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Pakistan-India Trade Relations: A Sectoral Analysis

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Chapter 0 Executive Summary

This report focuses on the impact on specific sectors in Pakistan of having a liberalized trade regime with India. The purpose is to identify the potential of imports from and exports to India and estimate the total value that might be traded, along with the savings that will result from trade diversion. Revealed Comparative Advantage (RCA) is quantified in each product category in each country and a Trade Complementarity Index (TCI) is constructed of India and Pakistan to determine the scope for trade between the two countries following liberalization. Also, the perceptions of the industry are gauged from the primary survey. The key findings are summarized below.

0.1 Comparison of the Industrial and Agricultural Sectors of India and Pakistan

The Indian economy has exhibited a consistently higher GDP growth rate during the last decade of above 7.5 percent. The economy of the Pakistan exhibited some buoyancy in the first five years, with a growth rate close to 6 percent, which has since fallen to only 3.5 percent. The structure of the economies of Pakistan and India are different. The Indian economy is somewhat less dependent on agriculture with correspondingly higher shares of industry and services. The process of structural transformation has proceeded at a relatively rapid rate in India and the share of agriculture has fallen from 23 to 17 percent over the last decade, as compared to a change from 24 to 22 percent in the case of Pakistan. The services sector of India has experienced a big increase in share of the economy from 52 to 56 percent during the period. The shares of manufacturing are comparable in the two countries.

The level and pattern of agriculture differ significantly between India and Pakistan. India produces substantially more rice on a per capita basis than Pakistan as compared to wheat along with vegetables and pulses while the livestock sector of Pakistan is relatively more developed. Within cash crops, the big change is in cotton. During the last decade India has gone for bio-genetic varieties and production of cotton has more than trebled, while it has fallen somewhat in Pakistan.

It is interesting to observe the price gradient in agricultural items between cities of India and Pakistan. Adjusting for differences in the exchange rate, food prices appear to be generally higher in Pakistan, with the exception of atta (wheat) and some vegetables like onion and tomato, in Karachi as compared to Mumbai. In the event of liberalization of trade in agricultural commodities it is likely that the volume of trade in food items could expand significantly in view of the large price gradients.

Turning to industry, a comparison is made in the report with the objective to highlight the level of sophistication, technological development and the extent of diversification of the industrial economy in each country. Out of a total of 22 industries in which the share in value added in Pakistan is more than all developing countries, include food products and beverages, textiles, wearing apparel, paper and paper products, chemicals and non-metallic mineral products (primarily cement). Most of these industries are agro-based in character.

Pakistan has a relatively underdeveloped engineering goods sector, especially of machinery, basic metals and fabricated metal products. Although the automotive sector has shown rapid growth, it is still at a relatively early stage of development.

The industrial structure of India is more developed technologically; with a higher degree of diversification (the shares are relatively large, 11 out of 22 industries). India appears to be in a process of transition from basic agro-based and consumer goods to the production of intermediate goods, capital goods and consumer durables. Prima facie, given the different industries in which each country specializes, there appears to be significant scope for trade in manufactured goods. However, production levels and patterns of agricultural and manufactured goods are only the first indicators of the level and nature of potentially bilateral trade. A more direct index is the revealed comparative advantage (RCA) in trade, which we turn to in the next section.

0.2 Revealed Comparative Advantage

The report examines the existing level and pattern of global trade of India and Pakistan to reveal the comparative advantage in different product groups. The Balassa Index is used to quantify the extent of revealed comparative advantage (RCA). In the case of the five largest exports of Pakistan (corresponding to Chapters 52, 63, 10, 61, 62, where Chapter refers to the highest level of product category under the Harmonized Commodity Description and Coding System) the magnitude of the RCA is substantially larger than unity, revealing Pakistan's comparative advantage in these product categories. Four out of these chapters / product categories are of textiles and clothing. Altogether, Pakistan has an RCA equal to or more than unity in 28 out of the 97 chapters. As opposed to this, there are 41 chapters in which India appears to have a revealed comparative advantage. This tends to indicate that the export base of India is more diversified.

