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Empirical study on the intra-industry trade in flower products across Taiwan Strait

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Abstract On the basis of determining the scope of flower products, this paper analyzed the level and structure of intra-industry trade across Taiwan Strait in flower products from 1996 to 2013 by using empirical studies of *G-L* index, Aquino index, Brulhart marginal intra-industry trade index, Thom & McDowell horizontal and vertical intra-industry trade index. The results showed that intra-industry flower trade was still in the low level across Taiwan Straits and was dominated by inter-industry trade. The growth of flower trade between the Chinese mainland and Taiwan was mainly stimulated by inter-industry trade; although the vertical intra-industry trade has been increasing, the horizontal intra-industry trade was the main form of intra-industry trade. Policies on how to promote flowers product trade across Taiwan Strait and strengthen flower industry cooperation between them under the background of ECFA were recommended at the end of this paper.

Keywords flower products; cross Taiwan Strait; intra-industry trade; cooperation
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海峡两岸花卉产品产业内贸易实证分析

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摘 要 近年来,海峡两岸花卉产品贸易呈现出不断攀升的趋势。本研究在界定花卉产品范围的基础上,利用 *G-L* 指数、Aquino 指数、边际产业内贸易指数(B 指数)以及 Thom & McDowell 垂直和水平产业内贸易指数对 1996—2013 年海峡两岸花卉产业内贸易进行实证研究。结果表明:海峡两岸花卉产品产业内贸易水平较低,贸易方式以产业间贸易为主导。产业间贸易是推动两岸花卉贸易发展的主要动力,然而产业内贸易比重有不断增加的趋势;尽管近年来垂直型产业内贸易比重有所增加,两岸花卉产品产业内贸易仍以水平型产业内贸易为主。

关键词 花卉产品;海峡两岸;产业内贸易;合作

Since the 1980s, the flower industries in mainland China and Taiwan region have developed quite differently. Although the flower industry is developing rapidly on the Mainland, it faces the problems such as low labor productivity, imperfect distribution system, low innovation capacity and low-technology operating methods. The flower industry in Taiwan region is developed in a way of high-technology Agriculture: It has made great progress in developing new varieties, product origin grading and packaging, wholesale market auction and transactions. Orchids (*Phalaenopsis* and *Oncidium*)

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and other luxury flower products are world famous and have a unique competitive advantage in international markets. However, it facing the issues of labor shortage and a narrow range of products, thus the growth of the industry in Taiwan is plateauing. With the development of flower industry both in the Mainland and in Taiwan region, total trade value has increased from USD 3 331 000 in 1994 to USD 7 989 000 in 2013.

Intra-industry trade refers to the export and import of similar products within a country (region) or between two economies. The phenomenon of intra-industry trade has become a popular topic in economics studies in the middle and end of the last century[1-6]. In recent years, the study of cross-Strait intra-industry trade began to draw the attention of scholars, most of whom have studied this from a more macro perspective[7-11], and the results indicate that the Mainland and Taiwan region take inter-industry trade as the leading part, but the share of intra-industry trade continues to expand. Moreover, the intra-industry trade focused on high value-added products or products with similar technology levels. To conclude, based on the definition of the product range of flowers, by applying the agricultural trade statistics of Taiwan's Council of Agriculture using *G-L* index, Aquino index, Brulhart marginal intra-industry trade index and Thom & McDowell horizontal vertical intra-industry trade index, this paper takes the study of intra-industry trade as an entry point and analyzes the intra-industry trade issue and the reasons for its occurrence from 1996 to 2013.

1 Analysis of cross-strait flower trade situation

1.1 Definition of the scope and classification of flower products

There is no uniform standard for defining the categories of flower products. In order to reflect the trade situation for flower products between the mainland and Taiwan region more comprehensively, this paper refers to the classification of flower products in Chinese Agricultural Statistics, People's Republic of China Customs Statistics Catalog, China Forestry Statistics Yearbook and Xu Tong's research[12]. Additionally, we have taken the characteristics of flower industry and the degree of difficulty of data obtaining into account. In this paper, we define flower products into 10 categories, namely, seed ball, seedlings, potted plants, ornamental nursery stock, fresh-cut, dry-cut, fresh-cut branch/leaf, dry-cut branch/leaf, seed, and flowers for industrial and other use. The Harmonization System Code for each category is given in Table 1.

