THE ECONOMIC RELATIONS OF CHINA AND INDIA WITH PAKISTAN: A COMPARATIVE ANALYSIS

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In recent years China has taken several steps to improve trade and investment relations with Pakistan, including, among others, the signing of a bilateral free trade agreement (FTA) in 2006. Trade between the two countries has increased manifold, which, in turn, has resulted in a huge gap between the amount of trade China engages in with Pakistan compared with India. This slowing of India-Pakistan economic relations vis-à-vis China-Pakistan coupled with strained and uncertain political relations is a cause for concern. In this context, the present study examines trade and investment relations between China and Pakistan and analyses factors that have led to the growing presence of China in Pakistan vis-à-vis India. India has lost out to China in many important industries due to non-tariff barriers and non-economic factors. In addition, China scores over India in scale economies, price competitiveness and trade complementarity.

JEL Classification: F14, F18.

Key words: Trade, investment, comparative advantage, trade complimentarity, trade barriers.

I. INTRODUCTION

In recent years, China has taken several steps and initiatives to improve its trade and investment relations with Pakistan. China and Pakistan have signed a FTA (2006), a memorandum of understanding (MoU), a bilateral investment treaty (BIT) and many other agreements to increase trade and investment. China has been given

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several incentives by Pakistan which include access to the Pakistan market, cheap raw materials and use of Pakistani ports for trade. Pakistan, in return, has gained access to Chinese markets through preferential treatment under the FTA and moved closer to becoming a hub in the region, which may lead to significant transit revenues. The closer relationship between the two countries has also helped China build a "trade and energy corridor" through Pakistan (Aneja, 2006; Kumar, 2006).

Another reason behind the growing Pakistan-China ties is the expanding influence of India (because of the presence of the United States of America) in Afghanistan, and the increasing presence of the United States in general in the region (Kumar, 2006). Historically, China has been a major partner to Pakistan in its nuclear and fuel missile technology, but recently, there has been a shift in the relationship. Apart from collaboration on the political and defense front, the basic objective of the closer ties, is to nurture and strengthen economic relations between the two countries, furthering the interests of both countries in the region. Though the economic relations are yet to reach their full potential, military cooperation between the two countries is at a high level, with the strategic location of Pakistan being of particular interest to China as the former is the main route between China and the Middle East and China and Central Asia (Kumar, 2006; Sahoo, 2010). According to Rahman (2011), Pakistan-China relations are at their highest level given the layers of interactions between two countries. Over the years, Pakistan and China have developed a clear vision of their economic relations based on frequent exchange of ideas and high-level consultations between two countries (Memon, 2009).

Normality in political and economic relations between India-Pakistan is essential for a peaceful and prosperous South Asia. However, this has not been achieved because trade is restricted between the two countries mostly due to non-economic reasons. The trade restrictions have consequently resulted in, among other things, large-scale smuggling and third party trade and an increase in the prices of commodities for consumers (Ashraf, 2009; Khan, 2009). Other factors limiting trade between the two countries are lack of information on tradable items, India-Pakistan trade compliance regulations, facilities and high trade and transaction costs (Taneja, 2006). Though it has been recognized by both sides that the potential benefit from economic cooperation is immense, trade has suffered due to fluctuating political relations between the two countries (CUTS, 2011). However, it is believed that improved trade relations can significantly enhance political ties between the two countries (Malhotra, 2009; Khan, 2009).

Trade between India and Pakistan is limited even though they are both members of the South Asian Free Trade Agreement (SAFTA). Pakistan currently does not provide most favoured nation (MFN) status[1] to Indian exports despite the fact that both countries are members of World Trade Organization (WTO). However, India has extended this privilege to Pakistan. In addition, Pakistan allows only some trade routes for transportation of goods listed in its positive list to and from India. On the contrary, China has become an important trading partner of Pakistan in the region. The country has been investing and giving bilateral development assistance to Pakistan. In this context, the present study analyses economic relations between India-Pakistan vis-à-vis China-Pakistan within the framework of bilateral trade and investment arrangements. As economic cooperation is one way of breaking the deadlock between India and Pakistan, a comparative study of China-Pakistan economic relations vis-à-vis India-Pakistan will be useful to policymakers and academia. The focus of the paper is to analyse the economic relations of China, in terms of both trade and investment, with Pakistan vis-à-vis the economic relations of India for the period 1992-2007. The emphasis is on the period 2000-2007 when China improved its position substantially and gained a large foothold in many industries in Pakistan. The study tries to answer some pertinent questions, such as (a) why India has lost market share to China in Pakistan and (b) whether non-tariff barriers and the focus only on the positive list of Pakistan is responsible for the loss. The study is based on data from secondary sources including United Nations Comtrade[2] and insights received from experts and policymakers.

India-Pakistan and China-Pakistan trade relations

Pakistan is the only country in South Asia in which trade with China, in terms of both exports and imports, has been more than trade with India during the study period. Since 2000, exports from China to Pakistan have accelerated (figure 1). The figure shows that exports from India were 1 per cent ($52.2 million)[3] of the total exports to Pakistan in 1992 and increased to 6.2 per cent in 2007, amounting to $1.9 billion while exports from China increased from 9 per cent in 1992 ($421.1 million) to 23 per cent of total exports in 2007, amounting to $6.4 billion. The sharp rise in exports from China was partially due to the acceleration of economic cooperation between the two countries since 2000. Another spurt in trade and economic relations between China and Pakistan has occurred since 2006 following the successful completion of the FTA, though it is difficult to capture this impact as the analysis ends

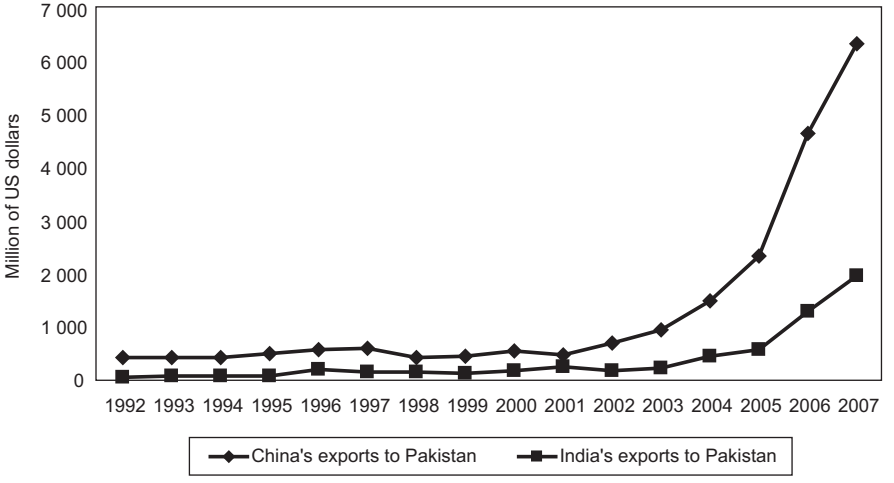
[1] However, Pakistan agreed to give MFN status to India in March 2012 in bilateral trade negotiations.

[2] United Nations Commodity Trade Statistics Database.

[3] The source of all trade data is WITS COMTRADE HS 1988/92.

at 2007.[4] With respect to imports from Pakistan, those to India from Pakistan ($135.5 million) were about 2.5 times those of China ($53.7 million) in 1992.[5] Though Indian imports from Pakistan have been increasing since 2004 and amounted to $269.7 million in 2007, the total was still far behind Chinese imports, which stood at $1.0 billion.

Figure 1. Exports to Pakistan from India/China



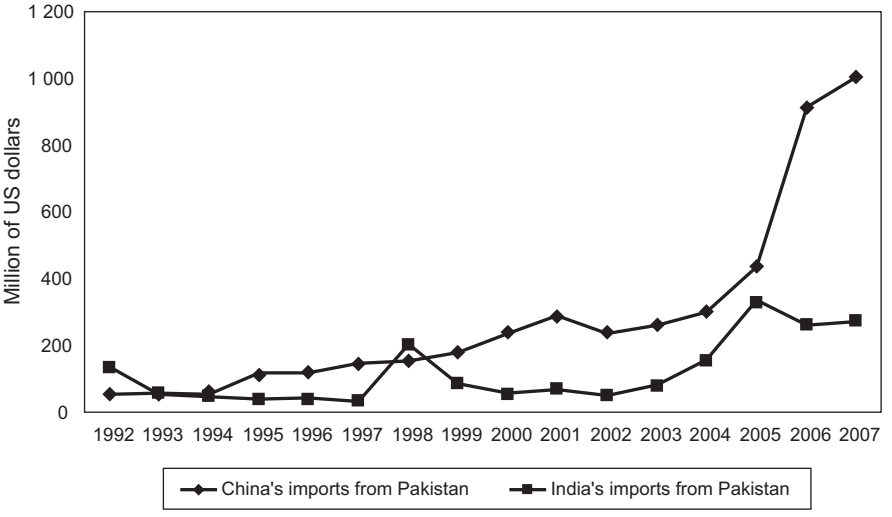
Source: United Nations (2009).

