



## Summary

# Pak-India Trade: A Case Study of Fan and Bicycle Industries

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# **Pak- India Trade: A Case Study of Fan and Bicycle Industries**

## **1. Introduction**

Free Trade Agreements (FTAs) constitute an important dimension of this fast changing globalizing world. Both the developed and the developing countries are entering or are in the process of entering into regional and bilateral free trade agreements in order to promote trade and economic growth. The experience of the European Union (EU), North American Free Trade Association (NAFTA), clearly indicates that there is a strong correlation between regional trade and economic growth. Encouraged by the success of this global trend, Pakistan and India have also started exploring the possibility of promoting free trade in the region and are working closely toward establishing a South Asia Preferential Trade Area (SAPTA) aimed at reviving regional trade and growth in the region.

Though the volume of the regional trade in SAARC has increased considerably in the 1990s (but compared with other regional blocs), it constitutes a very small component of international trade.<sup>1</sup> The low volume of regional trade in SARRC is a barrier to economic growth. Bilateral trade between India and Pakistan which is- a mere \$200 million, constitutes less than one percent of their global trade. According to one estimate, by the late 1940s nearly 60 percent of Pakistani exports went to India and a third of Pakistani imports came from India. But since then bilateral trade relations have been adversely affected by a host of factors, bringing the volume of trade between the two countries at low ebb with each passing year.<sup>2</sup>

There is a realization on the part of the policy makers and economic managers that there are enormous possibilities and prospects of high growth with the free flow of goods and services through larger bilateral and multilateral trade. This calls for the separation of politics from trade relations among countries and exploiting each other's economic potential. Regional cooperation is in fact a key to promotion of regional economic integration which enables countries to reap the benefits of the global trading flows arising from free investment and transfer of technology. The rationale behind this regional trade is that major economic and social factors---close proximity, lower freight cost, short delivery time, low inventory

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<sup>1</sup> See International Trade Statistics Yearbook, 1991 and 2001, United Nations; Analysis: IDF

<sup>2</sup> See *South Asia Monitor* (2003)

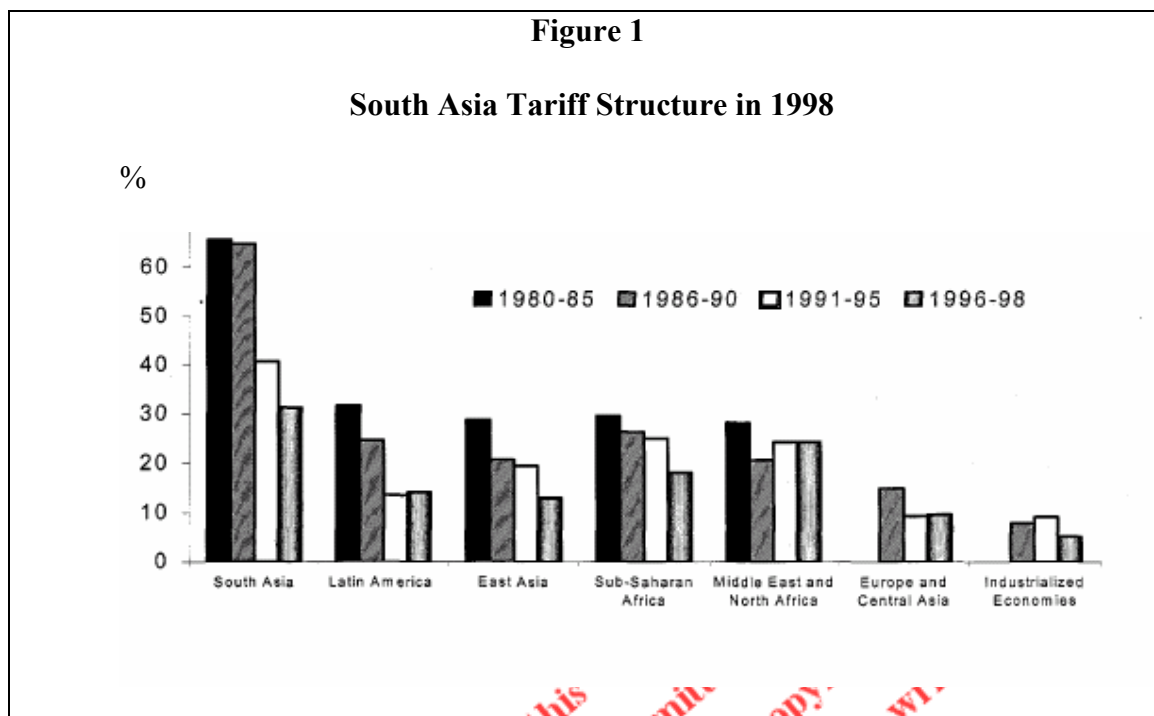
cost, and no language barrier in addition to the cultural affinities ensure smooth availability of good and services at cheaper rates for the people, leading to smooth and sustained economic development.

