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Evaluation of Special Economic Zone Policy and Suggestions for Vitalization of Free Economic Zone

Yeongkwan Song, Fellow at KDI

"The competition among countries to attract anchor businesses with significant economic ripple effects is intensified each day. In this regard, the current eight Free Economic Zones must be reduced in number in order to enhance their competitiveness and they must serve as 'new testing ground for regulations' so as to facilitate differentiation from Free Economic Zones of competing countries."

Ⅰ. Introduction

The Korean government has adopted various types of special economic zones including Foreign Investment Zone (1998), Free Trade Zone (2000), and Free Economic Zone (2003), all of which offer special privileges and support for foreign investment. Foreign investment zone is a special economic zone aimed at attracting foreign investment by offering deregulation, tax breaks and government support based on The Foreign Investment Promotion Act.[1] Foreign direct investment zone can broadly be divided into two categories: individual-type foreign investment

The government has maintained special economic zone policy to boost foreign investment, but questions have been raised about its effectiveness.

* This is the translated version of KDI FOCUS released on October 28, 2014.
* This paper is based on the key contents of "Support Projects for Vitalization of Special Economic Zones (Report on Extensive Evaluation of 2014 Fiscal Projects)", Korea Development Institute, 2014.
1) The Foreign Investment Promotion Act entered into force in November 1998 as the promotion of foreign investment emerged as a compelling issue in South Korea in the wake of the 1997 Asian financial crisis. Foreign investment zone in this paper refers to 'foreign investment zone' established under the aforementioned act and 'exclusive industrial complex for foreign-invested firms established on January 1994 (The two concepts were unified in 2004).

areas, and industrial complex-type foreign investment areas which designate areas for lease or transfer to foreigners. So far, there are 66 individual-type and 20 industrial complex-type foreign investment areas in Korea.

The principal goal of the free trade zone is to contribute to the development of the national economy through export promotion, job creation, and technological advancement by attracting foreign investment built along certain coastal areas. Masan Industrial Complex was designated as Korea's first free trade zone according to The Act on the Establishment of Free Export Zones, which took effect in January 1970.[2)] At present, there are seven industrial complex-type free trade zones in development including Gunsan, Daebul and Donghae, and four international logistics-type free trade zones in the ports of Busan, Gwangyang, Incheon and Incheon International Airport.

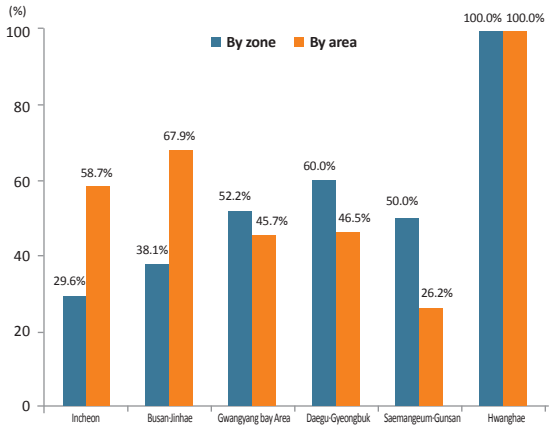
Free economic zone is a special economic zone aimed at improving the business environment and living conditions for foreign-invested companies; promoting foreign investment by guaranteeing maximum degree of corporate autonomy and investment incentives through deregulation; and pursuing the enhancement of national competitiveness and balanced regional development in accordance with The Special Act on the Designation and Management of Free Economic Zones, which entered into force in July 2003. At present, a total of eight areas—including Incheon, Busan-Jinhae and Gwangyang Bay (designated in 2003); Hwanghae, Daegu-Gyeongbuk and Saemangeum (designated in 2008); and Chungbuk and the East Coast (designated in 2013)—are in development as free economic zones.