Overall, trade between India and Pakistan (figures 1 and 2) has improved since 2002, though the level of trade has been substantially lower compared to trade between China and Pakistan. Two reasons behind the spurt in trade are the inclusion of more Indian goods in the positive list of Pakistan and the opening up of a few more trade routes to India (see Taneja, Prakash and Kalita, 2011). The share of Chinese exports to Pakistan increased from 10.1 per cent in 2000 to 22.8 per cent in 2007 whereas the share of Indian exports increased to 6.2 per cent in 2007 from 2.9 per cent in 2000 (see annex table A.1). Given the similarity in export baskets of China and India to Pakistan, discussed later, Chinese exports are gradually replacing Indian

[4] The chart for exports, however, does indicate this spurt in growth as the final tail of the Chinese exports graph sees a steep rise reflecting annual growth of 36.6 per cent.

[5] We could not explore the data before our reference period, as China (and Pakistan) reported data were missing in the years before 1992. However, it seems possible that imports into China from Pakistan were less than what India imported from Pakistan earlier.

Figure 2. Imports into India/China from Pakistan



Source: United Nations (2009).

exports. Similar to exports, the share of imports from Pakistan to China is higher than that of India (7.3 per cent in 2007 compared to the share of India of around 2 per cent in recent years). The balance of trade was in favour of China (for trade with Pakistan) in 1992 and began to decrease thereafter between 1998 and 2000. The trade balance was favourable (positive) for India in some years, particularly post 2000. Along with protection of domestic industries and other non-economic reasons, this is probably one of the reasons why Pakistan complains of a trade deficit with India and bans Indian goods. In recent years, the normalized trade balance[6] is almost the same for both countries (see annex table A.1).

[6] We use the normalized trade balance ratio between two countries which is defined as: normalized trade balance ratio = 100*(X-M)/(X+M); where X is the total Exports from country 1 to country 2 and M is the total Imports into country 1 from country 2. If this percentage measure is positive, then the trade balance is in favour of country 1 (trade deficit for country 2) because this implies that country 1 exports more to country 2, than it imports from it. In our calculations country 1 is one of China or India, and country 2 is Pakistan.

II. REVEALED COMPARATIVE ADVANTAGE

Comparative advantage in exports to the world and share in Pakistan market

Export competitiveness is an important determinant of successful integration of a country with the world economy. A high degree of comparative advantage reflects relative cost advantages, superior product attributes and lesser trade restrictions.[7] In this study, the revealed comparative advantage (RCA) of exports from China and India to the world economy was analysed using the Balassa index (Balassa, 1965)[8] for the period 1992-2007. We also calculated an index derived from the Balassa index to suit the bilateral context[9] for the reference years. The sectoral comparative advantage is an important indicator of a country's export prowess.[10] The international revealed comparative advantage (IRCA) and bilateral revealed comparative advantage (BRCA) of Chinese and Indian exports and their respective share[11] in world trade and share in the Pakistan market as well is reported in annex tables A.2 and A.3. The goods that show a revealed comparative advantage as measured by their IRCA for China have a greater share of the market in Pakistan than that of India. This can be understood by the shares of both Chinese and Indian RCA products, at the 2-, 4- and 6-digit levels in 1992, 2000 and 2007, respectively, as reported in annex table A.2. Even in the case of BRCA, China has an edge over India in the Pakistan market (annex table A.3). Overall, China has a higher market share in Pakistan in the commodities it has IRCA than India in the same categories. This indicates that non-tariff barriers exist between Pakistan and India. In addition, China has a comparative advantage (both in terms of IRCA and BRCA) in a greater number of commodities than India, and the numbers have been increasing.

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[7] The determinants of export competitiveness include price-related factors, such as domestic wages or material costs; availability of labour; exchange rate; foreign direct investment (FDI) and management; and reduced cost of communication and transportation (Adams, Gangnes and Shachmurove, 2006) as well as qualitative attributes.

[8] In order to analyse IRCA of Indian and Chinese exports, we use the Balassa index as follows: $IRCA_{ij} = (X_{ij}/X_j)/(X_{iw}/X_w)$; where *i* is the product/industry of interest for calculation of comparative advantage, *j* is the country of interest whose comparative advantage is being calculated, and *w* is the set of all countries in the world. Therefore, the index is the ratio of the share of i^{th} product/industry in the exports of country *j* as a proportion of i^{th} product/industry in world exports.

[9] See Pascha (2002).

[10] This expectation, however, assumed that nothing other than comparative advantage affects bilateral trade, which in practical international trade does not hold. We, therefore, encountered various products/industries in the trade of which other factors supersede the comparative advantage effect. We tried to explain the deviations from these expected patterns in the context of trade arrangements and trade policies.

[11] Though we calculated RCA for all the years from 1992-2007, we only reported three time points, 1992, 2000 and 2007 due to space constraint.

Major industries having comparative advantages for both countries and the respective share of these industries in the world market and as well as in the Pakistan market are reported in annex table A.4. Both China and India have several common export items to Pakistan in which both countries enjoy IRCA, such as footwear and headwear, textile and textiles articles, hide and skins, and base metals, and articles, though China has a higher market share than India for those items. China exports much more than India in these industries to Pakistan and Chinese exports constitute a major portion of world exports in these industries. Even industries in which India has a high IRCA, their presence in Pakistan is negligible. For example, industries, such as pearls, precious stones and metals, and footwear and headwear, have witnessed negligible and fluctuating growth during the study period as a majority of the items in these industries are banned in Pakistan (not part of the positive lists). Another example is the industry of hide and skins, in which India enjoys a high comparative advantage in the world market but has zero presence in Pakistan. On the contrary, China exports 40 per cent of the total world exports in this industry to Pakistan. This reflects the non-tariff barriers mainly through the positive list approach, which included nine items in 2000 but increased to 45 items in 2009. This ad hoc approach of positive lists, which fluctuates every year and sometimes in a few months, creates uncertainty about the market for Indian exports and also dependency of Pakistan importers on India.

Comparative focus in exports to Pakistan

The BRCA measures for Chinese and Indian exports to Pakistan are summarized in table 1. The highest BRCA measures are seen in arms and ammunition, parts and accessories; chemical products; plastic and rubber; and base metals and articles in which BRCA>1 in all three years, 1992, 2000 and in 2007. At the 4-digit level, nuclear reactors, fuel elements, machinery and apparatus (HS 8401) show a comparative advantage before 2007 while lead waste and scrap (HS 7802) show the maximum bilateral comparative advantage in 2007. Indian exports show a bilateral comparative advantage consistently in all three years in chemical products; plastic and rubber; vegetable products and prepared foodstuff. The share of top exports for both China and India and their respective BRCA is reported in annex table A.5. Notably, vegetable products (HS 14) and sugars and sugar confectionary (HS 17) are the top focus for Indian exports to Pakistan in the last 10 years.

Chinese and Indian exports both show BRCA (in all three years) in chemical products and in plastic and rubber. However, Chinese exports exceeded Indian exports in both these industries. In the plastic and rubber industry, neither Indian nor Chinese exports reveal IRCA whereas Indian exports only reveal an advantage in chemical products. India is doing well in both these industries as Pakistan has

included increasing numbers of products in its subsequent positive lists since 2000. For example, the chemical industries included 308 more items between 2000 to 2009, taking the total items to 568, which is almost a quarter of the total items in the positive list. Exports in vegetable products are higher from China despite the fact that Indian exports revealed a comparative advantage as measured by IRCA in these goods. Here also, it appears that Pakistan has blocked many products through positive lists and allowed imports only on the basis of local demand requirement. However, the measures of comparative advantage do not always indicate the success of Chinese/Indian exports of those goods to Pakistan. There are bilateral issues other than comparative advantage that affect trade which we explore in section V. Factor Causing High China-Pakistan Trade.