### **1.1 Objectives of the Study:**

The main objectives of the study are as follows:

- To study the size and structure of the light engineering sector of India and Pakistan, trends of the trade, and key policy issues related to this sector in the two countries.
- To study the trends of trade in the two countries in selected industries of the light engineering sector like fans and the bicycles within them and with the rest of the world.
- Analyze the tariff and tax structure with regard to the fans and bicycles and explore the possibility of trade creation/diversion in the light of the pricing practices and trends prevailing in the two countries and determine the appropriate unit value which might be appropriate for use for India Pakistan trade.
- To identify the benefits which might accrue to the producers, consumers and the governments of both the countries in the fans and bicycles industries by making a comparison of the retails of the two products in each other's countries.
- To suggest suitable policy implications for the government and the business community of the two industries in the light of the findings of the study.

Despite its potential benefits, socio-economic integration has been miserably slow in the South Asian region. The countries of South Asia have a long history of inward-looking trade policies. Until the early 1990s, with the exception of Sri Lanka, very few countries recognized that trade could serve as an engine of growth and poverty reduction. Figure 2.1 highlights the comparison of the average tariffs prevailing in South Asia with other regions of the world. It shows that the South Asia had the highest level of 60% tariffs vis-à-vis these geographical entities.



Trade liberalization in India started in the early 1990s. Under outside pressures which originated in the Uruguay Round, the large number of QRs that India retained to protect consumer good producers were phased out during this period. Substantial tariff reforms picked up momentum after a decade with the reduction of the general maximum customs duty from 35 percent to 30 percent in the 2002-03 budget, to 25 percent in the 2003-04 budget, and to 20 percent on January 8, 2004, when another protective import tax (the Special Additional Duty) was also abolished. But agriculture was excluded from this new liberalizing initiative: state trading import monopolies are being maintained over the major food grains, and agricultural tariffs have been going up even as the average level of industrial tariffs has been declining. India's un-weighted average agricultural tariff in February 2004 (including tariffs on processed foods) exceeded the latest available estimates of average agricultural tariffs in all but three (Turkey, South Korea and Morocco) of 124 developed and developing countries.

On the other hand, the liberalization drive in Pakistan which kicked off in the 1980s continued slowly but without serious interruptions until 1996-97. A new and comprehensive trade liberalization program commenced in that year and continued until 2002/03, when the general maximum customs duty was reduced to 25%. Actual protection rates are bit higher

than customs duties owing to differences in the incidence of an income withholding tax which is applied to imports and domestic transactions. High protection accorded to selected industries has encouraged illegal imports via Afghanistan and from India, which adversely affects the trading patterns and industrial pricing structure.

## **2. Overview of the Light Engineering Sector of India and Pakistan:**

### **2.1 Light Engineering Sector of India:**

Among the third world countries, India is a major exporter of light engineering goods producing a wide range of items. The light engineering industry in India is quite diverse with a number of distinctive sectors and sub sectors. This sector includes low tech items like castings, forgings and fasteners to the highly sophisticated micro processor based process control equipment and diagnostic medical instruments. This group also includes industries like bearings, steel pipes and tubes etc. Since the products covered under the light engineering industry are largely used as inputs to the capital goods industry, the demand of this sector depends on the demand of the capital goods industry.

It has competitive labor cost, and most of the raw materials are available locally. Over 2500 companies of this sector have ISO 9000 certification. India's large domestic market size, allows it to reap the benefits of the economies of scale. Its diversified industrial base with supporting ancillary industries and strategic location enables India to export to near and far countries.

### **2.2 Size and Composition:**

The Indian engineering industry is worth around Rs 1,165.0 billion. Out of this 80% of the consumption by value falls under heavy engineering while light engineering contributes to the remaining 20%. It contributes to the 20% of the net engineering production and employs over 4 million skilled and semi-skilled workers. During the period April December, 2003-2004, the exports of the engineering goods amounted to Rs. 32980 crores, as against Rs. 26356 crores during the corresponding period last year showing an impressive growth of 25.1%. Some of the specific types of the products produced by the light engineering sector of India are given below:

- Seamless Steel Pipes & Tubes
- Welded Steel Pipes & Tubes
- Stainless Steel Welded Pipes & Tubes

- Process Control Instrument
- Medical & Surgical Equipments
- Industrial Fasteners
- Industrial Gears
- Antifriction Roller Bearing
- Sewing Machine
- Plain Paper Copier
- Ferrous Castings
- Typewriters
- Steel Forgings
- Bicycle and Parts

### 2.3 SSI Reservation Policy: The Significance of the Institutional Factors

The small-scale industry (SSI) constitutes an important component of the Indian economy. The phenomenal growth of industries in the SSI sector has been a striking feature in the economic development of the country for the last many years. It has significantly contributed to the overall growth of the Gross Domestic Product (GDP) as well as in terms of employment generation and exports.