Most of the central government's budget for supporting the country's special economic zones is spent on the construction and maintenance of infrastructure, and the budget has increased continuously reaching KRW 453.8 billion as of 2013. However, despite the government's policies for supporting special economic zones, the quantitative growth of foreign investment in Korea remains stagnant while domestic companies' offshore investments have steadily risen. Consequently, questions have been raised about the effectiveness of policies on special economic zones for the purpose of attracting foreign-invested companies. Such policies which offer better incentives to foreign-invested companies than domestic companies would be justified only when foreign-invested companies' positive external effects on the Korean economy is bigger than those of domestic firms.

This research aims to evaluate the effects of the Korean government's policy on special economic zones through comparison of business performance of domestic firms and foreign-invested companies located in special economic zones. Furthermore, it seeks to analyze the basis behind low performance of free economic zones while at the same time suggesting policies to vitalize them. Finally, the work will present suggestions to increase the effectiveness of policies for facilitating foreign investment.

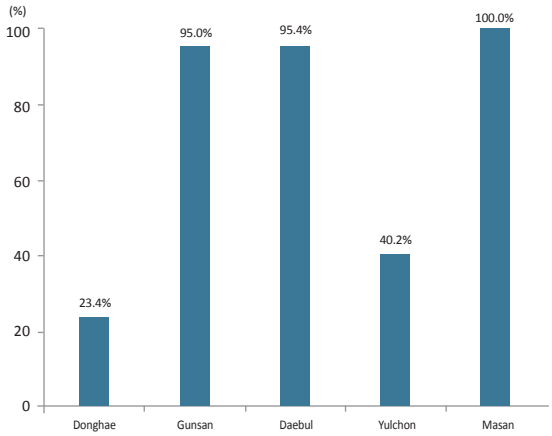
2) The Act on the Designation and Management of Free Trade Zones (implemented on June 23, 2004), on which the country's free trade zones are based, is an integration of The Act on the Designation of Free Trade Zones (the revised version of The Act on the Establishment of Free Export Zones, which entered into effect on July 13, 2000), and The Act on the Designation and Operation of Customs Free Zones for the Promotion of International Logistics Bases (implemented in March 2000).

[Figure 1] The Percentage of Undeveloped Land in Free Economic Zones



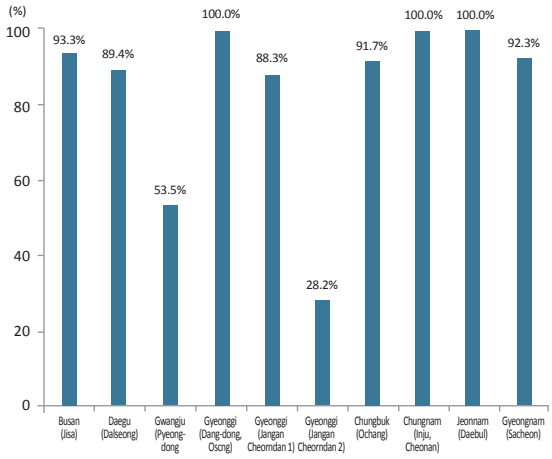
Note: 1) 2013 Basis.
2) The East Coast and Chungbuk were excluded from the analysis.
Source: The 1st Basic Plan for Free Economic Zones (2013).

[Figure 2] The Percentage of Land Sales in Free Economic Zones



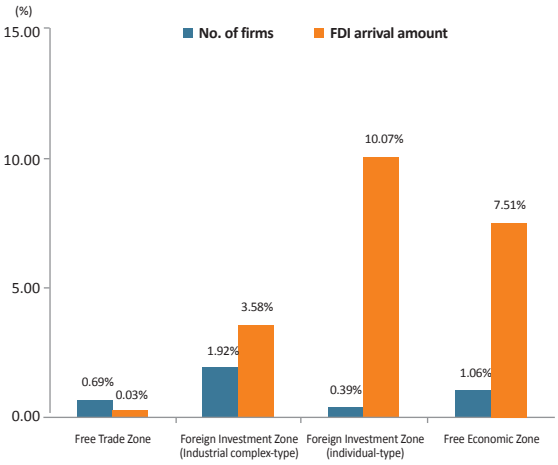
Note: 1) Sales of land for which development has been completed as of 2014.
Source: National Industrial Complex Census (1Q2014), 2014.

