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A Comparative Advantage Analysis for the Manufacturing Sector

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Abstract

Pakistan and India have not yet normalized trade relations despite sharing a common border for more than six decades. Although significant developments have been made since the beginning of 2011, benefits of bilateral trade have not been fully obtained. Pakistan is yet to reciprocate the MFN status, granted by India upon formation of WTO. This study investigates the prudence of coaxing these countries to liberalize trade by studying the global competitiveness of Pakistan's industrial sector so as to derive direction for policy makers. A Revealed Comparative Advantage Index for manufacturing products at HS 2 digit level code is constructed for Pakistan, India and China for the years 2003 to 2012. The study identifies the changing pattern in comparative advantage of Pakistan's manufacturing industries. The study concludes that 18 industries should be protected upon liberalizing trade with India. These industries are termed as 'vulnerable', as they have moved from either borderline competitiveness to becoming uncompetitive or vice versa. The study also suggests that excessive concessions granted to China in the FTA and resistance to opening up trade with India may have resulted in inefficient trade i.e. imports from a less competitive partner and exports to a less lucrative market. The study establishes direction for further research to establish an ex ante impact of trade with India on the economy via change in production levels of these vulnerable industries given the impact of free trade with China and the availability of Chinese substitutes.

JEL Classification Numbers: F10, F11, F12
Key Words: Pakistan-India Trade, Revealed Comparative Advantage, manufacturing exports, trade liberalization

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List of Acronyms

FTA	Free Trade Agreement
GAMS	General Algebraic Modeling System
GATT	General Agreement on Tariffs and Trade
GoP	Government of Pakistan
GTAP	Global Trade Analysis Project
MFN	Most Favoured Nation
NTBs	Non Tariff Barriers
PBC	Pakistan Business Council
PEF	Pakistan Economic Forum
PTA	Preferential Trade Agreement
RCA	Revealed Comparative Advantage
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Agreement
WTO	World Trade Organization
HS[†]	Harmonized System
SITC[‡]	Standard International Trade Classification

[†] Harmonized System of coding is an international nomenclature for the classification of traded goods on a common basis.
[‡] Similarly SITC is also a classification of commodities traded internationally.

Table of Contents

List of Tables

1. Introduction

It is well documented, especially in the case of Asia, that international trade expansion is an important driver of economic growth. Countries like Japan, China, South Korea, Malaysia, Thailand and few others experienced exceptional GDP growth rates by following trade-led growth policy. However, nations in South Asia have learnt little. On the one hand, the Southeast Asian bloc of countries has made tremendous progress by virtue of trading with their regional partners (61% of their manufacturing exports are within the region), whereas, trade between the SAARC member countries is minimal. Further, the expansion in regional trade especially intra-industry trade helps economies to expand their global trade; Southeast Asian countries hold 8.2% of the world's total exports, while South Asian countries (Pakistan and India) share is only 0.5% (Asian Development Bank & Asian Development Bank Institute, 2013) .

Remarkably low trade in South Asia is mainly attributed to trade restrictions between Pakistan and India, as Pakistan enjoys a strategic geographical location essential for connectivity within the region. It's a reprehensible reality that despite multiple episodes of talks in the last decade, the two neighbors have failed to normalize trade relations. Steps taken by the Government of Pakistan (GoP) to harmonize trade with India are not favored by some local industries. It is feared that imports from India will crowd out local production which is already declining due to severe domestic energy crisis and competition from other trading partners such as China. However, this perception is changing and a significant proportion of local industries now strongly recommend the Government of Pakistan to lift trade barriers and negotiate a favorable trading agreement with India. Pakistan also faces pressure from International Agencies to grant the long withheld Most Favored Nation (MFN) status to India. Finally, granting MFN status to all WTO signatories is an obligation upon Pakistan under General Agreement on Tariffs and Trade (GATT).

Owing to the exigent nature of the problem and the concerns of the local business community, this study identifies the sectors which require government support in order to attain global competitiveness. The study constructs a Revealed Comparative Advantage (RCA) index at HS 2 digit level code for Pakistan, India and China from 2003 to 2012. The change in RCA trends is studied to identify products which are showing a decline or an improvement in competitiveness over the years. The RCA trends are also compared across countries to find evidence of inefficient

trade, i.e. trade violating the theory of comparative advantage. The study finds eighteen products which require prompt government attention in order to attain competiveness in global market in the long run. It is recommended that protection be given to these sectors in the presence of a more open trading regime in the short run. In addition to this, comparison of RCA across these three countries shows that there are twelve items for which India has a comparative advantage over China but we end up importing them from the latter. The comparison also identifies four products which could have a large potential market in India but are being sold more to China. This can be attributed to the artificial advantage given to China and the ease of access to the Chinese market as a result of the Pak-China FTA, and barriers enforced on the Indian side.

Multiple measures have been taken by both Pakistan and India to restrict trade. These include trade based on positive lists, land route restrictions by Pakistan and multiple non-tariff barriers on Indian side. According to a recent report by the Pakistan Economic Forum (2013), discussing normalization of trade relations between Pakistan and India, the reduction of tariff and non tariff-barriers can lead to a massive increase in bilateral trade (potential trade is estimated to be $10 billion as compared to current trade of around $ 2.5 billion).

Policy makers suggest that liberalizing trade between Pakistan and India will enhance trade within the region, as there is strong probability of trade diversion to regional members. Normalizing trade with India will provide India a land route access to Afghanistan and the Central Asian states. Pakistan will benefit from the transit trade because it will gain access to the economies of Nepal and Thailand. There is a school of thought that suggests that a significant improvement in growth rates and per capita income can be attained in the long run by increasing trade with India on the basis of comparative advantage.

The following section summarizes Pak-India trade relations since 1947. Section 3 gives a brief overview of the literature addressing the Pak-India trade problems and the issues related to competitiveness of different manufacturing sectors of Pakistan. Section 4 explains the empirical framework i.e. the methodology employed and the data set used. Section 5 reports detailed results, followed by section 6, which presents main conclusions and implications of the study, and gives direction for further research.

2. History of Pak-India Trade Relations

Soon after the partition in 1947, the trade volume between the two countries was considerably high as Pakistan and India were heavily dependent on each other. There was a dramatic decline in trade in 1949 due to Pakistan's decision to not devalue its currency, which turned the trade balance unfavorable for India. Subsequently, trade was completely paralyzed as a consequence of the 1965 and 1971 armed conflicts.

The situation improved in 1975 (Maini & Vaid, 2012) when a trade agreement was signed between the two countries. Both countries continued trading without any mutual agreement and it was in 1982, when a positive list of 40 items was announced by the GoP. Bilateral trade during the 90s was marked by fluctuations but an overall increase was registered. This increase can be attributed to the trade liberalization by both the countries upon joining WTO in 1995 and the MFN status granted to Pakistan by India in 1996.

A major development in the next decade was the signing of the South Asian Free Trade Agreement (SAFTA) in 2004. Developing countries in the SAARC agreed to decrease the tariffs to a 0-5 percent level by 2013. As a consequence of this agreement and the trade talks initiated by General Musharraf in 2005, bilateral trade reached a record high figure. In 2010 bilateral trade reached $2.2 billion as compared to $1.5 billion in 2006. Since then, the issue has received special attention; trade talks between Pakistan and India are being carried out in academic, business and diplomatic circles.

The main development since 2011 was the elimination of a positive list. Instead, a negative list[4] was introduced and numbers of products to be traded by road was increased from 40 to 137. However, the promise that Pakistan will reciprocate the much awaited MFN status to India by December 2012 remains unfulfilled.

[4] An S.R.O. No. 280 was issues by Pakistan's Ministry of Commerce on March 20th, 2012, which entails the list of 1209 items not importable from India. It also has the list of 137 items which are allowed to be traded via land route. To find out the list see http://www.tdap.gov.pk/.php In Jan 2014, an item Petroleum Coke was also permitted to be traded through Wagah-Attari border. See http://www.dawn.com/news/1079280/import-of-petroleum-coke-allowed-by-road-from-india

TABLE 2.1 Policy Developments Since 2004

Years	Policy Changes
2004	Positive List comprising 757 items allowed to be traded
2006	Positive list expanded to 1075 items
2009	Positive increased to 1934 items
Feb **2012**	Positive list was abolished
March 2012	Negative list comprising of 1209 items was introduced 137 items were allowed to be traded via land

Source: authors' compilation

2.1. Most Favored Nation (MFN) Story

Both Pakistan and India joined WTO upon its formation in 1995**.** According to the first Article of GATT, it is incumbent upon all the signatories of the WTO to trade with each other according to the MFN Principle. India complied with the GATT and granted MFN to Pakistan soon after joining the WTO. However, this facility has not been reciprocated by Pakistan.

The MFN treatment ensures nondiscriminatory trading terms amongst the WTO members. It guarantees that if favorable tariffs rates are given to one trading partner then all other member countries will get the same terms. The principle does not entail giving extra advantages to any partner, but rather uniform terms for trading for all member countries.

However, not all countries fulfill this obligation. In addition to allowing the formation of Preferential Trading agreements i.e. PTAs and FTAs, there are few clauses in the GATT[5] which allow one country to discriminate against the other. For instance, the USA doesn't award an unconditional MFN status to China because of its communist inclinations.

[5] See Article XX and Article XXI for general exceptions in the text of The General Agreement on Tariffs and Trade formulated in Geneva, 1968. A special exception was included for Pakistan and India; check 11th paragraph in Article XXIV.

It was only as recently as 2011 that Pakistan decided to accord MFN status to India. In 2012, it was decided that the two countries will enjoy mutual MFN treatment from January 2013. It is expected that the current government will soon fulfill this promise as it faces a lot of pressure from the business community of Pakistan and international donor agencies.

One of the main reasons of not according the MFN status to India is the Non Tariff Barriers imposed from the Indian side. These NTBs are complex and range from quality assurance, physical inspection by customs officials, to visa issuances. In the composition of the Overall Trade Restrictiveness Index (OTRI) for India, Non Tariff Barriers hold a significant proportion[6].

3. Literature Review

The Pakistan-India trade issue has been reviewed and analyzed by many international economists and policy makers. A number of studies on this subject attempt to highlight the impediments to trade, the potential trade volume, and advantages and disadvantages of trade normalization between the two countries. Most of these studies also investigate the impact of trade liberalization on indicators such as consumer surplus, producer surplus, welfare and tariff revenue.

The current trade volume between Pakistan and India is approximately $ 2.5 billion annually. According to Khan (2013) this figure can potentially reach a massive $50 billion in the long run under an open trade regime. The study reports a widely agreed estimation of Pakistan-India trade volume of $6 to $ 10 billion in the next five years. This estimate of potential future bilateral trade i.e. $10 billion is also presented in a report by Pakistan Economic Forum (2013).

A recent study, Gopalan et al. (2013) applies partial equilibrium in an imperfect substitute framework on the items of a negative list between Pakistan and India. Assuming constant elasticity of substitution between imports from India and imports from rest of the world, simulations are run using General Algebraic Modeling System (GAMS) to estimate the impact of trade liberalization on the import volume, net output, tariff revenue, consumer surplus and net welfare. The study finds that granting the MFN to India results in a considerable import substitution towards India, whereas the impact on output is moderate along with an increase in

[6] See Table A in Appendix to compare the OTRI for Pakistan and India, with and without NTBs.

overall tariff revenue and net welfare. However, the tariff revenue gains turn into losses if simulations are run for a free trade regime of SAFTA and the substitution towards Indian imports increases slightly. One of the important findings of the study is the significant negative impact on domestic output in three sectors i.e. footwear, sports goods and leather under the SAFTA regime.

The impact of MFN status to India on bilateral as well as regional trade is discussed in Raihan and Prabir (2013). The study employs a GTAP (Global Trade Analysis Project) model and finds that the change in overall exports and imports of Pakistan is minimal under MFN treatment, while it increases a little with SAFTA enforced along with MFN tariffs. Significant evidence of substitution towards Indian market for imports is found. The study finds that upon liberalizing trade the increase in imports from India is significantly greater than the increase in Pakistan's exports to it but overall welfare rises for both the countries.

The reason that there will not be a similar increase in Pakistan's exports to India is the large share of less diversified and low-technology based manufacturing products in Pakistan's export basket. Several studies investigate the various problems faced by Pakistan's industrial sector. These studies use different quantitative and qualitative methodologies to understand the competitiveness of manufacturing sector exports in global market context. Yousuf (2009) while discussing the manufacturing exports under the liberalization reforms during the 90s and 2000s, reports that no substantial change has occurred in the structure and composition of the export base of Pakistan. The study highlights the importance of structural reforms needed to transform the sector in order to specialize in high technology/high value added products. Another study, Lall and Weiss (2004) represents similar findings that the industries in Pakistan have failed to adapt to a changing world's production patterns and to transform its industrial sector from labour/resource intensive to technology-intensive. The study assesses the performance of the twenty main manufacturing exports of Pakistan at SITC 3 level. The report concludes that significant investment in physical infrastructure and R&D, along with proper firm level assistance is critical in addressing broader competitiveness issues especially for matters related to technological up-gradation.

Another study, Mahmood (2004) highlights similar results. The study reports that amongst the top twenty five most competitive industries based on comparative advantage, twenty are labor intensive. The study mainly focuses on calculating the RCA index for Pakistan's manufacturing

products at HS 4 digit level code from 1990 to 2000. The study compares the comparative advantage of 978 product lines in the year 2000 to the average of the previous three years i.e. 1997-1999 and categorizes them into competitive, non-competitive, threatened and emerging products in order to develop an understanding of Pakistan's overall export profile. The author points out that trade liberalization alone will not boost manufacturing exports instead it poses potential threat to the competitiveness of major exporting sectors due to the lack of technological advancement and labour intensive nature of industries. The study recommends efforts at micro and macro levels to sustain and achieve competiveness in the global markets.

Using the same comparative advantage theory, Taneja et al. (2011) constructs a Revealed Comparative Advantage index of the product lines which are prohibited by India to be imported from Pakistan under SAFTA regime. According to the authors, Pakistan does not enjoy a competitive advantage for most of the products included in the sensitive list; therefore, upon liberalizing trade, Indian economy will not face a significant influx of imports from Pakistan. The author proposes that the extensive list of 686 items should be pruned to only 67 items.