The overwhelming consideration for reservation of an item is its suitability and feasibility for being made in the small-scale sector without compromising quality aspects. Initially 47 items were reserved in 1967, which went up to 873 in 1984.

Table 2 below shows the bicycle parts, tricycles and perambulators which fall under the category of the reservation lists in India.

**Table 1**  
**Bicycle Parts, Tricycles and Perambulators**

SL No.	SL. (As per gazette notification)	PRODUCT CODE	NAME OF PRODUCT
1	2	3	4
716	684	3766102	Cycle frames-Except for captive consumption
717	685	37680101	B.B. Axles except through cold forging process

718	686	376802	B.B. Cups
719	687	376803	B.B. Shells
720	688	376804	Bicycles tube valves
721	689	376805	Handles bicycles
722	690	376807	Bolts & Studs and screws- All types- Bicycles
723	691	376811	Bells-Bicycles
724	692	376812	Carrier-Bicycles
725	694	37681401	Chain wheels and Adjusters-bicycles except chain wheels, and adjusters for light weight bicycles
726	695	376815	Lamps-Bicycle
727	696	376816	Chain covers
728	697	376817	Cones-Hub cones-Bicycle
729	698	376818	Cotter pins-Cycle
730	699	376819	Crank shafts-Cycle
731	700	37682001	Cranks except cold forged cranks including single piece cranks-cycle
732	701	376822	Crown outer cover-Cycle
733	703	376824	Denuts-Cycle
734	704	376825	Eye bolt cups-Cycle
735	705	376826	Fork blade crown cover-Cycle
736	706	376827	Fork handles-Cycle
737	707	376828	Frame collars-Cycle
738	708	376832	Guide pins-Cycle
739	709	376836	Handle bar grips
740	710	376838	Hub oil clips-Bicycle
741	711	376839	Hub axle nuts-Bicycle
742	712	376840	Lock nuts & rings-Bicycle
723	713	376842	Lugs all types-Bicycle
744	714	376843	Mudguards-Bicycle
745	715	376844	Lamp brackets-Bicycle
746	716	376847	Pedal assembly-cycle
747	717	376848	Saddle-Cycle
748	718	376850	Shackle rivets-Cycle

749	719	376852	Stands-Cycle
750	720	376852	Spokes & nipples Cycle
751	721	37685801	Hubs and cups-bicycles along with components except single piece hub-shell and flange for light weight bicycle
752	722	376860	Rims-Cycle (Except for captive consumption)
753	723	37689901	Other cycle parts and accessories, except free wheels chains ; single piece hub-shell and flange for light weight bicycle ; B.B. Axles through cold forging process ; chain wheels adjusters for light-weight bicycles; cold for including single piece cold forged cranks an items allowed for manufacture for captive use
754	724	376901	Tricycles
755	725	376903	Tricycles-Parts and accessories
756	726	376904	Perambulator
757	727	376905	Perambulator parts and accessories

Whereas the bicycle industry is heavily protected, fans sector does not fall in this category. The information collected from different sources shows no part of the fans in the reservation list. The advent of free trade between the two countries will have a strong bearing on this SSI sector of India which provides strong protection to some industries in the garb of the SSI sector since it will have to review this policy after the implementation of the free trade area.

#### **2.4 Light Engineering Sector in Pakistan:**

Pakistan's light engineering sector has acquired repute for quality products, reliability and performance. It contributes US \$ 2 billion to the GDP of Pakistan. The size of the total investment in this sector has gone up to 200-250 billion approximately in recent years. It provides employment to more than 600,000 individuals and saves US \$ 3.75 billion per annum through import substitution.

It is regarded as one of the important sectors which promotes cross-sect oral linkages and drives the industrial growth in the country. The size of the total imports and exports in

the year 2001-2002 are Rs 78 billion and Rs. 6 billion respectively. The light engineering sector of Pakistan constitutes the following:

- a. Metal Products:
- b. Electrical Equipment:
- c. Mechanical Equipment:
- d. Base Metal:
- e. Electronics:
- f. Non Metals:
- g. Other Products:

### **3. Theoretical Framework**

The theoretical framework developed for this study draws from the World Bank research conducted to analyze the potential trade effects between Bangladesh and India.<sup>3</sup>

The methodology chosen for this study provides approximations at industry level of the potential economic welfare consequences of a free trade agreement between India and Pakistan. At present the trade policies of India and Pakistan are not consistent with the free trade regime. The suggested methodology is general in principle but product specific modifications have been made as and when necessary.<sup>4</sup> This methodology is used to analyze the trends of trade between the two countries.

