

***Analysis of Pakistan and China's Trade Development under the  
Conception of "China - Pakistan Economic Corridor"***

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**Abstract:**

*China is not only an important economic and trade country in the world, but also an important partner in Pakistan's foreign trade. Pakistan and China have not only maintain deep cooperation in politics, economy, culture, military and other fields, but also actively participate in China International Trade policy, looking for internal development opportunities for cooperation between China and Pakistan. Since the "China-Pakistan Economic Corridor" concept put forward, Pakistan and China trade cooperation, there have been positive changes. The following is an analysis of the trade, market and commodity between Pakistan and China.*

**Key Words:** *Pakistan Trade, Trade analysis, Import and Export, Impact of CPEC in terms of Trade,*

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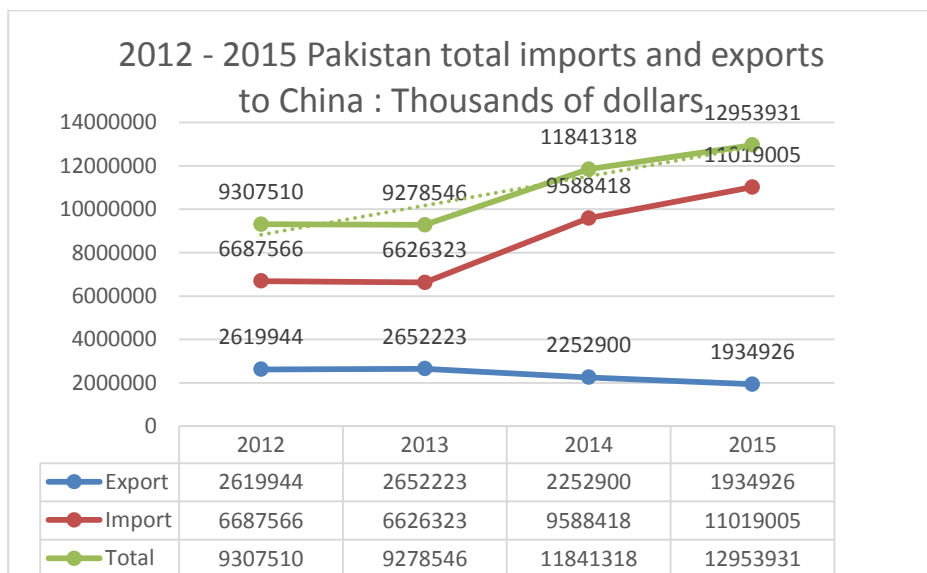
## **Introduction**

The trade import and export is considered as the first and most important step towards the economic growth and increment in exert tends to enhance in the income of factor of production, which boost the demand for further growth in the production sector and industrial areas. End result of expansion in production also stimulates the new technologies, innovations and investment opportunities in the country. The significance of export in economic growth is more evident in classical research writings. A nation economics progress belongs to international trade(Marshall, 1980). International trade is an engine of growth. It has been observed that an efficient use of available natural resources is the gateway towards international trade and economic development(Huff, 2012). High and speedy growing economies are linked to export with geometric rate. it is not necessary that a country with the plentiful endowment of natural resources are the suitable for economic growth else with the relatively with the scare resources country can expand its export with the optimum use of available resources like Singapore. its mean a country is not dependent fully on its endowment of natural resources, import of raw material and furnished it with the semi and final goods is the modern technique to enhance the export, most amenably used by Asian tigers countries (Torvik, 2009). Most economist assert that behind the globalization the key factor is the trade liberalization with no trade barriers and tariffs. its improve the techniques of production [technology], foster the export and as well the consumer choice theory and standard of living sing best in this regard to increase in export (Anderson, 1998). Early years of Pakistan after impedance, Pakistan export major source was the agriculture during the year 1948-1949, 99 % of Pakistan earning made up of only 5 commodities; such as raw jute, hides & tea, cotton, and wool,. The change is begun in the pattern of export when Pakistan shifted its policy towards industrialization. (Economics, 1968; Ronald Soligo, 1966). The export bonus scheme had positive effect on trade undoubtedly .today most of trade is based on the comparative

advantage, country with the comparative advantage in certain goods will be producing those goods. Major share of total world export is based on the finished goods most often are machinery. Countries which are agriculture base contend there export is determined by the weather and most of the agriculture products have cobweb phenomena. While the single product exporting country can face serious challenges and needs to diversify the production to compete the international market and the increase in the volume of export (Chude Nkiru Patricia, 2016).

### **An Analysis of the Scale of Bilateral Trade between Pakistan and China**

By comparing Pakistan's total imports and exports to China from 2012 to 2015, Pakistan's total import and export trade with China decline slightly from 2012 to 2013, with 2013 and 2015 increasing in volume and rising Obviously, Pakistan's exports to China have been in decline since 2012 to 2015, while Pakistan's imports to China are similar to imports and exports, with a slight decline from 2013 to 2013 and a rising range from 2013 to 2015.



Through the statistics of Pakistan's total imports and exports from 2012 to 2015, we can see in above Graph

From 2012 to 2013, 2013 to 2015 is divided into two stages, because 2013 put forward the "China-Pakistan Economic Corridor" concept, so this strategic node division time has to be used to compare the strategic concept for the analysis of the Pakistan trade and so on.

### **Before Proposed "China-Pakistan Economic Corridor" (2012 - 2013)**

According to Table X-1, Pakistan's overall decline in China's trade, but a smaller decline, was significantly lower than Pakistan's share of China's imports from China, according to Table X-1. Pakistan's imports and exports to China totaled US \$ 930.751 million in 2012 and \$ 397.546 million in 2013, with an annual rate of change of -0.3%; Pakistan's total exports to China amounted to \$ 261,994.4 million in 2012 and \$ 265.2223 million in 2013 - 1.2%; 2012, Pakistan's total imports to China amounted to 668.7666 million US dollars in 2013 to 6626.323 million US dollars, the change range of -0.09%. The reasons for this different feature are as follows:

As Pakistan compared to China, the economic base is weak, the industrial structure is single, and Most of the industrial products are raw materials or products, the lack of deep processing, weak competitiveness, and similar products with neighboring countries, compared with China. Some products of China are homogeneous of the international market, the lack of competitiveness in the international market, natural and international trade exports less share, and since the global financial crisis in 2008, Pakistan is still in recovery period, economic growth is still weak, less foreign investment, so their exports are small. In the Sino-Pakistani trade, by the Chinese export product categories and more favorable factors such as price, since China imports more, but this stage of China in the late financial crisis, the crisis soft landing, to maintain GDP growth period, most of the economy For internal investment, so in terms of foreign trade, by the

weak global trade demand, the Pakistani trade industry showed a weak situation.

