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WHY DOES SOUTH KOREA HAVE A LARGE TRADE DEFICIT WITH JAPAN?

South Korean economy's import dependency on Japan is greater than its export. Moreover, the trade gap, rather than shrinking, has increased over the years to become a chronic deficit, a hardly desirable situation from the viewpoint of reciprocity and mutual benefit. We examine why South Korea has a large trade deficit with Japan on the basis of the growth rate, variability, and market shares of its exports to that country during 1991–2010, and discuss growth strategies for the concerned industries. As a growth strategy for exports to Japan, this study proposes restructuring and nurturing of promising industries such as cut flowers/decorative leaves and cosmetics which have a particularly high growth potential. Likewise, electrical equipment and parts, accounting for the largest share of exports to Japan (22.23% in 2010), can potentially become a "star" industry by increasing its growth rates.

Keywords: market share; growth strategy; export; import; trade deficit; Japan; South Korea.

JEL codes: F10, F13.

Джунг-Хо Кук, Йонсеок Лі

ПРИЧИНИ ЗНАЧНОГО ТОРГОВЕЛЬНОГО ДЕФІЦИТУ ПІВДЕННОЇ КОРЕЇ З ЯПОНІЄЮ

У статті показано імпортозалежність південнокорейської економіки від Японії. Більш того, розрив між імпортом та експортом даних країн постійно зростає, що з роками призводить до хронічного дефіциту, невідповідного обом сторонам. За даними 1991–2010 рр. наведено причини торговельного дефіциту на основі аналізу таких показників як темпи зростання торгівлі, різноманіття експорту та імпорту за галузями та частки експорту. Описано стратегії зростання для певних галузей. Для експорту в Японію запропоновано реструктуризацію та підтримку галузей з найбільшим потенціалом (квіти та декоративні рослини, косметика). Найбільша частка експорту (22,23% у 2010 р.) в Японію на сьогодні належить електронному обладнанню та запчастинам до нього. Дана галузь має потенціал стати "зірковою" в загальному експорті Південної Кореї в Японію.

Ключові слова: доля на ринку; стратегія зростання; експорт; імпорт; торговельний дефіцит; Японія; Південна Корея.

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Джунг-Хо Кук, Йонсеок Лі

ПРИЧИНЫ ЗНАЧИТЕЛЬНОГО ТОРГОВОГО ДЕФИЦИТА ЮЖНОЙ КОРЕИ С ЯПОНИЕЙ

В статье показана импортозависимость южнокорейской экономики от Японии. Более того, разрыв между импортом и экспортом данных стран постоянно растёт, что с годами приводит к хроническому дефициту, невыгодному обеим сторонам. По данным за 1991–2010 гг. приведены причины торгового дефицита на основе анализа таких показателей как темпы роста торговли, разнообразие экспорта и импорта по отраслям и доли экспорта. Описаны стратегии роста для ряда отраслей. Для экспорта в Японию предложена реструктуризация и поддержка отраслей с наибольшим потенциалом (цветы и декоративные растения и косметика). Наибольшая доля экспорта (22,23% в 2010 г.) в

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Японию сегодня принадлежит электронному оборудованию и запчастям к нему. Данная отрасль имеет потенциал стать "звёздной" в общем экспорте Южной Кореи в Японию.

Ключевые слова: доля на рынке; стратегия роста; экспорт; импорт; торговый дефицит; Япония; Южная Корея.

1. Introduction

The main purpose of this paper is to investigate South Korean industries exporting to Japan from the viewpoint of market share, growth rate, and variability, and, on the basis of this analysis, to discuss growth strategies for South Korean exports to Japan. Before considering different types of industries exporting to Japan and exploring growth strategies for them, we provide the background of Japan-South Korea trade trends.