[Figure 3] Land Sales Percentage in Complex-type Foreign Investment Zones



Notes: 1) Sales of land for which development was completed as of 2013.
2) Out of 19 complexes, four - Busan (Mieum), Jeonbuk(Iksan), Gyeongbuk(Gumi, Yeongil Bay), and Gyeongnam(Changwon)-are still under construction.
Source: The 1st Basic Plan for Free Economic Zones (2013).

[Figure 4] Distribution of Foreign Investment Among Special Economic Zones



Notes: 1) 2012 Basis.
2) On the basis of the total number of foreign-invested firms, i.e. 15,426, with the total inflow of FDI amounting to US$10.68 billion.
3) Excluding bay-type and airport-type FTZs.
Source: Korea Development Institute (2014).

Ⅱ. Evaluation of Special Economic Zone Policy

1. Extensive Undevelopment and Low Occupancy Rate

The issue concerning undevelopment of free economic zones has been made widely known to the public by media. In all eight free economic zones, the proportion of developed land in the designated area is low. In fact, significant amount of area have not begun development while for some areas the development plans have not even been established. Out of 448㎢ of land

In eight free economic zones, the proportion of undeveloped land is close to half the total land area of designated areas. For example, in Donghae-Yulchon Free Economic Zone, the occupancy rate is even less than 30%.

designated in the eight free economic zones, only 46.4㎢ of land (10.4%) has been developed, while 249㎢ (55.6%) is yet to begin development. As such, the Ministry of Trade, Industry & Energy revoked the designation of all or part of fourteen areas for which development plans had not been set in 2011 and in August of 2014. Consequently, total free economic area in Korea has decreased to 335.84㎢.[3)]

Occupancy rate in free trade zones and foreign investment zones is problematic. The average occupancy rate of seven industrial complex-type free trade zones is around 67.8%. Especially, Donghae-Yulchon Free Trade Zone has recorded less than 30% in occupancy rate. In the case of foreign investment zones, overall occupancy rate is 83.9%, and the proportion rises to 90.7% excluding foreign investment zones under construction.

However, it is worth noting that Pyeong-dong and Daebul, where the occupancy rate was poor increased its land sales rate by loosening occupancy conditions such as minimum equity and minimum investment amount.

2. Insufficient Attraction of Foreign-invested Firms

The number of foreign-invested firms located in special economic zones account for less than 4% of the total and in the case of free economic zones, more than 90% of its occupants are domestic firms.

Attraction of foreign investment companies into special economic zones has not been successful just as development and sales in these zones have not shown much performance. As illustrated in [Figure 4], the number of foreign-invested companies that had moved into special economic zones by the end of 2012 was less than 4% of the total existing foreign-invested firms in Korea, and in terms of investment amounts, they accounted for a little more than 20% of the total. The performance in free trade zones and industrial complex-type foreign investment zones is especially poor. As indicated in [Figure 5], more than 90% of the companies based in free economic zones are domestic firms, while it is around 40% in free trade zones. Meanwhile, over 80% of foreign-invested companies are concentrated within the Seoul metropolitan area which includes Seoul, Gyeonggi and Incheon and such trend has shown no sign of change over the years.

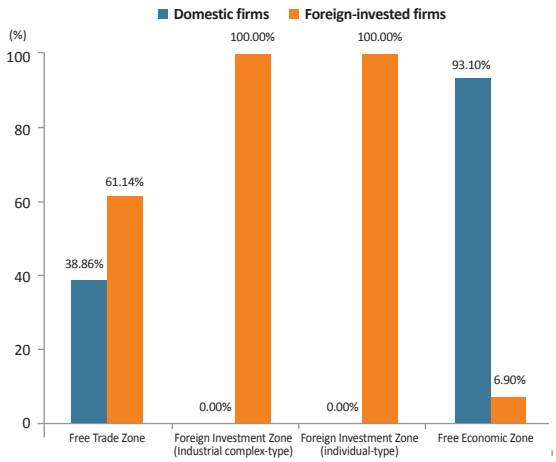
3. Lack of Performance by Foreign-invested Firms in Special Economic Zones

There is little factual evidence which suggests that foreign-invested firms located in special economic zones outperform domestic firms.