To simplify the presentation and empirical estimation of welfare changes, we use the linear demand and supply functions. The model, which we employ, assumes competitive behavior, for the sake of simplicity, but not perfect competition. We will be using the comparative static framework fully taking into account that the simulated results for individual industries would need to be modified if general equilibrium including macro economic repercussions are considered. This simplistic version of the model is based on the rationale that market structures in India and Pakistan are found to be less competitive, but the approximation will be useful to look at the outcomes on the assumption that the firms behave under competitive environment. This criterion will be useful as it provides the benchmark to

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<sup>3</sup> See Pursell (2004) for more details.

<sup>4</sup> See the assumptions below made for this study

allow for various forms of imperfect markets in simulation to explain the probable outcomes of the free trade regime<sup>5</sup>.

#### **4. Assumptions**

This study makes the following assumptions for analyzing fans and bicycles sector in the two countries.

1. The free trade area would involve minimum tariffs of zero percent (no tariff) and no quantity restrictions on all trade between India and Pakistan. However the present external Most Favored Nation (MFN) tariffs would not change
2. Based on data and analysis of the industry in Pakistan and India, the slope of the fan demand function in Pakistan is assumed to be normal on the basis of a market price and willingness to pay survey. The average price elasticity is about -.98 or -1. The slope of the fan supply function in Pakistan is assumed to be relatively elastic because
  - a. Producers are nearly producing about 50% of their capacity so a small increase in price is expected to bring a large change in quantity supplied.
  - b. The long run supply function entails constant returns to scale.
3. The level and slope of the Indian fan export supply curve to Pakistan is relatively inelastic because as the initial estimates of price differentials between India and Pakistan fans suggests a larger price change in Indian fans will cause a relatively smaller change in quantity supplied depending on the market conditions.
4. The present level of sales taxes in Pakistan is 15% and India 12% will remain as such and will not change even after establishment of free trade area.
5. The domestic transportation cost is assumed to be 1.5 % of the whole sale price. It is rationale estimate which has been based on the survey of information collected from the retailer and distributors.
6. The production cost and export supply conditions and other factors affecting the market structure are assumed to be constant

##### **4.1 Hypothesis Development and Decision Criterion**

If the Indian actual export price or potential export supply price is less than the Pakistan tax free ex factory price that product could potentially be exported to Pakistan It

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<sup>5</sup> See Pursell (2004) for more details.

needs to allow for border costs at FOB Stage.<sup>6</sup> If the Indian actual export price or potential export supply price is greater than the Pakistan tax free ex factory price then the product could potentially not be exported to Pakistan. For example Pakistani exports to Indian fan markets are possible only if CIF is less than ex factory price in India. By the same token, this argument holds true in the case of bicycle industry.

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<sup>6</sup> See Pursell (2004)

## B. An Analysis of the Fans Sector

### 1. An Overview of the Fan Industry of Pakistan

Pakistan is a manufacturer of good quality fans. All the fan-manufacturing units have been set up in the private sector. The fan industry is mainly clustered in the two major cities namely, Gujrat, Gujranwala, whereas some units are also operating in Lahore and Karachi. This cluster meets the entire need of the country producing fans with extended product types, models, designs, and colors.

#### 1.1 Size and Composition

Fan industry contributes Rs 1.5 billion to the GDP of the country. The total capital investment in this sector is Rs 3-3.5 billion. The industry has an installed capacity of 5-6 million fans per year. The current capacity utilization is around 50%. At present, total fan production stood at 2.5-3 million fans per year. The volume of exports has reached around \$4 million US in recent years. The industry generates annual employment for around 25,000 workers. Pakistan is also one of the major exporters of fans to international market. Table 3 shows the average price of six key players of the Pakistan fan industry.

**Table 2**  
**Average Price of Six Top Key Players in the Fans Industry**

Company	Average Price (Rs)
Ahad Fans	1975
Pak Fans	1470
Royal Fans	1563
Younas Fans	1512
Parvaz fans	1391
GFC Fans	1282
<b>Average Price</b>	<b>1584</b>

Global fan trade is classified on the basis of energy consumption. The fans that consume less than 125 watts of energy (SITC 74341) are generally referred to as domestic fans and the fans that that consume over 125 watts (SITC 74343) are classified as industrial

fans. Pakistan has earned \$ 3.896 mn. from exports of domestic fans whereas it has earned \$ 0.104 Mn. from exports of industrial fans.<sup>7</sup>

In the local market as well as in the international trade of Pakistan domestic fans are larger component so it is reasonable to assume that whatever happens to this particular category after MFN or Free Trade with India is applicable to whole of the fan industry.

Pakistan exports fans to Bangladesh, Saudi Arabia, United Arab Emirates (UAE) and some EU countries. About 80% of Pakistan domestic fans exports are concentrated in these countries. While some companies are also exploring the possibilities of exports to US but main restriction of quality standard of UL is creating problems but some firms are preparing to enter into that market. Compared with the trade of the rest of the world, Pakistan neither exports fans to India nor import this product from India. One reason for this no- trade situation is that both Pakistan and India are self sufficient in fan and compete in the international market rather than exploring for prospects of trade creation within each other. On the other hand, India exports fans to other countries with the bulk of the share now going to European Markets.