Table 1. Bilateral RCA

Industry	India			China		
	1992	2000	2007	1992	2000	2007
Animals and animal products	0.0	0.0	0.8	0.0	0.0	0.0
Vegetable products	3.1	1.7	1.3	0.4	1.5	2.0
Animal/vegetable fats	0.2	0.2	0.2	0.3	0.0	0.2
Prepared foodstuff	4.9	17.1	4.0	0.5	3.5	0.2
Mineral products	1.6	0.4	0.6	0.1	0.4	1.4
Chemical products	2.7	2.9	2.9	2.4	4.4	2.7
Plastic and rubber	2.4	5.0	3.2	1.0	1.5	1.4
Hides and skins	0.0	0.0	0.0	0.0	0.2	0.4
Wood and wood products	0.0	0.0	0.0	0.0	0.0	0.3
Wood and pulp products	6.1	0.9	0.8	2.4	0.7	1.3
Textiles and textile articles	0.1	0.0	1.5	0.0	0.2	1.4
Footwear, headwear	0.0	0.0	0.5	0.0	0.1	0.8
Articles of stone, plaster, cement, asbestos	1.9	0.1	0.3	0.6	1.6	1.2
Pearls, precious/semi precious stones/metals	0.0	0.0	0.0	0.0	0.0	0.1
Base metals and articles thereof	0.8	0.4	0.5	1.9	1.3	1.0
Machinery and mechanical appliances	1.6	0.2	0.2	2.7	1.0	0.7
Transportation equipment	0.1	0.0	0.0	2.6	1.6	0.7
Instruments-measuring, musical	0.6	0.2	0.2	0.6	1.1	0.8
Arms and ammunition; parts and accessories thereof	1.1	0.0	0.0	6.2	17.0	0.0
Miscellaneous	1.5	0.3	0.1	0.1	0.2	0.3
Works of art, collectors' pieces and antiques	0.0	0.0	0.2	0.0	0.0	0.0

Source: United Nations (2008).

III. TRADE COMPOSITION AND INDUSTRY WISE ANALYSIS

Concentration

The composition of exports reveals that Indian exports to Pakistan were more diversified than Chinese exports in the years under study other than 2007 (see Herfindahl indices[12] in annex table A.6). The findings from the C_4 ratio,[13] however, contradict the Herfindahl index results. They show that Indian exports had a higher concentration as the share of the top four industries was higher than 75 per cent (over time) in all three years whereas Chinese exports had a concentration of 71 per cent or less in its top four industries in all three years (see table 2). This implies that most of the Indian exports were concentrated in four industries beyond which Indian exports to Pakistan were not concentrated sectorally, unlike Chinese exports. These products in which Indian exports were very high (sometimes temporarily) were usually essential items demanded by Pakistan.[14]

Table 2. Top four industries in exports to Pakistan

Share in total exports from India (per cent)				Share in total exports from China (per cent)			
Industry	1992	2000	2007	Industry	1992	2000	2007
Chemical products	18.5	27.3	28.9	Machinery and mechanical appliances	37.2	28.6	31.9
Textiles and textile articles	..	..	21.7	Textiles and textile articles	..	..	19.2
Mineral products	9.9	..	13.6	Chemical products	11.6	20.4	11.4
Prepared foodstuff	24.4	40.2	10.8	Base metals and articles thereof	10.2	8.4	9.3
Plastic and rubber	..	11.9	..	Prepared foodstuff	..	7.2	..
Vegetable products	25.4	11.9	..	Transportation equipment	6.5	..	..
C_4 ratio	78.2	91.3	75.0	C_4 ratio	65.5	64.6	71.8

Source: United Nations (2008).

[12] Herfindahl Hirschman Index = $\sum_i (X_i/X)^2$; where X denotes total Exports and Xi denotes Exports of i^{th} firm. The range of this sum therefore is 0 to 1; and if this sum is near 1, it is interpreted as the market being owned by a single firm, and therefore indicating, high concentration in the market. On the contrary, a low sum of squares indicates low concentration in the market.

[13] The concentration ratio is the percentage of market share owned by the largest *n* firms in an industry, where *n* is a specified number of firms. Four is the most used value for *n* and therefore the ratio is termed CR_4.

[14] The essential items are analysed in detail one by one in later sections.

Industry components

The most important items of export to Pakistan from China are machinery and mechanical appliances and those from the textiles and textile articles industry (table 2). These two categories comprise about 51 per cent of all exports from China going to Pakistan. Machinery and mechanical appliances maintained the top position while textiles and textile articles replaced chemical product in the number two position in 2007, accounting for about one fifth of the total exports from China.[15] Regarding Indian exports to Pakistan, vegetable products, which used to be the most important industry in the early 1990s, lost a large portion of its share of total exports from India by 2001, with prepared foodstuff emerging as the most important industry. However, chemical products replaced prepared foodstuff in 2007 as the largest component. The textiles and textile products industry has grown in terms of export volume to occupy the second largest component position. In fact, the textile industry has grown in relative share for both Chinese and Indian exports to Pakistan. In this context, some important export industries of India and China are explained below.

Prepared foodstuff

Indian exports to Pakistan in the prepared foodstuff industry are generally unprocessed, such as cane or beet sugar and chemically pure sugar (HS 1701) and oil cake and other solid residue (HS 2304).[16] In 2007, this industry accounted for 10.5 per cent of total Indian exports to Pakistan. However, there have been huge fluctuations in exports of cane or beet sugar from India to Pakistan in the last few years.[17] We explored the positive list that allows items from India into Pakistan for justifications of these fluctuations. In fact, according to a notification by Pakistan on 6 August 2005, imports from India of raw cane and beet sugar (without added flavouring/colouring) and white crystalline cane or beet sugar (four tariff lines at the 8-digit) were allowed into Pakistan effective from that date.[18] This is the reason why imports from India have risen starting in 2005 after being close to zero in 2004. In

[15] In the following sections, the concessions that China receives according to the FTA is examined while keeping in mind these important industries.

[16] India uses International Trade Centre (ITC) codes and Pakistan uses Pakistan Custom Tariff codes. All trade data are in international HS 1988/92 codes because our period of data begins in 1992, but the concession lists are in the codes of the declaring country. Differences with respect to HS codes are very small.

[17] For example, sugars and sugar confectionery (HS 17) became the most important product category for Indian exports in 2006 (with cane or beet sugar (HS 1701) which alone was about 26 per cent of Indian exports to Pakistan in 2006) but this was a random spurt. Exports of the same item were close to 0 per cent of Indian exports to Pakistan in 2004 and around 30 per cent in 2000 and 2001.

[18] Pakistan, Ministry of Commerce, Order S.R.O. 788 (I)/2005, 6 August 2005.

addition, the share of oil cake and other solid residues (HS 2304) exports from India to Pakistan fell from about 23 per cent in 1992 to 5.6 per cent in 2007. It can be said that a lot of the fluctuations in goods moving from India to Pakistan are a function of the importables allowed from India at that point in time to satisfy local demand.[19] Following in a similar pattern was the trend of Chinese exports to Pakistan of cane and beet sugar, which was a reflection of the fluctuation in the production of sugar in the domestic market and the resulting wide changes in import demand.

Animals and animal products

In the animals and animal products industry, the bulk of Indian exports to Pakistan is frozen meat of bovine animals (HS 0202) and concentrated or sweetened milk and cream (HS 0402). These items, which were included in the positive list around 2003 also constituted the largest component of exports to Pakistan in this industry in 2007 (accounting for 64 per cent of the local demand within this industry in 2007). Regarding animal or vegetable fats, Indian exports in 2007 were heavily concentrated in soya bean oil and fractions (HS 1507), coconut, palm kernel and babassu oil and fractions (HS 1513), animal and vegetable oils and their fractions (HS 1516), and wool grease and fatty substances (HS 1505). Regarding mineral products, Indian exports to Pakistan in 2007 were concentrated in petroleum oils, etc., excluding crude (HS 2710). Exports of soya-bean oil and its fractions and petroleum oils excluding crude are important demand items from Pakistan in this industry. Indian exports fared better in the Pakistan market than Chinese exports in the products category in which imports were allowed from India, particularly in essential items such as those found in the food category, iron ores, and petroleum oils. Pakistan imports these essential items from India partially because of the low cost factor and high domestic demand. Despite large items in the animals and animal products industry being banned by Pakistan, Indian exports to that country performed better than Chinese exports in this industry. Moreover, Chinese exports did not show a higher IRCA than India in most of these products in this industry. Therefore, Indian exports did better in the Pakistan market than China in products/industries where imports are allowed from India.

Textiles and textile articles

A large number of textiles and textile articles, which make up an important exports industry for both India and China, were added to the positive list of Pakistan after 2006. This industry, which is very important for Pakistan's exports, accounting for about 68 per cent of total exports in 2007, mainly consists of ready-made

[19] Sometimes for few months.

garments (RMG) (HS 61+62), carpets, blankets, awnings and cotton textile (HS 52) exports. Data on the important exports from Pakistan to China and to India indicate that China was a more popular destination for Pakistan RMG. Similarly, Chinese imports of made ups (which includes RMGs) from Pakistan were about three times the same items being imported into India in 2007. The case is similar for cotton textiles imports, in which Chinese imports of those goods in 2007 was 15 times higher than the amount imported by India. Similar to a number of Indian exports to Pakistan, cotton exports for the reference period largely depended on the domestic demand of Pakistan.[20] Since cotton is an important item of exports for Pakistan, imports from India are only allowed in order to meet a production shortfall or to fill in for excessive exports from the country.[21] On the contrary, China exports cotton textiles, especially that of cotton fabrics, in significant numbers and imports these same items from Pakistan. As a result, China can be viewed as being a more important trade partner for Pakistan than India with regard to textiles.