Table 1 Classification of main flower products

Classification	Harmonization System Code
Seed ball	060110,060120
Seedlings	060210,06023010,06024010,06029010,06029091
Potted plants	06029092,06029093,06029094,06029095,06029099
Ornamental nursery stock	06023090,06024090
Fresh-cut	060310
Dry-cut	060390
Fresh-cut branch/leaf	060491
Dry-cut branch/leaf	060499
Seed	120910,120921,120922,120923,120924,120925,120929,120930
Flowers for industrial and other use	140110,140120,140190,140420

1.2 Situation of flower trade cross-strait

Fig. 1 shows the flower trade across the Taiwan Strait. From this figure we can see that Taiwan region's flower import from the mainland showed a trend of first decline and then rise. The trade value declined from USD 3 079 000 in 1996 to USD 862 000 in 2003 and then rose to USD 3 308 000 in 2013. In the meanwhile, export from Taiwan region to the mainland rose continuously and then reached a basically stable level. It rose from USD 18 000 in 1996 to USD 5 694 000 in 2003 and then fluctuated at the level of about USD 4 500 000, but has since declined from USD 4 518 000 in 2011 to USD 1 373 000 in 2013. In addition, Taiwan region's flower trade with the Mainland has been in surplus since 1999, but the surplus has declined in recent years, and the net export from Taiwan region to the mainland was USD 1 373 000 in 2013.

In terms of trade structure (Table 2), Taiwan region's main exports to the mainland was potted plants (representing about 73% of exports, and maintained a trade surplus of USD 2 811 800 to the mainland), while the main imports from the mainland was industrial and other uses flowers (about 80%).

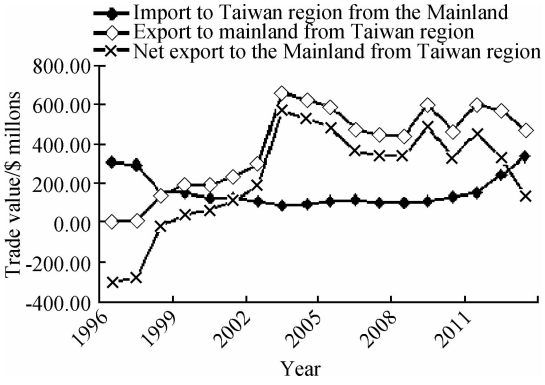

Fig. 1 Flower trade across Taiwan Strait from 1996 to 2013

Table 2 Flower trade cross Taiwan Strait, 1996－2013

Items	Import to Taiwan region from the Mainland/ $ millions	Proportion/ %	Export from Taiwan region to the Mainland/ $ millions	Proportion/ %	Net export to the Mainland from Taiwan region/ $ millions
Seed ball	6.81	4.32	0.27	0.07	－6.54
Seedlings	2.81	1.78	24.70	6.37	21.89
Potted plants	0.41	0.26	281.58	72.66	281.18
Ornamental nursery stock	0.00	0.00	0.00	0.00	0.00
Fresh-cut	0.00	0.00	0.07	0.02	0.07
Dry-cut	1.86	1.18	0.03	0.01	－1.83
Fresh-cut branch/leaf	0.00	0.00	0.09	0.02	0.09
Dry-cut branch/leaf	3.59	2.28	0.69	0.18	－2.90
Seed	16.02	10.16	10.08	2.60	－5.94
Flowers for other use	126.14	80.02	70.02	18.07	－56.12

2 Measurement methods of flower trade cross the Taiwan Strait

2.1 *G-L* index of intra-industry trade

Grubel and Lloyd industry trade index (referred to as *G-L* index) [13] is currently the most commonly used method to study intra-industry trade. This index analyzes the intra-industry trade level of a country or region over a period of time from a static point of view.

