# China & Mexico: Comparison of Trade Competitiveness

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### Abstract

Since the 1990s, China and Mexico have both made progresses in their foreign trade. With the expansion of their trade volumes and overseas markets, the overlapping parts of their exporting products and markets have been being enlarged, which brought competition between the two nations. By calculating the major competitiveness indicators, this article will compare China's and Mexico's trade competitiveness in the global market and those main third-party markets, so as to describe the rivalry of these two countries in the aspects of the overall and the specific industries.

Key Words: China; Mexico; Trade; Competitiveness

# 1. Introduction

Since the 1990s, China and Mexico have both made progress in their foreign trade in the background of the global integration and the regional consolidation, which makes them outstanding in the developing economies. From 1992 to 2006, with an average growth rate of 18.2%, China becomes the world's third biggest export economy with its total export of \$969 billion in 2006. Meanwhile, through an average increase of 12.9%, Mexico's export amounted to \$250.4 billion and ranked the 15<sup>th</sup> in the world in the same year.

With the expansion of their trade volumes and overseas markets, the overlapping parts of China's and Mexico's exporting products and markets have been being enlarged. Thus the voices that the fierce competition exists between the two nations and even the so called "China threatens" arise. At the same time, some scholars turned to the competitive or complementary trade relation between China and Mexico and made relevant empirical analyses on it. Soler (2003) finds that China has deteriorated Mexico's export more or less. By comparing the trade competitiveness indices among China, other Asian economies and Latin American countries, Lidoy et al (2004)<sup>(1)</sup> believe that there's significant rivalry between China and Mexico. Bernard et al (2004)<sup>(2)</sup> make comparison between China and other US' main import

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<sup>&</sup>lt;sup>(1)</sup> Lidoy, J. B., Rodriguez, J. and J. Santiso (2004). Angel or Devil? Chinese trade impact on Latin American Emerging Markets. Downloaded from

 $http://www.ids.ac.uk/UserFiles/File/globalisation\_team/asian\_driver\_docs/SantisoBackgroundPaper.pdf.$ 

<sup>&</sup>lt;sup>®</sup> Bernard, A. B., Jensen, J. B. and Schott, P. K. (2004). Facing the dragon: prospects for U.S. manufacturers in

origins, and argue that the exports similarity between China and Mexico is relatively higher. Peters  $(2005)^{\odot}$  suggests that China, after its accession into the World Trade Organization (WTO), has affected Mexico's position in the US market due to their similar resource endowments and export-oriented policies. Jia  $(2005)^{\odot}$  investigates the competitiveness and complementariness in Sino-Latin America trade and find there is much resemblance in the exports of the pre-mentioned two countries. Liu  $(2007)^{\odot}$  reports the competitive industries between the two nations through empirical studies.

Based on the above investigations, this paper will compare China's and Mexico's trade competitiveness in the world and those main third-party markets by calculating the major competitiveness indices, so as to describe the contest of these two countries in the aspects of the overall and the specific industries.

The paper is organized as follows: Section 2 provides a brief description for the data and concepts of indices; Section 3 examines the exporting markets and products structures of China and Mexico; Section 4 empirically tests the industrial and overall competitiveness or complementariness of the two countries; and Section 5 draws conclusions on the whole paper.

#### 2. Data and concepts

This article will use descriptive statistics and econometric indices to make the comparative analyses on China's and Mexico's trade competitiveness. At the beginning, the paper is to compare the structures of exporting products and markets and thus draw the outline of the actual competition between the two economies. Furthermore, three indices, i.e. the Export Similarity Index, the Revealed Comparative Advantage and the Spearman's Rank Correlation Coefficient, are to be introduced to measure the competiveness in the whole trade and the specific industries. Among these three indices, the first one can illustrate the scope of the rivalry while the latter two explain its depth.

The Export Similarity Index (ESI) in this paper will measure the resemblance of exports between China and Mexico in the world and the main third-party markets. The index should be calculated as

$$\mathrm{ESI}_{ij} = \{ \sum_{1} \left[ \left( \frac{X_{ik}^{1} / X_{ik} + X_{jk}^{1} / X_{jk}}{2} \right) \left( 1 - \left| \frac{X_{ik}^{1} / X_{ik} - X_{jk}^{1} / X_{jk}}{X_{ik}^{1} / X_{ik} + X_{jk}^{1} / X_{jk}} \right) \right] \} \times 100$$

Where  $ESI_{ij}$  is the Export Similarity Index between Country i and j;  $X_{ik}^{1}$  is

Country i's export value of one product to Market k;  $X_{ik}$  is its total export to Market

the coming decade. http://www.som.yale.edu/faculty/pks4/files/research/papers/dragon.pdf.