The performance of foreign-invested firms located in special economic zones is significantly low. Choi and Song (2014) used regression and PSM (propensity score matching) analysis to investigate any meaningful difference between foreign-invested firms — including FDIs made in Korea since the 2007 global financial crisis — and domestic firms in terms of labor productivity, interest coverage rate and investment patterns.[4)] The study could not find any factual evidence

3) Refer to the Ministry of Trade, Industry & Energy (2014).
4) PSM analysis is statistical matching technique that is useful in estimating the effects of governmental policies and programs. The analysis is devised to measure the effects of programs under created-similar conditions when randomized experiment is not feasible.

[Figure 5] Distribution of Firms in Special Economic Zones



Notes: 1) 2012 Basis.
2) A total of 2,851 firms in special economic zones (Domestic: 2,269, Foreign-invested Firms: 583).
Source: Korea Development Institute (2014).

<Table 1> Analysis of Performance of Foreign-Invested Firms in Different Types of Special Economic Zones

	Non-special economic zone		Special economic zone							
					Free trade zone		Foreign-invested zone		Free economic zone	
	RA	PSM	RA	PSM	RA	PSM	RA	PSM	RA	PSM
Labor produ-ctivity	△	△	△	△	×***	△	△	△	△	△
Profita-billity	△	△	×**	△	△	×*	×*	△	×*	△
Invest-ment	○***	△	△	○**	△	△	△	○*	△	△

Notes: 1) ○: local company performance < foreign-invested company performance.
×: local company performance > foreign-invested company performance.
△: insignificant.
2) ***is significant at 1%, ** at 5%, and * at 10%.
Source: Summary of the analysis results by Choi and Song (2014).

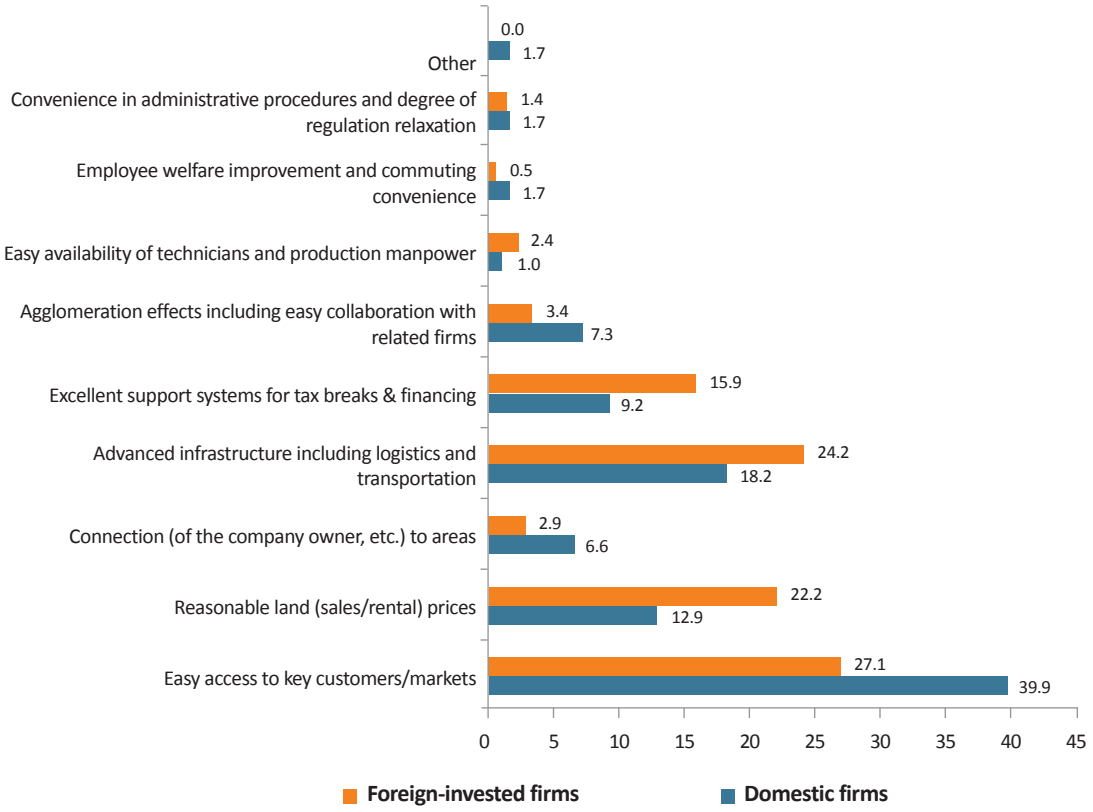
to support the hypothesis that foreign-invested firms outperform domestic firms in terms of efficiency measured by labor productivity and profitability calculated by interest coverage rates.[5] As shown in <Table 1>, in the case of labor productivity, the regression analysis indicates that the productivity of foreign-invested firms operating in free trade zones is noticeably lower, statistically speaking, than that of domestic firms. However, such difference becomes insignificant when using the PSM methodology. The performance of foreign-invested firms with regard to profitability shows a similar pattern. As for investment patterns, foreign-invested firms located in foreign investment zones outperform domestic firms according to PSM analysis, but such difference is not recognizable among foreign-invested firms operating in other special economic zones including free economic zones.