There are 22 product groups at the 2 digit level Harmonized Commodity Description and Coding System (HS) level in which both countries have a revealed comparative advantage. In eight other groups Pakistan has RCA of unity or more, and India does not. These are chapters relating to live animals, products of animal origin, milling products, beverages, wadding fat, knitted fabrics, implements, cutlery and toys, sports goods. In the presence of relatively free and unrestricted trade between the two countries, these product groups have greater potential of exports to India, subject, of course, to being competitive in relation to other countries exporting the same products.

There are 19 chapters in which India has comparative advantage and Pakistan does not. These include petroleum oils, articles of iron and steel, tea, chemicals, and engineering goods. These findings are largely consistent with the production patterns described earlier. It can be expected that products from these chapters will feature more in India's exports to Pakistan.

The above results are contrary to the traditional view that the two countries have similar pattern of comparative advantage and thus limiting prospects for bilateral trade. As the economies of the two countries have evolved, especially over the last two decades, they have moved in different directions of specialization even in the absence of a large volume of bilateral trade. This implies that the prospects for trade between Pakistan and India are now substantial, especially if tariff and non-tariff barriers can be relaxed.

We also examine the pattern of the current trade between the two countries in the presence of restrictions. The analysis shows that the chapters in which the RCA of Pakistan is greater than unity account for only 53 percent of the exports, demonstrating that tariff and non-tariff barriers by India have not only restricted, but also distorted the pattern of trade with Pakistan. As opposed to this, over 84 percent Indian exports to Pakistan are from chapters in which it has revealed comparative advantage. As such, restrictions imposed by Pakistan appear less distortionary in character.

The report also presents a more disaggregated analysis of revealed comparative advantage, at the 4 digit level of the HS. There are 40 product groups in which Pakistan has relative comparative advantage and India does not and accounts for significant exports of Pakistan of at least $ 100 million, in 2010-11. Ten out of these groups are from agriculture, 22 from textiles and clothing and 8 from other mining and manufactured goods. In 71 product groups, 12 from agriculture, 8 from textiles and clothing and 51 from other manufactured goods, India has revealed comparative advantage and Pakistan does not. These are significant exports of India, in excess of $500 million in 2010-11. India's potential exports to Pakistan include petroleum oils, jewelry, motor vehicles, iron ore, iron and steel, metal products, women garments, chemicals, medicaments, electrical equipment, and tea. Over two thirds of India's exports are competitive with respect to Pakistan.

Overall, out of the total of 1109 product lines, Pakistan has a revealed comparative advantage greater than that of India in 356 lines, equivalent to 32 percent of the total product lines. India has a higher

RCA in the remaining 753 product lines. Trade may not take place in all lines, but India does appear to have wider range of lines and the volume of exports from India to Pakistan is expected to be larger than Pakistan's exports to India.

The report also develops an index, Grubel-Lloyd Index (GLI), to measure the extent of intra-industry trade in India and Pakistan respectively. The GLI is higher for most industries of India. The difference is most pronounced in iron and steel, chemicals, machinery and fuel. In agriculture, the GLI of both countries is high.

0.3 Extent of Trade Complementarity

The report also determines the extent of trade complementarity (the extent to which the exports of one country are the imports of the other country) between the two countries. The results show that the Trade Complementarity Index (TCI) between India's exports and Pakistan's imports is quite high at 0.580. However, the TCI between Pakistan's exports and India's imports is low at 0.230. This indicates that in the event of trade liberalization there is greater scope for diversion of existing imports of Pakistan to India than for Indian imports to Pakistan. This also explains why India also enjoys a relatively large surplus in trade with Pakistan. *Pakistan's exports to India are limited by the fact that the exports are concentrated in textiles and clothing, in which the latter is one of the largest global exporters.*

The report quantifies the extent of potential diversion of trade following the granting of MFN status to India and relaxation of trade barriers. The total potential diversion of India's imports to Pakistan is estimated close to $2.2 billion, equivalent to 9 percent of existing global exports and almost eight times the actual level of exports to India.

Specific items in which there is significant potential for increasing exports to India include the following: cotton yarn, cotton fabrics, wheat, cement, articles of sports, polyesters, primary, surgical instruments, ethyl alcohol, dates, men's or boy's suits, leather and leather products.