There is a vast array of literature employing a comparative advantage technique to identify the export potential and competitiveness of a particular product from the export basket of Pakistan in the global market. Variation in the revealed comparative advantage index identifies the shocks which have impacted the production/exports of a particular product and represents the competitiveness of a product in the global market. For example, Akhtar et al. (2008) compares the RCA of footwear products for Pakistan, India and China and concludes that though India and China have a higher static comparative advantage over Pakistan, competitiveness of Pakistan's footwear industry is moving upwards while the other two countries' industries are showing a decline over time. Similar results are concluded for leather industries in Shahab and Muhmood (2012). Other studies such as Hanif and Jafri (2006), Tahir et al. (2012), Riaz and Jansen (2012) analyze textiles, tomatoes and other agricultural products respectively using the RCA index. These studies explore the international trade competitiveness for Pakistan's products in comparison with existing or potential trading partners.

From the above review of literature, it is observed that; a) there exists massive potential of trade between Pakistan and India b) the trade balance is going to be in favour of India as there will be substantial substitution towards Indian market for imports, whereas, the increase in exports will

be comparatively small; and c) to increase the manufacturing exports, significant improvements are required to transform the existing industrial sector of Pakistan. The structural reforms and technological up-gradation are essential to diversify and enlarge the export basket.

This study also employs the comparative advantage technique, but unlike the above mentioned studies RCA index is constructed for all the manufacturing products at a aggregated level i.e. HS 2 digit code level in order to identify industries which require in-depth analysis. Moreover, this study shows the pattern of RCA over years for three countries and contributes to the existing literature by providing results for a recent time period i.e. 2003 to 2012. Using the RCA indices, the study also finds traces of inefficient trade.

4. Empirical Framework

4.1. Methodology

The analysis is restricted to the manufacturing sector only, as it is already established that liberalizing trade in agriculture will benefit Indian farmers due to the provision of heavy subsidies to the Indian agriculture sector (PEF, 2013). The study constructs the Revealed Comparative Advantage index for all the manufacturing products at HS 2 digit level code for Pakistan, India and China for the years 2003 to 2012. According to Reinert et. al. (2010), "RCA is an empirical measure of the extent to which a given country specializes in the export of a particular product or range of products, compared with the world."

RCA is calculated using Balassa's (1965) measure of comparative advantage.

$$RCA = (\sum X_{ij}/\sum X_{Tj})/(\sum X_{iw}/\sum X_{Tw}) \quad \ldots\ldots\ldots\ldots\ldots (4.1)$$

Where **i** and j show goods and country respectively

X_{ij} Export of particular good *i* of country *j*

$\sum X_{Tj}$ Total exports of country *j*

X_{iw} World export of particular good *i*

$\sum X_{Tw}$ Total world export

The RCA value ranges from zero to positive infinity. A country possesses comparative advantage in the production of a particular product if the calculated RCA value is greater than one. An RCA value of less than one indicates comparative disadvantage. Hence, by analyzing the RCA indices for three countries, the study identifies the products/industries in which Pakistan has comparative advantage as compared to India and China. A change in the Revealed Comparative Advantage for any particular sector over time for Pakistan, India and China is understood as a change in global competitiveness over time. Similarly, an RCA trend shows the strength of a particular sector of an economy to capture the global market.

According to Sanidas & Shin (2010), use of RCA to calculate comparative advantage has several benefits. The method is helpful to assess relative performance of a country's exports over a period of time. The index is reasonably accurate when transportation costs are not too high and hence appropriate for our analysis of Pakistan-India trade. It can also be used in an econometric analysis. Above all, RCA enjoys an edge over other methods of calculating comparative advantage because its formula is simple and the required data i.e. export figures, is easily available. For instance, the Lafay[7] Index which is a measure to estimate comparative advantage between the two countries requires both imports and exports figures and therefore, more suitable for intra industry trade. This renders Lafay index as an inaccurate measure for Pakistan India trade study as intra industry trade between the two countries is significantly small.

4.1.1. Trend Analysis

A trend analysis of Pakistan's RCA index is conducted in order to identify industries which had comparative advantage but have lost it over the years i.e. RCA has dropped to less than one (Advantage to Disadvantage). The analysis also separates industries which show gradual improvement over the years but are not yet able to achieve or maintain global competitiveness. The RCA for most of these industries lie between zero to one, such that $0<RCA_i<1$, but few are facing difficulties to maintain the attained comparative advantage and fluctuating around one (Disadvantage to Advantage). These two types of industries are labeled as vulnerable. The study recommends that these industries should be protected and facilitated by the government of Pakistan to gain and sustain global competitiveness in future.

[7] It is an index of specialization or Revealed Comparative advantage that takes both exports and imports of particular sector or product.

4.1.2. Inefficient Trade

In order to find evidence of **inefficient trade,** we have included China as a reference country for of reasons given below:

a) Pakistan has recently completed a round of Free Trade Agreement (FTA) with China
b) As a result of FTA, our overall imports from China increased by 80%. Surprisingly the imports of products in the 'no concession category' (i.e. the category in which Pakistan did not give tariff concessions) increased by 174% (PBC, 2013)
c) Both India and China share border with Pakistan but transportation costs are higher for China as compare to India

This section compares the trend of RCA indices of China and India for the products where Pakistan is least competitive. This three country comparison enables us to separate the products for which India's RCA is higher than China's, which in turn is higher than that of Pakistan i.e. $\boldsymbol{RCA^I > RCA^c > RCA^P}$ **.** The study then reviews the share of India and China in the overall imports of Pakistan for the products which fulfill the above mentioned criterion. A larger Chinese share for these products indicates that blockage of trade with India has resulted in imports from a less competitive partner and hence resulting in inefficient trade.

Similarly, another group of products is identified for which Pakistan has the highest comparative advantage amongst the three countries, i.e. $\boldsymbol{RCA^P > RCA^c > RCA^I}$. Hence, for these products India is at a greater disadvantage than China. The study compares the shares of India and China in Pakistan's exports basket for these products. A lower Indian share indicates inefficiency in exports as Pakistan is exporting more to China rather than India, despite the fact that the potential for growth is higher in the Indian market.

4.2. Data Source

Primary source of data is United Nations Commodity Trade Statistics database (UN Comtrade), which provides access to International Merchandise Trade Statistics (IMTS) of the United Nations Statistics Division (UNSD). The dataset is a comprehensive source of import and export figures, ranging from 2 to 8 digit HS code level.

Other sources include datasets available by International Trade Center (ITC), World Trade Organization (WTO) and Pakistan Bureau of Statistics (PBS).

5. Results

The competitiveness profile of Pakistan's manufacturing product lines at HS 2 digit level, based on the trend of RCA index over a decade, gives us mainly three categories of products. The first category comprises of products which show a rising trend of RCA, the second category has products which display a declining trend, whereas the third category has products which either have no definite trend or show smooth behavior over the years.

The study finds that 19 product lines show increasing trend and 17 product lines represent a declining trend from 2003 to 2012; whereas, majority of the product lines fall into the third category (see Table A in the appendix). Table 5.1 presents the lists of rising and falling sectors. The number in parenthesis gives the exact count of the product lines at HS 2 digit level code, which can be classified in one sector. For codes and names of each product line see Table B in the appendix.

TABLE 5.1 Industries with Rising and Falling Trend

Rising Industries	**Falling Industries**
Primary milling products (5)	Cocoa (1)
Salt, Sulphur etc(1)	Tobacco (1)
Inorganic Chemicals (1)	Mineral fuels (1)
Pharmaceuticals (1)	Organic chemicals (1)
Tanning (1)	Fertilizers (1)
Soaps, candles etc (1)	Articles of leather (1)
Raw hides, fur-skin, wool and animal hair(2)	Manmade filament (1)
Photography goods(1)	Yarns(1)
Paper (1)	Textiles (Carpets, worn clothing, knitted fabric an articles etc)(4)
Precious metals and pearls (1)	Footwear(1)
Cotton and textiles(2)	Toys(1)
Copper, iron or steel articles (2)	Aircrafts(1)
	Explosives(1)
	Miscellaneous Manufacturing Goods(1)
Total products= 19	**Total products=17**

Note: The table lists the industries of Pakistan's manufacturing sector based on the Revealed Comparative Advantage (RCA) pattern over ten years i.e. 2003 to 2012.

However, showing a falling and rising trend is not a sufficient criterion to identify industries which require protection. The main aim of this trend analysis is to identify industries which require immediate facilitation either to sustain or attain global competiveness. The study finds that two types of product lines/industries can qualify for a favorable treatment; a) industries

trying to reach the comparative advantage benchmark of RCA value one i.e. the industries moving from comparative disadvantage to advantage, and b) the industries which have fallen below this benchmark overtime i.e. moving from comparative advantage to disadvantage.

Out of the 83 products at 2 digit level, the RCA graphs show that 13 product lines qualify for the first type of industries and 5 products for the latter. Table 5.2 below lists these products. The first column gives the list of the product lines which are showing an upward trend in global competitiveness but failed to cross the value of one on the RCA index. Some of these industries managed to cross value of one but faced difficulties to sustain it. Whereas, the second column has the list of product lines which show a decline on comparative advantage index and has fallen below the value of one on the RCA index. RCA indices and the graphical representation of all these products are given in the appendix.

TABLE 5.2 Vulnerable Industries

	From Disadvantage to Advantage		From Advantage to Disadvantage	
S.No	**Code**	**Name**	**Code**	**Name**
1.	19	Cereal, flour, starch, milk preparations and products	54	Man-made filaments
2.	20	Vegetable, fruit, nut, etc food preparations	56	Wadding, felt, nonwovens, yarns, twine, cordage, etc
3.	24	Tobacco and manufactured tobacco substitutes	60	Knitted or crocheted fabric
4.	28	Inorganic chemicals, precious metal compound, isotope	64	Footwear, gaiters and the like, parts thereof
5.	30	Pharmaceutical products	96	Miscellaneous manufactured articles
6.	32	Tanning, dyeing extracts, tannins, derivs, pigments etc		
7.	37	Photographic or cinematographic goods		
8.	39	Plastics and articles thereof		
9.	48	Paper & paperboard, articles of pulp, paper and board		

10.	71	Pearls, precious stones, metals, coins, etc
11.	73	Articles of iron or steel
12.	74	Copper and articles thereof
13.	82	Tools, implements, cutlery, etc of base metal

Note: The table lists Pakistan's manufacturing sector products with their codes based on the RCA pattern over ten years i.e. 2003 to 2012.

5.1. Disadvantage to Advantage

In the disadvantage to advantage category, products have shown improvement over the years but have not yet achieved global competitiveness. Revealed Comparative Advantage index for these sectors have shown an upward movement since 2003. The list has products such as Precious Stones and Fruits which are amongst Pakistan's major exports to China and India respectively. Product lines such as Pharmaceutical, Plastics, Paper, Tools and Cutlery, Tobacco etc which are listed above are also highlighted by some other studies as sectors having potential to strengthen Pakistan's deteriorating Balance of Payments. For instance, a report by PBC (2013) recommends protection for Cutlery, Plastics, Paper and Footwear along with some other manufacturing sectors and presents a list of product lines requiring immediate attention from these sectors at disaggregated level. However, unlike the above mentioned report which uses an exorbitant increase in Chinese share in the imports as a yardstick to identify vulnerable industries, the findings of this study are based on the theoretically strong principle of Comparative Advantage theory.

5.2. Advantage to Disadvantage

The product lines in this category are the most vulnerable as these products had the comparative advantage in the global market but lost it over the course of time. For example, the RCA value for man-made filaments dropped from 12.6 in 2003 to 0.59 in 2012. Similar deterioration is observed in the competitiveness of other products in this group. The causes of the decline in RCAs can be numerous. A micro level study of each industry is required to identify factors for fall in output and exports.

The declining patterns identified in this study are consistent with existing research in the literature. For instance, the study finds that Pakistan's footwear industry enjoyed a comparative

advantage over India till 2009 and then faced a decline. Similar results are reported in a study by Akhtar et al (2008). Similarly, for the knitted or crocheted fabric, Zia (2007) illustrates that Pakistan lost its comparative advantage in the global market in 2009 yet remains more competitive than India. These results are in line with findings of this study's.

However, in order to understand the RCA trend, it is important to delve into a more sophisticated analysis to identify multiple factors such as trade policies, natural calamities, and resource constraints etc. which impact the export share of a particular product in the global trade market.

5.3. Inefficient Trade: Comparing RCA trends

Upon segmenting the product lines according to the comparison of linear trend of RCAs for three countries, based on the two inequalities defined in the methodology i.e. $\boldsymbol{RCA^I > RCA^c > RCA^P}$ and $\boldsymbol{RCA^P > RCA^c > RCA^I}$, the study finds that inefficient trade exists both in imports and exports.

The study finds that there are twelve products for which India has greater comparative advantage than China, and therefore, according to the theory of comparative advantage importing these products from India rather than China is more beneficial for Pakistan. The list is given in table 5.3. Trade data shows that Pakistan imports a major proportion of these products from China (see Table C-1 in Appendix). Moreover, the share of Chinese exports for these products, like many others, has increased significantly over the last few years. In 2012, the share of these twelve products was one fourth of the total imports from China. The large share of these imports from China signifies the need to address the inefficiency.

Similarly, the study finds that there are four products which Pakistan can export to both India and China. Given that, for these products India is at a greater comparative disadvantage than China, Pakistan should export these products to India. However, a comparison of Chinese and Indian shares in Pakistan's exports shows that exports to China for these are more than exports to India (see Table C-2 in Appendix). It is suggested that exporting these products to India rather than China is more lucrative for Pakistan as the potential to grow is greater in Indian market. The list of these items is given in table 5.4.

TABLE 5.3 Industries which show presence of Inefficient Trade in Imports

RCA India>RCA China> RCA Pakistan		
S.No.	**Code**	**Name**
1.	21	Miscellaneous edible preparations
2.	29	Organic chemicals
3.	32	Tanning, dyeing extracts, tannins, derivs ,pigments et
4.	33	Essential oils, perfumes, cosmetics, toileteries
5.	34	Soaps, lubricants, waxes, candles, modelling pastes
6.	38	Miscellaneous chemical products
7.	50	Silk
8.	53	Vegetable textile fibres nes, paper yarn, woven fabric
9.	54	Man-made filaments
10.	68	Stone, plaster, cement, asbestos, mica, etc articles
11.	72	Iron and steel
12.	87	Vehicles other than railway, tramway

Note: The table lists Pakistan's manufacturing sector products with their codes based on the RCA pattern over ten years i.e. 2003 to 2012, for which India is more competitive than China but Pakistan imports a significant proportion of most of these products from China.

TABLE 5.4 Industries which show presence of Inefficient Trade in Exports

RCA Pakistan > RCA China > RCA India		
S.No	**Code**	**Name**
1.	42	Articles of leather, animal gut, harness, travel goods
2.	61	Articles of apparel, accessories, knit or crochet
3.	62	Articles of apparel, accessories, not knit or crochet
4.	63	Other made textile articles, sets, worn clothing etc

Note: The table lists Pakistan's manufacturing sector products with their codes based on the RCA pattern over ten years i.e. 2003 to 2012, for which India is at greater disadvantage than China but Pakistan exports significant proportion of most of these products to India.