Ⅲ. Causes for Poor Performance of Free Economic Zone Policy

As demonstrated above, the performance of special economic zones, in which the government invests an annual budget of more than KRW 450 billion is rather poor. Most notably, the performance of free economic zones, which were launched in the early 2000s to countermeasure the emergence of Chinese economy, is below expectation despite the government's provision

5) The variables used in this research were all measured as prescribed by the KIS-value corporate database: Labor productivity is value added per person. Interest coverage rates are obtained from ordinary income divided by interest cost. Investment patterns are the proportion of cash payments made in relation to the ratio of investment activities to total sales. Choi and Song (2014) have presented practical evidence that companies located in free economic zones make larger investments in education and training than domestic firms. However, the trend was more apparent among foreign-invested companies that have located outside of special economic zones.

[Figure 6] Determinants for Moving into Special Economic Zones



Note: Results of the KDI Economic Information Center's interviews with 510 businesses (303 domestic firms and 207 foreign-invested firms) located in special economic zones.
Sources: Korea Development Institute(2014), [Figure A-Ⅲ-2], p.201.

As locational considerations, foreign investors consider market accessibility and infrastructure to be of paramount importance. Nonetheless, the locational competitiveness of Korea's free economic zone is not superior to that of its competitors such as China, Hong Kong and Singapore.

of huge budget.[6] The following are the suggested causes for low performance of free economic zones.

1. Inferior Locational Advantage

Korea Development Institute (2014) recently conducted a survey on enterprises located in special economic zones. According to the survey, foreign-invested companies' most important considerations for determining investment locations were access to customers and markets (27.1%), followed by infrastructure conditions including logistics and transportation (24.2%), and reasonable land price (22.2%). In other words, the results indicated that more than half of the foreign-invested firms consider market accessibility and infrastructure as the most important condition, followed by reasonable land price, when deciding their location.

6) According to "The 1st Basic Plan (draft) for Free Economic Zones" announced in 2013, the total construction cost of free economic zones was estimated to be KRW 139.8 trillion. Neither the actual costs nor the funding plans for the project are disclosed. Yet, according to Board of Audit and Inspection (2009), KRW 23.73 trillion was invested in the development of the Incheon, Busan-Jinhae, and Gwangyang Bay free economic zones by 2009, with more than 25% and 65% funded by the central government and the private sector, respectively.

