc.

Further, the college provides technical guidance and support to SMEs in the Daegu area. In the second campus of the college, machines and equipment are in place and the local SMEs can borrow production lines to carry out pilot production. It is also engaged in business incubation activities in

cooperation with Daegu City.

The “education to order” system has formed a “win–win” structure that serves the interests of the college - that wants to differentiate it from other universities, of students - who want to acquire expertise by cutting the time of job hunting, of companies - that want to reduce educational costs and of the local government - that hopes to serve in revitalizing the area.

4. Efforts of the United States

(1) Improvement of trade environment

(A) Trade policy

The U.S. government has made it clear that it will strengthen trade policy as “a measure to enhance domestic competitiveness”[117] and take part in rulemaking of trade and commerce by overcoming its own fears that free trade deprives people of employment opportunities in United States.

In January 2012, they proposed the integration of trade-related governmental organizations and the creation of a new organization that monitors unfair trade practices. They are actively developing trade policies despite the fear of friction with the emerging countries such as China.[118]

(B) Plan to double export

The Obama administration has implemented the “Plan to double export” to double U.S. exports within five years from 2010 to 2014. The feasibility of the plan was questioned at first, but as of April 2012, U.S. exports have been growing at a pace to achieve the goal.[119]

(2) Improvement of domestic business environment

(A) Support of manufacturing industry

The Obama administration has announced its policy to focus on the manufacturing industry in order to create jobs. In his State of the Union address in January 2012, President Obama unveiled massive measures to support the domestic manufacturing industry aiming to increase employment. He expressed his support in the form of tax reduction for the manufacturing industry, especially in expanding tax breaks for domestic production of high-tech products, and providing financial support in the building new plants or in vocational training for manufacturers that are going to move into areas that suffered a serious setback with the withdrawal of plants.

On the other hand, he declared that for the companies that close down their domestic plants and transfer production overseas, the tax breaks relating to such costs will be abolished and they will start imposing tax on foreign subsidiaries’ income, which had been deferred before as their income did not return to the United States. In the past, most such income was allocated to local reinvestment, but, with the introduction of this system, it is expected that the domestic investment will increase.

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117 Economic Report of the President

118 For the circumstances of economic partnership agreements, see “U.S. economy” in Chapter 1, Section 3.

119 For the details of the plan to double export, see *White Paper on International Economy and Trade 2011* and for its progress, see “U.S. economy” in Chapter 1, Section 3 of this paper.

(B) Energy policy

With regard to energy policy, the Obama administration is intending to change the energy structure; for example, the exploration of oil and gas fields was deregulated and subsidies were provided for the promotion of natural gas use while subsidies to the existing oil industry were reduced. The significance of energy saving is also becoming more important in the United States[120], and factories are encouraged to introduce energy-saving equipment, and a target of reducing energy expenditure by $100 billion in the coming 10 years was imposed on the manufacturing industry. Further, the reduction of energy costs is expected by the use of shale gas produced within the United States.

(3) Creation of new business

The quality of higher education institutions and the presence of fast-changing markets have become the advantages to locational competition in the United States. As it says in the 2012 Economic Report of the President, the U.S. economic advantage is "the ability to carry out the world's foremost R&D in close cooperation with top-level universities," the United States is at the world's highest level in the IMD World Competitiveness ranking for its science and technology infrastructure (No. 1) and for high-tech infrastructure (No. 2). Also, in the amount of venture capital investment, the United States far exceeds Japan, Germany, and South Korea.

(4) Implications for Japan

Pertaining to the U.S. efforts towards strengthening locational competitiveness, particularly (1) initiatives by top leadership and (2) development of new technology and creation of new industry would prove useful for Japan.

It is noteworthy that in the United States, new industries are created through the partnership between companies and educational institutions.

5. Efforts required of Japan

Here we make clear what measures Japan should take towards strengthening its locational competitiveness in light of the lessons learned from the efforts made by each country. We will discuss the detailed contents of current measures in Chapter 4. From the examples of Germany, South Korea, and the United States, we found that to strengthen its locational competitiveness it is important for Japan to (1) drastically improve the export and import environment, (2) improve the environment to reduce domestic business operating costs, and (3) create high-value added industry and improvement of the environment that supports creation of new industry.