6. Conclusion

The study constructs the RCA profile for manufactured products for Pakistan and its two neighboring partners. Analysis of these profiles provides a list of products which require immediate facilitation to attain or sustain global competiveness. This list comprises of Pakistani industries which have shown some improvement but are struggling to achieve global competitiveness along with those which have lost their competitiveness in recent years. The study suggests that these industries have the potential to grow and hence strengthen the deteriorating trade balance of the country. The list includes Footwear, Cutlery, Plastics, Paper, Pharmaceuticals and others. It is proposed that these items should be protected from additional competition when trade with India is liberalized. Further research to investigate the reasons for vulnerability of these industries and the extent to which they should be protected is recommended. If such investigation concludes that Pakistan's trade agreements with its partners have been significant in reducing the competitiveness of the industries identified in this study, protectionism for these industries, albeit limited, becomes admissible for review. This prescription would also be subject to assessing impact of production in these industries on markets and welfare.

Further, by comparing the RCA profiles of these three countries, the study suggests that unnecessary trade blockage with India has resulted in inefficient trade. The study finds several items which are imported from China which may be cheaper or better to buy from India, given the latter is more competitive in these products. The study also presents a list of items which should be exported more to India as compared to China, because India is least competitive in these products. However, policy implications of this result are inconclusive without comparison of prices, transportation costs and implied costs of NTBs. Since the study has worked with data on an aggregated level, price comparisons were not possible to include and conclusive evidence of inefficiency remains an objective for further research.

The list provided in the study should also be used as a basis for a disaggregated level inquiry of RCA profiles because it is expected that RCA's for aggregated categories may differ from

disaggregated levels within the same category of product. These results would provide policy implications for a variety of differential tariffs on different levels of production; i.e. intermediary or final goods, which are relevant for trade regime negotiations especially in the context of a small developing open economy.

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Appendix

Table A: Overall Trade Restrictiveness Index for India and Pakistan

		OTRI			OTRI_T		
Name	Year	ALL	AG	MF	ALL	AG	MF
India	2009	14.90%	69.47%	13.12%	9.41%	43.27%	8.31%
Pakistan	2009	7.37%	5.82%	7.48%	7.37%	5.82%	7.48%

Source: Visit World Bank http://go.worldbank.org/FG1KHXSP30

Note: The OTRI_T focuses only on tariffs of each country, unlike OTRI which includes the NTBs in the calculation as well.

Table B: Classification of Industries based on RCA Trends

	Rising RCAs		Falling RCAs		Without any Pattern or Smooth	
S.No.	Code	Name	Code	Name	Code	Name
1	13	Lac, gums, resins, vegetable saps and extracts nes	18	Cocoa and cocoa preparations	11	Milling products, malt, starches, inulin, wheat glute
2	14	Vegetable plaiting materials, vegetable products nes	24	Tobacco and manufactured tobacco substitutes	12	Oil seed, oleagic fruits, grain, seed, fruit, etc, ne
3	19	Cereal, flour, starch, milk preparations and products	27	Mineral fuels, oils, distillation products, etc	15	Animal, vegetable fats and oils, cleavage products, etc
4	20	Vegetable, fruit, nut, etc food preparations	29	Organic chemical	17	Sugars and sugar confectionery
5	21	Name: Miscellaneous edible preparations	31	Fertilizers	22	Beverages, spirits and vinegar
6	25	Name: Salt, sulphur, earth, stone, plaster, lime and cement	42	Articles of leather, animal gut, harness, travel good	26	Ores, slag and ash
7	28	Inorganic chemicals, precious metal	54	manmade filaments	33	Essential oils, perfumes, cosmetics,

		compound, isotope				toiletries
8	30	Pharmaceutical products	56	Wadding, felt, nonwovens, yarns, twine, cordage, etc	35	Albuminoids, modified starches, glues, enzymes
9	32	Tanning, dyeing extracts, tannins, derivs, pigments etc	57	Carpets and other textile floor coverings	70	Glass and glassware
10	34	Soaps, lubricants, waxes, candles, modelling pastes	64	Footwear, gaiters and the like, parts thereof	38	Miscellaneous chemical products
11	41	Raw hides and skins (other than fur skins) and leather	95	Toys, games, sports requisites	39	Plastics and articles thereof
12	37	Photographic or cinematographic goods	96	Name: Miscellaneous manufactured articles	40	Rubber and articles thereof
13	48	Paper & paperboard, articles of pulp, paper and board	36	Name: Explosives, pyrotechnics, matches, pyrophorics, etc	43	Furskins and artificial fur, manufactures thereof
14	51	Wool, animal hair, horsehair yarn and fabric thereof	60	Knitted or crocheted fabric	45	Cork and articles of cork
15	71	Pearls, precious stones, metals, coins, etc	88	Aircraft, spacecraft, and parts thereof	46	Manufactures of plaiting material, basketwork, e
16	73	Articles of iron or steel	61	Articles of apparel, accessories, knit or crochet	47	Pulp of wood, fibrous cellulosic material, waste etc
17	74	Copper and articles thereof	63	Other made textile articles, sets, 49worn clothing etc	49	Printed books, newspapers, pictures etc
18	52	Cotton			50	Silk
19	62	Articles of apparel, accessories, not knit or crochet			53	Vegetable textile fibres nes, paper yarn, woven

		fabric
	55	manmade staple fibers
	58	Special woven or tufted fabric, lace, tapestry etc
	59	Impregnated, coated or laminated textile fabric
	65	Headgear and parts thereof
	66	Umbrellas, walking-sticks, seat-sticks, whips, etc
	68	Stone, plaster, cement, asbestos, mica, etc articles
	69	Ceramic products
	74	Iron and steel
	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	Name: Tools, implements, cutlery, etc of base metal
	83	Miscellaneous articles of base metal
	84	Nuclear reactors, boilers, machinery, etc

		85	Electrical, electronic equipment
		86	Railway, tramway locomotives, rolling stock, equipment
		87	Vehicles other than railway, tramway
		89	Ships, boats and other floating structures
		90	Optical, photo, technical, medical, etc apparatus
		91	Clocks and watches and parts thereof
		93	Arms and ammunition, parts and accessories thereof
Total	19	17	43

The table lists the industries of Pakistan's manufacturing sector based on the RCA pattern over ten years i.e. 2003 to 2012. The first coloumn lists the industries for which the RCA values are increasing over the years, whereas the second coloumn gives industries for which the RCA values are showing a declining trend. In addition to this the third coloumn lists all those industries which are showing no pattern i.e. very volatile or no changes i.e. smooth over the years

Table C-1: Share of China and India in the imports of Inefficiently Imported Products

Commodity Code	Chinese % share for a particular product's import in 2012	Indian % share for a particular product's import in 2012	Chinese % share for a particular product's import in 2009	Indian % share for a particular product's import in 2012
21	9.85	0.75	4.35	0.82
29	18.36	15.15	18.18	22.30
32	29.43	14.19	27.03	13.03
33	16.77	5.46	5.17	2.90
34	17.30	3.50	9.31	12.28
38	21.38	9.66	20.56	6.82
50	99.05	0.04	98.15	Nil
53	5.86	0.37	3.55	0.01
54	70.48	0.68	55.29	0.10
68	41.38	13.01	36.22	12.23
72	19.36	1.52	6.19	1.85
87	11.24	0.00	7.97	0.00

Note: The table presents Chinese and Indian share in Pakistan's import of the products mentioned in Table 5.3. These are the products for which India has a comparative advantage more than China.

Table C-2: Share of China and India in the exports of Inefficiently Exported Products

Commodity Code	% share of China in Pakistan's export of particular commodity- 2012	% share of India in Pakistan's export of particular commodity-2012	% share of China in Pakistan's export of particular commodity-2009	% share of India in Pakistan's export of particular commodity-2009
42	0.23	0.10	0.20	0.01
61	0.25	0.08	0.03	0.03
62	0.40	0.08	0.06	0.06
63	0.70	0.26	0.31	0.10

Note: The table presents Indian and Chinese share in Pakistan's export of products mentioned in Table 5.4. These are the products for which Pakistan has a comparative advantage over China and India both.

Table D-1

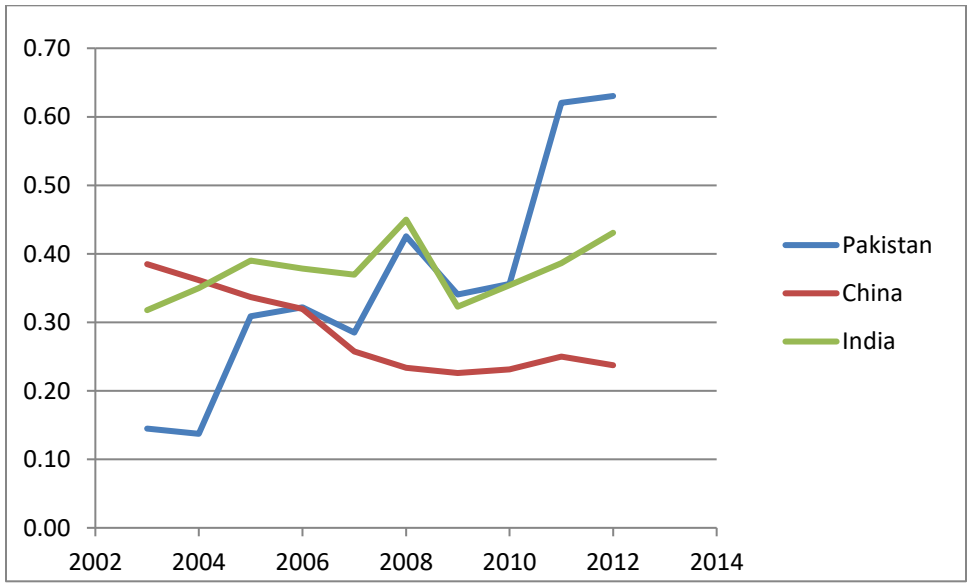
Code: 19

Name: Cereal, flour, starch, milk preparations and products
Description: Preparation of cereal, flour, starch/milk; pastry cooks' products

YEARS	PAKISTAN	CHINA	INDIA
2003	0.15	0.38	0.32
2004	0.14	0.36	0.35
2005	0.31	0.34	0.39
2006	0.32	0.32	0.38
2007	0.28	0.26	0.37
2008	0.43	0.23	0.45
2009	0.34	0.23	0.32
2010	0.36	0.23	0.35
2011	0.62	0.25	0.39
2012	0.63	0.24	0.43

The table gives the exact RCA values of the above mentioned product, for Pakistan India and China from 2003 to 2012

Figure D-1



The figure above plots the RCA values given in the table C-1, for Pakistan, India and China from 2003 to 2012

Table D-2

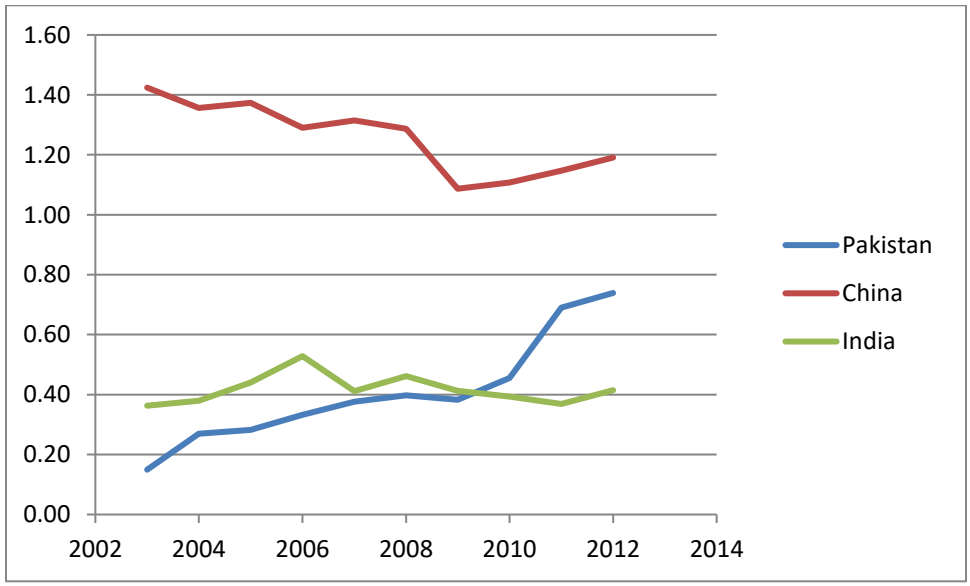
Code: 20

Name: Vegetable, fruit, nut, etc food preparations
Description: Prep of vegetable, fruit, nuts or other parts of plants

YEARS	PAKISTAN	CHINA	INDIA
2003	0.15	1.42	0.36
2004	0.27	1.36	0.38
2005	0.28	1.37	0.44
2006	0.33	1.29	0.53
2007	0.38	1.31	0.41
2008	0.40	1.29	0.46
2009	0.38	1.09	0.41
2010	0.46	1.11	0.39
2011	0.69	1.15	0.37
2012	0.74	1.19	0.41

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-2



The figure above plots the RCA values given in the table C-2, for Pakistan, India and China from 2003 to 2012

Table D-3

Code: 21

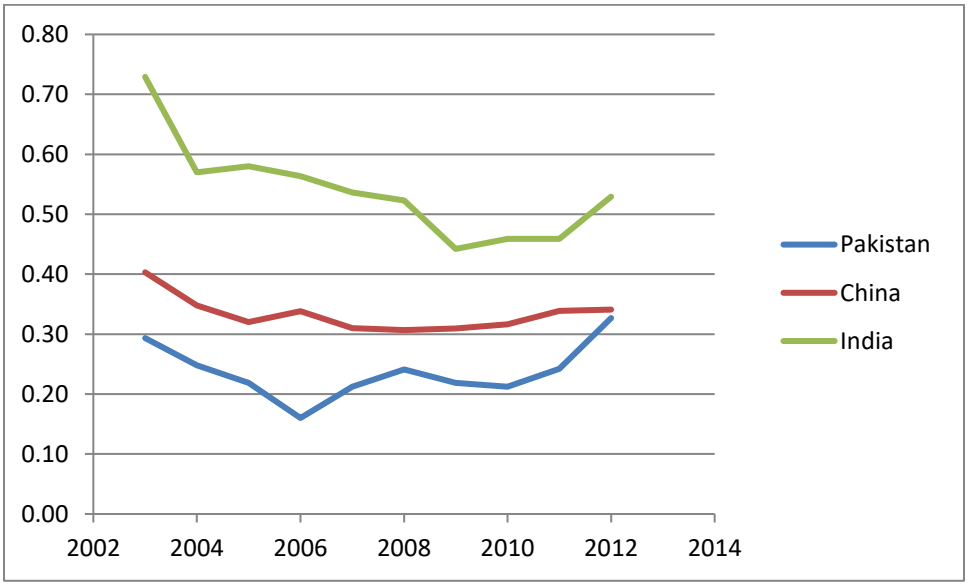
Name: Miscellaneous edible preparations

Description: Miscellaneous edible preparations.