### **After proposed China-Pakistan Economic Corridor" (2013 - 2015)**

According to the chart X-1, 2013-2015 for the Sino-Pakistani trade a substantial growth stage, this stage showed a substantial increase in the scale of trade, a substantial increase in total imports, a substantial decline in total exports. Pakistan's total imports and exports to China from 2013 to 2015, the growth rate of 39.6%; Pakistan's imports to China 2013 - 2015, the growth rate of 66.3%; Pakistan's exports to China 2013 - 2015 range For -27%. The reasons for the above characteristics are as follows:

Chinese Premier Li Keqiang visited Pakistan in May 2013 and proposed the concept of "China-Pakistan Economic Corridor". The 2014 China-Pakistan Economic Corridor began to be implemented. China and Pakistan because of this "economic corridor" construction, for each other's development, bring opportunities, more exchanges between the two countries brought great promotion. Compared with 2012-2013, with the "China-Pakistan Economic Corridor" and the substantive start of construction, Pakistan and China's total trade between the rapid growth, but at the same time Pakistan's total exports to China also appears more substantial The decline. This is mainly due to two aspects, on the one hand is the "China-Pakistan Economic Corridor" construction, mainly related to Pakistan's infrastructure and energy construction, it can be a strong lead to Pakistan's import trade demand for China; the other hand, a large number of Pakistan Infrastructure and energy construction to promote domestic demand increases, thus reducing the amount of foreign exports.

## **An Analysis of the Structure of Foreign Trade in Pakistan and China**

Through the study of foreign trade and market structure of Pakistan and China, it can reflect the origin and source of goods between the two countries, so that the economic and trade relations between the two countries and the rest of the world or trade groups can be judged and the degree. Here we are on the two countries in recent years, the main export and import of the top 10 countries to list and analysis.

Pakistan's foreign trade market structure analysis

Ranking	Export	(%)	Import	(%)
1	United States	16.58%	China	25.05%
2	China	8.76%	Afghanistan	13.04%
3	Afghanistan	7.8%	Saudi Arabia	6.84%
4	United Kingdom	7.12%	Indonesia	4.64%
5	Germany	5.19%	United States	4.36%
6	UAE	4.07%	Japan	3.92%
7	Spain	3.54%	Kuwait	3.89%
8	Bangladesh	3.17%	India	3.79%
9	Netherlands	3.02%	Germany	2.21%
10	Italy	2.8%	Malaysia	2.07%

From the above table, the top 10 in the export market structure of Pakistan in 2015 are mainly: the United States, China, Afghanistan, Britain, Germany, the United Arab Emirates, Spain, Bangladesh, the Netherlands, Italy and so on. Developed countries accounted for 6 seats, accounting for 38.25%, especially in the United States accounted for 16.58% of the total, the United Kingdom, Germany accounted for 7.12% and 5.19%, ranked fourth and fifth. China ranked second with 8.76%, ranked second, Afghanistan, the United Arab Emirates and Bangladesh, respectively, 7.8%, 4.07% and 3.17% share, ranked third, sixth and eighth.

The top 10 countries in Pakistan's import trade market structure in 2015 are China, the United Arab Emirates, Saudi Arabia, Indonesia, the United States, Japan, Kuwait, India, Germany and Malaysia. China, Japan and Germany and other developed countries accounted for 4.236%, 3.92% and 2.21%, ranking fifth, sixth and ninth; the United Arab Emirates, Saudi Arabia, Indonesia, Kuwait, the United States, Japan and Germany, respectively, And Malaysia and other Muslim countries, as well as neighboring India accounted for 13.04%, 6.84%, 4.64%, 3.89%, 2.07% and 3.79%, ranked second, third, fourth, seventh, tenth and eighth.

In summary, the Pakistani foreign trade market structure, China and Muslim countries occupy an important ranking in the import; and export important ranking by the United States, Britain, Germany and other developed countries and China, and Afghanistan, the United Arab Emirates and other Muslim countries occupy.

### **An Analysis of China's Foreign Trade Market Structure**

Ranking	Export	(%)	Import	(%)
1	United States	18%	Korea	10.38%
2	China Hong Kong	14.65%	United States	8.95%
3	Japan	5.96%	Chinese Taipei	8.62%
4	Korea	4.45%	Japan	8.51%
5	Germany	3.03%	Germany	5.21%
6	Vietnam	2.91%	Australia	4.39%
7	India	2.55%	Malaysia	3.17%
8	Netherlands	2.61%	Brazil	2.64%
9	United Kingdom	2.61%	Switzerland	2.45%
10	Singapore	2.33%	Thailand	2.21%

According to the above table, the United States, Japan, South Korea, Germany, the Netherlands, the United Kingdom and other developed countries, as well as Vietnam, India and other neighboring countries in China in 2015 export trade market structure in the top ten. China, South Korea, the United States, respectively, accounting for 5.96%, 4.45%, 3.03%, respectively, the United States accounted for 14.6% , 2.61% and 2.61%, ranked third, fourth, fifth, eighth and ninth. While Pakistan accounted for only 0.12% of China's export trade in 2015.

Korea, Japan, the United States, Germany, Australia, Switzerland and other developed countries, as well as Malaysia, Brazil, Thailand and other developing countries in China in 2015, the top ten import trade market structure is mainly. South Korea, the United States, Japan, Germany, Australia, Switzerland, respectively, accounting for 10.38%, 8.95%, 8.51%, 5.21%, 4.39%, 2.45%, ranked first, second, fourth, fifth, Malaysia, Brazil, Thailand, accounting for 3.17%, 2.64% and 2.21% respectively, accounting for 8.02% of the total, respectively, the seventh, the first Eight and tenth. And the period of time, Pakistan's imports of trade in China accounted for 0.98%.

In summary, in China's foreign market institutions, the most important export trade countries are mainly developed as industrial countries, or international trade areas; the most important import trade countries main features: the state economy develop rich in energy and have rich resources, etc. Characteristics; regardless of import or export considerations, Pakistan in China's foreign trade market structure are not occupied an important position.

### **Pakistan and China bilateral trade structure analysis**

The following table refers to the International Convention on the Harmonization of Trade Names and Codes (HS96), which classifies 99 trade commodities into 19 categories (excluding 93 categories of weapons, powder parts and accessories, 97 artworks, collectibles and antiquities) , To be studied. Finally, the following will be based on the



classification of 19 categories of goods accounted between China and Pakistan commodity trade structure analysis.

HS coding	HSname	Integrated coding	Category number	Category name
'01	Live animals	1-5	1	Live animals and products
'02	Meat and edible meat offal			
'03	Fish and crustaceans, molluscs and other aquatic invertebrates			
'04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included			
'05	Products of animal origin, not elsewhere specified or included			
'06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	6-14	2	Plant products
'07	Edible vegetables and certain roots and tubers			
'08	Edible fruit and nuts; peel of citrus fruit or melons			
'09	Coffee, tea, maté and spices			
'10	Cereals			
'11	Products of the milling industry; malt starches; inulin; wheat gluten			
'12	Oil seeds and oleaginous fruits miscellaneous grains, seeds and fruit industrial or medicinal plants; straw and fodder			
'13	Lac; gums, resins and other vegetable saps and extracts			
'14	Vegetable plaiting materials; vegetable products not elsewhere specified or included			
'15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats animal or vegetable waxes	15	3	Animal and vegetable oils and fats
'16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	16-24	4	Food and beverage and alcoholic drinks and
'17	Sugars and sugar confectionery			
'18	Cocoa and cocoa preparations			
'19	Preparations of cereals, flour, starch or			

	milk; pastrycooks' products			tobacco
'20	Preparations of vegetables, fruit, nuts or other parts of plants			
'21	Miscellaneous edible preparations			
'22	Beverages, spirits and vinegar			
'23	Residues and waste from the food industries; prepared animal fodder			
'24	Tobacco and manufactured tobacco substitutes			
'25	Salt; sulphur; earths and stone; plastering materials, lime and cement	25-27	5	Mineral products
'26	Ores, slag and ash			
'27	Mineral fuels, mineral oils and products of their distillation; bituminous substances mineral waxes			
'28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	28-38	6	Chemical Products
'29	Organic chemicals			
'30	Pharmaceutical products			
'31	Fertilisers			
'32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes putty and other mastics; inks			
'33	Essential oils and resinoids; perfumery cosmetic or toilet preparations			
'34	Soap, organic surface-active agents washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations candles and similar articles, modelling pastes, 'dental waxes' and dental preparations with a basis of plaster			
'35	Albuminoidal substances; modified starches; glues; enzymes			
'36	Explosives; pyrotechnic products; matches pyrophoric alloys; certain combustible preparations			
'37	Photographic or cinematographic goods			
'38	Miscellaneous chemical products			
'39	Plastics and articles thereof	39-40	7	Plastic rubber and products
'40	Rubber and articles thereof			