## **2. An Overview of the Fan Industry in India**

Electric fan is the second most wanted consumer durable item after the bicycle in India. The retail price of Indian domestic fan is estimated to be around Rs 810. Indian fan industry is confronted with the new challenge due to the imposition of the excise duty. It is felt that the high incidence of excise duty is likely to affect manufacturers in the organized sector and is likely to encourage higher imports from neighboring countries, particularly from China and Pakistan.

Major producers and exporters of the Indian fan industry are Bajaj Electricals, Orient Fans, Kedia Fans, Crompton Greeves, Impex Trading, Kathran fans among others.

## **3. Estimations Results and Estimations of the Fans Industry**

This section analyses the results obtained by calculating the f.o.b and c.i.f prices of the fans produced in both the Indian and Pakistani market with and without free trade.

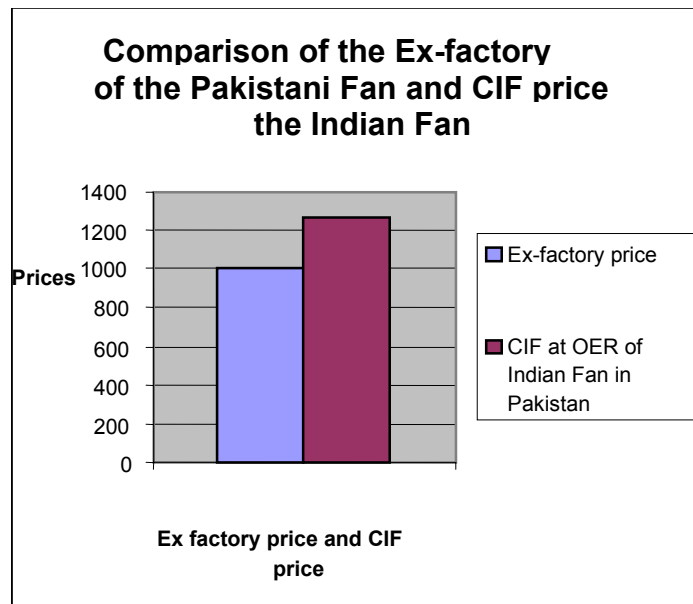
Figure 5 below compares the ex-factory price of the fan produced in Pakistan and cif price of the Indian fan. It is taken as the world price without tariffs. The ex-factory price of the Pakistani fan is around Rs 1000. According to the decision criterion which is being used

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<sup>7</sup> SMEDA, Fans Sector Brief, July 2002.

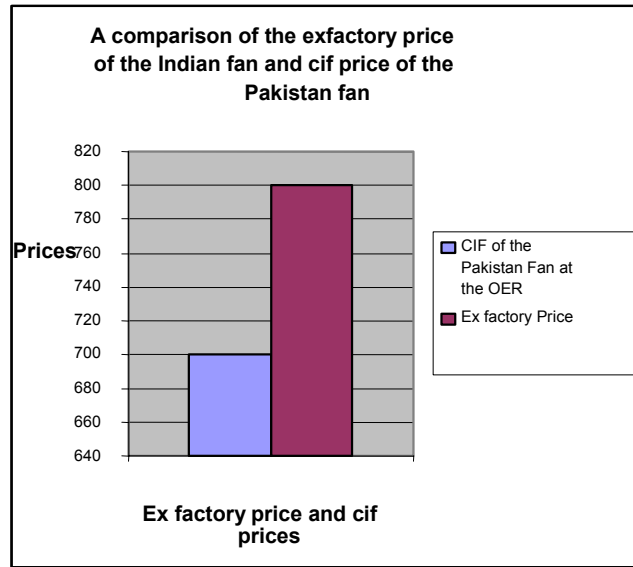
for this study, the cif price of Indian fans which is Rs 1260 should be less than this ex-factory price. In our case, when the Indian fan is imported into Pakistan, it becomes more expensive and thus is less likely to attract the attention of the consumers. So on the basis of cif:ex-factory criterion Indian fan cannot be imported to Pakistan.

**Figure 5**



On the other hand, cif price of the Pakistani fan is less than ex-factory price of the Indian fan. The ex-factory price of the Indian fan is Rs 800 whereas the cif price of the Pakistani fan when it is exported to India Rs 700. There is a margin of Rs 100, which is likely to attract the Indian consumer toward Pakistani fan. As a result the Pakistani fan market, will benefit enormously as India offers a good window of opportunity to the Pakistani manufacturers and would go a long way to enable them to utilize the excess capacity. The figure below highlights this situation.