In addition to Chinese exports of cotton yarn and fabrics, RMG and made ups to Pakistan are important items of exports for the country, thereby posing serious competition to domestic industries in Pakistan. Since these goods are shipped from China in large volumes and more frequently as compared to India, trade with China in these categories is more of a problem for Pakistani exporters and producers of RMG and made ups than with India.[22] However, another important item in this category imported by Pakistan from China is man-made filaments, yarn and fabrics. Indian exports had a high global comparative advantage in the cotton and cotton thread category and was thus exported more than China in this product category. Overall, China did well in this industry because of its price competitiveness and due to the open access of Pakistan markets. India performed better in products in which it was competitive and allowed to export. A large number of items from the textiles industry were added to the positive list (around 60) over the previous 10 years but the products and items changed frequently, creating uncertainty for Indian exporters.

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[20] There was earlier a ban on cotton in which only long staple cotton was allowed to be imported from India.

[21] Just to cite the fluctuations in cotton demand from the Pakistan textiles industry it may be worthwhile to note that around the summer of 2008, Pakistan textile industry was demanding a ban on the exports of cotton due to its high prices, and very recently, in February 2009, the Kissan Board Pakistan demanded that cotton imports from India be banned, citing imports to be the cause of local stocks going to waste. See www.yarnsandfibers.com/news/index_fullstory.php3?id=17979&p_type=General.

[22] Large volumes of Chinese exports in carpets, blankets, etc., also contributed to this. These Chinese goods coming in categories that are important for exports of Pakistan should be a threat to local Pakistan industries.

Machinery and mechanical appliances

At the 2-digit product category level, the top exports from China to Pakistan are electrical machinery, equipment and parts (HS 85) and nuclear reactors, boilers, machinery appliances (HS 84), which make up for the entire machinery and mechanical appliances industry. The exports of machinery and mechanical appliances comprised a 32 per cent share of total Chinese exports to Pakistan in 2007, amounting to $1.9 billion. This is an industry in which China enjoys a global comparative advantage (IRCA of 1.7 in 2007) whereas Indian exports do not reveal a comparative advantage. From the point of view of Pakistan, the machinery and mechanical appliances industry is very important, with 25.7 per cent of exports to Pakistan in 2007 being in this industry alone. The largest components of exports in this industry to Pakistan in 2007 were electrical telephonic, telegraphic and fax apparatus (HS 8517); transmission apparatus for radios or televisions (HS 8525); electric generating sets and rotary (HS 8502); and air or vacuum pumps, compressors (HS 8414). China was a larger supplier of these important items of demand in Pakistan than India in 2007, with shares of 46.2 per cent, 28.7 per cent, 13.8 per cent and 15.3 per cent, respectively. In the case of textile machinery, another important demand item in Pakistan, China exported more than India and accounted for 22 per cent of total exports. Regarding items of the machinery and mechanical appliances industry, Chinese exports constituted 31.9 per cent of total exports in 2007 whereas Indian exports were a mere 1.6 per cent.

China has, in fact, been dominating India as well as the world markets in the export of items from the machinery and mechanical appliance industry due to its very high IRCA. Even though a substantial number of products in this category from India were added to the positive list (around 2,000 during the last 10 years), the country had not been able to compete with China in the price-sensitive Pakistan market. There are also issues of post delivery services, logistical follow-up and the trust factor, which make Pakistan importers prefer Chinese over Indian products in this category.

Chemical products

The most important Indian export product at the HS 2-digit level is organic chemicals (HS 29). Though at the industry level, Chinese exports exceeded Indian exports, Indian exported more organic chemicals than China. India supplied about 31 per cent of the total exports of organic chemicals to Pakistan, which comprised 13.3 per cent of total exports to the county in this category. Another significant item imported by Pakistan in this industry is mineral or chemical fertilizers (HS 3105). Notably, China supplied 36 per cent of the total exports to Pakistan of this product. The chemical industry is one of the few industries in which India fares better than China in the world market. However, in Pakistan, it outpaces China only in a few

products, such as organic chemicals. Therefore, China exports more than India as a whole in this industry. The better performance of China in this industry is mainly due to non-tariff barriers imposed on Indian exports by Pakistan.

Mineral products

Indian exports of mineral products to Pakistan have also been important, having a share of 13.6 per cent of total Indian exports to Pakistan. This industry accounts for about 6.6 per cent of total exports to Pakistan and India exports more than China in this industry. The most important product of demand for Pakistan within the industry is petroleum oils, etc., excluding crude (HS 2710) for which India is an important source. This is another industry India has a higher IRCA in the world market than China (see table 4). In fact, China does not reflect comparative advantages during our study period. Indian exports do well in Pakistan as it is competitive in this industry and Pakistan has been progressively adding products from this industry in successive positive lists.

Base metals and articles thereof

In this industry, Indian and Chinese exports show RCA in iron and steel (HS 72) and articles thereof (HS 73) categories. Chinese exports at the industry level as a whole as well as in these two commodity categories are substantially higher than Indian exports. For example, Chinese exports of iron and steel and articles in 2007 accounted for about 58 per cent of world exports to Pakistan in this industry while Indian exports were a mere 6 per cent. The basic reason behind the large gap was that these products were not included in Pakistan's positive list (except for two to three items in HS 72) until November 2006. The inclusion of these items in 2006 has boosted exports from India to Pakistan recently and it is expected that the gap between Indian and Chinese exports in these categories would fall in the future.

Trade complementarity

According to trade complementarity (TC) indices (annex tables A.6), Chinese exports were more in line with demand in Pakistan than Indian exports throughout the given period. Not only was China's trade more compatible with Pakistan demand, the difference between the trade complementarity index for Indian exports and that of Chinese exports has widened since 2006. The results of the analysis hint that the reason for this could be the FTA between Pakistan and China enacted in 2006, which made Chinese exports even more complementary to import demand of Pakistan. With respect to goods being exported from Pakistan to China and India, the matching trade complementarity indices are higher in the case of China as a destination than they are in the case of goods destined for India. This is in line with the observations

that China is a more accessible destination for important exports of Pakistan than India.

IV. TRADE ARRANGEMENTS OR PREFERENCES RECEIVED FROM (OFFERED TO) PAKISTAN

China and Pakistan trade arrangements or preferences

China and Pakistan signed a FTA in 2006, which came into force in early 2007. In the China-Pakistan FTA, Pakistan offered tariff concessions for Chinese goods across all industry slabs and margin of preference (MOP) reduction rates at different levels. The FTA has a provision for the elimination of tariffs or the reduction of tariffs to 0 to 5 per cent within the first five years. The industries that received concessions on more than 100 tariff lines at the 8-digit level are listed in table 3. Therefore, tariff duties applicable on Chinese exports in the particular tariff lines in these industries will be almost eliminated by 2012.

Table 3. Chinese exports receiving concessions >100 tariff lines in categories I and II from Pakistan

Industry	Number of tariff lines in categories I and II
Animals and animal products	152
Vegetable products	204
Mineral products	186
Chemical products	919
Textiles and textile articles	133
Base metals and articles thereof	427
Machinery and mechanical appliances	776
Instruments – measuring and musical	252
Miscellaneous	110

Source: United Nations (2008).

China struck a good deal with Pakistan in tariff concessions in its major exports to Pakistan, such as machinery and mechanical appliances, textiles and textile articles, chemical products and base metals and articles thereof (see annex table A.7 for Pakistan's tariff concessions to China according to the FTA). Though the full effects of these concessions are yet to be seen, the annual growth rate of Chinese exports in these industries has improved as a result of the FTA. For example, from

2006 to 2007, the exports of animals and animal products increased by 114 per cent, mineral products by 103 per cent and measuring and musical instruments by 120 per cent.

The top 10 Chinese exports to Pakistan at the HS 2-digit level (table 4 below) were granted concessions in category I (except man-made filaments, fertilizers, and art of apparel and clothing accessories) with the understanding that tariffs on them were to be eliminated by 2010. In fact, 3 of the top 10 products have received category I concessions on very large numbers of tariff lines. For example, organic chemicals received these tariff concessions on 445 tariff lines, and all machinery (HS 84 and 85) on 622 tariff lines at the 8-digit level. Garments and clothing accessories, another important item of Chinese exports, were ignored in the category I, but were awarded tariff concessions in category II in which tariffs were reduced to 0 to 5 per cent within five years beginning 2007. Chinese exports in these items were to get a further boost and possibly give tougher competition to Indian exports by the end of three years, by 2010, when duty on the tariff lines in category I were to be fully phased out. Major Indian exports, such as organic chemicals and iron and steel articles, may face stiff competition from China and the advantages of the new items being listed in the positive list of Pakistan may not be realized.