YEARS	PAKISTAN	CHINA	INDIA
2003	0.29	0.40	0.73
2004	0.25	0.35	0.57
2005	0.22	0.32	0.58
2006	0.16	0.34	0.56
2007	0.21	0.31	0.54
2008	0.24	0.31	0.52
2009	0.22	0.31	0.44
2010	0.21	0.32	0.46
2011	0.24	0.34	0.46
2012	0.33	0.34	0.53

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-3



The figure above plots the RCA values given in the table C-3, for Pakistan, India and China from 2003 to 2012

Table D-4

Code: 24

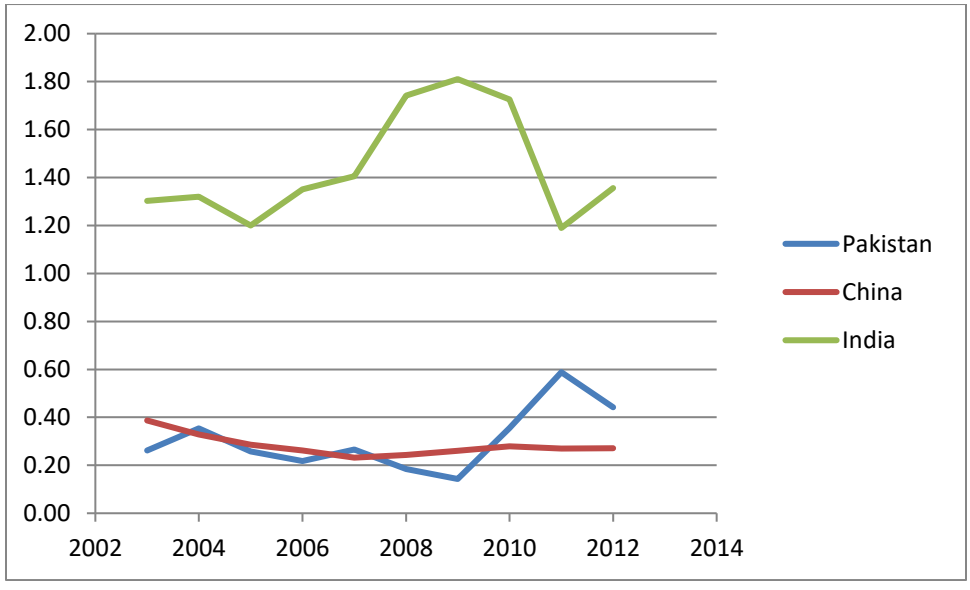
Name: Tobacco and manufactured tobacco substitutes

Description: Tobacco and manufactured tobacco substitutes

YEARS	PAKISTAN	CHINA	INDIA
2003	0.26	0.39	1.30
2004	0.35	0.33	1.32
2005	0.26	0.29	1.20
2006	0.22	0.26	1.35
2007	0.27	0.23	1.41
2008	0.18	0.24	1.74
2009	0.14	0.26	1.81
2010	0.36	0.28	1.73
2011	0.59	0.27	1.19
2012	0.44	0.27	1.36

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-4



The figure above plots the RCA values given in the table C-4, for Pakistan, India and China from 2003 to 2012

Table D-5

Code: 28

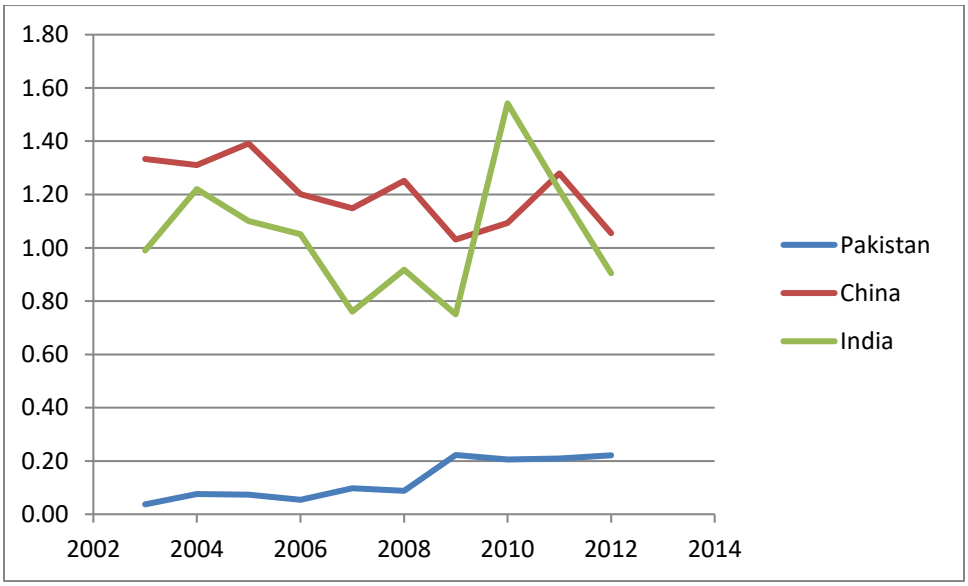
Name: Inorganic chemicals, precious metal compound, isotope

Description: Inorganic chemicals; compounds of precious metal, radioactive elements etc

YEARS	PAKISTAN	CHINA	INDIA
2003	0.04	1.33	0.99
2004	0.08	1.31	1.22
2005	0.07	1.39	1.10
2006	0.05	1.20	1.05
2007	0.10	1.15	0.76
2008	0.09	1.25	0.92
2009	0.22	1.03	0.75
2010	0.21	1.09	1.54
2011	0.21	1.28	1.22
2012	0.22	1.06	0.90

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003to 2012

Figure D-5



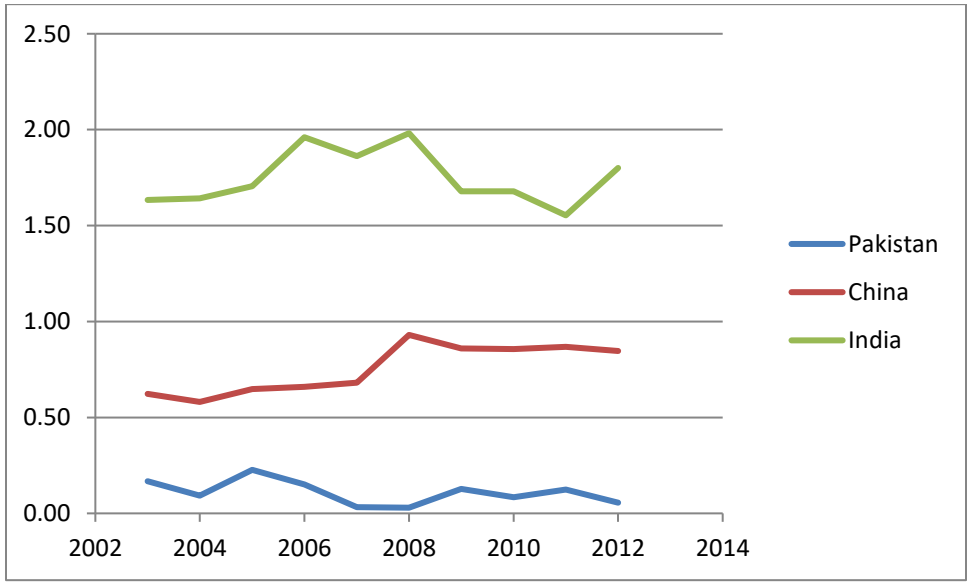
The figure above plots the RCA values given in the table C-5, for Pakistan, India and China from 2003 to 2012

Table D-6
Code: 29
Name: Organic chemicals
Description: Organic chemicals

YEARS	PAKISTAN	CHINA	INDIA
2003	0.17	0.62	1.63
2004	0.09	0.58	1.64
2005	0.23	0.65	1.71
2006	0.15	0.66	1.96
2007	0.03	0.68	1.86
2008	0.03	0.93	1.98
2009	0.13	0.86	1.68
2010	0.08	0.86	1.68
2011	0.12	0.87	1.55
2012	0.06	0.85	1.80

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-6



The figure above plots the RCA values given in the table C-6, for Pakistan, India and China from 2003 to 2012

Table D-7
Code 30:

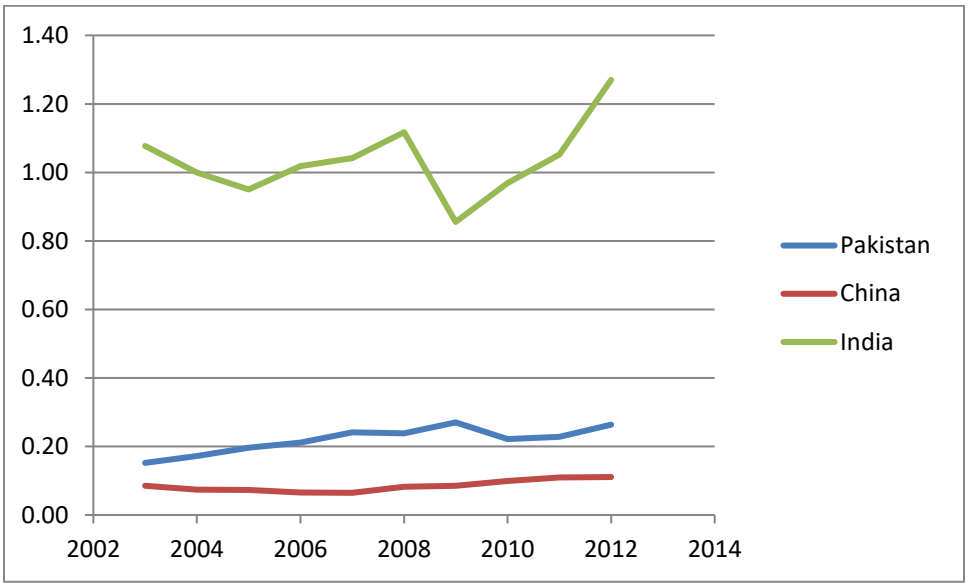
Name: Pharmaceutical products

Description: Pharmaceutical products

YEARS	PAKISTAN	CHINA	INDIA
2003	0.15	0.09	1.08
2004	0.17	0.07	1.00
2005	0.20	0.07	0.95
2006	0.21	0.07	1.02
2007	0.24	0.06	1.04
2008	0.24	0.08	1.12
2009	0.27	0.09	0.86
2010	0.22	0.10	0.97
2011	0.23	0.11	1.05
2012	0.26	0.11	1.27

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-7



The figure above plots the RCA values given in the table C-7, for Pakistan, India and China from 2003 to 2012

Table D-8

Code: 32

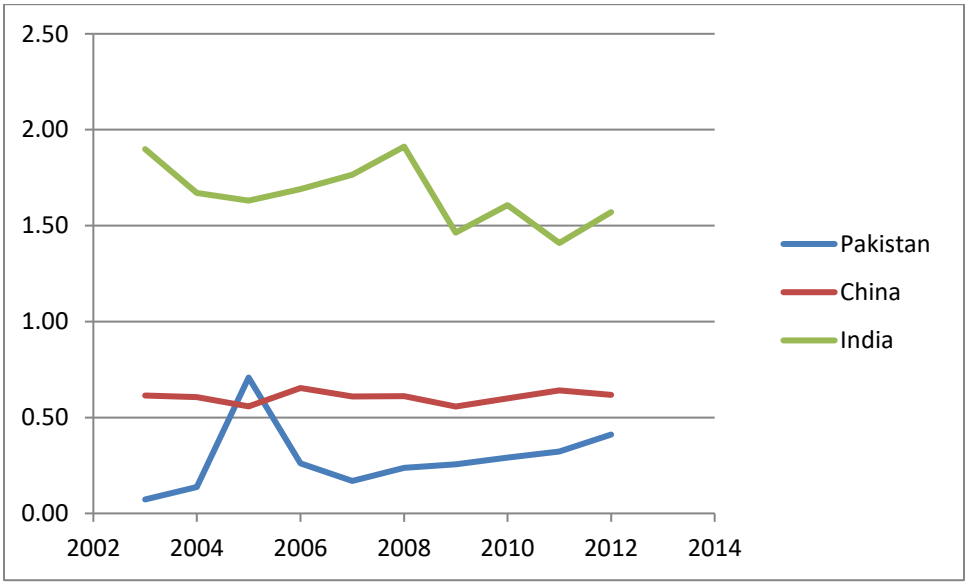
Name: Tanning, dyeing extracts, tannins, derivs, pigments etc

Description: Tanning/dyeing extract; tannins & derivs; pigments etc

YEARS	PAKISTAN	CHINA	INDIA
2003	0.07	0.61	1.90
2004	0.14	0.61	1.67
2005	0.71	0.56	1.63
2006	0.26	0.65	1.69
2007	0.17	0.61	1.76
2008	0.24	0.61	1.91
2009	0.26	0.56	1.46
2010	0.29	0.60	1.61
2011	0.32	0.64	1.41
2012	0.41	0.62	1.57

The table gives the exact RCA values of the above mentioned product, for Pakistan ,India and China From 2003 to 2012

Figure D-8



The figure above plots the RCA values given in the table C-8, for Pakistan, India and China from 2003 to 2012

Table D-9

Code: 33

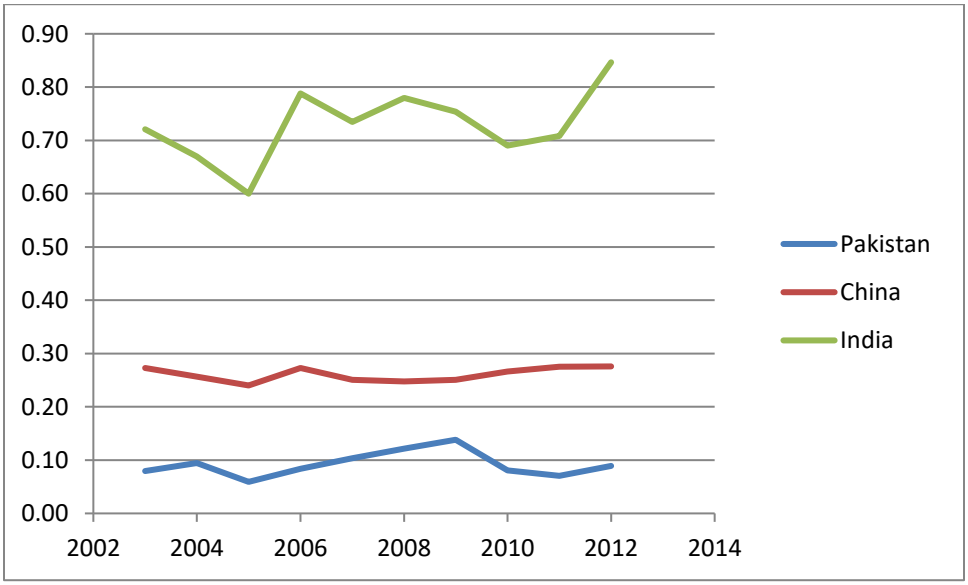
Name: Essential oils, perfumes, cosmetics, toiletries