<sup>&</sup>lt;sup>(1)</sup> Peters, E. (2005). Implications of China's recent economic performance for Mexico. Downloaded from http://library.fes.de/pdf-files/iez/global/50197.pdf

<sup>&</sup>lt;sup>(2)</sup> Jia, L. (2005). Empirical studies on the trade complementariness between China and the main Latin America countries. *World Economic Studies* 11, 85-89.

<sup>&</sup>lt;sup>®</sup> Liu, X. (2007). Empirical studies on the trade relations between China and Mexico. *International Trade Issues* 7, 38-44.

k. This index varies between 0 and 100. If the commodity distribution of Country i's and j's exports are identical, the index will take on a value of 100. If i's and j's exports patterns are totally dissimilar, the index will take on a value of 0. The increase of  $\text{ESI}_{ij}$  shows the higher similarity of two countries' exporting products, and reflects the greater competition. An increase over time of  $\text{ESI}_{ij}$  indicates a convergence of the two countries' exporting structures, which also suggests greater competition between the two countries in the world or the third-party markets. On the other hand, a decline in the index means that specialization between them is increasing in a third market.

In order to compare China's and Mexico's competition on the specific industries or products in the world and the main third markets<sup>①</sup>, the Balassa Revealed Comparative Advantage (RCA), which measures a specific product's share in the country's total exports relative to a share of this product in the world trade, is to be used.

#### $RCA_{ij} = (X_{ij}/X_{tj}) \div (X_{iw}/X_{tw})$

Where  $RCA_{ij}$  is Country j's revealed comparative advantage on Product i;  $X_{ij}$  is its export of Product i;  $X_{tj}$  is its total export value;  $X_{iw}$  is the world export of Product i.

When RCA<sub>ij</sub> is more than 1, it indicates economy j has comparative advantage in product i in the world, and when RCA<sub>ij</sub> is less than 1, it shows economy j has no comparative advantage in product i in the world. To be specific, if RCA<sub>ij</sub> is more than 2.5, this economy has very strong competitiveness in product i in the world; if RCA<sub>ij</sub> is between 2.5 and 1.25, this economy has strong competitiveness in product i in the world; if net world; if RCA<sub>ij</sub> is between 1.25 and 0.8, this economy has competitiveness in product i in the world; if RCA<sub>ij</sub> is less than 0.8, this economy is competitively weak in product i in the world.

With the RCA, the Spearman's Rank Correlation Coefficient  $(r_s)$  can be

calculated to explain the thorough competitiveness or complementariness between the studied countries.

$$r_s = 1 - 6\sum_{i=1}^{n} d_i^2 / n(n^2 - 1)$$
  
Where  $d_i^2 = [RCA(CN)_i - RCA(MX)_i]^2$ ; RCA(CN) and RCA(MX) are

respectively China's and Mexico's RCA.  $r_s$  is ranged from -1 to +1. The

positive mark shows that competition exists between the two nations and its degree increases with the increment of the value; while the negative one proves the complementariness relations and its degree rises with the elevation of the absolute value.

Most data used in this article is from the UN Comtrade database while the US data comes from the TradeStats Express of the US Ministry of Commerce. To keep the completion and consistence of the data, "HS 1992" classification rule is adopted

<sup>&</sup>lt;sup>10</sup> The modified RCA is used to examine the third-party market.

and the 2-Digits HS code is to be taken to make sort and comparison.<sup>①</sup> Due to the availability of the data, this paper will select the investigation period from 1992 to 2006.

# 3. China & Mexico: comparison of exporting structure

The concentration of the exporting structures of both China and Mexico brings the overlapping of the leading exporting products and the markets, which introduces some competition in their foreign trade.

# 3.1. Exporting products

In the year 2006, China mainly exports the mechanical and electronic products, electrical equipments, transport equipments, apparels, furniture, toys and etc. Among them, the aggregated value of the 10 leading exporting commodities is \$660.2 billion, contributing 68.1% of the total exports. In the same year, Mexico mainly exports the oil, transport equipments, mechanical and electronic products, electrical equipments and etc. The exports of the 10 leading products come to \$203.2 billion, taking 81.2% of the total exports. Apparently, the exporting compositions of both China and Mexico are highly concentrated.