This study looks at items exported to Japan and examines whether there is a "star" industry. However, it is extremely difficult to increase exports to Japan. This is because, as Watanabe (1980) states, Japanese industry shares the structural characteristics and self-sufficient nature of its United States and German counterparts. If left alone, the mechanism in which the trade deficit with Japan increases as the worldwide export increases in South Korea would lead to the constraint of production and consumption choices, which is undesirable in the long term. In other words, in order to reduce South Korea's enormous trade deficit with Japan, it is desirable to increase South Korea's exports to Japan. One of the purposes of this paper is to examine the hypothesis "South Korea's export to Japan does not increase because there is no "star" industry (i.e., industry with high growth rate and large market share) exporting items to Japan".

This study reveals that no South Korean firm exporting to Japan can currently boast of a star product or such an industry status. "Star products" refer to the products with high market share and growth rates. After the examination, this study shows how to increase items exported to Japan. In this paper South Korean industries exporting to Japan are classified into 4 categories: 1) industries with vigorous growth, 2) industries showing stable growth, 3) industries with high variability of growth, and 4) industries that exhibit growth stagnation. After a discussion on these categories, we recommend measures on restructuring and nurturing promising industries as an export growth strategy targeting Japanese market.

"Promising industries with particularly high growth" include cut flowers/ ornamental foliage and cosmetics, promising high-market-share industries with growth potential for exports to Japan include optical instruments, machinery, mineral fuels, and plastic products. In addition, industries with low growth potential/high stability (low variability) but relatively high share of exports to Japan include organic chemicals, electrical equipment and parts, and steel products. In particular, electrical equipment and parts, accounting for the highest share of exports to Japan (22.23% in 2010) can potentially become a "star" industry with a high market share and growth potential by increasing its growth rate. Industries with low stability (high variability) but relatively high growth potential include spacecraft/aircraft parts, precious metals, and slag. Steel, on the other hand, represents an industry with low stability (high variability) and high market share.

This paper is structured as follows. Section 2 provides the literature review. Section 3 discusses Korea's chronic trade deficit in comparison with Japan and esti-

mation formula to calculate the indices of growth rate and stability. Section 4 presents the calculation results and a classification scheme, and provides some policy recommendations for expanding South Korea's exports to Japan. Section 7 briefly concludes.

2. Literature review

Chou and Shih (1991) examined the macroeconomic influences of trade flows between Japan and 4 other Asian economies: Hong Kong, Korea, Singapore, and Taiwan. These economies ran chronic trade deficits with Japan during the 1970s and 1980s, indicating that their export-oriented industrialization caused persistent dependency on imports from Japan. The researchers found that their income elasticities of demand for imports from Japan are much higher than that of Japan's for their exports, which suggests these Asian trading partners ran trade deficits with Japan over the period of observation³. However, Japan has not consistently experienced more rapid growth than the four economies after its bubble economy burst in the early 1990s.

Kim (2009) investigates the macrodeterminants of Korea's persistent bilateral trade deficit with Japan and finds empirically that domestic economic growth in South Korea improves persistent trade deficits against Japan. This is because the supply shock of economic growth, such as technological advances and import substitution of core components for major export products of Korea, dominates demand shock. Pan (2009) discusses the problem of trade deficits and asserts that globalization trends since the early 1990s have had a positive impact on trade relations between China and South Korea. Now trade between the two countries has reached its highest level since the establishment of diplomatic relations in 1992. Pan (2009) also argues that the fast movement of bilateral trade between China and South Korea has exposed the problem of China's increasing trade deficits with Korea, which has become an important and urgent problem to be solved.

Rajan (2007) analyzes Singapore's bilateral trade relations with Japan and the United States over 1976–1992 to reveal that Singapore's intra-industry trade with Japan has increased since 1981. Simandjuntak (1991) confirms that Asian economies have benefitted from Japan's economic growth through merchandise and services trade, foreign direct investment (FDI), official development assistance (ODA) etc. Simandjuntak also proposes that Japan's roles differ from one country to another, depending on the developmental stage of each country, as the same form of economic cooperation will not be appropriate for the entire region.