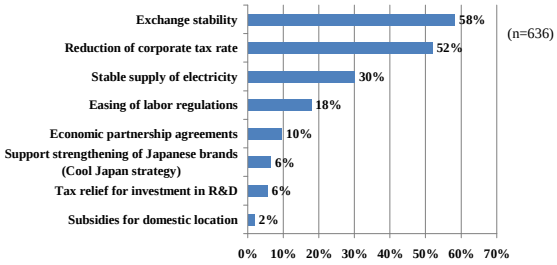
Incidentally, to the question regarding the policy focus that Japanese companies hope the government will take towards the improvement of the business environment, the top answer was "exchange stability" (58%), followed by "effective corporate tax rate reduction" (52%), "stable power supply" (30%), and "easing of labor regulations" (18%). (Figure 3-4-5-1)

120 State of the Union address, January 2012

Here, we look at how companies are responding to the exchange stability, which was the top answer. To the question “actual measures against the higher yen,” the most common answer was the reviewing of procurement policy (47%), but many answered “overseas transfer” (20%), which means that there is a potential of causing a hollowing out of industry.

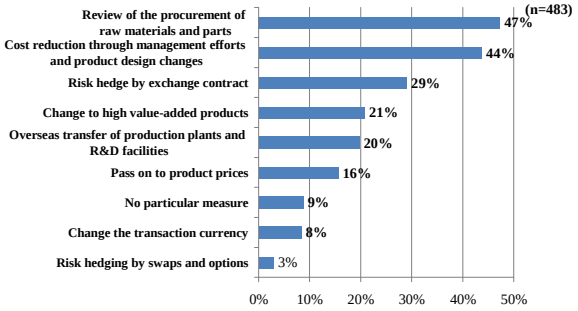
On the other hand, corporate efforts are being made such as “cost reduction by the management, change of product design, etc.” (44%) and “change to high-value added products” (21%). So the government is required to support these companies’ efforts by positioning (1) drastic improvement of export and import environment, (2) improvement of the environment to reduce domestic business operating costs, and (3) creation of high-value added industry and improvement of environment that supports creation of new industry, as the urgent issues to focus on (Figure 3-4-5-2).

Figure 3-4-5-1
Policies expected from the government toward improving the business environment in Japan (maximum two answers)



Source: *Survey on Japanese companies’ Overseas Business Strategy* (Mitsubishi UFJ Research & Consulting, Feb., 2012).

Figure 3-4-5-2
Actual measures for the appreciation of the yen (maximum three answers)



Source: *Survey on Japanese companies’ Overseas Business Strategy* (Mitsubishi UFJ Research & Consulting, Feb., 2012).

(1) Drastic improvement of the export and import environment

(A) Strengthening of economic partnerships

With regard to economic partnerships, the FTA ratio (percentage of trade value with FTA partners (countries which ratified or signed the FTA) to total trade value) of Japan is still at a low level. Efforts to strengthen the competitiveness by signing economic partnership agreements have been aggressively conducted by many countries; for example, the United States (which established NAFTA) is recently promoting TPP in addition to FTAs with midsize countries such as South Korea and Colombia,

Germany has ensured a trade surplus within the European market, and South Korea has raised the FTA trade coverage ratio to 33.9% (trade value basis) by signing FTAs with huge markets such as the United States and the EU. On the other hand, Japan's FTA trade coverage ratio remains only 18.6%, and Japan has been put at a disadvantage. It is necessary to promote economic partnership to strengthen the cost competitiveness of exporting companies, and to encourage inward investment to revitalize the domestic market.

(B) Package type support of infrastructure export

When Japan receives an order of an infrastructure project from a foreign country, the cooperation from the government serves as an important backup. When a project is too large in scale for a consortium, which consists of individual companies, to finance, the financial support from the government or JBIC (Japan Bank for International Cooperation) often gives the impetus to Japanese companies to participate in the project. Also, if the government participates in the negotiation, it will increase the sense of trust when the ordering party is the government of the ordering country. In future, the demand for infrastructure is expected to increase in emerging countries, which will provide a lot of opportunities for export of not only equipment but also the operating expertise of the equipment and related systems. But, on the other hand, it is also expected that international competition will intensify and there is are significant reasons for the government to actively support infrastructure export.