Its calculation formula is:

$$GL\text{IITI} = 1 - \frac{|X_i - M_i|}{X_i + M_i} \quad (1)$$

In formula (1), GLIITI refers to the intra-

industry trade index of a certain flower product i; X_i and M_i refers to the export and import value of product i, the value of this index is among 0 to 1, and the closer it is to 1, the greater proportion of intra-industry trade. Commodities with an intra-industry trade index more than 0.8 is treated as intra-industry trade products internationally.

$$GL\text{IIT} = \sum_{i=1}^{n} m_i GL\text{IIT}_i \tag{2}$$

In formula (2), GLIIT refers to the intra-industry trade index of aquatic products in general in a certain period; m_i is the trade weights of flower products in i category, which is $(X_i + M_i)/(X + M)$; X and M refers to exports and imports value respectively. 0.5 is a critical point, if the value of $GLIIT$ is more than 0.5 it indicates an advantage in intra-industry trade, while less than 0.5 refers to disadvantage.

2.2 Aquino index

Aquino index is a bias correction of G-L index when the downward bias occurred in trade imbalance. Aquino believes that a country's trade surplus or deficit will have an equal proportion impact on certain industries' import and export. Therefore, one must calculate the amount of exports and imports of various industries as amended, and then calculate the G-L index[14]. Specific formula is as follows:

$$Q_i = 1 - \frac{|\, aX_i - bM_i \,|}{aX_i + bM_i} \tag{3}$$

In formula (3):

$$a = \frac{\sum_{i=1}^{n}(X_i + M_i)}{2\sum_{i=1}^{n} M_i}; b = \frac{\sum_{i=1}^{n}(X_i + M_i)}{2\sum_{i=1}^{n} M_i}$$

$$Q = \frac{\sum_{i=1}^{n} |\, aX_i - bM_i \,|}{\sum_{i=1}^{n}(aX_i + bM_i)} \tag{4}$$

In formula (4), a represents the ratio of the total trade value of all main flower products to two times' total export value, while b represents the ratio of the total trade value of all main flower products to two times' total import value. Q_i is the adjusted intra-industry trade index of the i category flower products, and Q is the adjusted intra-industry trade index for all flower products.

2.3 Marginal intra-industry trade index

The intra-industry trade index is the index proposed by Brulhart based on the calculation of G-L index. It is used to calculate the intra-industry trade level of trade increments in a certain period[15]. The index is based on the amount of trade changes, and can better evaluate the changing trends of cross-strait trade patterns for flower industry, which is calculated as:

$$B_i = 1 - \frac{|\, \Delta X_i - \Delta M_i \,|}{|\, \Delta X_i \,| + |\, \Delta M_i \,|} \tag{5}$$

$$B = 1 - \frac{\sum_{i=1}^{n} |\, \Delta X_i - \Delta M_i \,|}{\sum_{i=1}^{n}(|\, \Delta X_i \,| + |\, \Delta M_i \,|)} \tag{6}$$

B_i in formula (5) and (6) is the marginal intra-industry trade index of flower products in category i, and ΔX_i and ΔM_i refers to export increment and import increment of flower products in both sides in a certain period; i means the category of flower products and B is the total intra-industry trade index. The value of B_i and $B$is in the range of 0 to 1. When the value is 0, it means that the trade between the two sides of the Taiwan Strait in flower products is pure inter-industry trade, while 1 indicates that the marginal trades are all intra-industry trade.