Mexico				China			
HS	Export value	% of total	% of world	HS	Export value	% of total	% of world
code	(\$ billion)	exports	exports	code	(\$ billion)	exports	exports
85	61.7	24.7	3.8	85	227.5	23.5	14.0
87	39.5	15.8	4.0	84	1886.6	19.3	11.9
27	38.6	15.5	2.2	61	44.9	4.6	30.8
84	32.7	13.1	2.1	62	43.7	4.5	27.5
90	8.7	3.5	2.3	90	32.6	3.4	8.8
<i>94</i>	5.9	2.4	4.3	94	28.0	2.9	20.4
39	5.0	2.0	1.3	73	26.8	2.8	12.9
73	3.8	1.5	1.8	72	25.1	2.6	7.7
62	3.8	1.5	2.4	95	22.6	2.3	33.1
7	3.5	1.4	9.1	87	22.4	2.3	2.3

 Table 1. China's & Mexico's 10 leading exporting commodities (2006)

Source: UN International Trade Centre.

Table 1 shows that 7 of the 10 leading exporting commodities of China and Mexico are identical, which demonstrates the existence of certain degree of competition in the relevant industries. Specifically, the competition focuses on the manufactured goods, especially on the following products: HS-Code Chapter 85-electrical, electronic equipment; Chapter 62- articles of apparel, accessories, not knit

<sup>&</sup>lt;sup>(9)</sup> In the Harmonized Code System (HS-Code), Chapter 98 and 99 belong to Section XXII "Commodities & Transactions Not Classified According to Kind". This paper will thus investigate the commodities between Chapter 1 and 97.

or crochet; Chapter 73- articles of iron or steel; Chapter 84- nuclear reactors, boilers, machinery, etc; Chapter 87- vehicles other than railway, tramway; Chapter 90- optical, photo, technical, medical, etc apparatus; and Chapter 94- furniture, lighting, signs, prefabricated buildings.

# 3.2 Exporting markets

The exporting markets of the two studied economies are also concentrated. In 2006, the exports share of the 10 leading markets of China and Mexico are respectively 79.1% and 94%. Particularly, US, EU, Latin America and the Caribbean are Mexico's main target markets; US, EU and Asia focus most of China's exports (see table 2). It could be find that both nations attach importance to the US and EU markets when they are trying to enter their neighbor regions. The US and EU markets are therefore the main third-party markets in the competition between China and Mexico.

		Mexico				
	Eurortine merizete	Export value	% of total	Exporting	Export value	% of total
	Exporting markets	(\$10 billion)	exports	markets	(\$10 billion)	exports
1	US	20	21.0%	US	21	84.9%
2	EU	18	18.8%	EU	1.1	4.3%
3	Hongkong, China	16	16.0%	Colombia	0.21	0.9%
4	Japan	9	9.5%	Venezuela	0.18	0.7%
5	Korea	4	4.6%	China	0.17	0.7%
6	Singaport	2	2.4%	Japan	0.16	0.6%
7	Taiwan, China	2	2.1%	Aruba	0.15	0.6%
8	Russia	2	1.6%	Brazil	0.11	0.5%
9	Canada	2	1.6%	Argentina	0.10	0.4%
10	India	1	1.5%	Guatemala	0.09	0.4%
_	Total	77	79.1%	Total	23	94.0%

 Table 2. China's & Mexico's 10 leading exporting markets (2006)

Source: China's exporting data is from the import & export statistics of Chinese Ministry of Commerce; Mexico's exporting data comes from UN ECLAC's SIGGI database.

US is Mexico's most important trade partner and takes 84.9% of its exports in the year 2006. Since the ratification of NAFTA in 1994, Mexico has maintained a stable market share in the States. In comparison, China, who also takes US as the first target market, takes more and more partition in the US import. In 2001, China beat Mexico for the first time in history in the US market (see figure 1). At present, the overlapping part of both countries' 10 leading exporting goods in the US market covers the products under HS-Code Chapter 85, 84 and 94.



Figure 1. China's & Mexico's share in the US market (%)

Source: Calculated on the data from the TradeStats Express of the US Ministry of Commerce.

EU is both countries' second overseas market and takes respectively China's and Mexico's exports 18.8% and 4.3% in 2006. Both countries' 10 leading exporting goods in EU market include the products under HS-Code Chapter 85, 84 and 90.