**Figure 6**



The analysis also coincides with the view point of the major fan manufacturers who believe that the opening up of the trade with India will be a big window of opportunity for the Pakistan business community engaged in fans production. It will provide access to the huge Indian market and enable them to utilize the excess capacity of the fans industry.

The following table gives the tariff and tax structure with regard to the fans in both India and Pakistan. The above calculations have been done in the light of this tax and tariff system and the 6% withholding tax, which is levied by Pakistan on the all imports. In India the rates of the taxes and tariffs varies across different states. We have taken the case of the Punjab and Delhi which are close to the border and would promote trade through road and rail route, when free trade will be inevitable.

**Table 3**  
**GST and Duty Structures**

Country	GST on Fans	Import Duty on Fans
Pakistan	15%	25%
India	12%	12%

#### **4. Conclusions:**

This study has been conducted in order to find out the factual market position of the strengths and weaknesses of the fan industry which constitutes an important component of

the light engineering sector of Pakistan if it is exposed to free trade environment. The need to make such an assessment stems from the fact that both the countries have been recently engaged in a process which will culminate in the establishment of a South Asia Free Trade Area (SAFTA) in 2013. Its main purpose is to equip the policy makers as well as the industries to take timely steps in this changing situation to get to grips with the challenges of the new era.

The evidence obtained suggests that the fan market will not only be further strengthened, it will also have the possibility of making inroads into the Indian markets benefiting both the producers and consumer of the region. Pakistani fan manufacturers have higher prospects of gaining by exporting their product to hitherto unexplored markets like India and thus achieving a higher level of profits as well as increasing the volume of production. This benefit will accrue because of shorter distance, less transportation cost, and big size of the market that India offers.

On the other hand, the Pakistani producers will not lose any thing, should there be a free trade based on reduced tariffs. Since the consumers will not be attracted to the Indian fans because of its higher price both in the event of free as well as without free trade, it will provide Pakistani firms an opportunity to further consolidate and diversify themselves and achieving a more competitive place in the world fan market. The figures obtained highlight not only the consumers gain in terms of low price which falls from Rs 960 to 804 in India with the removal of tariffs, it will bring a significant producer surplus to the Pakistani producers as they will be given the opportunity to operate the fan industry at optimal capacity.

This producer surplus will depend on the volume of exports which will be created from trade with India. But in order to further explore the effects of this trade on consumer surplus, producers' surplus, and government revenue in Indian Market Analysis is required which is out of the scope of this study. It might be noticed that currently the major exporting countries of the Pakistan's fans are Bangladesh, and some of the Middle Eastern countries. The advent of free trade with India, will allow Pakistan to take advantage of this large consumer market, where fan is second largest consumer product after the bicycles.

At present there is no trade between the two countries in this product, the revenue of the government will not come down as no loss in custom duty revenue is expected and the

locally manufactured fan becomes more competitive than the Indian fan. The availability of the large fan market will be available to fan producers, consequently earning higher foreign exchange earnings and catering to the needs of the large population.

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## C. An Analysis of the Bicycle Industry

### 1. An Overview of the Indian Bicycle Industry:

The bicycle industry of India is one of the most established industries with an annual turnover of more than 12 million bicycles. India is the second largest bicycle producer of the world next only to China. Most bicycle components and bicycle spare parts in India, except for free wheels and single piece bicycle hubs, are manufactured by the Small Scale Sector (SSIs). The large scale units are permitted to manufacture bicycle frames, chains and rims for captive consumption. Manufacture of complete bicycles falls within the purview of the organized sector.

**Table 4**

#### Total Number of Units Producing Bicycles in India

Total No. of Units in Bicycle and parts	4125
No. of Units in Organized sector	674
No. of Units in Small Scale sector	3451
Concentrations of Units in India	Most of the factories manufacturing bicycles and parts are located in Punjab and Tamil Nadu. Major companies in this industry are Hero Honda, Tube Investment of India, Atlas Cycles, Hamilton Industries, R M I Cycles, National Bicycle Corp. of India

Source: Ministry of Commerce, India

Import of bicycle and bicycle parts are allowed freely. All these items are falling under HS code 8712, 8713, 871491 to 871494.

### 2. An Overview of the Bicycle Sector of Pakistan:

Pakistani bicycle market is struggling to establish itself due to smuggled bicycles coming from China and high raw material prices. There is very low export presence of Pakistan in this sector and one player dominates with 82% share in the the local market. For a new manufacturer to establish itself in this sector, they would need to concentrate on the fancy bicycle segment and may flourish if they enter into a Joint Venture agreement with some internationally reputed firm. If bicycle imports from India are allowed, then it will be

difficult for the local bicycle industry to compete on the basis of price competition –whereas quality differences and sales network may become strategically important.