However, the conditions of Korea's free economic zones are inferior to those of its neighboring countries in terms of market accessibility and infrastructure, the two most significant factors for foreign-invested companies. Dong-A Ilbo conducted a comparative analysis on the competitivness of 20 free economic zones in 16 countries, including China, Hong Kong and Singapore based on the following factors: attractiveness of domestic market, connectivity to infrastructure, quality of life and stability of social structurees. In this analysis, Incheon ranked 6th, Busan-Jinhae 9th and Gwangyang Bay Area 13th in locational competitiveness, acquiring the lower rank.

2. Shortage of Experts and Expertise

Locational disadvantage of free economic zones in Korea can be overcome by retaining experts, thereby establishing and implementing policies on free economic zones. However, Korea's free economic zones are confronted with a number of serious issues in this regard. In the case of the country's Free Economic Zone Planning Office, an organization dedicated to the evaluation and provision of working-level support for free economic zones, most of its members are temporary dispatch from relevant departments including the Ministry of Trade, Industry & Energy. As such, the organization is fundamentally restricted in its ability to respond professionally and actively when major issues occur. Free Economic Zone Committee is also staffed largely by public servants dispatched from local governments for up to five years. Therefore these working-level personnel are neither sufficiently motivated to promote various projects eagerly nor adequately equipped with expertise about regional development projects, among other deficiencies.[7] Such lack of expertise forms a sharp contrast with that of Korea's neighboring countries. The Economic Development Board (EDB) of Singapore and InvestHK maximize and enhance expertise by recruiting current or former experienced businessmen and foreigners. Singapore's EDB is staffed with graduates from the world's best universities including MIT, Harvard and UC Berkeley, along with current and former experienced businessmen, who are trained and fostered as experts in their respective fields. These specialists identify tax concessions, infrastructure and living conditions which companies in various industries need and offer them customized investment information services.

The locational disadvantage of free economic zone should be overcome by recruiting a pool of professionals, but Korea faces difficulties in this regard.

Ⅳ. Directions for Special Economic Zone Policy and Foreign Investment Policy

1. Suggestions for Vitalization of Free Economic Zone

The world's major countries are competing to attract anchor businesses with significant economic ripple effects. Unfortunately, Korea's free economic zones are operated on a small

7) This deficiency had already been pointed out by Board of Audit and Inspection (2009), yet no improvements have been made.

Korea has to redefine its policy goal for free economic zone as 'testing ground for regulation,' and revoke the designation of several free economic zones whose policy goal is hard to achieve. Thereafter, it should reestablish the revoked zones as high-tech innovation complex or foreign investment zones.

scale without an elaborate analysis on supply and demand for the purpose of balanced regional development. Thus, industrial complexes and apartment buildings are at the center of construction instead of composite high-tech cities. To vitalize free economic zones, the following should be considered.

First, Korea must exclude 'balanced regional development' from its policy goals for free economic zones and instead redirect its goal as 'testing ground for regulation' and concentrate on differentiating these zones from those of other countries. Amid the growing competition between world's major countries for attraction of economically powerful global enterprises, Korea is unlikely to succeed without differentiating itself, given that its locational advantages are not superior to those of its neighboring countries. Also, once the goal of the free economic zone is redirected, they could serve as laboratory for reducing restrictions. Not only this, Korea should promote 'balanced regional development' through other policy means such as establishment of industrial towns, innovation cities, high-tech innovation complex and foreign investment zones after revising the Comprehensive National Territorial Development Plan.

Second, Korea should rearrange its location policies and revoke the designation of free economic zones that experience difficulties in achieving policy objectives. Given that budgets and manpower are limited, it would be challenging to transform all eight free economic zones into high-tech cities like Masdar City or Singapore that serve as 'testing ground for regulation' and as residential block suitable for highly educated manpower. Instead, it should set up new development plans for areas whose designation has been revoked to use them as high-tech innovation complex or foreign investment zones.

Third, to ensure the success of free economic zones it is crucial for Korea to reorganize its current system in which local governments play a key role in promoting development. A new business promotion system should make sure that professionals take charge of the design and development of free economic zones. The country's weak competitiveness in terms of location must be overcome by enhancing operating personnel's expertise and creativity, which would be difficult to achieve with the current organizational structure and operational methods.