2.4 Thom & McDowell horizontal and vertical intra-industry trade index

Thom & McDowell put forward horizontal and vertical intra-industry trade index, and it can be used to analyze and judge the flower trade across the Taiwan Strait is vertical or horizontal[4]. The specific formula is as follows:

$$A_t = 1 - \frac{\left| \sum_{i=1}^{n}(\Delta X_i - \Delta M_i) \right|}{\sum_{i=1}^{n}(|\, \Delta X_i \,| - |\, \Delta M_i \,|)} \tag{7}$$

$$A_v = A_t - A_h \tag{8}$$

ΔX_i and ΔM_i in formula (7) and (8) refers to the export and import value of flower products

trade respectively; i is products category; A_t means marginal total industry trade index and A_h is horizontal intra-industry trade index; it is the same as the marginal intra-industry trade index that calculated in formula (6); A_v is vertical intra-industry trade index. When $A_v > A_h$, it means the main intra-industry trade type is vertical trade, while $A_v < A_h$ means horizontal trade is the major trade type.

3 Result analysis of intra-industry trade for flower products between the two sides of the Taiwan Strait

3.1 *G-L* index analysis

Table 2 shows the intra-industry trade index for flower products between the two sides of the Taiwan Strait from year 1996 to 2013. Table 2 shows the ratio of intra-industry trade for flower products across the Taiwan Strait is increasing, the *G-L* index rose from 0.01 in 1996 to 0.35 in 2013. However, inter-industry trade is still the main form of cross-strait flower products trade, and among all the years, the *G-L* index is below 0.5. From the perspective of different types, the intra-industry trade for "industrial and other uses of flowers" is the highest and shows a tendency of intra-industry trade, and 7 years of the *G-L* index exceeds 0.8 for all the 10 years. In addition, the percentage of "seed" products for intra-industry trade is increasing as well, while its *G-L* index in 2012 and 2013 was 0.47 and 0.54, respectively. The intra-industry trade level for all the other flower products are extremely low, for the vast majority of years, the *G-L* index is close to zero.

Table 2 *G-L* index of flower trade cross the Taiwan Strait, 1996—2013

Year	Seed ball	Seedlings	Potted plants	Ornamental nursery stock	Fresh-cut	Dry-cut	Fresh-cut branch/leaf	Dry-cut branch/leaf	Seed	Flowers for industrial and other use	Total flower products
1996	0.24	NA	NA	NA	NA	0.14	NA	0.00	0.00	0.00	0.01
1997	0.00	0.00	0.00	NA	0.00	0.00	NA	0.00	0.00	0.01	0.01
1998	0.00	0.00	0.00	NA	NA	0.00	NA	0.00	0.00	0.04	0.02
1999	0.00	0.00	0.00	NA	NA	0.00	NA	0.00	0.13	0.07	0.04
2000	0.00	0.00	0.00	NA	0.00	0.00	NA	0.00	0.02	0.12	0.05
2001	0.13	0.00	0.00	NA	0.00	0.00	NA	0.90	0.06	0.10	0.06
2002	0.00	0.04	0.00	NA	NA	0.00	NA	0.57	0.24	0.06	0.05
2003	0.00	0.07	0.00	NA	NA	0.00	NA	0.00	0.03	0.99	0.20
2004	0.29	0.04	0.00	NA	NA	0.00	NA	0.00	0.95	0.85	0.24
2005	0.00	0.23	0.00	NA	NA	0.00	NA	0.12	0.44	0.93	0.27
2006	0.53	0.04	0.00	NA	NA	NA	NA	0.00	1.00	0.87	0.37
2007	0.00	0.09	0.01	NA	NA	0.00	NA	0.00	0.00	0.83	0.30
2008	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.78	0.25
2009	0.00	0.00	0.00	NA	NA	NA	NA	0.15	0.12	0.69	0.18
2010	0.00	0.00	0.01	NA	NA	0.19	NA	0.03	0.04	0.65	0.21
2011	0.00	0.00	0.02	NA	NA	0.00	NA	0.07	0.00	0.84	0.26
2012	0.00	0.47	0.00	NA	NA	0.06	0.00	0.00	0.01	0.81	0.33
2013	0.00	0.54	0.00	NA	NA	0.00	NA	0.00	0.03	0.64	0.35