Description: Essential oils & resinoids; perfumes, cosmetic/toilet prep

YEARS	PAKISTAN	CHINA	INDIA
2003	0.08	0.27	0.72
2004	0.09	0.26	0.67
2005	0.06	0.24	0.60
2006	0.08	0.27	0.79
2007	0.10	0.25	0.73
2008	0.12	0.25	0.78
2009	0.14	0.25	0.75
2010	0.08	0.27	0.69
2011	0.07	0.28	0.71
2012	0.09	0.28	0.85

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-9



The figure above plots the RCA values given in the table C-9, for Pakistan, India and China from 2003 to 2012

Table D-10

Code: 34

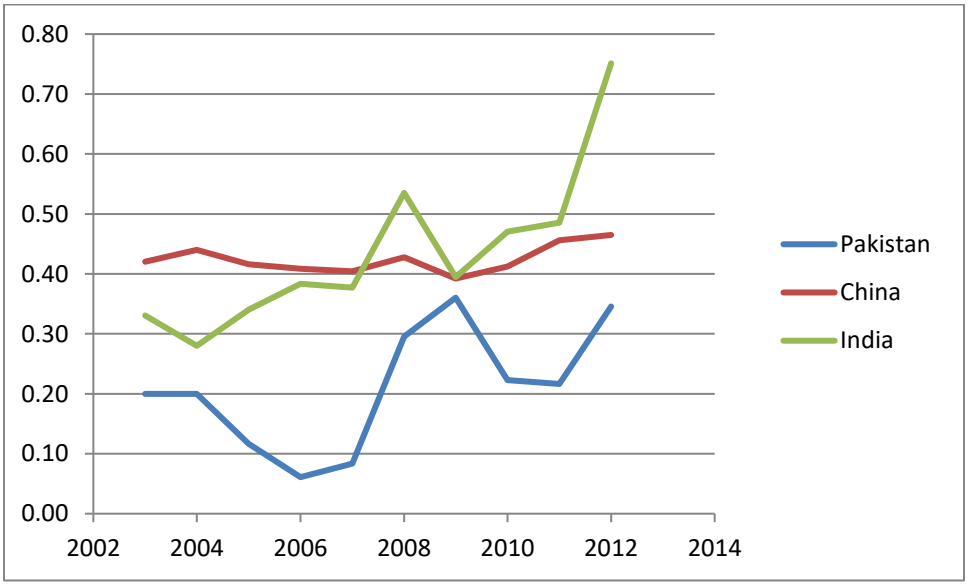
Name: Soaps, lubricants, waxes, candles, modelling pastes

Description: Soap, organic surface-active agents, washing prep, etc

YEARS	PAKISTAN	CHINA	INDIA
2003	0.20	0.42	0.33
2004	0.20	0.44	0.28
2005	0.12	0.42	0.34
2006	0.06	0.41	0.38
2007	0.08	0.40	0.38
2008	0.30	0.43	0.54
2009	0.36	0.39	0.39
2010	0.22	0.41	0.47
2011	0.22	0.46	0.49
2012	0.35	0.46	0.75

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-10



The figure above plots the RCA values given in the table C-10, for Pakistan, India and China from 2003 to 2012

Table D-11

Code: 37

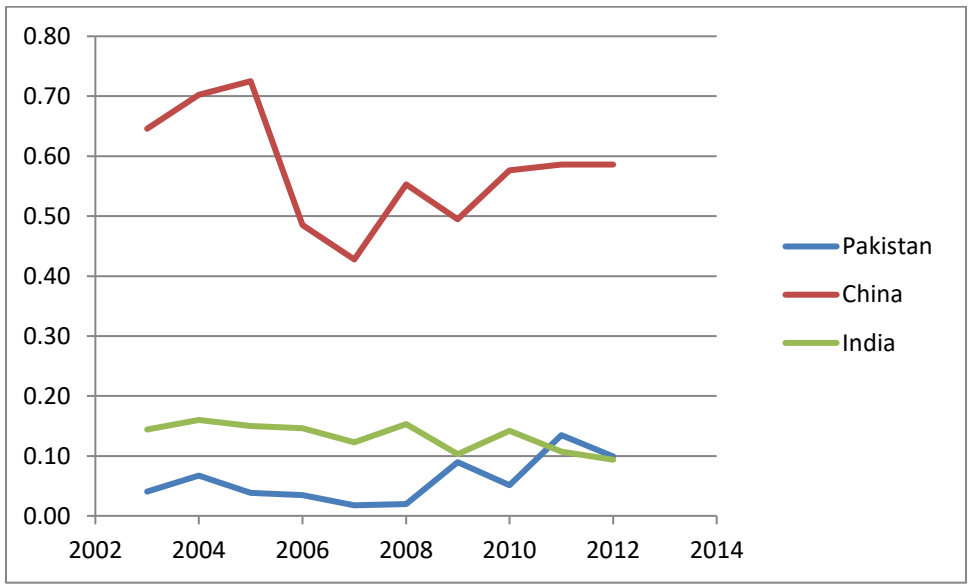
Name: Photographic or cinematographic goods

Description: Photographic or cinematographic goods

YEARS	PAKISTAN	CHINA	INDIA
2003	0.04	0.65	0.14
2004	0.07	0.70	0.16
2005	0.04	0.73	0.15
2006	0.03	0.49	0.15
2007	0.02	0.43	0.12
2008	0.02	0.55	0.15
2009	0.09	0.49	0.10
2010	0.05	0.58	0.14
2011	0.13	0.59	0.11
2012	0.10	0.59	0.09

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-11



The figure above plots the RCA values given in the table C-11, for Pakistan, India and China from 2003 to 2012

Table D-12

Code: 38

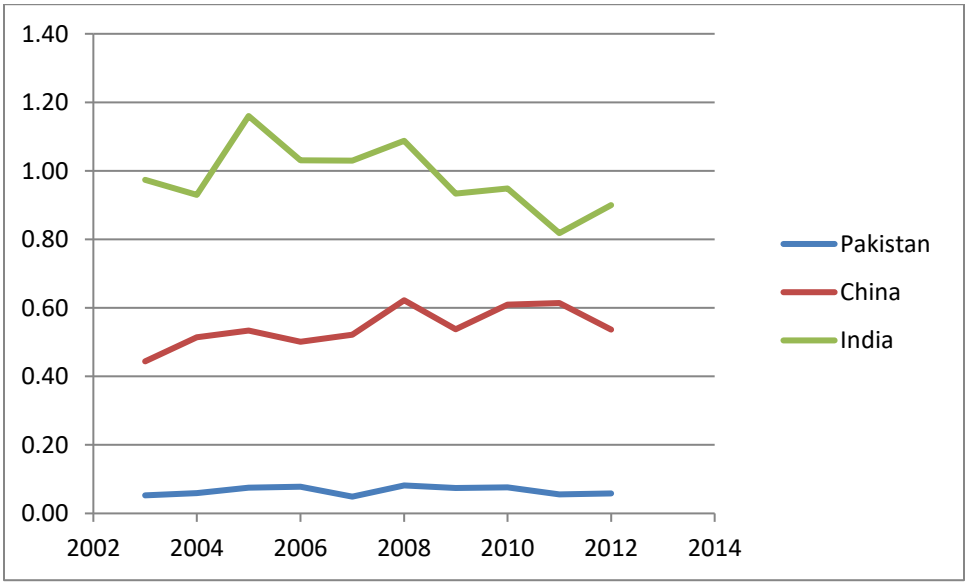
Name: Miscellaneous chemical products

Description: Miscellaneous chemical products

YEARS	PAKISTAN	CHINA	INDIA
2003	0.05	0.44	0.97
2004	0.06	0.51	0.93
2005	0.07	0.53	1.16
2006	0.08	0.50	1.03
2007	0.05	0.52	1.03
2008	0.08	0.62	1.09
2009	0.07	0.54	0.93
2010	0.08	0.61	0.95
2011	0.06	0.61	0.82
2012	0.06	0.54	0.90

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-12



The figure above plots the RCA values given in the table C-12, for Pakistan, India and China from 2003 to 2012

Table D-13

Code: 39

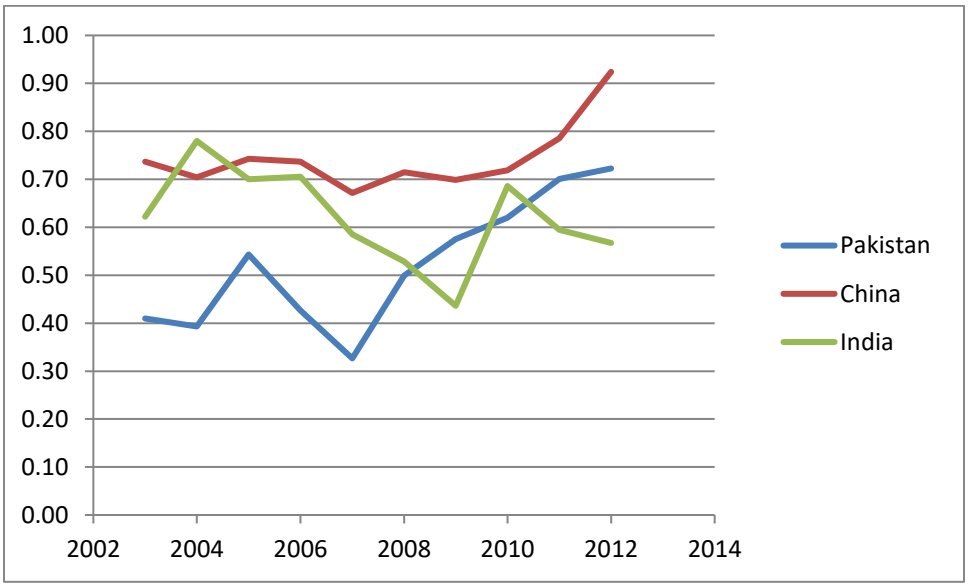
Name: Plastics and articles thereof

Description: Plastics and articles thereof.

YEARS	PAKISTAN	CHINA	INDIA
2003	0.41	0.74	0.62
2004	0.39	0.70	0.78
2005	0.54	0.74	0.70
2006	0.43	0.74	0.71
2007	0.33	0.67	0.58
2008	0.50	0.71	0.53
2009	0.58	0.70	0.44
2010	0.62	0.72	0.69
2011	0.70	0.79	0.59
2012	0.72	0.92	0.57

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-13



The figure above plots the RCA values given in the table C-13, for Pakistan, India and China from 2003 to 2012

Table D-14

Code: **42**

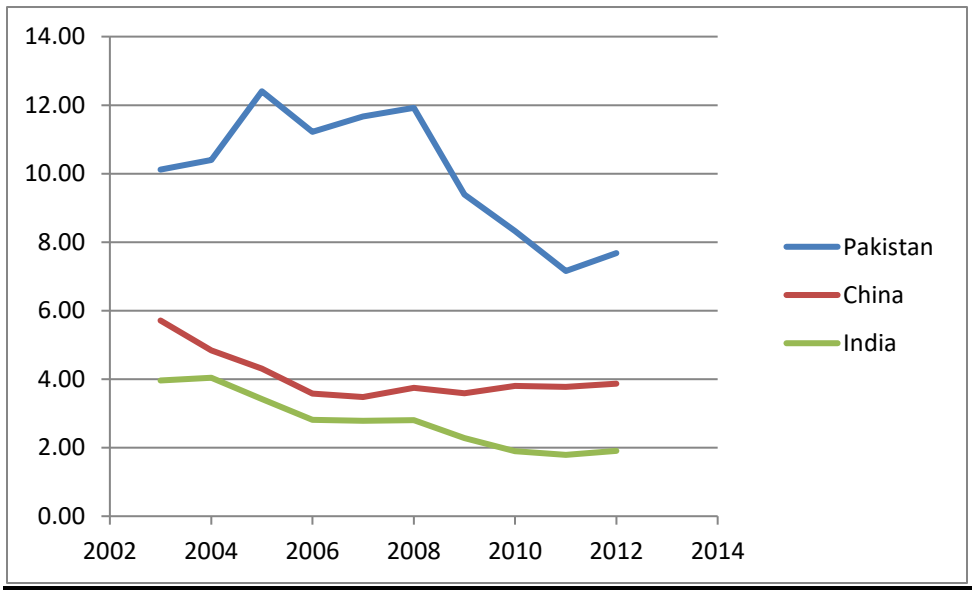
Name: Articles of leather, animal gut, harness, travel goods

Description: Articles of leather; saddlery/harness; travel goods etc

YEARS	PAKISTAN	CHINA	INDIA
2003	10.12	5.71	3.96
2004	10.40	4.84	4.04
2005	12.40	4.31	3.42
2006	11.22	3.57	2.82
2007	11.67	3.48	2.78
2008	11.93	3.74	2.81
2009	9.39	3.59	2.28
2010	8.33	3.81	1.90
2011	7.16	3.77	1.79
2012	7.68	3.87	1.91

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-14



The figure above plots the RCA values given in the table C-14, for Pakistan, India and China from 2003 to 2012