#### 4. China & Mexico: comparison of export competitiveness

# 4.1. Comparison of the export similarity index

The ESI is used to quantify the extent of export resemblance between China and Mexico. Table 3 presents that the ESI between two countries in the global market is as high as 65.88, which may explain the rivalry between them. Lower than the index in the global market, the ESI in the US market is 56.98. The index in the EU market is 44.21, a little lower than it in the other two compared markets. The reasons for bigger dissimilarities in US and EU markets lie in three aspects. Firstly, the free trade agreements signed by Mexico with US and EU help to cut down the export costs, which "squeeze" Chinese competitive products in the same markets. Secondly, Mexico's geographical close to the States also squeezes, on some extent, Chinese similar commodities. Thirdly, the relatively lower import origin concentration of EU brings cut-throat competition and the third competitors in this market play some substituting roles to the studied two economies<sup>①</sup>.

Table 3 also shows that the ESI between China and Mexico in the global market increased gradually from 48.47 to 68.56 between the year 1992 and 2004, which suggests greater competition between the two countries due to the similar export distribution. After 2004, with the increase of Chinese capital-intensive exports and Mexico's resource-intensive product (as the crude oil) pushed by the higher and higher price of primary commodities, the difference between the exporting structures of the two countries has been getting larger. As a result, the ESI appears

<sup>&</sup>lt;sup>®</sup> According to UNCTAD, the import origin concentration of US and EU is respectively 0.119 and 0.07 in 2006.

to decrease, which means the convergence of competition field between the studied two economies. In the US market, the ESI reflects alike tendencies of variations, which suggests that the competition scope between the two nations has shrank in recent years after the expansion several years ago.

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Table 3. China's & Mexico's ESI						
	ESI (World)	ESI (US)	ESI (EU)			
1992	48.47	39.76	-			
1993	49.34	41.33	-			
1994	49.64	45.74	-			
1995	54.98	49.23	-			
1996	56.41	49.39	-			
1997	57.94	50.50	-			
1998	59.56	53.07	-			
1999	60.50	54.75	-			
2000	62.36	57.01	-			
2001	64.40	55.91	-			
2002	66.98	57.17	-			
2003	66.53	57.27	-			
2004	68.56	59.36	48.86			
2005	67.39	58.46	41.93			
2006	65.88	56.98	44.21			

Source: The world and the EU market indices are calculated on the data from UNCOMTRADE; the US market index is calculated on the data from the TradeStats Express of the US Ministry of Commerce.

### 4.2. Comparison of the revealed comparative advantage

RCA is used to analyze China's and Mexico's competitiveness of the exporting industries/ products in 2006. Table 4 shows those industries/ products which have revealed competitive advantages.

China is dominated in the global market. As in Table 4, China has very strong competitiveness in 15 exporting products and strong competitiveness in 23 products. Mexico has very strong competitiveness in one of its exports and strong competitiveness in 12 products. China has revealed competitive advantages in the industries as meat processing, aquatic product processing, textile, apparel, footwear, leather, toy, iron and steel, lead, metal fittings, glass manufacturing, mechanical manufacturing, music instrument manufacturing and etc. On contrast, Mexico's revealed competitiveness lies in such industries as the poultry and livestock production, fruit and vegetable, sugar, beverage, zinc manufacturing, automobile manufacturing and so on. The competitive conflicts between the two countries take place on those products under HS-Code Chapter 14 (vegetable plaiting materials, vegetable products nes), 83 (miscellaneous articles of base metal), 85, 36 (explosives,

pyrotechnics, matches, pyrophorics, etc), 69 (ceramic products), 86 (railway, tramway locomotives, rolling stock, equipment), 94 and 96 (miscellaneous manufactured articles). Among them, Mexico takes advantages in the first 3 products, while China is ahead in the latter 5 ones.