'41	Raw hides and skins (other than furskins) and leather	41-43	8	Leather
'42	Articles of leather; saddlery and harness travel goods, handbags and similar containers; articles of animal gut (other than silkworm gut)			
'43	Furskins and artificial fur; manufactures thereof			
'44	Wood and articles of wood; wood charcoal	44-46	9	Wood and wood products
'45	Cork and articles of cork			
'46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork			
'47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	47-49	10	Paper and paper products
'48	Paper and paperboard; articles of paper pulp, of paper or of paperboard			
'49	Printed books, newspapers, pictures and other products of the printing industry manuscripts, typescripts and plans			
'50	Silk	50-63	11	Textile raw materials and products
'51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric			
'52	Cotton			
'53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn			
'54	Man-made filaments; strip and the like of man-made textile materials			
'55	Man-made staple fibres			
'56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof			
'57	Carpets and other textile floor coverings			
'58	Special woven fabrics; tufted textile fabrics lace; tapestries; trimmings; embroidery			
'59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use			
'60	Knitted or crocheted fabrics			
'61	Articles of apparel and clothing accessories knitted or crocheted			
'62	Articles of apparel and clothing accessories not knitted or crocheted			
'63	Other made-up textile articles; sets; worn clothing and worn textile articles; rags			

'64	Footwear, gaiters and the like; parts of such articles ;	64-67	12	Footwear products
'65	Headgear and parts thereof			
'66	Umbrellas, sun umbrellas, walking sticks seat-sticks, whips, riding-crops and parts thereof			
'67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair	68-70	13	Stone pottery
'68	Articles of stone, plaster, cement, asbestos mica or similar materials			
'69	Ceramic products			
'70	Glass and glassware	71	14	Precious stones precious metals and products
'71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin			
'72	Iron and steel	72-83	15	Base metals and products
'73	Articles of iron or steel			
'74	Copper and articles thereof			
'75	Nickel and articles thereof			
'76	Aluminium and articles thereof			
'78	Lead and articles thereof			
'79	Zinc and articles thereof			
'80	Tin and articles thereof			
'81	Other base metals; cermets; articles thereof ;			
'82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	84-85	16	electronics
'83	Miscellaneous articles of base metal			
'84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof			
'85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	86-89	17	Transportation Equipment
'86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof mechanical (including electromechanical) traffic signalling equipment of all kinds			

'87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof			
'88	Aircraft, spacecraft, and parts thereof			
'89	Ships, boats and floating structures			
'90	Optical, photographic, cinematographic measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	90-92	18	Optical and other equipment
'91	Clocks and watches and parts thereof			
'92	Musical instruments; parts and accessories of such articles			
'93	Arms and ammunition; parts and accessories thereof			
'94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like prefabricated buildings	94-96	19	Miscellaneous products
'95	Toys, games and sports requisites; parts and accessories thereof			
'96	Miscellaneous manufactured articles			
'97	Works of art, collectors' pieces and antiques			
'99	Commodities not elsewhere specified			

### Pakistan's analysis of China's export commodity structure

2012 - 2015 Pakistan's exports to China Category: Thousands of dollars%

Product Category	2012		2013		2014		2015	
	Trade volume	%	Trade volume	%	Trade volume	%	Trade volume	%
Live animals and products	42704	1.63%	36556	1.38%	55839	2.47%	46297	2.39%
Plant products	330288	12.64%	203684	7.69%	224424	9.94%	207675	10.71%
Animal and vegetable oils and fats	8	0.00%	9	0.00%	5	0.00%	0	0.00%

Food and beverage and alcoholic drinks and tobacco	30598	1.17%	43445	1.64%	66064	2.93%	96206	4.96%
Mineral products	165074	6.32%	192699	7.28%	144031	6.38%	128546	6.63%
Chemical Products	5045	0.19%	951	0.04%	1127	0.05%	2099	0.11%
Plastic rubber and products	35973	1.38%	43101	1.63%	33278	1.47%	23355	1.20%
Leather	63545	2.43%	59553	2.25%	57621	2.55%	45156	2.33%
Wood and wood products	141	0.01%	152	0.01%	263	0.01%	123	0.01%
Paper and paper products	125	0.00%	59	0.00%	220	0.01%	447	0.02%
Textile raw materials and products	1878920	71.89%	1986242	75.03%	1592716	70.54%	1326367	68.42%
Footwear products	55	0.00%	69	0.00%	101	0.00%	84	0.00%
Stone pottery	0	0.00%	6178	0.23%	11248	0.50%	6148	0.32%
Precious stones and precious metals制品	102	0.00%	1009	0.04%	3158	0.14%	1011	0.05%
Base metals and products	50088	1.92%	42850	1.62%	41434	1.83%	32324	1.67%
electronics	3160	0.12%	4390	0.17%	12919	0.57%	5516	0.28%
Transportation Equipment	70	0.00%	8742	0.33%	429	0.02%	341	0.02%
Optical and other equipment	5214	0.20%	14415	0.54%	8345	0.37%	8504	0.44%
Miscellaneous products	2494	0.10%	3046	0.12%	4774	0.21%	8258	0.43%

According to the above table, Pakistan's exports to China, including textile raw materials and products, plant products and minerals, one, two, three; live animals and products, food and beverage and tobacco, plastic rubber and products, leather products And base metals and products accounted for less, are below 3%, the remaining categories of products exports less, are below 1%. From 2012 to 2015, the overall export of various categories of China has declined, subject to domestic demand to boost the impact of some categories of products to reduce exports. However, the export volume and share of plant products, food and beverage tobacco and alcohol are generally increased, mainly due to the increased demand for such products in China.

Pakistan's domestic animal husbandry resources are more abundant, but the export of leather products in China did not give him a direct contribution to the export trade, export and low proportion. These are due to the long-term energy crisis, the lack of subsidies to support the government and other factors, resulting in declining exports of leather industry(Economics, 1968).