As also pointed out by Kim and Roh (2008), South Korea's dependency on Japan has far greater stability for imports than exports, partially because of South Korea's industrial structure, where materials and parts imported from Japan are used to turn out finished products going later to world markets. This trade structure between the two countries is a factor leading to South Korean trade deficit with Japan and has fueled its growth. On the other hand, it is certain that South Korea's reliance on Japan for both exports and imports has also been declining over the years, which means that the country's trade with other countries has increased relative to Japan.

³ Chou and Shih (1991) also lay emphasis on the relaxation of various restrictions and avoidance of discrimination in foreign trade.

According to the Bank of Korea Survey Bureau (2009), the direct cause of the above trade deficit lies in South Korea's export structure, characterized by a heavy reliance on imports from Japan. This is due to the structural vulnerability of the component and materials industry and the differences between South Korea and Japan with regard to manufacturing and technological awareness. In addition, they argue that the slump in exports to Japan as well as increased imports of luxury consumer goods from Japan fueled the recent expansion of the deficit.

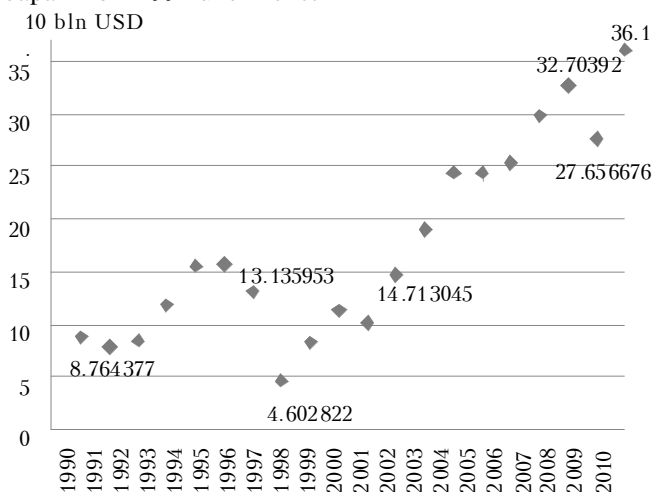
Yoon and Ahn (2008) present the factors affecting the South Korea's current account on the basis of an empirical analysis from the perspectives of trade structure and economic fundamentals. In regard to economic fundamentals, South Korea's current account balance improves with a substantial GDP decline from a contraction in domestic demand, when imports by the rest of the world increases following an expansion in foreign demand. On the other hand, Mizuno (2010) assesses the validity of South Korea's side of the argument, particularly Kim-No's (2008) contention that 1) the large volume of components and materials imported from Japan is the most important cause of the trade deficit with Japan and 2) in order to eliminate the trade deficit with Japan, where small and medium-sized enterprises have been manufacturing components and materials, South Korea needs to invest in local production.

Considering the fact that South Korea still imports much more from Japan than it exports to that country, and that Japan's trade dependency on South Korea has increased, how the two countries trade with each other is important. The existing research on this problem, such as the Bank of Korea Survey Bureau (2009), Yoon and Ahn (2008), and Kim-No (2008), mainly demands policy measures from Japanese government and authorities for the reduction of the trade deficit. Previous studies have focused on the structural import dependency in South Korea's trade with Japan; however, unlike these studies, our study focuses on the items exported to Japan and explores export measures to reduce the trade deficit with Japan.