### 2.1 Size and Composition of Bicycle Sector in Pakistan

A total 629,695 number of bicycles were produced in 2002-03 and 681,448 were produced in 2003-04 thus showing the growth rate of 8.22%. In 1998-99, US\$11,000 worth of bicycles were exported from Pakistan for the first time but there remains an untapped potential of US\$ 3-4 million because of low capacity utilization in the bicycle industry.

According to different published sources, there are 300 bicycle vendors in Pakistan, employing 3000 workers. These vendors buy raw material worth Rs49 million and after value addition sell it on to the manufacturers for Rs98 million. The 300 vendors supply to 7 big Original Equipment Manufacturers (OEMs) and 20 unorganized OEMs (small firms). OEMs employ a total of 5000 workers. The OEMs supply a further of Rs1.32 billion worth of new bicycles and Rs100 million worth replacement parts of bicycles to the retail assemblers/dealers/puncture shops. The retailers are supplied spare parts (including tires and tubes) through some 175 component manufacturer, employing 4000 workers in a market worth Rs230 million as new parts and Rs1.62 billion as the replacement market bicycles. There are some 3000 retailers/assemblers, employing 9000 people and cater to the Rs1.71 billion new bicycles demand and Rs2.78 billion replacement bicycle market.

The market prices of some of the major bicycle producers are given in the table below.

**Table 5**  
**Market Prices of Different Bicycles Produced in Pakistan**

	Company	Prices in Pak. Rs
1	Sohrab	3250
2	Sony	3300
4	Lords	3000
5	Falcon	2800

The preceding information reflects that the situation is not encouraging for Pakistan vis-à-vis India who is considered to be a major player in the international bicycle market. Whereas India exports a significant quantity of the bicycle, Pakistan is still trying to meet the domestic demand.

### 3. Estimation Result of the Bicycle Sub-Sector

Pakistan's bicycle industry is dominated by one key player, Sohrab which constitutes more than 80% share of the whole industry whereas the rest of the production is shared by 6 other bicycle manufacturers. It produced 532139 units of the bicycle in the year 2003-04. Based on the information collected through various published sources and survey conducted, the average whole sale price for the bicycles is estimated to be Rs. 2425, whereas the average market price is Rs. 3085.

Based upon the simulation under the assumption of free trade and without free trade, the following table shows the basic calculations of the gains and losses and net effects on different economic entities.

**Table 6**  
**Surpluses Arising from Free Trade in Bicycles**

Before Free Trade	
Producers Surplus	Rs. 247.503 Mn
Custom Revenue	Rs. 131.22 Mn.
After Free Trade	
Producers Surplus	Rs.13.85 Mn
Consumers Surplus	Rs. 525.82 Mn
Customs Revenue	0

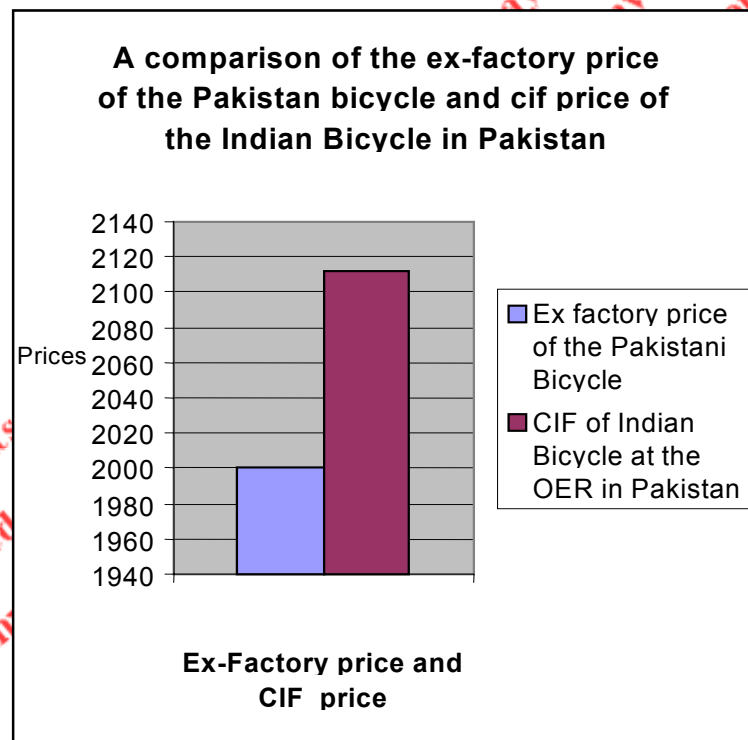
**Table 7**  
**Net Effects of the Free Trade**

	Pakistan	India	Pakistan+India
Consumers Surplus	525.82	0	525.82
Producers Surplus	-233.653	30.91	-202.743
Customs Revenue	-131.22	0	-131.22
Net Welfare	160.947	30.91	191.857

It can be seen that the net effect of the free trade in bicycle will cause an increase in Net Welfare gains worth Rs. 191.857 Mn but after trade the Pakistani bicycle producers will be threatened to lose a significant portion of their protected market. The loss in Producers surplus is calculated to be around Rs. 233.653 Mn.