In turn, China gave tariff concessions (awarded to tariff lines at the 8-digit level) to imports from Pakistan (see annex table A.8 for details). Table 4 below shows the industries in which Pakistan exports received concessions on greater than 100 tariff lines in categories I and II from China under the Pakistan-China FTA. Textiles and textile articles and other top exports industries of Pakistan, such as base metals and articles thereof, and mineral products, have received substantial concessions on significant numbers of tariff lines in categories I and II. These generous tariff concessions from China are a factor behind the good deal China obtained from Pakistan in the FTA. The most important singular item of import from Pakistan after cotton yarn is unrefined copper and copper anodes (HS 7402), which received concessions in category I on the entire 4-digit category (HS 74020000). The same is the case with another important item of import into China from Pakistan, namely chromium ores and concentrates (HS 2610).

Table 4. Pakistan exports receiving concessions >100 tariff lines in categories I and II from China

Industry	Number of tariffs lines in categories I and II
Animals and animal products	169
Vegetable products	257
Mineral products	195
Chemical products	1 080
Plastic and rubber	208
Wood and wood products	128
Textiles and textile articles	743
Base metals and articles thereof	619
Machinery and mechanical appliances	1 105
Transportation equipment	161
Instruments – measuring, musical	188

Source: United Nations (2008).

India and Pakistan trade arrangements or preferences

India and Pakistan are both members of SAFTA, according to which members are supposed to bring down tariffs on all goods in a phased manner other than those on their respective negative lists. However, Pakistan does not honour this obligation due to non-economic reasons. Pakistan allows only a list of items to be imported from India under its positive list. The 2008 positive list (according to the Import Policy Order 2008) allows 1,938 items for imports. The positive list is changed frequently,[23] either to satisfy local demand or to bring down prices or due to political conflicts.

A large number of items were added to the positive list of Pakistan in 2006 in the following industries: chemical products; base metals and articles and machinery and mechanical appliances. Consequently, the export of many items from India increased as the list included 302 more items of importables from India.[24] Many items placed on the positive list are from the following property categories: nuclear reactors, boilers, machinery and mechanical appliances, textile industry, electrical machinery, equipment and parts, sound and television equipment and chemical products (see

[23] Even sometimes for a few months temporarily.

[24] Pakistan, Ministry of Commerce, Order S.R.O. 1100 (I)/2006, 3 November 2006.

annex table A.8). Given the importance of the textile industry for Pakistan, this move was important for local textile producers as it would make available more mechanized options within the textile industry. As a result, Indian exports of machinery and mechanical appliances increased by 100.8 per cent, with nuclear reactors, boilers, machinery and mechanical appliances recording 65 per cent growth, and electrical machinery, equipment and parts, sound and television equipment increased by 739.6 per cent between 2006 and 2007. Exports of iron and steel articles and chemical products grew by 36.0 per cent and 42.8 per cent, respectively, in the same year. Within chemical products, 21 items were added in organic chemicals alone. This in fact is the product category which India exports in bulk. It is expected that the positive trend in exports from India would continue with these new additions to the positive list. Most of the industries have not performed well compared to Chinese exports because only 20 tariff lines were allowed in 2006 (table 5). However, some industries, such as animals and animal products and prepared foodstuff, did comparatively well despite bans on large items by Pakistan.

The meagre Indian exports in some industries may be attributed to the positive list that blocks goods coming from India. Though this list widened on average in the following two years, there were a number of industries in which only about 20 (or less than 20) tariff lines at the 8-digit level were allowed in as imports from India in 2006. In 2008, industries such as animals and animal products, vegetable products, mineral products, wood and pulp products and textiles and textile articles were increased substantially in the positive list when a number of tariff lines were doubled. Subsequently, a large number of items in these industries have been included in the positive list in line with substantial liberalization from the Government of Pakistan. A short set of tabulation shows (table 5) these industries, as well as the increase in the positive list between 2006 and 2008.

As a result of the Import Policy Order 2008 of Pakistan, more items were added to the permissible list. The industries that received maximum additions to the list of imports granted permission included vegetable products, mineral products, chemical products, textiles and textile articles, and instruments-measuring and musical. More recently, under the Trade Policy 2008/09 of Pakistan, diesel and fuel oil were added to the positive list and given a concession (0 per cent custom duty) to the import of compressed natural gas (CNG)[25] buses from India (see annex table A.9). In addition, the Economic Coordination Committee of the Cabinet of Pakistan allowed the Ministry of Commerce to start trade with India through the Wagah-Attari road

Table 5. Industries wherein tariff lines allowed <= 20

2006	2008
Animals and animal products	–
Animal or vegetable fats	–
Prepared foodstuff	Prepared foodstuff
Wood or pulp products	–
Footwear, headwear	Footwear, headwear
Articles of stone, plaster, cement, asbestos	–
Pearls, precious/semi precious stones and metals	Pearls, precious/semi precious stones and metals
Transportation equipment	Transportation equipment
Miscellaneous	Miscellaneous
Arms and ammunition; parts and accessories	Arms and ammunition; parts and accessories
Works of art, collectors' pieces and antiques	Works of art, collectors' pieces and antiques

Source: United Nations (2008).

route and to increase the number of importable items in a phased manner[26] in March 2009. This is a much awaited positive move towards improving bilateral trade between the two countries.

India, according to SAFTA, had agreed to bring down all tariffs, other than those on the negative list of India to 20 per cent or below by 2008 and then further decrease in phases of MOP to 10 per cent each year such that all tariffs are down to 0 to 5 per cent by 2013. The negative list does include some of the top 10 import items from Pakistan, such as edible fruits and nuts, and some cotton textiles tariff lines. For example, the largest components of imports from Pakistan are petroleum oils excluding crude (HS 2710) and fresh or dried dates, figs, pineapples, avocadoes, guavas, fresh or dried (HS 0804). From that list, about five tariff lines at the 6-digit level are included in India's negative list. Consequently, Pakistan does not receive any tariff concessions on the exports of these items to India. Within cereals, wheat and durum is an important import from Pakistan which is on the sensitive list of India. Similarly, some of the important items in the textile industry, such as carpets and sacks have been placed in the Indian sensitive list (189 tariff lines at the 6-digit level). However, SAFTA concessions apply to cotton, a fabric which is imported from Pakistan in bulk (11.5 per cent in total imports from Pakistan in 2007) and it does not

[26] News reports from Pakistan. Available from www.india-server.com/news/pakistans-ecc-approves-bilateral-trade-6616.html.

see any tariff lines in the sensitive list. Overall, trade between India and Pakistan is languishing because of banned trade from Pakistan and lack of tariff liberalization from India.

V. FACTOR CAUSING HIGH CHINA-PAKISTAN TRADE

The most important industries in which China holds dominant positions in the Pakistan market pertain to machinery and mechanical appliances and textiles and textile articles. In machinery and mechanical appliances industry, China dominates the Pakistan market in two products, namely RMG, and machinery and mechanical appliances. Meanwhile, Indian exports of these products are negligible. Limited Indian exports in some industries areas may be attributed to the positive list that blocks goods coming from India. On the contrary, in the China-Pakistan FTA, tariff concessions were given by both countries to each other country's exports. Some of the major factors responsible for the success of Chinese exports in Pakistan are discussed below. Firstly, the Government of Pakistan is extending a helping hand in every possible way by supporting Chinese business activities and trade. Moreover, Chinese traders do not face visa problems or antagonism in Pakistan as is case for Indian traders. Secondly, China's trade with Pakistan, particularly exports, has not faced any barriers in Pakistan in recent years, particularly after the implementation of the China-Pakistan FTA. China is doing well in Pakistan as the tariffs are almost zero in most of the exports from China. Thirdly, China is performing well in the textile industry as this industry enjoys the economies of scale and price competitiveness. It is successful in Pakistan because of its low price and lack of competitors. Fourthly, China finds it easier to do trade and invest in Pakistan due to the cooperative attitude of the people of Pakistan. In addition, China is encouraging the business houses from Pakistan to participate in their exhibitions and more detailed information about the Chinese products is available in Pakistan, helping to boost Chinese imports. Lastly, trade and transaction costs are lower with China than with India (Taneja, 2007).

VI. INVESTMENT IN PAKISTAN: INDIA AND CHINA PERSPECTIVES

Investment flows between China and Pakistan[27]

Pakistan and China signed a bilateral investment treaty in February 1989. A major reason for Chinese interest in Pakistan is the trade and energy corridor from the Gwadar (in Balochistan) port of Pakistan to the western regions of China. Pakistan

[27] For details of FDI Policy, flows, pattern in South Asia, see Sahoo (2006) and Sahoo and Nataraj (2008).

provides the shortest possible route from Gwadar through the Karakoram highway to the western regions of China. Apart from being short and secure, this route can serve as an alternative to the sea route that passes through the piracy-prone Straits of Malacca, which is currently used to carry most of the Chinese crude oil imports. Therefore, Chinese investors have supported infrastructure projects in Balochistan. The Government of Pakistan, on the other hand, would like to turn Gwadar into a regional hub of commercial activity as the port is near the Straits of Hormuz through which large volumes of the world's oil supplies flow. Pakistan would, in turn, earn transit revenues (Aneja, 2006).