3.2 Analysis of Aquino index

As can be seen from Fig. 2, the intra-industry trade index for flower products between the two sides of the Taiwan Strait was less than 0.5 for both *G-L* and Aquino index. Therefore, inter-industry trade is the major form of trade in the cross-strait flower products trade, and the difference of factor endowment is the reason for promoting cross-strait flower trade. However, both indexes increased from 1996 to 2013, from 0.01 and 0.05 to 0.35 and 0.32, respectively. Also, the value of Aquino index is greater than *G-L* index from 1996 to 1998, but the reverse from 2003 to 2007. This is mainly because in the first period the flower products trade from the Mainland to Taiwan was in surplus, while in the second period, the surplus was from Taiwan region to the Mainland. After 2009, these two indices gradually converged, which indicates that flower trades for the two sides of cross-strait became more frequent and trade imbalances had been alleviated.

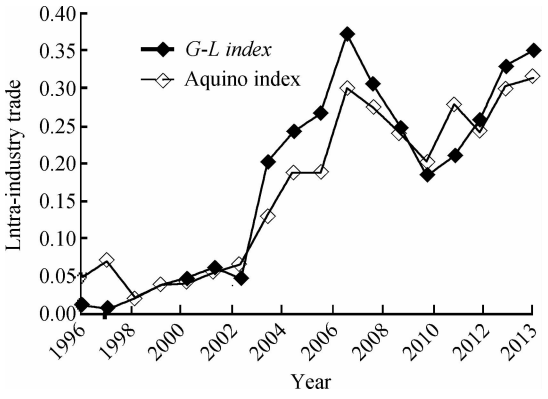

Fig. 2 General intra-industry trade index trend of flower products cross the Taiwan Strait, 1996—2013

3.3 Analysis of marginal intra-industry trade index

In Table 3 it can be seen that although the trade stimulated by intra-industry trade for all flower products increased dramatically in certain years, the overall level of marginal industry trade is still very low, with an average of only 0.1. However, the marginal industry trade index showed a rising trend from 1996—1997 to 0.18 in 2012—2013. From the perspective of sub-types, the intra-industry trade level for all flower products are not high, for the average are all 0.20 or less, but in recent years, the marginal intra-industry trade index for "Seedlings", "seeds", and "industrial and other uses of flowers" has improved. In 2013, the marginal intra-industry trade index for the three types of flower products were 0.36, 0.16 and 0.24, respectively, which indicates that intra-industry trade was increasingly important in promoting the trade in these three types of products. However, the intra-industry trade level for "potted plants", "fresh-cut" and "fresh-cut branch/leaf" were very low, almost zero in all years. Overall, the changes in cross-strait flower product trade of various types appeared to have been caused by inter-industry trade, but the proportion of intra-industry trade has shown an increasing trend.

3.4 Analysis of Thom & McDowell horizontal and vertical intra-industry trade index

The value of total marginal intra-industry trade index value was 0.24 from 1996 to 2013 (Table 4), while marginal inter-industry trade index value was 0.76. This indicates that trade increments caused by intra-industry trade were 24% while inter-industry trade caused 76% of the trade increments. It is obvious that though both intra-industry trade and inter-industry trade induced trade increase of flower products cross-strait, inter-industry trade is still the main driver of growth. In addition, the horizontal industry trade index of cross-strait flower trade is 0.08, while the vertical industry trade index is 0.16, accounting for about 32% and 68% in marginal intra-industry trade, respectively. This means vertical intra-industry trade is the main form of marginal intra-industry trade for cross-strait flower products.