### **China's export commodity structure analysis of Pakistan**

2012 - 2015 China's exports to Pakistan Category: Thousands of dollars%

Product Category	2012		2013		2014		2015	
	Trade volume	%	Trade volume	%	Trade volume	%	Trade volume	%
Live animals and products	931	0.01%	1263	0.01%	4035	0.03%	621	0.00%
Plant products	159368	1.72%	139745	1.27%	178082	1.34%	230314	1.40%
Animal and vegetable oils and fats	978	0.01%	1468	0.01%	1830	0.01%	1189	0.01%
Food and beverage and alcoholic drinks	75850	0.82%	73955	0.67%	70493	0.53%	80864	0.49%

and tobacco								
Mineral products	26433	0.28 %	29480	0.27%	27465	0.21 %	22207	0.13 %
Chemical Products	1129954	12.18 %	1285134	11.66 %	1663989	12.56 %	1602644	9.72 %
Plastic rubber and products	637572	6.87 %	703927	6.39%	732566	5.53 %	906103	5.50 %
Leather	44639	0.48 %	52204	0.47%	60566	0.46 %	132872	0.81 %
Wood and wood products	27638	0.30 %	27021	0.25%	29700	0.22 %	39865	0.24 %
Paper and paper products	108003	1.16 %	145590	1.32%	194358	1.47 %	298700	1.81 %
Textile raw materials and products	2019223	21.77 %	2713605	24.63%	3070748	23.18 %	3393744	20.59 %
Footwear products	126448	1.36 %	193010	1.75%	270668	2.04 %	470349	2.85 %
Stone pottery	243327	2.62 %	317769	2.88%	398078	3.01 %	575935	3.49 %
Precious stones and precious metals Products	1731	0.02 %	4363	0.04%	14881	0.11 %	46408	0.28 %
Base metals and products	876782	9.45 %	1076339	9.77%	1504567	11.36 %	2132540	12.94 %
electronics	3094332	33.36 %	3464058	31.44 %	4031309	30.43 %	5150702	31.25 %
Transportation Equipment	324349	3.50 %	326737	2.97%	331346	2.50 %	391516	2.38 %
Optical and other equipment	157600	1.70 %	166404	1.51%	237135	1.79 %	300206	1.82 %
Miscellaneous products	220729	2.38 %	297299	2.70%	424143	3.20 %	703349	4.27 %

From the table we can see that from 2012 to 2015, China's exports to Pakistan, all kinds of goods, mechanical and electrical products ranked first, and the amount of exports rose year by year; textile raw materials and products Second, the chemical third, base metals and products Fourth, plastic rubber and its products fifth, transport equipment sixth.



Textile raw materials and products in 2012 to 2013, a slight increase, to 2014 and 2015, it showed a downward trend, but the overall trade volume is relatively stable, showing a slowdown in growth.

Exports of chemicals is relatively stable, 2012 to 2014, the slow rise, to decline in 2015 situation. Base metals and products exports rose, of which 2015 exports will be nearly 2 times in 2013. In the 2014-2015 year, base metals and products rose faster, benefiting from China's infrastructure and energy investment in Pakistan, China's domestic exports of metal products. Plastic and rubber products and transport equipment exports, generally rising situation, although the share has declined, but the volatility is not normal, is a normal trade fluctuations(Huff, 2012).

### **An Empirical Study on the Complementarity and Competitiveness of Commodity Trade between Pakistan and China**

Pakistan's trade with China is both opportunity and competition. The following will analyze the complementarity and competitiveness of trade between Pakistan and China in order to demonstrate the trade advantages of Pakistan and China and to provide a basis for future trade growth. The data will still use the classification method used in the previous chapter, and the tool will use the TC Trade Competitiveness Index, the TCD Trade Integration Index, the IIT Intra-Industry Trade Index and the RCA Dominance Comparative Advantage Index.

### **An Analysis of Complementarity between Pakistan and China's Commodity Trade**

An analysis of the trade complementarity between Pakistan and China will help to study the comparative advantages of trade between Pakistan and China, so as to provide more reference for Pakistan's development strategy under the "China-Pakistan Economic Corridor", to promote the healthy development of trade.

#### **(A) Selection of trade complementarity index**

This section will analyze the trade complementarity between Pakistan and China, using the TCD Trade Connectivity Index and the IIT Intra-Industry Trade Index.

A, Pakistan's trade union with China is: A country's share of B's exports to Pakistan's total exports and B's share of the world's total imports from the world is described by the formula as follows:

A = Pakistan's export trade to China; B = Pakistan's exports to the world;

C = China's import trade from the world; D = total world trade volume.

$$TCD=(A/B)/(C/D)$$

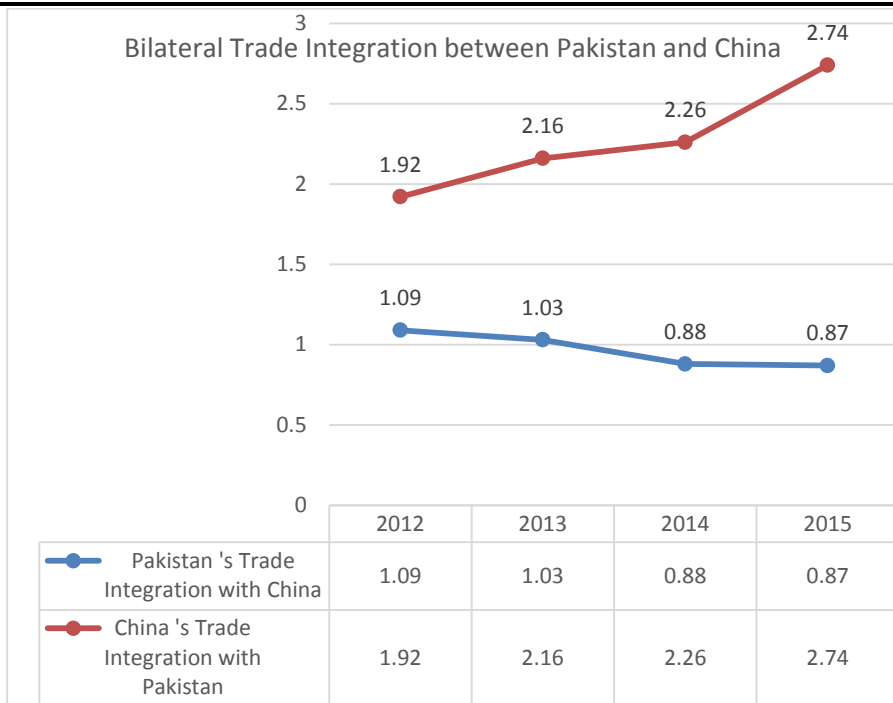
Among them, indicating that there is a close trade relationship between the two countries, complementarity is strong,  $TCD > 1$ ; between the two countries is not tight trade, more loose,  $TCD < 1$ .

B, intra-industry trade index = 1 - the absolute value of Pakistan's imports and exports to a certain product / Pakistan's entry and exit to a Chinese product.

(1) Specifically, IIT [0,1]. When such products are intra-industry trade between China and the United States,  $IIT = 1$ , the more close to 1, the more the characteristics of intra-industry trade, the more competitive; between the two products are inter-industry trade, then  $IIT = 0$ , if the closer to 0, the trade between a product between the two countries show the characteristics of inter-industry trade, the stronger the complementarity.

### **An Empirical Analysis of the Complementarity of Bilateral Trade in Pakistan and China**

A.The following will analyze the trade complementarity between Pakistan and China in terms of trade integration and intra-industry trade index between Pakistan and China.