Table D-15

Code: 48

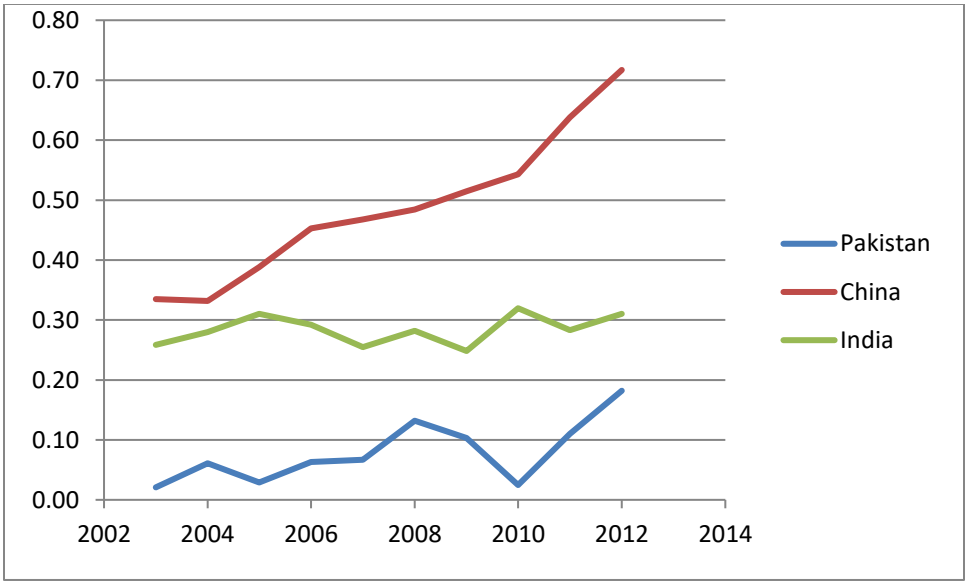
Name: Paper & paperboard, articles of pulp, paper and board

Description: Paper & paperboard; art of paper pulp, paper/paperboard

YEARS	PAKISTAN	CHINA	INDIA
2003	0.02	0.33	0.26
2004	0.06	0.33	0.28
2005	0.03	0.39	0.31
2006	0.06	0.45	0.29
2007	0.07	0.47	0.25
2008	0.13	0.48	0.28
2009	0.10	0.51	0.25
2010	0.02	0.54	0.32
2011	0.11	0.64	0.28
2012	0.18	0.72	0.31

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-15



The figure above plots the RCA values given in the table C-15, for Pakistan, India and China from 2003 to 2012

Table D-16

Code: 50

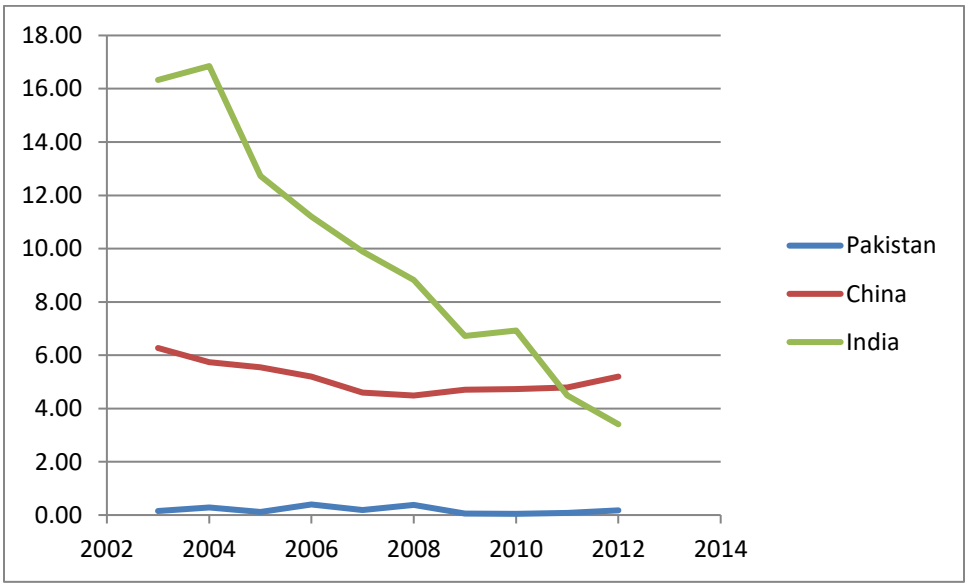
Name: Silk

Description: Silk

YEARS	PAKISTAN	CHINA	INDIA
2003	0.15	6.27	16.33
2004	0.29	5.73	16.85
2005	0.11	5.55	12.73
2006	0.40	5.20	11.20
2007	0.18	4.59	9.89
2008	0.39	4.49	8.83
2009	0.05	4.70	6.72
2010	0.05	4.73	6.93
2011	0.08	4.79	4.49
2012	0.17	5.19	3.41

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-16



The figure above plots the RCA values given in the table C-16, for Pakistan, India and China from 2003 to 2012

Table D-17

Code: 53

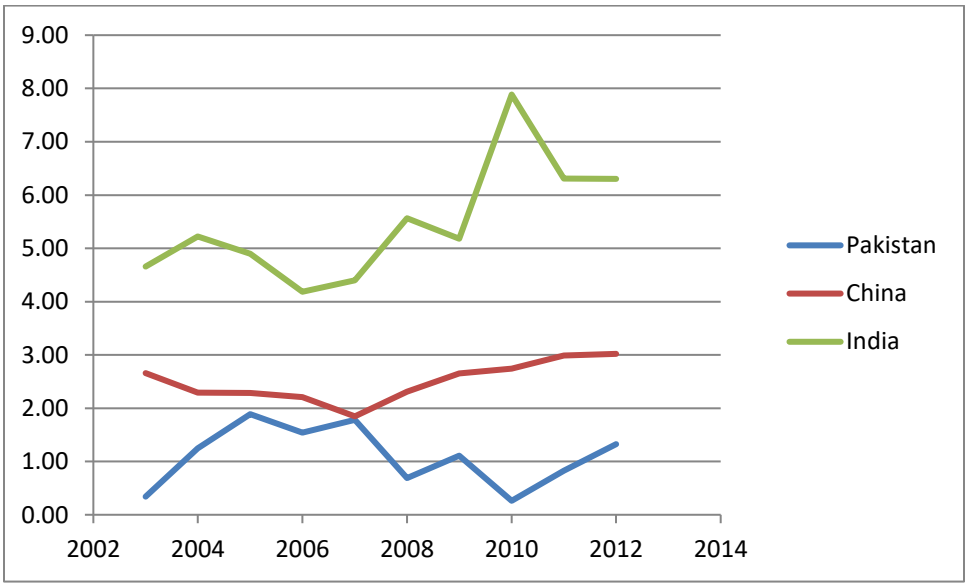
Name: Vegetable textile fibres nes, paper yarn, woven fabric

Description: Other vegetable textile fibres; paper yarn & woven fabric

YEARS	PAKISTAN	CHINA	INDIA
2003	0.34	2.66	4.66
2004	1.25	2.29	5.22
2005	1.89	2.28	4.90
2006	1.54	2.21	4.18
2007	1.78	1.85	4.40
2008	0.69	2.31	5.57
2009	1.11	2.65	5.18
2010	0.26	2.74	7.89
2011	0.83	2.99	6.31
2012	1.32	3.02	6.30

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-17



The figure above plots the RCA values given in the table C-17, for Pakistan, India and China from 2003 to 2012

Table D-18

Code: 54

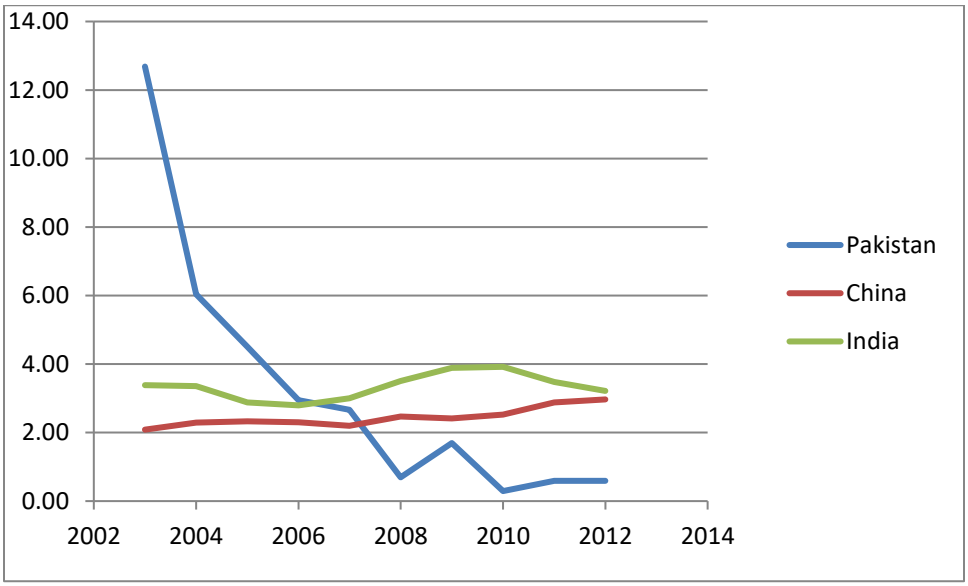
Name: Man-made filaments

Description: Man-made filaments.

YEARS	PAKISTAN	CHINA	INDIA
2003	12.68	2.09	3.38
2004	6.03	2.29	3.36
2005	4.51	2.33	2.88
2006	2.95	2.30	2.79
2007	2.66	2.20	3.00
2008	0.70	2.47	3.50
2009	1.69	2.41	3.89
2010	0.29	2.52	3.92
2011	0.59	2.88	3.48
2012	0.59	2.97	3.21

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-18



The figure above plots the RCA values given in the table C-18, for Pakistan, India and China from 2003 to 2012

Table D-19

Code 56:

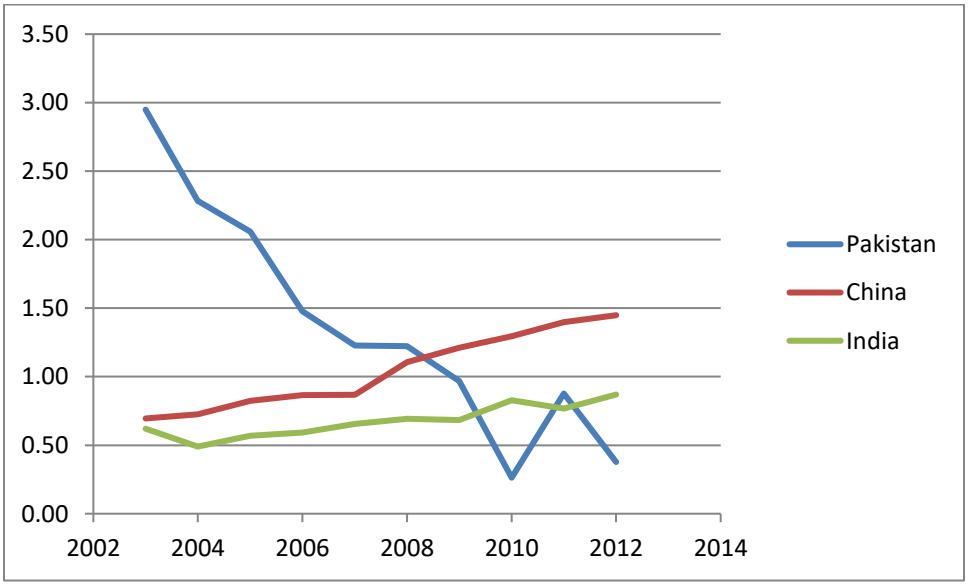
Name: Wadding, felt, nonwovens, yarns, twine, cordage, etc

Description: Wadding, felt & nonwoven; yarns; twine, cordage, etc

YEARS	PAKISTAN	CHINA	INDIA
2003	2.95	0.70	0.62
2004	2.28	0.73	0.49
2005	2.06	0.82	0.57
2006	1.48	0.86	0.59
2007	1.23	0.87	0.66
2008	1.22	1.11	0.69
2009	0.97	1.21	0.68
2010	0.26	1.30	0.83
2011	0.88	1.40	0.77
2012	0.38	1.45	0.87

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-19



The figure above plots the RCA values given in the table C-19, for Pakistan, India and China from 2003 to 2012

Table D-20
Code: 60

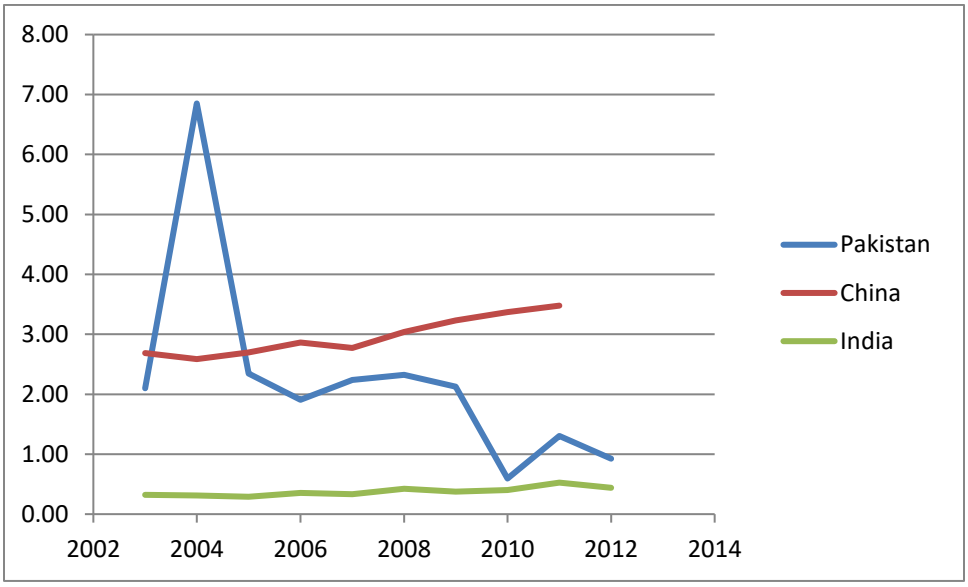
Name: Knitted or crocheted fabric

Description: Knitted or crocheted fabrics.