(C) Support of overseas expansion of SME

While SMEs account for about 70% of employment in Japan, it is important for SMEs to promote overseas business activities and raise profitability. However, hurdles for SMEs in developing their business overseas are still high, such as a lack of information. As a result, the percentage of SMEs conducting overseas business is low.[121] Alternatively, it is said that there are 500 to 1,000 profitable, mid-sized enterprises that conduct overseas business, called "Hidden Champions" in Germany, and analysis shows that there are about 1,200 companies of the same kind in Japan, too. To promote SMEs' overseas business activities, it will be necessary to enhance the network of support organizations such as JETRO, Chamber of Commerce, etc.

(2) Improvement of the environment to reduce domestic business operating costs

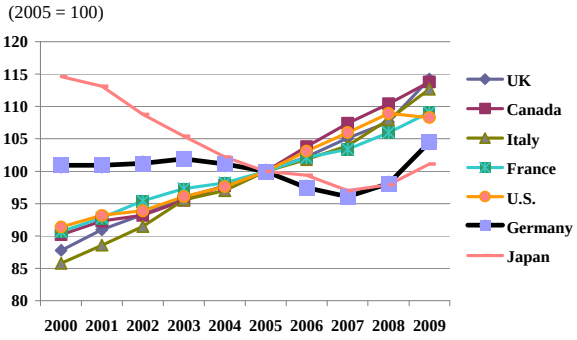
(A) Labor market reforms

Germany has suppressed the labor cost per unit through the labor market reform implemented since the Schroeder administration. Meanwhile, labor costs increased in Central and Eastern Europe, which filled the competitiveness gap and boosted German locational competitiveness. In Japan, the labor market was partly reformed in the 2000s, but there have been calls for regulatory reform on temporary workers[122] (Figure 3-4-5-3).

121 *Consideration on the Japanese Manufacturing Global Niche Top Companies* (Yuji Hosoya)
122 *Indicators of inward investment regulations* (OECD)

Figure 3-4-5-3

International comparison of unit labor cost



Source: OECD Stat.

(B) Corporate tax

In the past five years, both Germany and South Korea have reduced corporate tax. Japan, in its FY2011 Tax Reform, decided to reduce the effective corporate tax rate by 5% with an eye toward increasing employment and domestic investment through the improvement of companies' international competitiveness, etc.

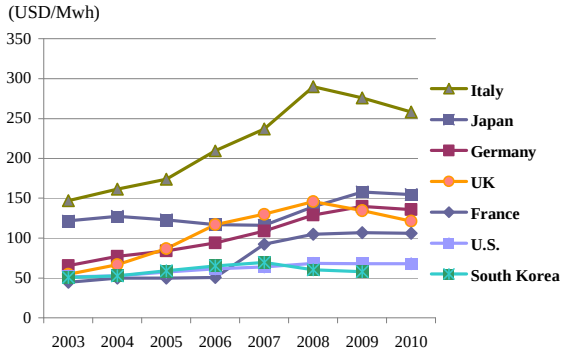
(C) Electricity charges

In addition, we need to pay attention to the movement of electricity charges as an important factor that influences business operating cost. In the United States, it is expected that electricity charges can be managed through the development of shale gas. In Germany, although there is an anxiety for the future power supply due to the abandonment of nuclear power plants, they are seeking effective measures to hold down electricity charges while purchasing electricity from neighboring France. In the case of South Korea, the industrial-use electricity charges are kept low as it is partly shouldered by the government. Currently, Japan is depending on the import of fossil fuels for thermal power generation, which accounts for more than 60% of all electricity generation, the structure of which is susceptible to price fluctuations in the international market. In addition, after the accident at Tokyo Electric Power Co.'s Fukushima Daiichi power plant, concern about the safety of nuclear power has grown and, at the height of political controversy over restarting of nuclear power plants, pressure is being put on the electricity costs to increase.

At present, the electricity prices of Japan are at a relatively higher level than other nations (Figure 3-4-5-4). On the other hand, expectations for renewable energy are growing; therefore it will be necessary to create the best mix by adding new energy resources to the conventional power generation methods to ensure a stable power supply of electricity and to keep costs manageable.

Figure 3-4-5-4

International comparison of industrial-use electricity charges



Source: *IEA Energy Prices & Taxes* (IEA, 2012).

(3) Creation of high-value added industry and improvement of the environment to support creation of new industry.