Fourth, attraction of foreign-invested firms should not be the only viable method for vitalizing free economic zones. Korea should also focus on attracting domestic firms, and should strengthen qualitative evaluation so as to attract businesses with enormous economic ripple effects.

2. Suggestions for Vitalization of Foreign Investment

Once the policy goal for free economic zones is readjusted as 'testing ground for regulation,' the current policy framework for attracting foreign direct investments should be redefined as well. Korea's FDI remains at a low level, with the annual average amount of FDI from 2006 to 2011 accounting for a mere 0.22% of its GDP, while the figure for the UK was 5.04%, China 2.06%, the USA 1.67%, Mexico 1.55%, India 0.95% and Japan 0.21% during the same period.

Korea Development Institute (2014) has pointed out the fragmented management system and the rigid governmental support system as major problems in the country's FDI attraction policy.[8] For FDI attraction to proceed effectively, policy efforts should be customized to meet FDI demand, but Korea still lacks cooperative working process as well as demand surveys which are crucial in reflecting FDI demand in its policies. In addition, it is hard to find any significant differences among the country's foreign investment zone, free trade zone and free economic zone in terms of direct investment incentives including tax concessions provided to businesses that move into these zones.

Henceforth, the performance indicator related to FDI attraction should reflect qualitative aspect, i.e. the attraction of foreign businesses with big ripple effects, instead of simply calculating the total amount of FDI. Additionally, the government support system should concentrate on core anchor businesses while at the same, taking the following measures.

In order to vitalize foreign investment, focus should be shifted from quantity to quality; the country's foreign investment management system which oversees and supports attraction of foreign investment should be enhanced in terms of its professionalism, and policies to attract foreign investment should become more flexible.

First, it should streamline FDI attraction systems to improve the efficiency of its support system and to enhance the expertise. It is important that the Foreign Investment Committee, like EDB of Singapore, be given the power required to strongly promote the establishment of various policies needed to attract investment, issue business licences, establish and implement investment incentives, and cooperate with other agencies and organizations. The country also have to upgrade its expertise in FDI attraction by enhancing current governmental organization through employment of personnels with business backgrounds or those with outstanding proficiency in foreign languages. Also, given that collaboration among key government ministries — including the Ministry of Trade, Industry & Energy, the Ministry of Land, Infrastructure and Transport and the Ministry of Strategy and Finance — is crucial to attraction of core anchor businesses, Korea has to consider empowering Foreign Investment Committee with authority. Naming prime minister as the head of the committee could be one possibility.

Second, in the long run, Korea's FDI incentive system should expand cash support and direct rental support which are easy to interlink support and consequent business performance and could be used flexibly in attracting individual firms. Current rigid support system which put investment amount as primary criteria for support and which apply indiscriminate supporting method is likely to prevent effective FDI attraction as the system limits the Korean government's autonomy and flexibility in negotiations. In the medium- to long-term, indiscriminately provided tax breaks on the basis of investment amounts should be gradually reduced, while cash support and rental exemption/reductions should be expanded. Then, in the short term, aggregate support amount should be determined based on the amounts of tax concessions, rental assistance and cash support to enhance the government's bargaining power. Furthermore, adoption of aggregate incentive system is considerable which flexibly adjust support within the aggregate range depending on the investing counterparts.

8) Refer to Section 2, Chapter 5, p.168-174.

Third, to attract high-quality foreign investment it is necessary to focus Korea's foreign investment location policy on individual-type foreign investment zone that is relatively more effective. Currently, all free trade zone, foreign investment zone and free economic zone are designated for foreign investment, but they have failed in achieving impressive results, with the exception of the individual-type foreign investment zone. It is critical to respond flexibly to corporate demand in order to attract global enterprises. Above all, creation of circumstances under which corporations will want to move into locations of their choice is crucial, instead of locating complexes on political grounds and then looking for foreign investors who want to move into them. ■

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