Another project, the Karakoram highway, which is planned to span about 90 kilometres, is in progress. China supported this project with funding and by providing technical assistance for the Gwadar deep sea project which started in 2002 and was inaugurated in 2007. Notably, the port is being operated by a Singaporean company. Another large project in Pakistan supported by Chinese investment is the Chashma Nuclear Power Plant in 2004-2005. In addition, some joint ventures between the private sectors of these countries have been set up, such as the Special Economic Zone in Pakistan involving Haier (China) and Ruba group (Pakistan). China and Pakistan also launched an equal joint venture in July 2007 called the Pak-China Investment Company Limited (PCICL) with support from the Government of Pakistan (through Ministry of Finance) and Government of China (through China Development Bank CDB) to undertake financially viable projects and facilitate Chinese investment in Pakistan.

The two countries are also cooperating on setting up the first Chinese overseas economic zone in Pakistan. In an additional agreement, which entailed amending the protocol to the FTA, the two countries have established China-Pakistan economic zones in Pakistan. The Government of Pakistan is providing various incentives to projects/ventures which receive at least 40 per cent of the funding from Chinese investors. In addition, China and Pakistan will consider the reduction or elimination of tariffs for goods produced in these economic zone and even elsewhere to support trade between the two countries.[28] More recently, the two countries have issued some investment-related joint statements and communiqués[29] including a decision to establish working links between the China Investment Promotion Agency and Pakistan Board of Investment.

[28] Text of the Amending Protocol to the FTA between China and Pakistan.

[29] http://pk2.mofcom.gov.cn/aarticle/bilateralcooperation/bilateralagreement/200706/20070604805796.html, http://pk2.mofcom.gov.cn/aarticle/bilateralvisits/200804/20080405489467.html.

Chinese FDI inflows into Pakistan are mainly in the following industries: communication; financial business; and oil and gas exploration. Chinese firms in Pakistan are operating industries related to oil and gas, information technology, telecommunications, power generation, engineering, infrastructure and mining. China has recently started to help Pakistan develop industries related to hydro power generation, science and technology, minerals, services, and to invest in the finance and banking sector. Also a large part of Chinese FDI in Pakistan is linked with the mining of natural resources in important projects, such as (a) the Saindak Copper-Gold deposits, (b) the Duddar Lead-Zinc deposits and (c) the Thar and Badin Coal deposits. In all of these projects, Chinese companies gain a generous share of the minerals.

Similarly, the report of Five Year Development Programme on Trade and Economic Cooperation (2006) between Pakistan and China includes a list of priority projects (in various stages of completion) that have been jointly undertaken (public/private sectors). Projects involving investments are mostly in the communication and telecommunication, infrastructural development and petroleum and natural resources field. China had also steadily been assisting Pakistan with aid and assistance in response to the natural disasters that have destroyed property in the country, such as floods and earthquakes. External debt from China increased to $568 million in 2005 from $53 million in 1975.

Investment flows between India and Pakistan

A closer look at the FDI inflows data shows that there is hardly any direct investment outflows from India to Pakistan. Since there is a ban on FDI from Pakistan into India as India still has Pakistan in its negative list according to the Foreign Exchange Management Act,[30] there is a reciprocal discouragement regarding Indian FDI into Pakistan, though no official ban has been set.[31] In fact, the very low yet positive level of Indian FDI into Pakistan in some years is exactly reflective of the informal prohibition on Indian FDI into Pakistan. However, it was proposed in 2009 that FDI from Pakistan would be allowed through the Foreign Investment Promotion Board (FIPB) route on a case-by-case basis. A positive move for Indian investments was also seen in the latest Trade Policy of Pakistan (Trade Policy 2008/09), in which the country opened the prospect of Indian investments in CNG buses manufacturing

[30] RBI Master Circular – Foreign Investment in India, 1 July 2008. Available from www.bilaterals.org/article.php3?id_article=9799.

[31] It is difficult to get proper official information about cross border investment between two countries. For example, Secretariat for Industrial Assistance (SIA), the official Indian sources and Ministry of Finance, report Indian overseas project approvals to Pakistan but do not report incoming FDI from Pakistan.

in Pakistan.[32] India, on the other hand, because of political mistrust with Pakistan, has missed out on the opportunity of investing in that country. The basis of the mutual ban on investments between the two countries is purely political in nature and it is likely to continue until the Kashmir issue is fully resolved. Due to the bilateral political conflict, India is unable to take advantage of the liberal investment policy set in Pakistan while, on the other hand, China is using it to its utmost advantage.

VII. CONCLUDING REMARKS

Pakistan is the only country in South Asia in which trade with China, in terms of both exports and imports, has been greater than with India throughout the reference period 1992-2007. The goods that show a comparative advantage for China have accounted for larger shares of the market in Pakistan than that of Indian exports having a comparative advantage. The most important industries in which China dominates in the Pakistan market are machinery and mechanical appliances and textiles and textile articles. The most important industries which constitute Indian exports are chemical products, textiles and textile products and prepared foodstuff. Some bulk exports of India to Pakistan are cane or beet sugar and chemically pure sugar; oil cake and other solid residue and prepared foodstuff, which are included in the positive list of Pakistan. However, we observe huge fluctuations in exports of these products depending upon local demand in Pakistan. Indian exports are doing better in the Pakistan market than Chinese exports in the products category in which imports are allowed from India, particularly in essential items, such as food category, iron ores and petroleum oils. Therefore, the meagre Indian exports in some industries may be blamed on the positive list that blocks goods coming from India.

Overall, Chinese trade has been more compatible with the demand of Pakistan and the difference between the trade complementarity index for Indian exports and that of Chinese exports has widened since 2006. Trade between China and Pakistan has been substantially higher and it appears that it will proceed forward at a faster pace after the implementation of the FTA. On the other hand, trade between India and Pakistan is languishing because of banned trade from Pakistan's end and lack of tariff liberalization from India's end. China has also been investing and steadily assisting Pakistan with aid. India, on the other hand, due to the political mistrust with Pakistan, has missed out on the opportunity of investing in that country. Thus, China is using the liberal investment policy of Pakistan and the fact that India is losing out on this to its utmost advantage.

[32] Given a firm commitment from the Indian party following which Pakistan would allow special dispensation for import of 10 buses per each possible investor by road via Wagah as test consignments (Pakistan Trade Policy 2008/09).

In this context, the priority for India is to negotiate with Pakistan to abandon its policy of the positive lists approach for Indian exports and ask for MFN treatment as soon as possible which would give it market access to Indian exporters in all products. As a reciprocal measure, India should also reduce all kinds of non-tariff barriers, a move that would create confidence among Pakistani traders. Other factors adversely affecting India-Pakistan trade are underdeveloped trade infrastructure and logistics and complicated bilateral protocols. It is time to explore more trade routes rather than depend only on the Mumbai-Karachi sea link and Attari-Wagah land route. More rail and road routes and reducing trade and transaction costs would certainly improve India-Pakistan trade flows directly rather than going through the indirect channels through a third country.

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APPENDIX

Annex table A.1. Trade between China/India and Pakistan

	Chinese exports to Pakistan (growth rate) (per cent)	Chinese imports from Pakistan (growth rate) (per cent)	Chinese share in total imports of Pakistan (per cent)*	Pakistani exports to China as percentage in total exports*	Normalized trade balance ratio in favour of China	Indian exports to Pakistan (growth rate) (per cent)	Indians imports from Pakistan's (growth rate) (per cent)	Indian share of total imports of Pakistan (per cent)*	Pakistan exports to India as percentage in total exports*	Normalized trade balance ratio in favour of India
1992	..	..	9.3	2.2	0.72	..	..	1.0	3.5	-0.44
1993	36.4	5.8	11.2	1.9	0.77	12.9	-69.9	1.0	0.9	0.19
1994	-19.4	68.0	8.7	2.7	0.58	-10.7	21.1	0.8	0.9	0.04
1995	30.2	37.7	9.2	3.1	0.56	33.8	-14.7	0.9	0.6	0.26
1996	-21.0	53.4	7.2	4.4	0.29	105.3	-19.7	1.8	0.5	0.63
1997	10.6	10.8	8.8	5.0	0.29	-8.9	22.8	1.8	0.6	0.53
1998	-24.1	2.6	7.7	5.0	0.15	-25.9	383.6	1.6	2.8	-0.34
1999	10.9	0.2	9.2	5.1	0.20	-11.8	-68.0	1.5	0.9	0.15
2000	15.5	26.2	10.1	5.7	0.15	102.9	-5.1	2.9	0.8	0.49
2001	21.6	18.2	11.9	6.3	0.17	-23.3	0.5	2.1	0.7	0.38
2002	52.4	-4.2	15.1	6.0	0.38	40.9	-31.8	2.5	0.5	0.64
2003	49.3	3.1	15.7	5.5	0.53	38.1	27.6	2.4	0.5	0.67
2004	32.9	3.4	16.4	4.9	0.61	78.2	61.4	3.4	0.8	0.69
2005	39.0	40.1	16.0	6.5	0.61	37.0	96.1	3.2	1.4	0.59
2006	23.7	20.9	16.6	6.9	0.62	94.7	79.0	5.3	2.2	0.61
2007	36.6	9.6	22.8	7.3	0.68	17.6	-11.1	6.2	1.9	0.69

Source: United Nations (2008).