3. Korea's trade deficit with Japan and estimation formula

3.1. Korea's chronic trade deficit with Japan. South Korea is suffering from growing trade deficits with Japan under its export-oriented industrialization policy. Thus, Japan has obtained the benefits accruing from its expanding exports of producers' goods to Korea. Let us illustrate the trend of South Korean trade deficit with Japan. According to the trade statistics of the Korea International Trade Association, South Korean exports to Japan amounted to 28.2 bln USD in 2010, much less than its imports of 64.3 bln USD from Japan in the same year. Thus, South Korean trade deficit with Japan, 36.1 bln USD in 2010, exceeds the value of exports to Japan. However, we need to consider the impact of the Great East Japan Earthquake in 2011. Korean exports to Japan in that year were 39.7 bln USD, an increase of 11.5 bln USD compared to 2010. In contrast, Korean imports from Japan in 2011 were 68.3 bln USD, an increase of only 4 bln USD compared to 2010. As a result, the 2011 trade deficit with Japan reduced to 28.6 bln USD, much lower than the 2010 level. In addition, exports to Japan accounted for 7.1% of the total exports, while imports from Japan stood at 13.0% of the total imports, lower by 6.0% and 15.1%, respectively compared to the 2010 values. Whether 2011 is a special year or marks the starting point of a shrinking trade deficit with Japan is uncertain.

Now, what kind of trend does South Korea's trade deficit with Japan show over the 20-year period considered? Figure 1 shows the values of South Korea's trade deficit with Japan from 1991 until 2010.



Source: Korea International Trade Association (<http://www.kita.net/statistic/index.jsp>).

Figure 1. Value of South Korea's trade deficit with Japan from 1991 until 2010

Figure 1 shows that South Korea's trade deficit with Japan increased by 4.1 points, from 8.8 bln USD in 1991 to 36.1 bln USD in 2010. However, this number is just a comparison of absolute values for 1991 and 2010. The rate of increase in South Korean trade deficit with Japan is very different, depending on whether one chooses a base year before (e.g., 1991) or after the 1998 economic crisis. Figure 1 depicts two approximation lines that represent this. The average growth rate for the period 1998 to 2010, at 6.49%, is much higher than the 3.66% average growth rate for the entire period, 1991 to 2010. In any case, the increase in South Korea's trade deficit with Japan is confirmed.

South Korea's export and import trade with Japan has fallen relative to its total exports and imports, which means that Japan's position as a trading partner of South Korea has declined. However, South Korea's trade deficit with Japan, calculated as % of its trade with Japan (value of imports from Japan + value of exports to Japan), increased significantly from 26.2% in 1991 to 39.1% in 2010. Korea's trade deficit with Japan relative to its total trade with Japan (imports from Japan + exports to Japan) increased from 36.8% in 2008 to 38.8% in 2009, but declined to 26.5% in 2011. In the context of its growing trade deficit, South Korean government has emphasized the need to reduce the deficit in its trade negotiations with Japanese government. On the other hand, Mizuno (2010) claims that South Korea's trade deficit with Japan is a structural problem, and therefore, cannot be resolved over the long term unless South Korean government and South Korean companies make concerted efforts.

Kim-No (2008) points out that South Korea's import-dependent exports to Japan, because of the structural vulnerability of South Korean companies in regard to components and materials, is a direct cause of the trade deficit with Japan. The

author demonstrates this on the basis of high correlation between South Korean exports and the trade deficit with Japan. Existing studies, including Kim-No (2008), Yoon-An (2008), and Mizuno (2010) examine the trade deficit between Japan and South Korea from the industrial structure perspective.

Trade deficit is calculated by subtracting imports from exports. In other words, even if South Korea has a structural import dependency in the trade with Japan, it is possible to consider increasing exports to Japan as an effective means to reduce trade deficit with Japan. It is necessary to verify the hypothesis "South Korea's export to Japan does not increase because there is no "star" industry exporting items to Japan". If there is no "star" industry, then it is probably necessary to show the ways to increase items exported to Japan.

In order to carry out such an analysis, this paper analyzes different types of South Korean industries exporting to Japan from the microeconomic perspective. It also discusses growth strategies for South Korean exports to Japan. We utilize a method based on market share indicators as well as the growth potential and variability of the industries that exported to Japan during 1991–2010. On the basis of the analysis results, this paper proposes expansion measures for South Korean exports to Japan that, we hope, will lead to a reduction of the trade deficit with Japan. We also hope that in the long term these measures will stimulate Japan-South Korea trade as well as provide an opportunity for the revitalization of Japanese economy.