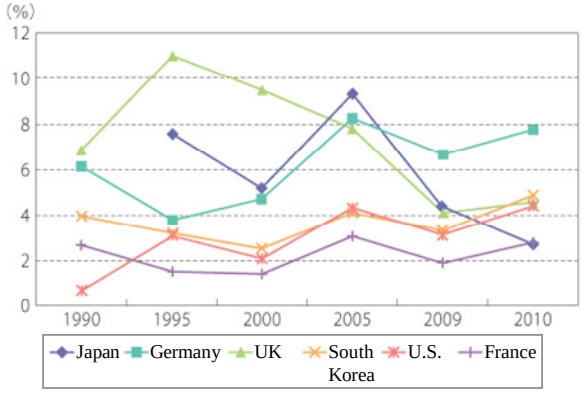
(A) Attraction of inward direct investment

To revitalize domestic R&D and to create new industries, it is effective to bring in superior technologies and know-how to attract foreign investment.

Currently, many countries are energetically working to attract inward investment. The United States is considering a preferential taxation system for investment in domestic manufacturing. In Germany, the Chamber of Commerce and Germany Trade & Invest are working to attract foreign companies to Germany through their overseas networks, while supporting German companies to promote their overseas business activities. South Korea has prepared aggressive measures such as providing tax benefits and industrial complexes, in addition to the KOTRA's efforts to attract investment. In such circumstances, Japan is under pressure to reinforce its incentive programs to make them as attractive as other countries. And it is essential to attract foreign investment by making the whole Japanese market more attractive (Figure 3-4-5-5). It will be necessary to raise the rate of return of the domestic market while increasing the volume of inward investment.

Figure 3-4-5-5

Rate of inward foreign direct investment returns in major countries



Source: *International Comparative Statistics* (Institute for International Trade and Investment, 2012).

(B) Support of R&D

Research and development capacity is the source of international competitiveness of every country. It is also important to reinforce government–industry–academia collaboration while providing generous support to research and development. As exemplified by Silicon Valley, universities and companies stand close together in the United States. In Germany, technology transfer is actively made between companies, universities, and research institutes, and by taking advantage of the fact that all universities are state-run, industrial clusters have been created by using universities. On the other hand, R&D of Japanese private companies is characterized by the fact that most of them internally promote R&D, but often they are engaged in research not directly related to their own business.[123] Besides, the results of research undertaken in universities and laboratories have not been widely applied in society when compared with Germany and the United States. Therefore, the government should strengthen its support for R&D and, at the same time, reinforce the collaboration between government, industry, and academia.

(C) Development of global human resources

The development of global human resources is becoming increasingly necessary in order to strengthen locational competitiveness. They are big assets, not only as key players of overseas business activities, but also to attract inward investment, to integrate the technologies and know-how between foreign countries and Japan, and to promote the creation of high-value added industry. However, in terms of linguistic ability, Japan (TOEFL average score 70 pts.) lags far behind South Korea (81 pts.), which is also a non-English-speaking country, and even more, Japan is at a lower level than most East Asian countries. It is an urgent task to enhance English education and to develop global human resources who can play central roles in doing business with foreign countries (Figure 3-4-5-6).

Figure 3-4-5-6
TOEFL average score (2000, 2010)

	2000-2001 (CBT)	2010 (iBT)
Germany	251	95
South Korea	202	81
Japan	183	70
Singapore	253	98
China	211	77
Taiwan	193	76

Source: TOEFL official website.
Note: The figures of 2000–2001 are for the period between July 2000 and June 2001.

(D) Creation of new industries

Lastly, to prevent hollowing out, Japan needs to revitalize its market and to create new industries.

123 Hearing with the ex-employees of electronic manufacturers

Japan will be the first country in the world to experience a super-aging society, so the demands on the healthcare industry are expected to increase. Also, the creation of new energy is expected under the growing concern triggered by the accident at Tokyo Electric Power Company's Fukushima No. 1 nuclear power plant. And Japanese creative industry holds the promise of achieving great development by taking advantage of its long cultural tradition, which all Japanese should be proud of. Finally, it is a critical goal for Japanese industries to create a leading-edge industry by utilizing world-class science and technology to lead the world.

To that end, to promote creation of such industries, further development of science and technology and the building of an environment that makes it easy for entrepreneurs to start up businesses will become ever more important challenges.