		Very Strong		Competitiveness	
		Competitiveness	Strong Competitiveness		
World	China	$\begin{array}{c} 42(3.81), & 46(8.08), \\ 50(5.02), & 58(3.42), \\ 60(2.76), & 61(4.01), \\ 62(3.57), & 63(4.05), \\ 64(3.74), & 65(4.50), \\ 66(7.42), & 67(5.85), \\ 86(2.98), & 95(3.96), \\ 96(2.64) \\ \hline 7(4.27) \end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		
	Mexico		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
US	China	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	23(1.03), 44(0.84), 52(1.00) , 56(0.94), 57(1.05), 68(1.18), 80(1.10), 81(0.88), 91(1.09)	
	Mexico	7(5.47), 14(3.40)	$\begin{array}{l} 1(1.90), & 8(2.06), & 17(2.43), \\ 22(1.49), & 34(1.42), & 36(1.36), \\ 54(1.29), & 70(1.75), & 69(1.25), \\ 79(1.88), & 83(1.57), & 85(1.93), \\ 87(1.44), & 90(1.26), & 94(1.29), \\ 96(1.25) \end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	
EU	China	5(2.58), $36(3.26)$ , 42(3.87), $46(4.32)$ , 50(3.70), $58(2.60)$ , 64(2.60), $65(4.21)$ , 66(5.35), $67(4.78)$ , 69(2.77), $83(2.87)$ , 94(2.95), $95(4.69)$ , 96(3.02)	$\begin{array}{c} 14(2.17), \ 34(1.39), \ 43(2.17) \ , \\ 49(1.32), \ 51(1.55), \ 53(1.96), \\ 60(1.28), \ 61(1.62), \ 62(2.38), \\ 63(2.17), \ 68(1.81), \ 70(1.81), \\ 73(1.89), \ 81(1.59), \ 82(2.05), \\ 84(1.93), \ 85(1.98), \ 91(1.50), \\ 92(2.18), \end{array}$	25(0.95), 39(1.08), 44(0.89), 54(1.18), 55(1.03), 56(0.91), 59(0.90),	
	Mexico	4(2.60), 14(3.23) , 22(4.42), 32(3.61), 87(3.20), 90(3.66)	6(1.32), 7(2.38), 10(1.35), 13(1.87), 37(2.00), 70(1.29), 72(1.63), 96(1.89)	$\begin{array}{c} 9(1.22) , \ 20(1.21), \\ 27(1.04), \ 29(1.07), \\ 36(0.87), \ 39(0.88), \\ 40(0.83) , \ 57(1.03), \\ 58(0.81), \ 79(1.01), \\ 84(0.98), \ 85(1.14), \\ 92(1.15), 97(0.97) \end{array}$	

 Table 4. Comparison of China's & Mexico's RCA (2006)

Note: RCA indices are in the brackets.

Source: The world and the EU market indices are calculated on the data from UNCOMTRADE; the US market index is calculated on the data from the TradeStats Express of the US Ministry of

Commerce.

In the US market, China takes the dominant position, but Mexico also has some competitiveness. From Table 4, China has very strong competitiveness in 12 of the exporting commodities, strong competitiveness in 20 products and competitiveness in 9 ones. Mexico has very strong competitiveness in 2 of the exports, strong competitiveness in 16 products and competitiveness in 11 ones. China has superiorities in the industries as meat processing, feed processing, textile (except for Chapter 51 < wool, animal hair, horsehair yarn and fabric thereof>, 54 < manmade filaments> and 56 < Wadding, felt, nonwovens, yarns, twine, cordage, etc>), apparel (except for Chapter 61 < articles of apparel, accessories, knit or crochet> and 62 <articles of apparel, accessories, not knit or crochet>), leather, footwear, toy, tin, mineral processing, printing, metal fittings, plastic products manufacturing, clock and watches making, music instrument manufacturing and etc. Mexico takes precedence in the industries as the poultry and livestock production, fruit and vegetable, sugar, food and beverage, zinc manufacturing, automobile manufacturing, optical equipment manufacturing, medical equipment manufacturing, chemicals (limited to the manufacture of the soaps, lubricants, waxes, candles, modeling pastes and etc.), textile (industrial textile) and apparel (knit or crochet). The products that both countries have revealed competitiveness are under HS-Code Chapter 14, 56, 70 (glass and glassware), 85, 36, 62, 69, 73, 83, 84, 86, 94 and 96. Among them, Mexico has advantages in the first 4 products and China in the latter 9 ones.

In the EU market, both countries have competitiveness, but China is the relatively stronger one. In table 4, China has very strong competitiveness in 15 of the exporting products, strong competitiveness in 19 products and competitiveness in Mexico has very strong competitiveness in 6 products, strong 7 goods. competitiveness in 8 ones and competitiveness in 14 ones. China has revealed advantages in such industries as meat processing, mineral processing, metal processing, printing, textile, apparel, leather, footwear, iron and steel, metal fittings, toy, furniture, clock and watches making and etc. Mexico is more competitive in industries as the poultry and livestock production, fruit and vegetable, sugar, oil, forestry product, organic chemical, food processing, zinc manufacturing, automobile manufacturing, optical equipment manufacturing, medical equipment manufacturing and so on. The competition of the two nations lies in the products under HS-Code Chapter 14, 36, 39 (plastics and articles thereof), 58 (special woven or tufted fabric, lace, tapestry etc), 70, 84, 85, 92 (musical instruments, parts and accessories) and 96. Among them, Mexico takes ahead in the first products, while China dominates in the latter 8 ones.