### **Analysis of trade integration between Pakistan and China**

Between 2012 and 2015 for a total of four years, the bilateral trade integration between Pakistan and China was in a reverse direction. Pakistan's trade with China 2012 - 2013 are more than 1, 2014 - 2015 to 1 below. This shows that the trade between Pakistan and China presents a more loose relationship. The reasons for this are: on the one hand, the implementation of the "China-Pakistan Economic Corridor" policy, China's infrastructure and energy investment in Pakistan, the expansion of Pakistan's domestic demand, reduce exports, resulting in Pakistan's exports to China to reduce; on the other hand, China's large-scale market, Pakistan's exports of export products is limited, less demand for products in China, leading to China's dependence on Pakistan's export trade is relatively small.

From the perspective of China's trade with Pakistan, the TCD index was higher in the 12 years to 15 years, and the TCD index grew more than 1

and 13 years to 15 years, especially in the 14th to 15th years. This shows that the trade relationship between China and Pakistan is more closely, leading to the reasons: political, trade, military and other mutual trust between China and Pakistan; secondly, after the implementation of the China-Pakistan FTA, China's trade in Pakistan China's export trade for Pakistan has been relatively close; on the other hand, the 2013 China-Pakistan Economic Corridor proposed and construction of the CMB's economic development, but also on the country's economic structure, market size and export trade and other aspects of the impact of China's exports to Pakistan has been relatively close; Trade links play a catalytic role, 13 years - 15 years, the rapid increase in trade integration, a great description of the construction of China-Pakistan Economic Corridor, is conducive to economic development and trade development between the two countries, to promote trade relations between the two countries Played a significant role.

### **An Analysis of Intra - industry Trade Index in Pakistan and China**

#### **Pakistan's Intra - industry Trade Index for China**

category	HS coding	product name	2012	2013	2014	2015
1	1-5	Live animals and products	0.035	0.074	0.058	0.012
2	6-14	Textile raw materials and products	0.518	0.622	0.753	0.865
3	15	Footwear products	0.031	0.014	0.004	0.000
4	16-24	Stone pottery	0.891	0.915	0.763	0.603
5	25-27	Precious stones and precious metalsProducts	0.218	0.231	0.387	0.334
6	28-38	Base metals and products	0.009	0.002	0.001	0.003
7	39-40	electronics	0.181	0.196	0.118	0.078
8	41-43	Transportation Equipment	0.441	0.459	0.606	0.757
9	44-46	Textile raw materials and products	0.018	0.027	0.034	0.011
10	47-49	Footwear products	0.003	0.001	0.003	0.006
11	50-63	Stone pottery	0.635	0.633	0.875	0.998
12	64-67	Precious stones and precious metalsProducts	0.002	0.002	0.003	0.002
13	68-70	Base metals and products	0.088	0.156	0.058	0.021

14	71	electronics	0.056	0.389	0.671	0.214
15	72-83	Transportation Equipment	0.142	0.115	0.068	0.038
16	84-85	Textile raw materials and products	0.002	0.003	0.007	0.003
17	86-89	Footwear products	0.000	0.061	0.002	0.002
18	90-92	Optical and other equipment	0.115	0.299	0.110	0.085
19	94-96	Miscellaneous products	0.039	0.042	0.045	0.064

The above table shows that Pakistan and China in the textile raw materials and products, plant products, leather products and other commodities trade development trend close to 1, biased in favor of intra-industry trade, complementarity is relatively weak; food and beverage and alcoholic drinks and tobacco Precious metals and products TCD value between 0.65-0.2, although the fluctuations are large, but showed weak complementarity, mainly due to food and beverage and tobacco slightly biased in the industry trade, precious stones and precious metals and products tend to trade between industries, but precious stones Precious metals and products of small scale, the competitiveness is not strong; minerals maintained at Inter-industry trade, with a certain complementarity, but also weak.

Other products such as base metals and products, live animals and products, animal and vegetable oils, fats and products, chemical products, plastic rubber and products, wood and wood products, paper and paper products, shoes and hats, stone pottery cement, precious stones precious metals and products, Mechanical and electrical products, transportation equipment, optical instruments and other products belonging to the inter-industry trade, complementary strong, great trade potential. Among them, mineral products, optical instruments, plastic and rubber products, base metals and products, stone pottery cement, live animals and products, wood and wood products index has shrunk, indicating that these products within the industry trade trends weakened, and trade between the two industries Continue to enhance, complementary advantages continue to increase.

The products of animal and vegetable oils and fats, chemical products, paper and paper products, footwear products, mechanical and electrical products, transportation equipment and other products, between 12 and 15 years, in the inter-industry trade status, complementarity has been very strong.

In summary, due to differences in economic development, technological level and elements between Pakistan and China, inter-industry trade still occupies a major position in both industrial trade structures. In many trade areas, the two sides are more complementary rather than competitive, mainly for the exchange of industrial products and resource-based products. Therefore, the trade potential between Pakistan and China is great.

### **The competitiveness of Pakistan and China's merchandise trade analysis**

Analysis of the competitiveness of Pakistan and China's merchandise trade will help Pakistan and China in the future trade in the trade of their own adjustment of their own export structure, better play their own strengths, promote healthy trade between Pakistan and China, thereby reducing the possible Will affect the Pakistan-China trade factors.

#### **Trade competitiveness index**

This section will analyze the competitiveness of Pakistan and China (using the TC Trade Competitiveness Index and the RCA Dominance Comparative Advantage Index).

The trade competitiveness index, known as the "trade competitive advantage index", can be used to analyze the international competitiveness of a country's industrial structure.

The formula is described as follows :

A country on the B country exports of a product minus the difference between imports and exports accounted for the total amount of imports and exports of AB share, with the formula expressed as

$$TC = (X_K - M_K) / (X_K + M_K)$$

Among them, XK said A country on the country B exports of a product, MK said A country from the B country a product import.

TC  $\in$  [-1,1]. A country is Pakistan, B country is China, the interpretation of the value of the TC index to explain: When A product of a competitive advantage is stronger than B, and the closer to a more competitive, then TC > 0; when AB trade, When TC is a perfect competitive advantage, then TC = 1; when the competitive advantage of a product of B is stronger than A, then TC < 0, and the closer to -1, the stronger the competitiveness; In the AB trade, A for the full export of professional, with absolute competitive advantage, then TC = -1; when AB two countries in a trade in goods for intra-industry trade, and the closer to 0, the two sides in the stronger the competitiveness of the product, that is, TC close to 0; when AB in a product on the strongest competition, the most intense, then TC = 0.

In general, when TC  $\in$  [-1, -0.6] and [0.6,1], the competition is very weak; when TC  $\in$  (-0.6, -0.3) and [0.3,0.6), the two sides are highly competitive; When TC  $\in$  (-0.3,0) and (0,0.3), the intra-industry trade is very high, the competition is very intense; when TC = 0, is absolute, intra-industry trade, it reflects the strong Competitive.

Dominant comparative advantage index is used to measure a country a product or industry in the international market competitiveness of the indicators, the calculation of A country K products in the B market competitiveness or dominant comparative advantage of the formula :

$$RCA = (X_{KAB} / \sum X_{AB}) / (X_{KWB} / \sum X_{WB})$$

Where  $XKAB$  represents the country's exports to country B products,  $\Sigma XAB$  indicates the total exports of country A to country B,  $XKWB$  indicates the imports of country B from world K products,  $\Sigma XWB$  indicates the total imports of country B from the world The

When  $RCA > 1$ , it shows that country A has a dominant comparative advantage in the export of K products compared with country B, and the greater the RCA value, the more obvious the advantage.