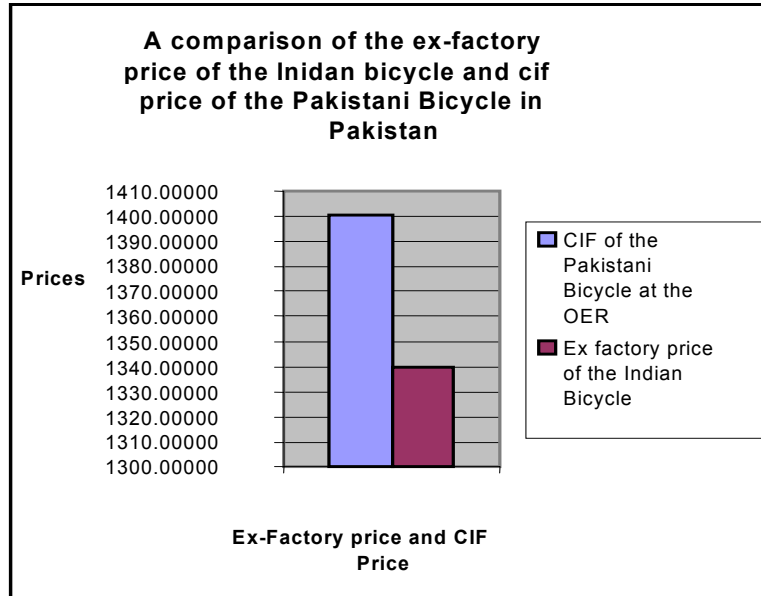
The following figure 10 compares the ex-factory price of the Pakistani bicycle and cif price of the Indian bicycle. The ex-factory price of the Pakistani bicycle is Rs 2000. The cif price of the Indian bicycle when it is imported into the Pakistani market is Rs 2112. This is greater than the ex-factory price of the Pakistani bicycle, and thus fails to go along our criterion of decision-making.

Figure 7



When we make a comparison of the ex-factory price of the Indian bicycle and cif price of the Indian bicycle, we again confront the similar situation of no trade. The ex-factory price of the Indian bicycle is Rs 1340. The cif price of the Pakistani bicycle is Rs 1400.

**Figure 8**



It seems that the Pakistani bicycle market is highly protected with high level of import duties. Both the government and producers will lose as a result of free trade whereas the consumer stands to gain significantly. This situation however is not very different in India as well. The whole of the India bicycle industry is protected under the SSI reservation policy. Almost all the parts used in the manufacture of bicycles are protected under this policy. The free trade situation also demands for the creation of an enabling environment without any protectionist policies. The situation might change drastically if these items are removed from the reservation list. This is perhaps one factor, which shows that the cost of production in India is very low and in Pakistan, it is very high.

Table 14 gives information about the tax and tariffs system in India and Pakistan. In Pakistan when products are imported, the government levies, 6% of the withholding tax, and in India it varies across different states.

**Table 8**

**Tax and Tariff Structure in Pakistan and India**

Country	Import Tariff on Bicycles	Sales Tax on the bicycles
Pakistan	30%	15%
India	20.4%	4%

As regards bicycles, however, the situation is not very encouraging for the domestic bicycle producers. India has an edge in this product as it makes available its bicycle in Pakistan with free trade at a cheaper price than does Pakistan bicycle producers do in India. Compared with the size of the Indian bicycle Industry, Pakistan's domestic industry is very small. There is apprehension in the domestic bicycle industry, that if bicycle imports from India are allowed, it will seriously endanger this sub sector, and might put its survival at risk.

The average market price of Pakistani bicycle is Rs 3085 which is higher than the free trade price of the Indian bicycle in Pakistan estimated to be Rs. 2580. The difference is considerable and given the sheer size, and economies of scale which the Indian bicycle industry enjoys, it will further come down with the possibility of opening up a new market at a shorter distance.

The study also points out some interesting conclusions. Since it has analyzed the product as a whole rather than the parts, which are used in the manufacturing of the product, the results might differ to a great extent if an analysis of the parts is done on individual basis. Besides providing an even stronger microeconomic foundation, it will further enlarge the group of stakeholders to be benefited from the free trade situation in both the countries. It calls for a separate analysis as this is beyond the scope of the current study.

Another important factor which will determine the likely impact of free trade environment is Chinese access to both Pakistani and Indian markets. Both the countries are already suffering from the smuggling of low cost products from China. It is not only endangering their domestic markets but calls for restructuring of the prevailing trade regime in the region. The question is what is going to happen to the domestic market under similar trade regime with the China. It is a serious policy issue which the policy makers need to look into to prevent the growth of informal trade which is hampering the domestic industries of the two countries.