To sum up, China and Mexico have formed their own competitiveness in different industries. China has absolute advantages in the labor-intensive industries as meat processing, textile (most products), apparel (most products), leather, footwear, metal fittings, toy and etc; and has relative advantages in some capital-/ technology-intensive industries as the manufacturing of mechanical and electronic products, electric products and so on. Mexico is specialized in the poultry and

livestock production, fruit and vegetable, sugar, oil, automobile manufacturing, optical equipment manufacturing, medical equipment manufacturing and part of the manufacturing of the textile, apparel and chemicals, which spread over labor-, capitaland resource-intensive industries. However, the two countries do have competitions in the industrial level, which focus on the labor-intensive industries such as textile, apparel, furniture, toy, the manufacturing of machinery and electronic products. The degrees of competition in the industrial level are diverse in different markets. It is greater in the US market but a little less in the EU market.

# 4.3. Comparison of the overall competitiveness

With the RCA, the Spearman's Rank Correlation Coefficient is calculated in SPSS 13.0. The overall competitiveness in the global market, US market and EU market can be found from Table 5.

Table 5 shows that the Spearman's Rank Correlation Coefficients of the global market are insignificantly negative with the absolute values have been increasing after 1995. It appears that there's a kind of complementariness between the two countries and its degree is tend to rise. In the US market, the coefficients are significantly negative and the absolute value has been adding in tendency after 1994. It supports that the overall relation between China and Mexico is significantly complementary but not competitive, in the US market. In the EU market, there's certain degree of complementariness between the two nations, but it's not statistically significant.

Year	World	US	EU	Year	World	US	EU
1992	0.0394	0.0076	-	2000	-0.0900	-0.2494*	-
1993	0.0571	0.0386	-	2001	-0.0860	-0.2476*	-
1994	0.0747	-0.2014*	-	2002	-0.0876	-0.2442*	-
1995	-0.0968	-0.2070*	-	2003	-0.1016	-0.2063*	-
1996	-0.0751	-0.2702**	-	2004	-0.1217	-0.3105**	-0.0995
1997	-0.1113	-0.2908**	-	2005	-0.1404	-0.2598**	-0.1167
1998	-0.1159	-0.2006*	-	2006	-0.1195	-0.2830**	-0.0560
1999	-0.0685	-0.2216*	-				

 Table 5. Spearman's Rank Correlation Coefficient between China & Mexico

Note: \* Significant at the 5% level (2-tailed); \*\* Significant at the 1% level (2-tailed).

Source: The world and the EU market indices are calculated on the data from UNCOMTRADE; the US market index is calculated on the data from the TradeStats Express of the US Ministry of Commerce.

The Spearman's Rank Correlation Coefficient suggests that the overall complementariness exists between China and Mexico in the world and the main third-party markets, in spite of the industrial level competition. Namely, the competitiveness of the two countries may be organically combined with each other in their main markets, and the overall complementariness consequently surpasses the competitiveness.

# 5. Conclusions

In summarization, the following conclusions are reached:

(1) In the aspect of trade competitiveness, both China and Mexico have their own relatively advanced industries. The advantage of China is the superior industries have stable and prominent competitiveness. The strong points of Mexico consist in its stage wise distribution of the preponderant industries and its priority in some high value-added industries.

(2) In the aspect of the industrial level competitiveness, there's some overlapping part between the two countries. In the context of the current trade policies and industry structures, due to their high concentrated exporting products and markets, the competitions between China and Mexico are remarkable in some industries and in some markets.

(3) In the aspect of overall trade competitiveness or complementariness, China and Mexico are complemented in the world and the main third-party markets. Especially in the US market, the significant complementariness of the two countries is gradually increasing. In other words, the there's no wane and wax relation between China's and Mexico's aggregated market share in US.

(4) In the aspect of market, the competitions between China and Mexico are varied in different markets. Generally speaking, China outshines Mexico in the overall competitiveness, the later, however, has specific advantage in some industries in the US and EU markets. Out of the US and EU markets, the two countries have widely different preferential target markets, so that their direct struggle for the markets is limited. Therefore, instead of actual threaten, China is just a potential restraint to Mexico in the latter's overseas expansion.

(5) In the aspect of the development of the trade competitiveness, the advantages of both countries have been adjusted. The conflicts between them in the main markets have increased before the year 2004, and tend to be reduced after that year.

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