Judging from the trends, although the value of cross-strait trade index fluctuated dramatically in different years for cross-strait flower products trade, through calculation we can see that the average value of total marginal intra-industry trade index was 0.30 from 1996 to 2005 and increase to

Table 3 Marginal intra-industry trade index of flower products cross the Taiwan Strait, 1996—2013

Duration	Seed ball	Seedlings	Potted plants	Ornamental nursery stock	Fresh-cut	Dry-cut	Fresh-cut branch/ leaf	Dry-cut branch/ leaf	Seed	Flowers for industrial and other use	Total flower products
1996—1997	0.00	0.00	0.00	NA	0.00	1.00	NA	0.00	0.00	0.00	0.01
1997—1998	0.00	0.00	0.00	NA	0.00	0.00	NA	0.00	0.00	0.00	0.00
1998—1999	NA	0.00	0.00	NA	NA	0.00	NA	0.00	0.07	0.00	0.03
1999—2000	0.00	0.00	0.00	NA	0.00	0.00	NA	0.00	0.00	0.00	0.00
2000—2001	0.00	0.00	0.00	NA	NA	0.00	NA	0.75	0.22	0.00	0.07
2001—2002	0.30	0.05	0.00	NA	0.00	0.00	NA	0.00	0.00	0.38	0.07
2002—2003	0.00	0.00	0.00	NA	NA	0.00	NA	0.20	0.00	0.00	0.00
2003—2004	0.00	0.17	0.00	NA	NA	0.00	NA	0.00	0.00	0.21	0.08
2004—2005	0.82	0.00	0.00	NA	NA	0.00	NA	0.80	0.38	0.00	0.09
2005—2006	0.33	0.00	0.00	NA	NA	0.00	NA	0.30	0.00	0.62	0.12
2006—2007	0.67	0.00	0.31	NA	NA	0.00	NA	0.00	0.00	0.95	0.58
2007—2008	0.00	0.83	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.79	0.41
2008—2009	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.40	0.29	0.00	0.03
2009—2010	0.00	0.00	0.00	NA	NA	0.19	NA	0.00	0.00	0.00	0.00
2010—2011	0.00	0.00	0.04	NA	NA	0.35	NA	0.00	0.14	0.25	0.08
2011—2012	0.00	0.60	0.11	NA	NA	0.09	0.00	0.00	0.30	0.00	0.24
2012—2013	0.00	0.36	0.00	NA	NA	0.00	0.00	0.00	0.16	0.24	0.18
Average	0.13	0.12	0.03	NA	0.00	0.10	0.00	0.14	0.09	0.20	0.11

Table 4 Intra-industry trade changes of flower products cross the Taiwan Strait

Duration	Marginal intra-industry trade	Horizontal intra-industry trade	Vertical intra-industry trade	Total marginal inter-industry trade
1996—1997	0.33	0.01	0.32	0.67
1997—1998	0.01	0.00	0.01	0.99
1998—1999	0.09	0.03	0.07	0.91
1999—2000	0.53	0.00	0.53	0.47
2000—2001	0.53	0.07	0.46	0.47
2001—2002	0.34	0.07	0.27	0.66
2002—2003	0.13	0.00	0.13	0.87
2003—2004	0.61	0.08	0.53	0.39
2004—2005	0.15	0.09	0.06	0.85
2005—2006	0.46	0.12	0.34	0.54
2006—2007	0.77	0.58	0.19	0.23
2007—2008	0.95	0.41	0.54	0.05
2008—2009	0.17	0.03	0.14	0.83
2009—2010	0.20	0.00	0.20	0.80
2010—2011	0.47	0.08	0.39	0.53
2011—2012	0.53	0.24	0.29	0.47
2012—2013	0.21	0.18	0.03	0.79
1996—2013	0.24	0.08	0.16	0.76

0.43 from 2006 to 2013, the corresponding annual average value of marginal intra-industry trade index increased from 0.04 to 0.19 as well. It can be seen that, although inter-industry trade is the main

driver that promote cross-strait flower products trade, the proportion of intra-industry trade is increasing, where the component of horizontal intra-industry trade has also increased.

4 Conclusions

4.1 Main conclusions

From the analysis above, we can draw the following conclusions:

1) In recent years, Taiwan region's flower export value to the mainland has been relatively stable, while import from the mainland is increasing. Taiwan region's trade to the mainland has remained in surplus, but this surplus has gradually decreased.