3.2. Estimation formula. From the business standpoint, a high market share industry with high export growth over time, in a sequence of small changes, is desirable. In this paper, we analyze the following indicators for each target industry: growth rate (extensibility), variability (conversely, stability), and market share. Of these indicators, market share is simple to calculate because you can measure it during a period in question. However, we need to devise appropriate methods to define growth rate and variability. Here, we employ the growth and stability indicators used by White (1983) and Gentry and Ladd (1994). As an evaluation criterion for each tax, they used an index of average growth and variability of tax revenues. Specific calculations based on their criteria are formulated for growth and variability indicators for industries exporting to Japan, as shown below.

First, the growth rate of each industry is a measure that indicates the growth rate during a given period in terms of exports of an industry in question. Next, variability is the degree of variation in the industry's exports. Extensibility and variability of exports can be calculated for each industry on the basis of the following estimation formula:

$$\log T_i = a + bt_i + e_i \quad (1)$$

In the formula (1), T_i is the export value of the target industry i , and t_i is the duration; again, the target period represents 1991–2010. The expression (1) can be used to estimate b , the multiplier of t_i , which represents the approximate growth rate of each export industry. This can be used as a growth measure for an industry.

Differentiating equation (1) with respect to t_i , we obtain $b = (dT_i / T_i) / dt_i$. This represents the rate of change of tax item i in the given period. It can be seen that this value multiplied by 100 is the growth rate (%) of the industry in question.

Since we are taking the logarithm of T_i , the b coefficient of t_i multiplied by 100 would be the % growth rate of tax revenue.

In addition, we use the adjusted R^2 of the multiplier b of t_i in equation (1) as an indicator of the variability of each industry. Because this is an adjusted R^2 , the higher is the value, the greater is the instability of tax. Using the above method, we determine, in addition to market share, the characteristics of each industry reflected in the indicators of growth and variability.

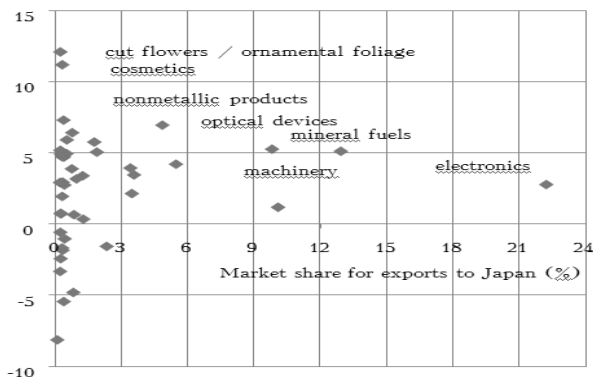
In addition to these indicators, other indicators can be considered. For example, other than the expansion and stability (conversely, variability) of tax revenues and the like, in order to determine the characteristics of taxes, there is an indicator of local tax burden disparities (indicators such as coefficient of variation, for example) between regions. Describing the characteristics of Japanese tax system, Ishii (2001) uses a variety of indicators appropriate to the system. Kook (2001), using an index such as growth, stability, and variability, compares features of Japanese and Korean tax systems. Incidentally, the indicator of stability according to Kook (2001) is the standard error rather than the adjusted R^2 .

For this analysis, we consider the Harmonized Commodity Description and Coding System of South Korea (HSK2) as an industrial unit exporting to Japan, and apply a method based on the average growth rate and growth variability over the 20 years from 1991 to 2010, as well as each industry's market share of exports to Japan as of 2010. In the following, we attempt to analyze South Korean exports to Japan by an industry type.

The Harmonized System (HS) shows the Harmonized Commodity Description and Coding System, which is the new international standard of products classification. HSK refers to the South Korean classification of 10 units, where 4 units of the South Korea Customs Service are added to the universal six units. The 1–2 digits of the HS categorize all commodities by material (type of material) and by function.