Note: *All our reporters are India/China or the World.

Annex table A.2. International revealed comparative advantages (IRCA)

Revealed comparative analysis: China

	Total number of commodities having IRCA >1			Share in the world market (percentage in total world exports of these commodities)			Share in the Pakistan market (percentage in world exports of these commodities going to Pakistan)		
	1992	*2000*	*2007*	*1992*	*2000*	*2007*	*1992*	*2000*	*2007*
Commodities having comparative advantages at 2-digit level	46	47	46	12.5	9.0	17.6	5.6	13.8	32.6
Commodities having comparative advantages at 4-digit level	472	493	500	13.1	11.6	24.8	17.7	20.1	45.0
Commodities having comparative advantages at 6-digit level	1 804	1 895	1 886	15.6	14.4	27.3	23.4	23.3	50.5

Revealed comparative analysis: India

	Total number of commodities			Share in the world market (per cent)			Share in the Pakistan market (per cent)		
	1992	*2000*	*2007*	*1992*	*2000*	*2007*	*1992*	*2000*	*2007*
Commodities having comparative advantages at 2-digit level	36	43	39	3.2	2.5	2.6	3.7	5.6	14.9
Commodities having comparative advantages at 4-digit level	288	365	364	4.6	3.4	4.9	3.7	8.2	20.0
Commodities having comparative advantages at 6-digit level	1 027	1 354	1 394	6.8	4.5	5.6	5.1	9.7	21.6

Source: United Nations (2008).

Annex table A.3. Bilateral revealed comparative advantages (BRCA)

Revealed comparative analysis: China

	Total number of commodities having BRCA >1			Share in the world market (percentage in total world exports of these commodities)			Share in the Pakistan market (percentage in world exports of these commodities going to Pakistan)		
	1992	2000	2007	1992	2000	2007	1992	2000	2007
Commodities having comparative advantages at 2-digit level	24	30	31	1.6	2.7	5.2	10.3	12.3	26.0
Commodities having comparative advantages at 4-digit level	287	320	385	1.6	2.7	8.6	13.8	16.2	32.4
Commodities having comparative advantages at 6-digit level	842	973	1 212	1.7	2.6	8.8	19.1	20.1	36.5
Revealed comparative analysis: India									
Commodities having comparative advantages at 2-digit level	19	18	24	0.7	1.0	1.6	5.1	9.0	17.8
Commodities having comparative advantages at 4-digit level	100	132	146	1.1	1.0	1.6	7.0	11.7	23.7
Commodities having comparative advantages at 6-digit level	191	302	402	1.5	1.4	1.7	9.6	14.1	29.3

Source: United Nations (2008).

Annex table A.4. International revealed comparative analysis

Revealed comparative analysis: China

Industries having comparative advantage in 2007	International revealed comparative advantage having IRCA >1			Share in the world market (percentage in total world exports of these commodities)			Share in the Pakistan market (percentage in world exports in these industries going to Pakistan)		
	1992	2000	2007	1992	2000	2007	1992	2000	2007
Footwear, headwear	6.8	6.6	4.0	23.7	27.8	38.7	33.0	48.7	81.5
Textile and textile articles	4.6	3.6	3.2	16.1	15.0	31.1	1.3	7.0	45.9
Miscellaneous	3.4	3.6	3.0	11.7	14.9	28.9	9.6	24.2	51.0
Hides and skins	4.2	4.4	2.4	14.8	18.5	23.9	0.9	17.8	40.5
Machinery and mechanical appliances	0.5	1.0	1.7	1.8	4.0	16.4	11.7	12.1	28.2
Articles of stone, plaster, cement, asbestos	1.4	1.5	1.5	5.0	6.1	14.3	14.8	24.2	48.3
Instruments-measuring and musical	0.7	1.0	1.0	2.6	4.2	10.2	7.2	12.0	22.3
Base metals and articles thereof	0.8	1.0	1.0	2.8	4.3	10.3	15.0	12.3	23.8
Revealed comparative analysis: India									
Pearls, precious/semi precious stones, metals	12.6	9.6	6.7	10.7	7.3	7.9	0.0	4.7	1.5
Textile and textile articles	4.4	4.7	3.4	3.7	3.6	3.9	0.4	0.3	14.2
Hides and skins	6.1	4.6	2.7	5.2	3.5	3.1	0.1	0.1	0.2
Works of art, collectors' pieces and antiques	0.0	0.0	2.6	0.0	0.0	3.0	0.0	0.0	79.6
Vegetable products	2.5	3.3	2.3	2.1	2.5	2.7	2.5	5.1	9.5
Footwear, headwear	2.6	2.1	1.7	2.2	1.6	2.0	2.2	0.4	5.8
Base metals and articles thereof	0.9	1.1	1.2	0.8	0.8	1.4	0.7	1.0	3.7
Mineral products	0.8	0.6	1.7	0.6	0.4	1.9	4.3	3.2	12.8
Animal and animal products	1.4	2.1	1.1	1.2	1.6	1.2	0.0	0.0	20.7
Chemical products	0.9	1.2	1.1	0.8	0.9	1.3	1.3	4.0	13.5

Source: United Nations (2008).

Note: *Top industries showing highest IRCA.

Annex table A.5. Share of top exports

	China						India					
	1992		2000		2007		1992		2000		2007	
	Share in total exports to Pakistan (per cent)	BRCA	Share in total exports to Pakistan (per cent)	BRCA	Share in total exports to Pakistan (per cent)	BRCA	Share in total exports to Pakistan (per cent)	BRCA	Share in total exports to Pakistan (per cent)	BRCA	Share in total exports to Pakistan (per cent)	BRCA
Prepared foodstuff	1.9	0.5	7.2	3.5	0.3	0.2	24.4	4.9	40.2	17.1	10.8	4.0
Chemical products	11.6	2.4	20.4	4.4	11.4	2.7	18.5	2.7	27.3	2.9	28.9	2.9
Plastic and rubber	2.2	1.0	4.7	1.5	4.3	1.4	4.4	2.4	11.9	5.0	8.5	3.2
Textiles and textile articles	0.7	0.0	4.0	0.2	19.2	1.4	2.0	0.1	0.5	0.0	21.7	1.5
Machinery and mechanical appliances	37.2	2.7	28.6	1.0	31.9	0.7	6.7	1.6	1.2	0.2	1.6	0.2
Base metals and articles thereof	10.2	1.9	8.4	1.3	9.3	1.0	4.6	0.8	2.4	0.4	5.3	0.5

Source: United Nations (2008).

Annex table A.6. Trade indicators between China/India and Pakistan (USD million)

	China				India			
	Trade complementary index for Chinese exports (per cent)	Trade complementarity index for Pakistan exports (per cent)	Sectoral Herfindahl Index	Concentration ratio C_4 (per cent)	Trade complementary index for Indian exports (per cent)	Trade complementarity index for Pakistan exports (per cent)	Sectoral Herfindahl Index	Concentration ratio C_4 (per cent)
1992			0.17	65.6			0.18	78.2
1993			0.27	71.2			0.21	89.5
1994			0.11	57.2			0.19	86.6
1995			0.15	63.6			0.23	89.9
1996	46.26		0.20	74.5	39.29		0.48	94.2
1997	45.81		0.17	67.7	40.05		0.22	80.0
1998	43.91		0.20	76.5	39.51		0.21	82.6
1999	47.28		0.17	70.0	41.35		0.22	85.5
2000	47.19		0.15	64.5	41.17		0.27	91.4
2001	49.47		0.15	62.3	44.17		0.23	89.1
2002	53.1		0.13	58.4	44.84		0.18	76.0
2003	57.26	18.94	0.12	58.3	48.69	15.69	0.24	80.9
2004	58.31	19.36	0.16	66.7	45.47	16.33	0.26	83.0
2005	65.39	20.59	0.17	67.1	44.75	18.09	0.19	71.8
2006	55.07	19.4	0.18	70.9	57.4	17.46	0.20	81.8
2007	58.22	20.34	0.17	71.8	52.28	18.59	0.18	74.9

Source: United Nations (2008).