### **Empirical Analysis on the Competitiveness of Bilateral Commodity Trade between Pakistan and China**

The following will analyze the competitiveness of Pakistan and China by combining the trade competitiveness index and the explicit comparative advantage index.

#### **An Analysis of Trade Competitiveness Index between Pakistan and China**

According to the 2012 to 2015, Pakistan and China TC Index can be seen from the table, the four years of trade competitiveness has the following characteristics:

A, in 2015, China is fully specialized or close to the specialized export of goods a lot, while Pakistan only live animals and products close to specialization. Water and wood products, paper and paper products, footwear products, stone pottery cement, precious stones precious metals and products, base metals and products, mechanical and electrical products, plastic products and other products, Transportation equipment, optics and other instruments and miscellaneous products TC index is equal to -1 or close to -1, which shows that the above products in China in Pakistan to maintain close to the full export specialization; remove gem precious metals and products less than -0.8, in this aspect of the competitive advantage compared to other slightly weaker, other goods are above -0.9, occupy an absolute competitive advantage. Pakistan only in the activities of products on the possession



of professional advantages, TC index remained at 0.9 or more; mineral products TC value of 0.6 or more, also has a certain competitive advantage; food and beverage and alcohol and tobacco TC value of 0.4 or so, indicating bilateral trade Competition is very strong; plant products, leather products and textile raw materials and products TC value of 0.25 or less, indicating that intra-industry trade is very high, very competitive In terms of plant products 2012-2013.

During the period, Pakistan showed a weak advantage, during the period of 2014-2015, plant products showed a weak trend, but still belong to intra-industry trade, competition is more intense; food and beverage and tobacco, 2012 China burns, 2013-2015 period, Pakistan The TC index of leather goods and textile raw materials and products tend to trend 0, the two sides are highly competitive, but fundamentally still intra-industry trade, but this competition is the same industry within the different Product competition, because the textile raw materials and products in Pakistan mainly export low value-added textiles, and China's exports to Pakistan mainly to textile and garment-based, so this competition is not currently on the Sino-Pakistani trade Adverse effects.

**2012 - 2015 TC value of various commodities in China**

category	HS coding	product name	2012	2013	2014	2015
1	1-5	Live animals and products	0.965	0.926	0.942	0.988
2	6-14	Textile raw materials and products	0.482	0.378	0.247	0.135
3	15	Footwear products	-0.969	-0.986	-0.996	-1.000
4	16-24	Stone pottery	-0.109	0.085	0.237	0.397
5	25-27	Precious stones and precious metalsProducts	0.782	0.769	0.613	0.666
6	28-38	Base metals and products	-0.991	-0.998	-0.999	-0.997

7	39-40	electronics	-0.819	-0.804	-0.882	-0.922
8	41-43	Transportation Equipment	0.559	0.541	0.394	0.243
9	44-46	Textile raw materials and products	-0.982	-0.973	-0.966	-0.989
10	47-49	Footwear products	-0.997	-0.999	-0.997	-0.994
11	50-63	Stone pottery	0.365	0.367	0.125	0.002
12	64-67	Precious stones and precious metalsProducts	-0.998	-0.998	-0.997	-0.998
13	68-70	Base metals and products	-0.912	-0.844	-0.942	-0.979
14	71	electronics	-0.944	-0.611	-0.329	-0.786
15	72-83	Transportation Equipment	-0.858	-0.885	-0.932	-0.962
16	84-85	Textile raw materials and products	-0.998	-0.997	-0.993	-0.997
17	86-89	Footwear products	-1.000	-0.939	-0.998	-0.998
18	90-92	Optical and other equipment	-0.885	-0.701	-0.890	-0.915
19	94-96	Miscellaneous products	-0.961	-0.958	-0.955	-0.936

### **Analysis of dominant comparative advantage index in Pakistan and China**

The following table shows the RCA index of Pakistani products in China from 2012 to 2015. From the table can be aware of Pakistan's products RCA index is greater than 1 are: live animals and products, plant products, food and beverage and tobacco, leather products and textile raw materials and products.

Among them, live animals and products, plant products, leather products and textile raw materials and products show a downward trend, of which textile raw materials and products index is more than 30, Pakistan is still the most competitive products. Food and beverage and tobacco and alcohol show an upward trend.

While the rest of the product RCA values are less than 1, indicating that such products in China does not have a competitive advantage at all.

2012-2015 Pakistan's various products in China's RCA value

category		HS coding	product name	2012	2013	2014	2015
1	1-5		Live animals and products	2.0672	1.4046	2.2966	2.1942
2	6-14		Textile raw materials and products	4.3272	2.5308	3.0258	2.8736
3	15		Footwear products	0.0004	0.0006	0.0005	0.0000
4	16-24		Stone pottery	1.4236	1.9004	3.3257	3.9265
5	25-27		Precious stones and precious metalsProducts	0.2432	0.2851	0.2617	0.3554
6	28-38		Base metals and products	0.0285	0.0053	0.0075	0.0153
7	39-40		electronics	0.2667	0.3248	0.2992	0.2422
8	41-43		Transportation Equipment	4.2698	3.7154	4.1669	3.3625
9	44-46		Textile raw materials and products	0.0063	0.0056	0.0096	0.0054
10	47-49		Footwear products	0.0036	0.0017	0.0077	0.0156
11	50-63		Stone pottery	30.7033	34.1780	36.8464	33.9193
12	64-67		Precious stones and precious metalsProducts	0.0170	0.0203	0.0319	0.0225
13	68-70		Base metals and products	0.4451	0.8146	0.5233	0.2439
14	71		electronics	0.0052	0.0383	0.0628	0.0466
15	72-83		Transportation Equipment	0.3007	0.2875	0.3394	0.3053
16	84-85		Textile raw materials and products	0.0037	0.0050	0.0178	0.0078
17	86-89		Footwear products	0.0005	0.0606	0.0030	0.0028
18	90-92		Optical and other equipment	0.0315	0.0897	0.0634	0.0679
19	94-96		Miscellaneous products	0.2984	0.3595	0.5533	0.9154

Calculated by 2012 to 2015 China's products in Pakistan RCA index, we can see. Chinese products are more than 1 of the main products are: leather products, paper and paper products, textile raw materials and products, shoes and hats products, stone pottery cement, precious stones precious metals and products, base metals and products, mechanical and electrical products, optics and other equipment, Miscellaneous products and so on.

Among them, leather products 12-14 year is more stable in more than 1.5, 15 years rose to 3 or more, indicating that China's leather products in Pakistan have been favored; paper and paper products and precious stones precious metals and products, from 12-14 years less than 1, 15 years are greater than 1, China's products also began to expand in Pakistan market; footwear products 12-15 years has been in the upward trend, 15 years to 12 or more, in the Chinese product line, in Pakistan has a higher The RCA values of 15 years are 4,1,1.5,1,3 above, although the 12-14 years fluctuated from above and below, and the RCA values of the quarrying cement, base metal and products, electromechanical products, optical instruments and so on, But overall downward trend.