YEARS	PAKISTAN	CHINA	INDIA
2003	2.10	2.69	0.32
2004	6.85	2.59	0.31
2005	2.34	2.70	0.29
2006	1.91	2.86	0.35
2007	2.24	2.77	0.33
2008	2.32	3.04	0.42
2009	2.12	3.23	0.37
2010	0.59	3.37	0.40
2011	1.30	3.48	0.53
2012	0.92	3.45	0.44

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-20



The figure above plots the RCA values given in the table C-20, for Pakistan, India and China from 2003 to 2012

Table D-21

Code: 61

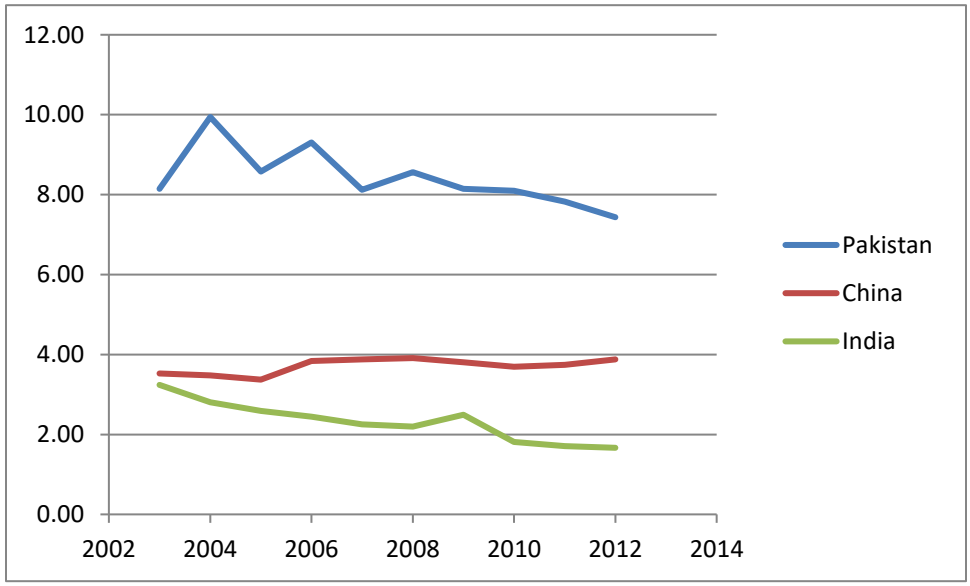
Name: Articles of apparel, accessories, knit or crochet

Description: Art of apparel & clothing access, knitted or crocheted

YEARS	PAKISTAN	CHINA	INDIA
2003	8.15	3.53	3.24
2004	9.94	3.47	2.80
2005	8.58	3.37	2.59
2006	9.30	3.84	2.45
2007	8.12	3.88	2.25
2008	8.56	3.91	2.19
2009	8.14	3.80	2.49
2010	8.10	3.70	1.82
2011	7.82	3.74	1.71
2012	7.44	3.88	1.67

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-21



The figure above plots the RCA values given in the table C-21, for Pakistan, India and China from n2003 to 2012

Table D-22

Code: 62

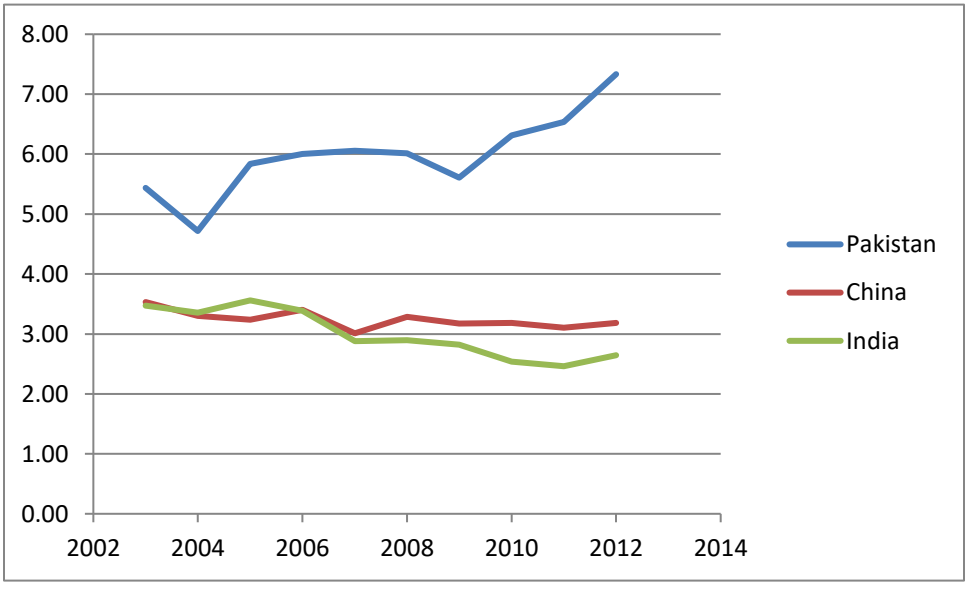
Name: Articles of apparel, accessories, not knit or crochet

Description: Art of apparel & clothing access, not knitted/crocheted

YEARS	PAKISTAN	CHINA	INDIA
2003	5.44	3.53	3.47
2004	4.72	3.30	3.36
2005	5.84	3.24	3.56
2006	6.00	3.40	3.39
2007	6.06	3.01	2.88
2008	6.01	3.29	2.90
2009	5.61	3.17	2.82
2010	6.31	3.19	2.54
2011	6.54	3.10	2.46
2012	7.33	3.18	2.65

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-22



The figure above plots the RCA values given in the table C-22, for Pakistan, India and China from 2003 to 2012

Table D-23

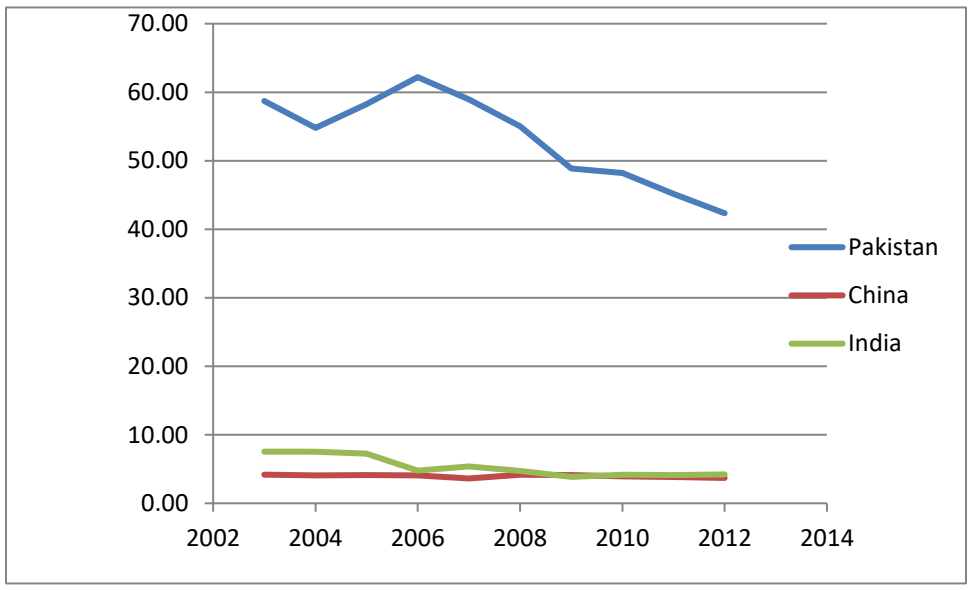
Code: 63

Name: Other made textile articles, sets, worn clothing etc
Description: Other made up textile articles; sets; worn clothing etc

YEARS	PAKISTAN	CHINA	INDIA
2003	58.73	4.18	7.54
2004	54.79	4.09	7.53
2005	58.27	4.13	7.23
2006	62.20	4.05	4.79
2007	58.94	3.63	5.36
2008	55.03	4.16	4.72
2009	48.87	4.12	3.85
2010	48.22	3.93	4.15
2011	45.19	3.83	4.10
2012	42.33	3.72	4.21

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-23



The figure above plots the RCA values given in the table C-23, for Pakistan, India and China from 2003 to 2012

Table D-24

Code 64:

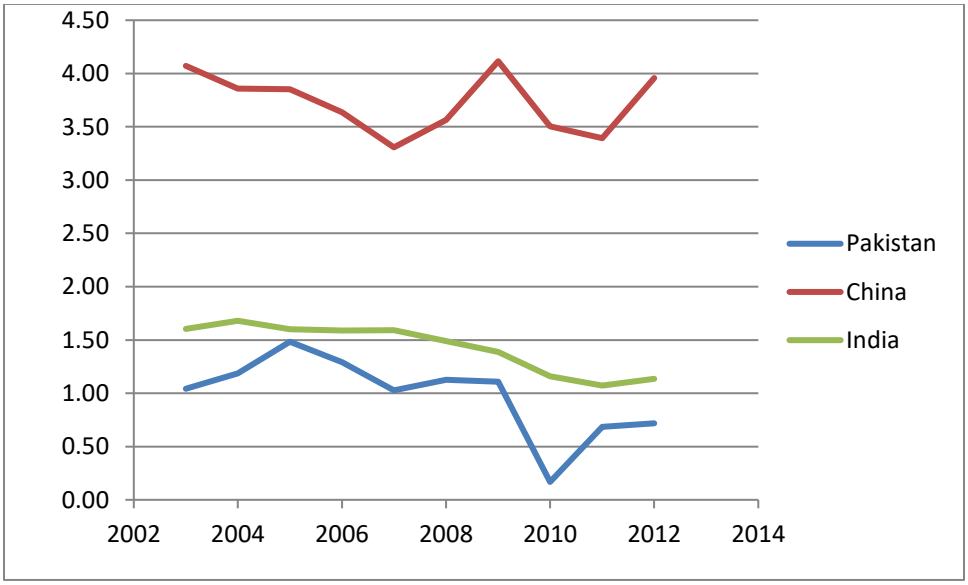
Name: Footwear, gaiters and the like, parts thereof

Description: Footwear, gaiters and the like; parts of such articles.

YEARS	PAKISTAN	CHINA	INDIA
2003	1.04	4.07	1.60
2004	1.19	3.86	1.68
2005	1.48	3.85	1.60
2006	1.29	3.64	1.59
2007	1.03	3.31	1.59
2008	1.13	3.56	1.49
2009	1.11	4.12	1.39
2010	0.17	3.50	1.16
2011	0.68	3.39	1.07
2012	0.72	3.96	1.13

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-24



The figure above plots the RCA values given in the table C-24, for Pakistan, India and China from 2003 to 2012

Table D-25

Code 68:

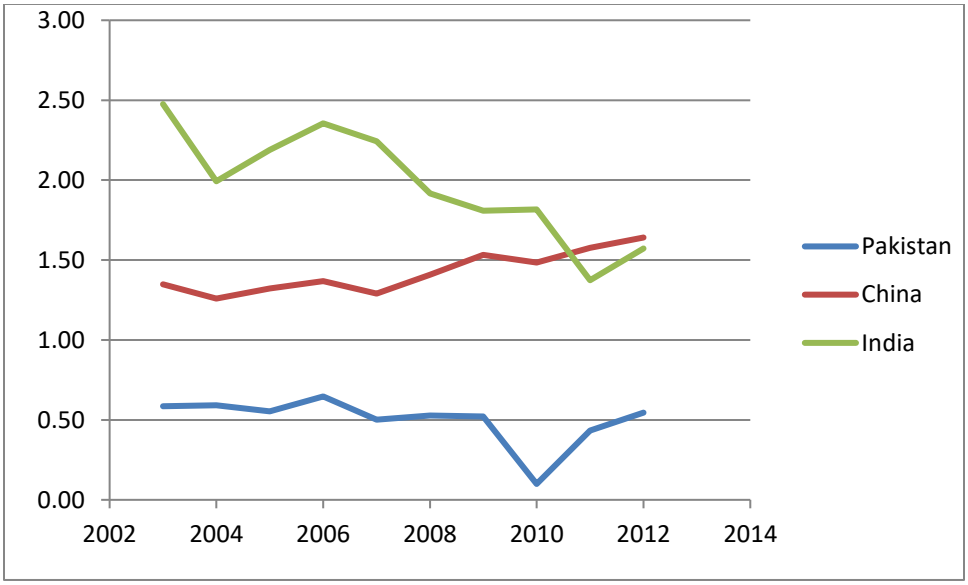
Name: Stone, plaster, cement, asbestos, mica, etc articles

Description: Art of stone, plaster, cement, asbestos, mica/sim mat

YEARS	PAKISTAN	CHINA	INDIA
2003	0.59	1.35	2.48
2004	0.59	1.26	1.99
2005	0.55	1.32	2.19
2006	0.65	1.37	2.35
2007	0.50	1.29	2.24
2008	0.53	1.41	1.92
2009	0.52	1.53	1.81
2010	0.10	1.48	1.82
2011	0.43	1.58	1.37
2012	0.55	1.64	1.57

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-25



The figure above plots the RCA values given in the table C-25, for Pakistan, India and China from 2003 to 2012

Table D-26

Code: 71

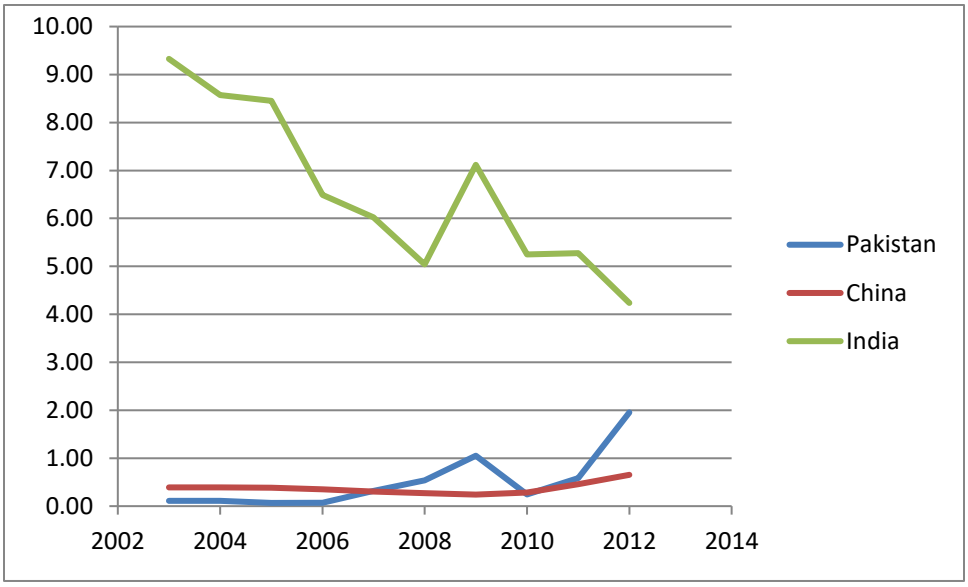
Name: Pearls, precious stones, metals, coins, etc

Description: Natural/cultured pearls, precious stones & metals, coin etc

YEARS	PAKISTAN	CHINA	INDIA
2003	0.11	0.39	9.33
2004	0.11	0.39	8.57
2005	0.07	0.38	8.45
2006	0.07	0.35	6.49
2007	0.32	0.31	6.02
2008	0.54	0.27	5.04
2009	1.05	0.24	7.12
2010	0.24	0.28	5.25
2011	0.59	0.46	5.27
2012	1.95	0.65	4.24

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-26



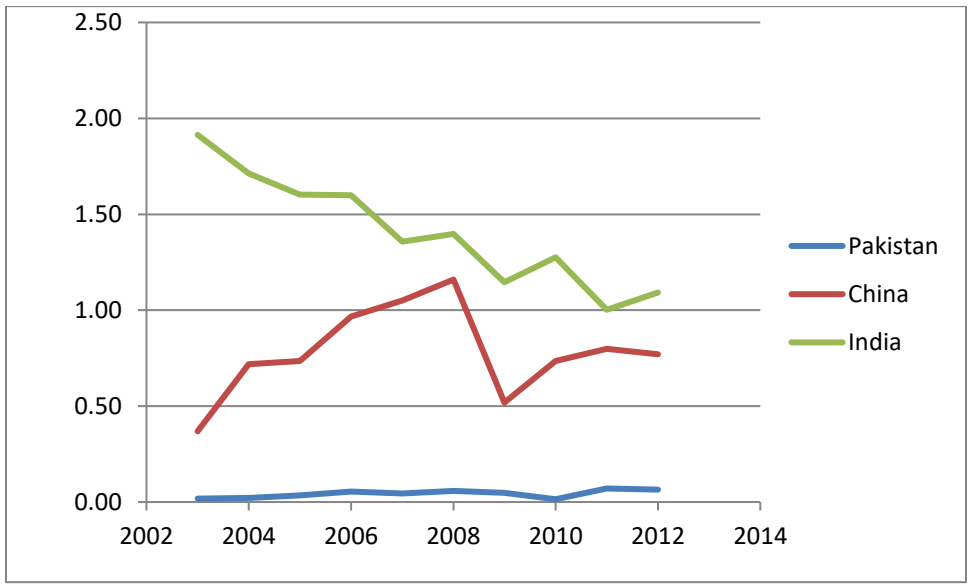
The figure above plots the RCA values given in the table C-26, for Pakistan, India and China from 2003 to 2012

Table D-27
Code: 72
Name: Iron and steel
Description: Iron and steel.