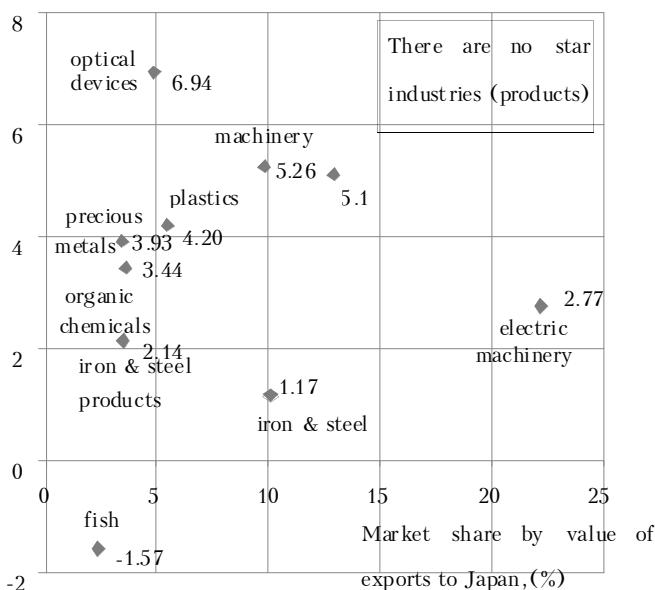
4. Calculation results and discussions

4.1. Calculation results. Figure 2 shows a breakdown of market shares and growth rates for all 44 South Korean industries analyzed, consolidated as the HSK2 industrial unit exporting to Japan mentioned previously. The values are calculated on the basis of their exports. Figure 3 depicts the market shares and growth rates of 10 major industries exporting to Japan.



Source: Korean Traders Association Trade Information Network (<http://login.kita.net/>).

Figure 2. Market shares and growth rates of South Korean industries exporting to Japan



Note: The values within the diagram are growth rates (%).

Source: Korean Traders Trade Information Network (<http://login.kita.net/>).

Figure 3. Market shares and growth rates of 10 major South Korean industries exporting to Japan

As can be seen in Figure 2, among South Korean industries exporting to Japan, many have low market shares but high growth rates. The examples of such industries include cut flowers/ornamental foliage, cosmetics, nonmetallic products, and optical and medical equipment. From Figure 3, in terms of market share by value of exports to Japan, there are no "star" industries (products), which have both high market shares and high growth rates.

Under current conditions, expansion policies for South Korean exports to Japan demand efforts to discover star products (industries) by fostering promising industries. As promising industries, we can name those with both average growth rates and comparatively high market shares for exports to Japan. As we noted in Section 3, optical devices, machinery, mineral fuels, and plastic products are some of the industries that should be considered promising.

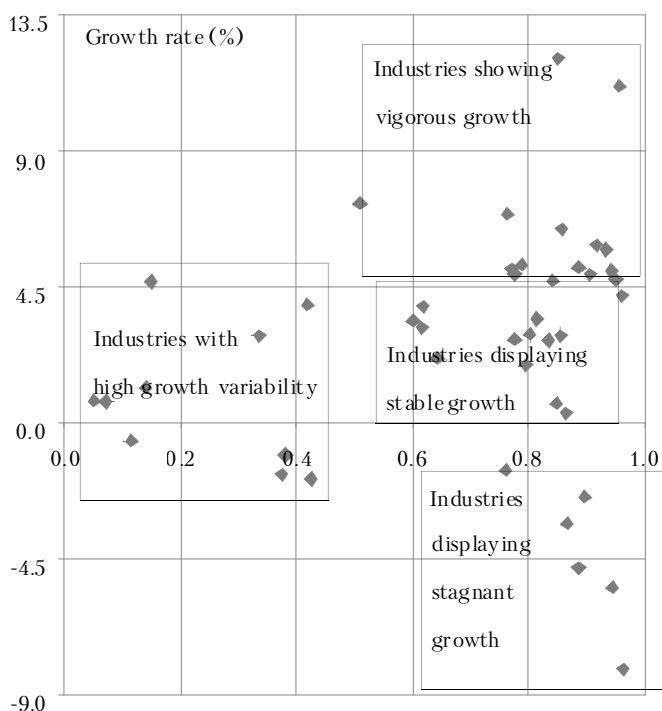
In addition, according to the analysis results on the growth potential, variability, and market share of South Korean exports to Japan at the industry level, Korean industry exports to Japan can be classified into the following 4 categories:

- 1) Industries showing vigorous growth,
- 2) Industries showing stable growth,
- 3) Industries showing high growth variability,
- 4) Industries exhibiting growth stagnation.

Subject to the above classification, of the 96 HSK2 unit industry sectors exporting to Japan there are 44 industries with more than 0.25% market share of exports to Japan as of 2010. The above four-category classification is on the basis of the average growth rate of the 44 industries in question during the period of 1991 to 2010 and their

growth variability (affinity: adjusted R^2). The market share of each industry's exports to Japan is according to the 2010 data.

Figure 4, based on the 44 targeted industries, illustrates the industries only according to average growth rate and variability classification scheme (affinity: adjusted R^2). This section will consider the respective industries.



Source: Trade Information Network of Korea International Trade Association (<http://login.kita.net/>).

Figure 4. Industry classification of South Korean exports to Japan

4.2. Discussion. Industries showing vigorous growth (see Figure 4) represent those with high average growth rate and low growth variability. Industries with low variability and active growth potential correspond to those with high adjusted R^2 in relation to equation (1) in Section 3. During the period analyzed the average growth potential of the 44 targeted industries is calculated as 2.06%. Here, industries with vigorous growth potential consist of those showing growth potential of more than twice the average growth rate. These industries include cut flowers, decorative leaves, cosmetics, nonmetals, optical equipment, paper, nonmetallic tools/products, chemical industry products, machinery, special yarn/cord, mineral fuel, vehicle accessories, glassware, soap/surfactant, sugar, medical supplies and plastic products.

Industries displaying stable growth (Figure 4) are those with low average growth rates and low growth variability. As for the industries with active growth potential, as mentioned above, industries that display stable growth show high adjusted R^2 values on the estimation of equation (1) in Section 3. These vibrant-growth industries include copper products, organic chemical products, rubber goods, aluminum ware, electrical

machinery and equipment, vegetable preparations, iron and steel products, grain products (milling industry products), beverages/alcohol and chemical compounds.

Industries with high growth variability (Figure 4) are those with strong dispersion (in other words, high degree of variability) in terms of growth. That is to say, their adjusted R^2 values are low in the estimation of equation (1). Some of these industries are characterized by comparatively low growth (some display negative growth), although some show growth rates that surpass the average growth rates. Depicting characteristics of industries with high growth variability (the adjusted R^2 value is low), the figure illustrates industries with both positive and negative growth. These industries include aerospace parts, precious metals, slag, iron and steel, miscellaneous products, furniture, vegetables, clothing, man-made long-strand fibers, meat and fish preparations.

The industries displaying stagnant growth can be considered as those that tend strongly towards negative (minus) growth (or secular stagnation). Figure 4 illustrates industries that display stagnant growth. As well as showing negative growth rates, the industries display strong negative growth trends (the adjusted R^2 value is high). These industries include leather and travel goods, clothing, jersey and knitwear, toys, oil seeds and oleaginous fruits, fish and shellfish.

4.3. Policy recommendations. On the basis of the analysis, among potential policies for expanding South Korean exports to Japan, efforts to both build and foster promising industries come to mind. Let us consider some of these policies below. At present, no South Korean exporter to Japan can boast of a star product (or industry) that commands both high market share and high growth. This study shows that we need to make efforts to discover star industries, and nurture them as promising industries as a growth strategy for South Korea's exports to Japan. These industries are the sectors that enjoy high growth rates as well as comparatively high market shares for exports to Japan. The chances of discovering star products among these industries seem very good.