2012-2015 China's various products in Pakistan's RCA value

category	HS coding	product name	2012	2013	2014	2015
1	1-5	Live animals and products	0.0279	0.0341	0.0772	0.0063
2	6-14	Textile raw materials and products	0.3836	0.3107	0.2629	0.2458
3	15	Footwear products	0.0020	0.0029	0.0031	0.0017
4	16-24	Stone pottery	0.6488	0.4683	0.2800	0.2645
5	25-27	Precious stones and precious metalsProducts	0.0078	0.0076	0.0066	0.0058

6	28-38	Base metals and products	1.0192	1.0266	1.0804	0.7519
7	39-40	electronics	1.5310	1.3771	1.0703	0.9743
8	41-43	Transportation Equipment	1.8888	1.5289	1.5448	3.4291
9	44-46	Textile raw materials and products	1.1158	0.9674	0.7153	0.6243
10	47-49	Footwear products	0.7445	0.4111	0.6896	1.1594
11	50-63	Stone pottery	4.0973	4.0524	3.8029	2.9927
12	64-67	Precious stones and precious metalsProducts	7.1517	10.7254	10.7671	12.2458
13	68-70	Base metals and products	5.4239	5.7991	4.5844	4.1827
14	71	electronics	0.0349	0.0416	0.7279	2.7484
15	72-83	Transportation Equipment	1.4373	1.4475	1.5003	1.4381
16	84-85	Textile raw materials and products	2.5122	2.3958	1.9883	1.7448
17	86-89	Footwear products	0.6565	0.5523	0.5140	0.3937
18	90-92	Optical and other equipment	1.5946	1.4120	1.4472	1.1450
19	94-96	Miscellaneous products	3.9707	3.9829	3.2805	3.7451

### **Conclusion**

Through the above empirical analysis of the complementarity and competitiveness of commodity trade between Pakistan and China, this paper draws the following conclusions:

According to the classification of goods in this article, many trades are in goods. Pakistan and China are complementary. Among them, China close to or to achieve the specialized exports of Pakistan goods are mainly transport equipment, mechanical and electrical products, wood and wood products, paper and paper products, shoes and hats, stone pottery cement, optical instruments, chemical products, animal and vegetable oils and products, Miscellaneous products; Pakistan to China to achieve professional exports are mainly living animals and their products, both strong complementarity. At the same time, China's exports to Pakistan are mainly industrial manufactures, while Pakistan's

exports to China are mainly primary products. Therefore, on the whole, the Sino-Pakistani trade is highly complementary(Ahmar, 2016).

Among the 19 categories of commodities trade in Pakistan and China, there are ten categories of commodities in China that are highly competitive in Pakistan: leather products, paper and paper products, textile raw materials and products, footwear, stone pottery, precious stones and precious metals , Base metals and products, mechanical and electrical products, optical instruments, miscellaneous products, and Pakistan in China, there are five strong competitive goods: live animals and products, plant products, food and beverage and tobacco, leather products, textile raw materials products. As mentioned above, the competition between leather products and textile raw materials and products between China and Pakistan is the competition of different products in the same industry. The competitive performance is not strong at present. Materials and products, plant products, food and beverage, alcohol and tobacco products, optical products, , The proportion of bilateral trade is small, so the overall competitiveness of China and Pakistan in terms of competition is weak.

Finally, on the whole, Pakistan and China's bilateral trade, each with different strengths, and the current development of small, less competitive products, and part of the characteristics of intra-industry trade. Therefore, in the continuous construction of China-Pakistan Economic Corridor, Pakistan's investment in China's infrastructure and energy construction investment, domestic demand will continue to expand, the market economy is good, and for the long-term cooperation between China and Pakistan.

### **An Empirical Analysis of the Influencing Factors of Trade between Pakistan and China**

Through the analysis of the above chapters can be seen, Pakistan and China's commodity trade has a certain complementarity, have a certain potential. This chapter will use the co-integration model to analyze the

influencing factors of trade between Pakistan and China, so as to find out the factors that affect the interests of bilateral commodity trade and improve the trade potential of bilateral commodities.

### **The choice of variables, model construction and data sources**

#### **The choice of variables**

In order to analyze the influencing factors of Pakistan's exports to China and the influencing factors of Pakistan's imports from China, this paper analyzes the trade volume of Pakistan's trade with China and Pakistan's trade imports from China (Y1), China's GDP (Y2), Pakistan's FDI (Y3), China's FDI (Y4) and the population of China and Pakistan, and the impact of Pakistan's GDP on the import and export of Pakistan and China And the sum (Y5). The correlation between the explanatory variables and the explanatory variables is shown in the following table. The data is collected from center of world bank(Bank, 2017).

The connotation, expected symbols and theoretical explanations of the explanatory variables

Explanatory variables	Connotation	Expected symbol	Theoretical explanation
Y1	Pakistan's socio-economic development level	+	Using Pakistan's GDP to represent Pakistan's economic development level, not only represents Pakistan's export supply capacity, but also represents the demand for import demand, and imports and exports were positively correlated.
Y2	China 's social and economic development level	+	China's GDP to represent China's economic development level, not only represents China's export supply capacity, but also represents China's import demand, and imports and exports were positively correlated.
Y3	Pakistan attracts foreign direct investment	+ -	Pakistan's FDI is associated with imports of large quantities of machinery and equipment and is negatively correlated with China's

			imports to Pakistan.
Y4	China attracts foreign investment	+	China's FDI, on the one hand, is associated with imports of large quantities of raw materials; on the other hand, with the introduction of technology, equipment and management experience, it can also promote the increase in exports to Pakistan.
Y5	The size of China - Pakistan trade market	+	With the population of China and Pakistan on behalf of the size of the Sino-Pakistani trade market, and imports and exports were positively correlated.

**Economic Model**

Combined with the above analysis to build Pakistan's import and export model of China.

$$A=f (Y1、 Y2、 Y3、 Y4、 Y5)$$

Since the model is non-linear, the following model equations are obtained by taking the logarithm of each explanatory variable to ensure the smoothness of the data and to eliminate the heteroskedasticity:

$$\ln A = \alpha_0 + \alpha_1 \ln Y_1 + \alpha_2 \ln Y_2 + \alpha_3 \ln Y_3 + \alpha_4 \ln Y_4 + \alpha_5 Y_5$$

Among them, A represents Pakistan's imports or exports to China, is the explanatory variable; for the constant; and the total economic growth between Pakistan and China; respectively, on behalf of Pakistan and China foreign direct investment; on behalf of the two countries. This leads to the following model for analyzing the factors affecting the export and import of Pakistan and China:

$$\ln IM = \gamma_0 + \gamma_1 \ln Y_1 + \gamma_2 \ln Y_2 + \gamma_3 \ln Y_3 + \gamma_4 \ln Y_4 + \gamma_5 \ln Y_5$$

$$\ln EX = \beta_0 + \beta_1 \ln Y_1 + \beta_2 \ln Y_2 + \beta_3 \ln Y_3 + \beta_4 \ln Y_4 + \beta_5 \ln Y_5$$

Among them, IM and EX were Pakistan's imports and exports to China.

**Source Of Data**

In order to ensure the availability and validity of the data, this paper selected XXX to XXX a total of XXX years of Pakistan and China related



time series data co-integration test. Among them, Pakistan and China's import and export trade volume from XXXXXX; GDP, FDI and population from the World Bank database.

**Pakistan and China import and export trade impact factors oblique analysis**

In this paper, we use Eviews9.0 software to analyze the influencing factors of import and export trade in Pakistan and China by using VAR model.

**The unit root test of the variable**

.As shown in the table, the first-order differences of all variables are not stable, and the second-order differences in all variables are stable, so you can use the above variables for co-integration test.