Annex table A.7. Pakistan's tariff concessions to China according to the FTA

Category I Elimination of tariff in 3 years	Category II Tariff down to 0-5% in 5 years	Category III Margin of Preference reduction 50% on tariffs in 5 years	Category IV Margin of Preference reduction 20% in 5 years
• 2 423 Tariff lines at 8-digit level • 116 Animal and animal products • 99 Vegetable products • 3 Animal or vegetable fats • 12 Prepared foodstuff • 124 Mineral products • 702 Chemical products • 50 Plastic and rubber • 49 Hides and skins • 32 Wood and wood products • 46 Wood and pulp products • 3 Textiles and textile articles • 10 Articles of stone, plaster, cement, asbestos • 52 Pearls, precious or semi precious stones, metals • 231 Base metals and articles thereof • 622 Machinery and mechanical appliances • 51 Transportation equipment • 212 Instruments-measuring, musical • 4 Miscellaneous • 5 Works of art, collectors' pieces and antiques	• 1 338 tariff lines at 8-digit level • 36 Animal and animal products • 105 Vegetable products • 6 Animal or vegetable fats • 32 Prepared foodstuff • 62 Mineral products • 217 Chemical products • 48 Plastic and rubber • 14 Hides and skins • 17 Wood and wood products • 12 Wood and pulp products • 130 Textiles and textile articles • 37 Footwear, headwear • 53 Articles of stone, plaster, cement, asbestos • 8 Pearls, precious or semi precious stones, metals • 196 Base metals and articles thereof • 154 Machinery and mechanical appliances • 13 Transportation equipment • 40 Instruments-measuring, musical • 52 Arms and ammunition; parts and accessories thereof • 106 Miscellaneous	• 157 tariff lines at 8-digit level • 22 Animal and animal products • 14 Vegetables products • 13 Prepared foodstuff • 50 Chemical products • 6 Plastic and rubber • 1 Wood and pulp products • 24 Textiles and textile articles • 26 Articles of stone, plaster, cement, asbestos • 1 Base metals and articles thereof	• 1 768 tariff lines at 8-digit level • 1 Animal and animal products • 57 Vegetable products • 11 Animal or vegetable fats • 146 Prepared foodstuff • 7 Mineral products • 120 Chemical products • 66 Plastic and rubber • 15 Hides and skins • 36 Wood and wood products • 79 Wood and pulp products • 596 Textiles and textile articles • 7 Footwear, headwear • 38 Articles of stone, plaster, cement, asbestos • 278 Base metals and articles thereof • 236 Machinery and mechanical appliances • 1 Transportation equipment • 24 Instruments-measuring, musical • 50 Miscellaneous

Source: The Economic and Commercial Counsellor's Office of the Embassy of the People's Republic of China in Pakistan.

Annex table A.8. Chinese tariff concessions to Pakistan according to the FTA

Category I Elimination of tariff in 3 years	Category II Tariff down to 0-5% in 5 years	Category III Margin of Preference reduction 50% on tariffs in 5 years	Category IV Margin of Preference reduction 20% in 5 years
• 2 681 tariff lines at 8-digit level • 51 Animal and animal products • 173 Vegetable products • 2 Animal or vegetable fats • 46 Prepared foodstuff • 159 Mineral products • 499 Chemical products • 22 Plastic and rubber • 25 Hides and skins • 89 Wood and wood products • 34 Wood and pulp products • 541 Textiles and textile articles • 22 Articles of stone, plaster, cement, asbestos • 45 Pearls, precious or semi precious stones, metals • 253 Base metals and articles thereof • 462 Machinery and mechanical appliances • 66 Transportation equipment • 106 Instruments – measuring, musical • 84 Miscellaneous • 2 Works of art, collectors' pieces and antiques	• 2 604 tariff lines at 8-digit level • 118 Animal and animal products • 84 Vegetable products • 40 Prepared foodstuff • 36 Mineral products • 581 Chemical products • 186 Plastic and rubber • 22 Hides and skins • 39 Wood and wood products • 7 Wood and pulp products • 202 Textiles and textile articles • 13 Footwear, headwear • 71 Articles of stone, plaster, cement, asbestos • 13 Pearls, precious or semi precious stones, metals • 366 Base metals and articles thereof • 643 Machinery and mechanical appliances • 95 Transportation equipment • 82 Instruments-measuring, musical • 5 Miscellaneous • 1 Works of art, collectors' pieces and antiques	• 604 tariff lines at 8-digit level • 53 Animal and animal products • 63 Vegetable products • 16 Prepared foodstuff • 8 Chemical products • 3 Plastic and rubber • 9 Hides and skins • 227 Textiles and textile articles • 19 Footwear, headwear • 18 Articles of stone, plaster, cement, asbestos • 30 Base metals and articles thereof • 82 Machinery and mechanical appliances • 30 Transportation equipment • 16 Instruments-measuring, musical • 21 Arms and ammunition; parts and accessories thereof • 5 Miscellaneous • 4 Works of art, collectors' pieces and antiques	• 529 tariff lines at 8-digit level • 44 Animal and animal products • 35 Vegetable products • 49 Prepared foodstuff • 21 Chemical products • 13 Plastic and rubber • 15 Hides and skins • 88 Textiles and textile articles • 6 Footwear, headwear • 36 Articles of stone, plaster, cement, asbestos • 5 Pearls, precious or semi precious stones, metals • 24 Base metals and articles thereof • 88 Machinery and mechanical appliances • 7 Transportation equipment • 76 Instruments-measuring, musical • 20 Miscellaneous • 2 Works of art, collectors' pieces and antiques

Source: The Economic and Commercial Counsellor's Office of the Embassy of China in the Islamic Republic of Pakistan.

Annex table A.9. Positive list of Pakistan for imports from India

Positive list (3.11.2006)	Positive list according to Import Policy Order 2008
• 1 075 items (note not tariff lines. Tariff lines ~ 1 440 at 8-digit level) • 14 Animal and animal products • 77 Vegetable products and oil seeds from codes 1201.0000 – 1207.0000 • 20 Animal or vegetable fats • 7 Prepared foodstuff • 29 Mineral products and metal ores from codes 2601.0000 – 2615.0000 • 466 Chemical products and respective headings under pharmaceuticals and dyes raw materials; medicines and vaccines for Thalassaemia, cancer, HIV/AIDS • 48 Plastic and rubber • 29 Hides and skin • 57 Wood and wood products • 18 Wood and pulp products and pulp from codes 4701.0000 – 4702.0000 • 38 Textiles and textile articles • 1 Footwear, headwear • 17 Articles of stone, plaster, cement, asbestos • 5 Pearls, precious or semi precious stones, metals • 206 Base metals and articles thereof; and metal for packing from codes 8105.0000 – 8113.0000 • 320 Machinery and mechanical appliances • 16 Transportation equipment and respective headings under export houses, manufacturing bonds and exporters • 68 Instruments-measuring, musical and respective headings under laboratory instruments • 6 Miscellaneous	• ~ 1 935 tariff lines covered at 8-digit level • 32 Animal and animal products • 156 Vegetable products • 22 Animal or vegetable fats • 11 Prepared foodstuff • 74 Mineral products • 570 Chemical products • 91 Plastic and rubber • 45 Hides and skins • 52 Wood and wood products • 37 Wood and pulp products • 103 Textiles and textile articles • 2 Footwear, headwear • 27 Articles of stone, plaster, cement, asbestos • 5 Pearls, precious or semi precious stones, metals • 227 Base metals and articles thereof • 355 Machinery and mechanical appliances • 18 Transportation equipment • 102 Instruments-measuring, musical • 5 Miscellaneous • 1 Work of art, collectors' pieces and antiques Also respective heading under raw materials, dye intermediates, inputs for export houses, and under the Duty and Tax Remission for Export (DTRE) scheme.

Annex table A.9. *(continued)*

Positive list (3.11.2006)	Positive list according to Import Policy Order 2008
• 1 Arms and ammunition; parts and accessories thereof	In addition to above, import of blankets and tents falling under HS codes 63.01 and 63.06 respectively shall also be importable from India as relief goods for earthquake victims via land route as well. **The Trade Policy of the country for 2008-2009** is India friendly. It has enlarged the list of importable items from India: allowing import of *diesel and fuel oil* from India, and giving *concession (0 per cent custom duty) to the import of CNG buses* from India. Also, facilitation is provided for Indians wanting to set up manufacturing units of CNG buses in Pakistan; and import of *rice farm machinery* will be allowed from India through Wagah by road. For mineral extraction, Pakistan has allowed import of *machinery/equipment for mining/quarrying and grinding of minerals*, from India. Inputs in DTRE will also be importable from India and stainless steel and cotton yarn which were earlier importable from India by train will now also be allowed by road through Wagah border to reduce cost. Earlier, only technical and professional books were importable from India; now *academic, scientific and reference books* will also be importable.

Source: Pakistan, Ministry of Commerce; India, Ministry of Commerce and Industry, Department of Commerce.

Notes: Inclusion of some tariff line may not imply the entire description is included in the list; it may sometimes be specific to only one good in a tariff line. Also because the positive list is a mixture of items at 4-, 6- and 8-digit levels the number of tariff lines in itself is not as significant as the change/additions from one time period to another.