YEARS	PAKISTAN	CHINA	INDIA
2003	0.02	0.37	1.91
2004	0.02	0.72	1.71
2005	0.04	0.74	1.60
2006	0.05	0.97	1.60
2007	0.05	1.05	1.36
2008	0.06	1.16	1.40
2009	0.05	0.52	1.15
2010	0.01	0.73	1.27
2011	0.07	0.80	1.00
2012	0.07	0.77	1.09

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-27



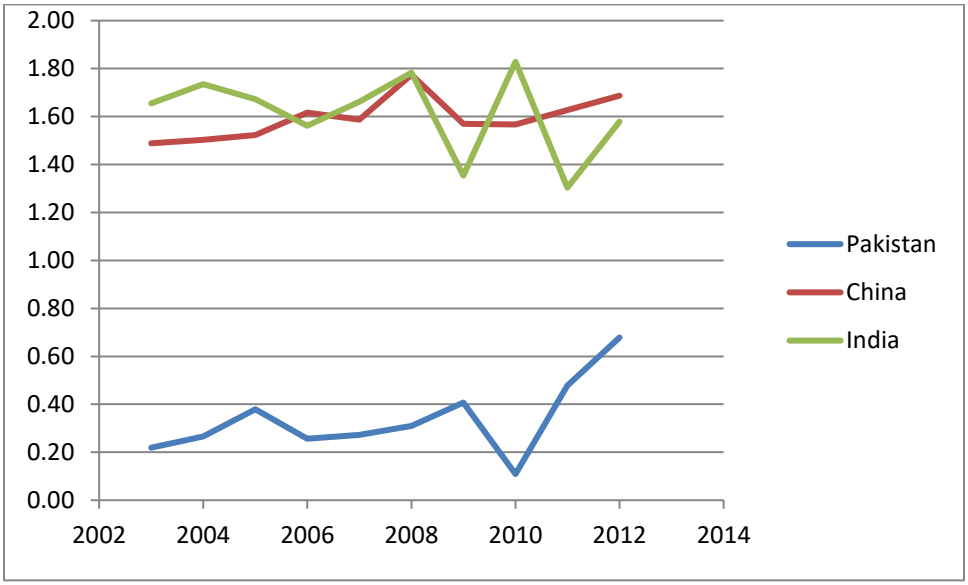
The figure above plots the RCA values given in the table C-27, for Pakistan, India and China from 2003 to 2012

Table D-28
Code: 73
Name: Articles of iron or steel
Description: Articles of iron or steel.

YEARS	PAKISTAN	CHINA	INDIA
2003	0.22	1.49	1.65
2004	0.27	1.50	1.74
2005	0.38	1.52	1.67
2006	0.26	1.62	1.56
2007	0.27	1.59	1.66
2008	0.31	1.77	1.78
2009	0.41	1.57	1.35
2010	0.11	1.57	1.83
2011	0.48	1.63	1.30
2012	0.68	1.69	1.58

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-29



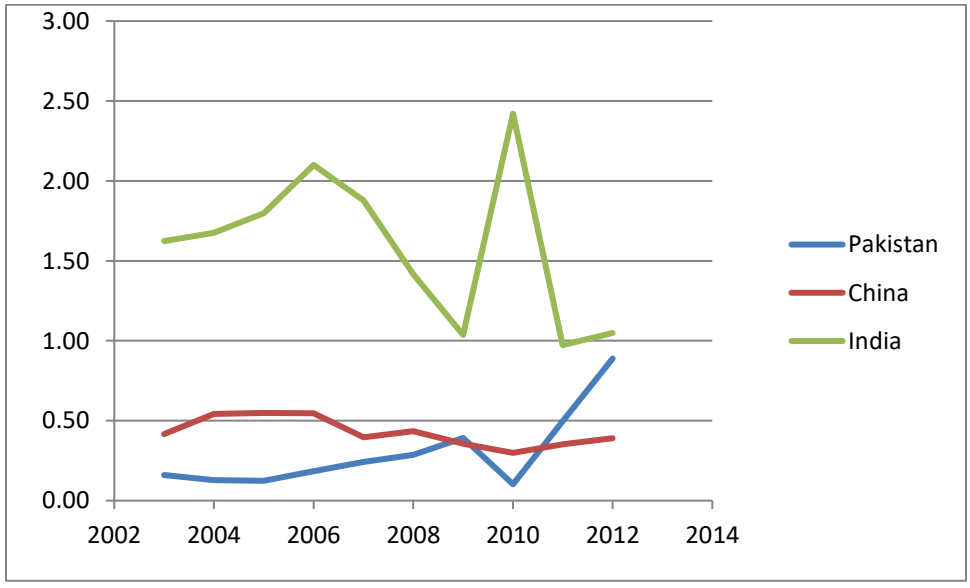
The figure above plots the RCA values given in the table C-28, for Pakistan, India and China from 2003 to 2012

Table D-29
Code: 74
Name: Copper and articles thereof
Description: Copper and articles thereof

YEARS	PAKISTAN	CHINA	INDIA
2003	0.16	0.42	1.62
2004	0.13	0.54	1.68
2005	0.13	0.55	1.80
2006	0.18	0.55	2.10
2007	0.24	0.40	1.88
2008	0.29	0.43	1.42
2009	0.39	0.36	1.04
2010	0.10	0.30	2.42
2011	0.50	0.35	0.97
2012	0.89	0.39	1.05

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003

Figure D-29



The figure above plots the RCA values given in the table C-29, for Pakistan, India and China from 2003 to 2012

Table D-30

Code: 82

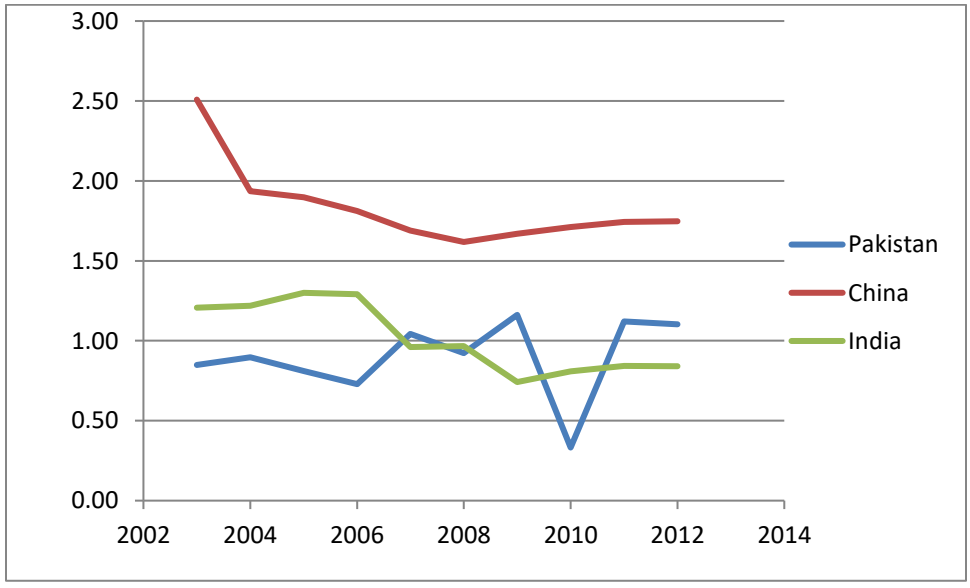
Name: Tools, implements, cutlery, etc of base metal

Description: Tool, implement, cutlery, spoon & fork, of base metal etc

YEARS	PAKISTAN	CHINA	INDIA
2003	0.85	2.51	1.21
2004	0.90	1.93	1.22
2005	0.81	1.90	1.30
2006	0.73	1.81	1.29
2007	1.04	1.69	0.96
2008	0.92	1.62	0.97
2009	1.16	1.67	0.74
2010	0.33	1.71	0.81
2011	1.12	1.74	0.84
2012	1.10	1.75	0.84

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-30



The figure above plots the RCA values given in the table C-30, for Pakistan, India and China from 2003 to 2012

Table D-31

Code: 87

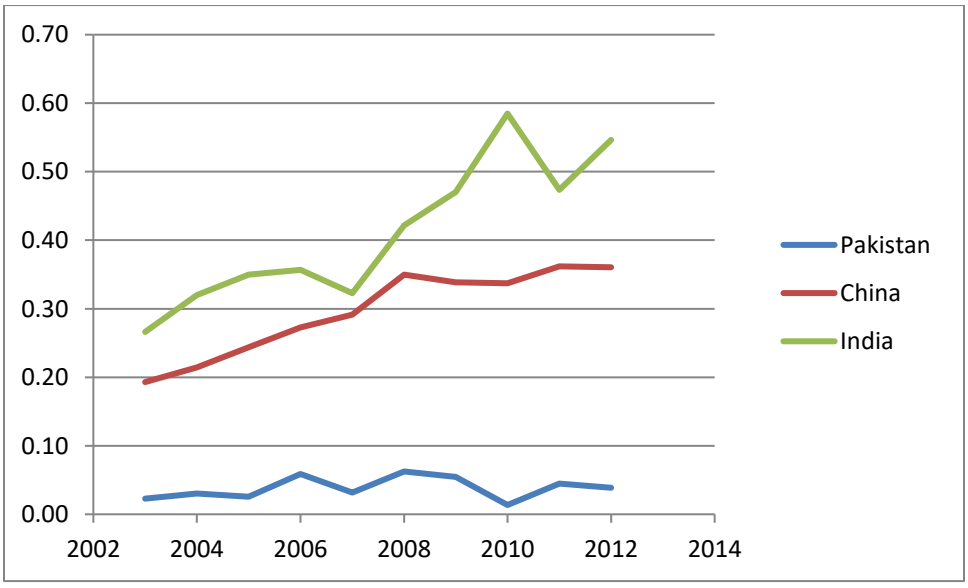
Name: Vehicles other than railway, tramway

Description: Vehicles o/t railw/tramw roll-stock, pts & accessories

YEARS	PAKISTAN	CHINA	INDIA
2003	0.02	0.19	0.27
2004	0.03	0.21	0.32
2005	0.03	0.24	0.35
2006	0.06	0.27	0.36
2007	0.03	0.29	0.32
2008	0.06	0.35	0.42
2009	0.05	0.34	0.47
2010	0.01	0.34	0.58
2011	0.04	0.36	0.47
2012	0.04	0.36	0.55

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Figure D-31



The figure above plots the RCA values given in the table C-31, for Pakistan, India and China from 2003 to 2012

Table D-32

Code: 96

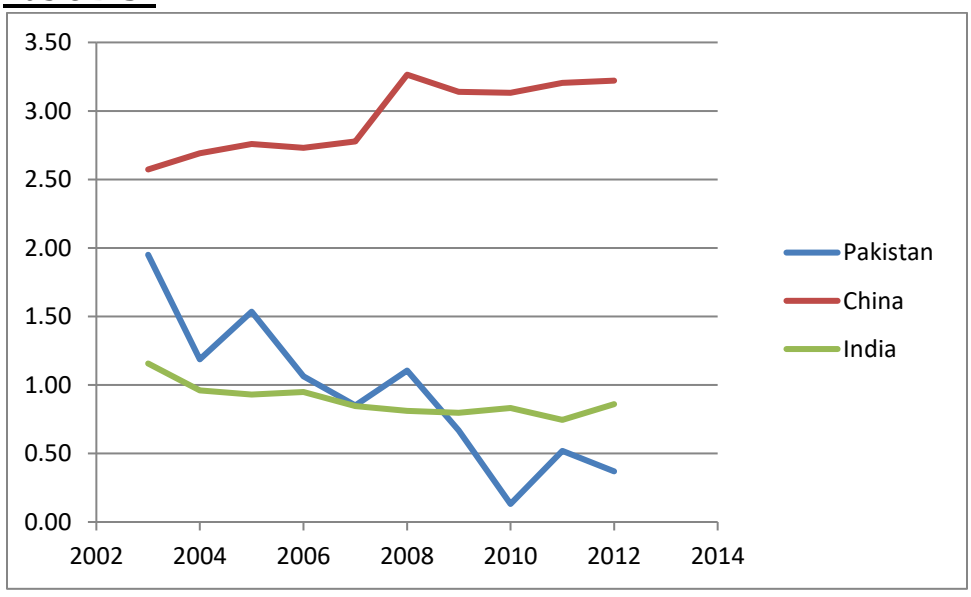
Name: Miscellaneous manufactured articles

Description: Miscellaneous manufactured articles.

YEARS	PAKISTAN	CHINA	INDIA
2003	1.95	2.57	1.16
2004	1.19	2.69	0.96
2005	1.53	2.76	0.93
2006	1.06	2.73	0.95
2007	0.85	2.78	0.85
2008	1.11	3.26	0.81
2009	0.67	3.14	0.80
2010	0.13	3.13	0.83
2011	0.52	3.21	0.75
2012	0.37	3.22	0.86

The table gives the exact RCA values of the above mentioned product, for Pakistan, India and China from 2003 to 2012

Table D-32



The figure above plots the RCA values given in the table C-32, for Pakistan, India and China from 2003 to 2012