ADF Unit Root Consistency Test Results						
		ADF	1% leve	5% level	10% level	Result
Augmented Dickey-Fuller test statistic						
lnEXPORT		-1.310399	-3.752946	-2.998064	-2.638752	不平稳
$\Delta$ ln(EXPORT)		-6.536454	-3.769597	-3.004861	-2.642242	平稳
$\Delta^2$ ln(EXPORT,2)		-5.933145	-3.808546	-3.020686	-2.650413	平稳
lnIMPORT		-1.560650	-3.752946	-2.998064	-2.638752	不平稳
$\Delta$ ln(IMPORT)		-5.065331	-3.769597	-3.004861	-2.642242	平稳
$\Delta^2$ ln(IMPORT,2)		-8.425767	-3.788030	-3.012363	-2.646119	平稳
lnY1		2.580886	-3.752946	-2.998064	-2.638752	不平稳
$\Delta$ ln(Y1)		-3.087842	-3.769597	-3.004861	-2.642242	不平稳
$\Delta^2$ ln(Y1,3)		-4.736542	-3.831511	-3.029970	-2.655194	平稳
lnY2		-1.973866	-3.808546	-3.020686	-2.650413	不平稳
$\Delta$ ln(Y2)		-1.561496	-3.769597	-3.004861	-2.642242	不平稳
$\Delta^2$ ln(Y2,3)		-4.747924	-3.808546	-3.020686	-2.650413	平稳
lnY3		-2.323163	-3.769597	-3.004861	-2.642242	不平稳
$\Delta$ ln(Y3)		-3.011103	-3.769597	-3.004861	-2.642242	不平稳
$\Delta^2$ ln(Y3,2)		-5.063657	-3.788030	-3.012363	-2.646119	平稳
lnY4		-0.534928	-3.752946	-2.998064	-2.638752	不平稳
$\Delta$ ln(Y4)		-5.624802	-3.769597	-3.004861	-2.642242	平稳
$\Delta^2$ ln(Y4,2)		-1.856975	-3.920350	-3.065585	-2.673459	不平稳
*MacKinnon (1996) one-sided p-values.						

## **Pakistan and China's import trade influence factors co-integration test**

Since this article is limited to determining whether there is a co-integration relationship between the time series and the selected variable and the inlet, the EG two-step method can be used to perform the co-integration test. The time series data are subjected to least squares regression, Get the following import model equation:

$$\ln IM = -5.035 + 0.835 \ln Y_1 + 0.0726 \ln Y_4 \quad (5-5)$$

$$(-7.148) \quad (20.298) \quad (-2.1153)$$

$$R^2 = 0.9938 \quad F = 290.3532 \quad D.W = 1.4598$$

The above regression model  $R^2$  is 0.9983, indicating that the model has good goodness of fit,  $F$  value is also significant, and  $D.W$  value through the test. Then the residual of the equation  $XX$  is verified by the unit root. It can be seen from Table (5-5) that the residual sequence of the equation has long-term co-integration relationship between China's attracting foreign direct investment through ADF smoothness test that is, Pakistan's imports to China and Pakistan's socio-economic development level. From the empirical results, the level of Pakistan's socio-economic development has a greater impact on the import of China and Pakistan, the impact coefficient of 0.835, that is, Pakistan's GDP every 1 percentage point increase, Pakistan's imports to China will increase 0.835 percentage points; Pakistan imports were positive, the regression coefficient of 0.0726, this is because with the increase in China's FDI, China's demand for various raw materials 0.0726, thus inhibiting the import of Pakistan.

Table 5-3 ADF test of the equation (5-5) residual

Table equation (5-6) Residual ADF test

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ADF	1% leve	5% leve	10% level
-3.0235	-2.6554	-1.9338	-1.535

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**Pakistan and China's export trade influence factors co-integration test**

Since this paper is limited to determining whether there is a co-integration relationship between the time series and the selected variable and the inlet, the covariance test can be carried out using the EG two-step method. The time series data are subjected to least squares regression, and no significant variables are removed. The following export model equation :

$$\ln EX = -52.3158 + 0.2314 \ln Y_1 + 0.5435 \ln Y_4 + 10.3478 \quad (5-6)$$

$$(-2.1148) \quad (2.4536) \quad (5.0369) \quad (2.7893)$$

$$R^2=0.9732 \quad F=275.3125 \quad D.W=1.5357$$

The regression analysis of the above regression is more obvious, of which R<sup>2</sup> is 0.9732, indicating that the model is excellent good fit, F value is also very significant, while D.W value through the test. Then the residuals of equation XXX, the unit root test. It can be seen from Table (5-6) that the residual sequence of equation (5-6) is verified by ADF smoothness test, that is, the level of China's exports to Pakistan and China's socio-economic development, the residual sequence is tested by ADF smoothness Pakistan's long-term co-integration relationship between China's exports to Pakistan's socio-economic development level, China's attracting foreign direct investment and the size of China-Pakistan trade market. From the empirical results, the population of China and Pakistan has the greatest impact on China's exports to China, with a return coefficient of 10.3478. The impact of

Pakistan's socio-economic development on CMB's exports is small, with a coefficient of influence of 0.2314

China's exports to China will increase by 0.2314 percentage points, while China's FDI is positively related to CMB's exports, , Pakistan's exports to China will increase by 0.5435 percentage points, because with the increase in China's FDI, China's demand for machinery and equipment, transport, etc., so that Pakistan's exports to China to reduce.

Table 5-4 Equation (5-6) Residual ADF test

Table equation (5-6) Residual ADF Test

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ADF	1% leve	5% level	10% level
2.9561	-2.2431	-1.7742	-1.5436

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## **Conclusion**

Based on the above empirical study on the factors affecting the import and export trade of Pakistan under the VAR model, this paper draws the following conclusions:

The level of social development in Pakistan (measured by Pakistan's GDP) has an impact on Pakistan's imports and exports in China have little impact on the bilateral import and export trade between China and Pakistan. If the total import and export volume of the two countries is mainly determined by the total economic volume, it shows that the trade structure of the two countries is still at a relatively low level, that is, the import and export of the two countries are mainly resource and

labor-intensive products, which is more in line with the characteristics of bilateral import and export trade between China and Pakistan.

China's attracting foreign investment was negatively correlated with CMB's import trade and was positively related to CMB's export trade. Pakistan's foreign investment in the field of finance ,oil and gas exploration, communications, food and beverage, textile, electricity and construction and other fields. In the initial field of foreign investment with the demand for raw materials for machinery and equipment, in order to meet the relevant needs of the country, China's exports will be reduced, imports will increase.

China and Pakistan trade market size and China's exports to Pakistan was positively correlated, and the regression coefficient is larger. This shows that the trade demand between China and Pakistan is greater, but also shows that China's supply capacity is strong; and the size of China-Pakistan trade market and China's imports of Pakistan is not significant mainly due to the domestic community is not subject to Pakistan Stability and energy power crisis, restricting Pakistan's exports to China (that is, China's imports to Pakistan).

China's FDI and Pakistan's GDP and China-Pakistan import and export correlation is not significant. Among them, Pakistan in China's market distribution structure does not account for an important position, which is mainly by the resource endowment and social and technological development level of the decision, so the increase in China's FDI has little effect on the import and export of Pakistan; At the same time, Macroeconomic and security situation, economic growth has been maintained at a low level, both restricting exports to China also curbed from , China's imports, so the impact is not significant.

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