2) The main form of cross-Strait flower products trade has been inter-industry trade, but the composition of intra-industry trade has increased. From the perspective of sub-types, industrial and other uses of flowers showed a characteristic of intra-industry trade, while the other nine categories of products are mainly inter-industry trade, and the proportion of intra-industry trade for seed products has increased.

3) From the perspective of marginal intra-industry trade analysis, the growth of cross-strait flower products trade was mainly inter-industry trade, but in recent years the proportion of intra-industry trade has risen. Among which, the proportion of marginal intra-industry trade for "seedlings", "seeds", and "industrial and other uses of flowers" increased steadily.

4) Finally, although the flower products trade was mainly inter-industry trade-oriented, with frequent exchanges between Taiwan region and the mainland, flower products trade has increased in the form of intra-industry trade.

4.2 Policy implications for cross-strait flower products trade promotion under the framework of ECFA

1) Make full use of the complementary characteristics of cross-strait flower products trade and promote the trade of flower products.

From the above analysis, the cross-strait flower products trade has been mainly inter-industry trade, therefore to make full use of the complementary characteristics of cross-strait flower products trade and promote the trade of flower products has become the key for cross-strait flower industry cooperation. Potted plants is the major export product for Taiwan region, in 2013 Taiwan region's exports of these products accounted for 72% of Taiwan region's total exports of flower products (in which, potted *Phalaenops* is accounted for 80% of potted plants), but Taiwan region's export value of these products to the mainland accounted for only 2.5% of total export.

The "industrial and other uses of flowers products" is the favored product for the mainland to Taiwan region trade. In 2013 it accounted for 77% of flower exports to Taiwan region. In ECFA's early harvest list in the mainland there was only *Oncidium*, while there was no flower products in Taiwan region's early harvest list[16]. To this end, the category of "potted plants" should be added in ECFA's mainland list, particularly *Phalaenopsis* products should be added and given preferential policies like import tariff concessions and sales platform construction, and Taiwan region should increase the list of industrial and other uses of flowers to meet the needs of that type of product for people in Taiwan region.

2) Accelerate the intra-industry trade of flower products of Taiwan region and the mainland, especially the horizontal intra-industry trade.

From the intra-industry trade index we can see that the intra-industry trade proportion of cross-strait is increasing (especially the "seedlings", "seeds", and "industrial and other uses of flowers"), and the component of horizontal intra-industry trade is increasing. Because of the development of the mainland's flower industry, the intra-industry trade between Taiwan region and the mainland becomes possible and the trade will become more balanced. Therefore, to promote the

flower industry trade for cross-strait, the horizontal intra-industry trade led by color and variety difference is especially important. In promoting the cross-strait flower products trade, there should be a focus on the three categories of "seedlings", "seeds", and "industrial and other uses of flowers", and adjusted superior products' tariff levels according to actual needs and to meet the diverse needs of people in both Taiwan region and the mainland.

3) Broaden the cooperation of the cross-strait flower industry

Currently, the cross-strait trade in flower products is led by inter-industry trade; therefore, industrial division based on comparative advantage is still the division basis for cross-strait flower industry. There are many complementary aspects for cross-strait flower industry. For example, in the production area, the mainland has a greater variety of flowers due to its land area, while Taiwan region's flower planting technology is highly refined due to the early development of Taiwan region's flower industry. Therefore the two sides are complementary. The mainland provides a favorable investment opportunity for Taiwan region. Firstly to introduce advanced production technology to the mainland, to cultivate flower products with competitive advantage of the mainland's rich natural resources. Then to accelerate the mainland's flower wholesale market and auction market by drawing Taiwan region's successful experience of flower auction market, to form a market service system supporting modern industrial development, making full use of the complementary strengths of both sides. Finally, to explore the common market and carry out the different marketing strategies according to the characteristics of market demand by the consultations cooperation agreement in the field of international marketing and focusing on the international market demand structure under the economic cooperation framework of "enhancing SME cooperation competitiveness by promoting cooperation and establishing cross-strait economic and mutual trade associations and offices" in Economic Cooperation Framework Agreement(ECFA)[16].

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