Among the ranks of these promising industries are the candidates that stand out for their especially high growth. This group of industries includes cut flowers/ornamental foliage and cosmetics. The growth rate for cut flowers/ornamental foliage (including live trees and other plants, bulbs and tubers, cut flowers, and ornamental foliage) is 12.09%, while that for cosmetics (essential oils and resinoids, perfumes and toilet waters, make-up and skin-care products) is 11.18%. Thus, these industries' growth rates are 5–6 times the average for all the industries discussed (2.06%). These industries are likely to win greater recognition in the days to come.

However, even within the cosmetics category, specific methods for increasing recognition will differ. According to actual field interviews, for example, company A's corporate strategy is according to a value-added strategy, while company M's, on a price strategy geared to the middle level and low end. However, in these various cases, their distinctive product qualities have been recognized, and they have been increasing their market shares. Besides those mentioned above, there are other industries that can potentially be converted to promising ones. These industries can be detected among the industries with stable growth and high growth variability.

Stable industries with comparatively high market shares of exports to Japan are electrical machinery and equipment and their parts (22.23%), organic chemicals (3.58%), and iron and steel products (3.48%). Electrical machinery and equipment

and parts stands out as the industry with the highest market share for exports to Japan (22.23%), even though over the 20 years from 1991 to 2010 its growth rate has remained stationary at 2.77%. If the recognition level for the products of this industry and their growth rates could be increased, there is a splendid chance that it could become the stellar industry. Moreover, the growth rates for organic chemicals and iron and steel products, at 3.44% and 2.14% respectively, are higher than the average growth rate for the total value of imports into Japan (2.06%). There are also products that rank high in importance because their growth rates are high, although their variability of growth is also high. The industries concerned include aerospace parts, precious metals and slag.

5. Concluding remarks

South Korea depends on imports from Japan more than it does on exports to that country, leading to a trade gap between these two countries. Rather than shrinking, this gap has increased over the years becoming a chronic deficit for South Korea. This is not a desirable situation from the viewpoint of reciprocity and future mutual benefit, because South Korea is becoming a bigger customer to Japanese companies. The trade deficit with Japan increased by the average of 3.66% per year during the period 1991 to 2010. However, the average rate of increase from 1998 to 2010 is much higher, at 6.49% per year. Regardless the rates, it is clear that South Korea's trade deficit with Japan has increased substantially. In its trade negotiations with Japan, South Korean government has emphasized the need to tackle the growing trade deficit.

It is necessary to discuss how South Korea can reduce its trade deficit with Japan. In the first place, why should a long-term massive trade deficit in bilateral trade be undesirable? The reason is simple: a structural trade deficit over a long term constrains production and consumption options, which in turn, leads to inefficiencies. If trade is excessively skewed towards a particular region or country, and a country's trade structure becomes dependent on another region or country, its economic activity options could become ineffective. This alone can lead to both consumer and producer inefficiencies. However, putting in place structural economic changes to match the changing times is not an easy task. Therefore, whether South Korea would be able to create a flexible industrial structure is a concern for policy makers.

A trade deficit is influenced by the production and trade structures of the economies involved. South Korea depends on intermediate materials imported from Japan for its export-oriented industrial economic policy, while Japan is more self-sufficient and does not heavily depend on imports from Korea. To lessen the Korea's overdependence on imports from Japan, Korea needs to make greater efforts to strengthen intermediate and capital goods industries. Furthermore, it should increase exports to Japan by establishing complementary relationships with the country that will help to correct its trade imbalance. To establish a more cooperative relationship, both Japan and South Korea should relax various restrictions and avoid discrimination in foreign trade, as pointed out by Chou and Shih (1991).

A deep recognition by both Japan and South Korea of their strategic bilateral partnership is indeed important. We need to seek ways to prevent trade deficits or surpluses from becoming excessively skewed towards a given region or country in order to prevent the development of trade dependency between the two countries and to erect flexible industrial structures.

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