Analysis of the latest revised SAFTA Sensitive Lists of India and Pakistan has been undertaken. *Contrary to perceptions, while India has fewer tariff lines at the 6-digit level, it has more tariff lines at the 8-digit level, 1753 vs 1577 of Pakistan. This has to be highlighted during bilateral negotiations.*

Perhaps even more importantly, there is a need to determine the extent to which exports of one country will receive preferential treatment in the other country under SAFTA. Striking conclusions emerge. India has 'opened' up considerably less to Pakistani global exports, to the extent of 65 percent, as compared to access to 94 percent of global exports of India into Pakistan.

Turning next to the scope for potential diversion of Pakistan's imports to India, estimate of potential diversion is large at over $19 billion, equivalent to almost 8 percent of existing global exports of India and over ten times the present exports to Pakistan. The potential increase is higher in India's case because the Positive List had precluded a lot of exports to Pakistan from India.

Major items in which Indian exports could increase after granting of full MFN status to India include the following: petrol oils, medicaments, motor cars, automobile parts, electrical apparatus for telephony, cotton, and sugar.

Trade creation possibilities also exist between India and Pakistan following the opening of the markets in the two countries. Product groups which have the potential of emerging as exports from India to Pakistan include items like jewelry, leather goods and table and kitchen articles. Also, trade creation is likely to take place in existing imports of Pakistan due to cheaper prices of imports from

India. Scope for trade creation in India by exports from Pakistan exists in garments, citrus fruit, woven cotton fabrics and animal and vegetable fats and oils etc.

0.4 Key Magnitudes of Future Bilateral Trade

Factoring in the impact of the overall process of trade liberalization, including the granting of MFN status to India, the transition to a regime of preferential treatment under SAFTA, significant progress in the relaxation of the non-tariff barriers which is on-going, the report makes a quantitative assessment of the prospects for bilateral trade in a medium-run setting. The estimated magnitude of the key parameters underlying the projections of the volume of trade is taken on the conservative side, but yield plausible magnitudes of the quantum of trade diversion and creation.

As far as Indian exports to Pakistan are concerned, 18 products at the HS 6 digit level have been included in the estimation, excluding products in which it is assessed that scope for trade diversion does not exist or which Pakistan does not import currently. Within these products, there are products which were in the original Positive List, some of which have been placed outside the SAFTA Sensitive List and importing from India will become more attractive after the reduction of duties under the SAFTA regime. The other types of products are those which did not feature in the Positive List and will become importable from India after their MFN status to India. Some of these products will also receive preferential treatment under SAFTA. The overall import of the first type of products covers almost 60 percent of Pakistan's existing imports from India. Trade in these items is expected to increase by 80 percent, with 78 percent of this increase coming from trade diversion and the remaining 22 percent from trade creation. Major items of import which are likely to see further diversion to India include cotton, sugar, tea, and synthetic coloring matter. It is interesting that a large part of the diversion in existing imports is in agricultural items. Items which have hitherto not been imported from India but are likely to emerge as significant imports include petroleum oils, electrical apparatus for telephony and vehicles and transport equipment (including parts). The overall projected level of imports from India, at the 2010-11 base, are expected to increase to $ 6.3 billion in the medium run, two-thirds is expected from trade diversion and the remaining one-third from trade creation. Earlier an estimate of trade complementarity between India's exports and Pakistani imports was given around USD 19 billion. The lower estimate of $6.3 billion is the realizable part of this potential given competition from other exporters to Pakistan. If these projections materialize, India will become the largest trading partner of Pakistan.

Turning to Pakistan's exports to India, despite the recent reduction by India of its SAFTA Sensitive List, some of Pakistan's major exports including rice, cotton yarn, gent's shirts and bed and table linen continue to be in India's Sensitive List. It is estimated that 44 percent of major products that Pakistan exports are now outside the Sensitive List, while 58 percent continue to remain in the list. Clearly, Pakistan must negotiate for further liberalization in key export items.

Overall, on the trade base of 2010-11, Pakistan's exports to India are projected to increase in the medium run from under $ 300 million to just over $ 1.3 billion, an increase of over 300 percent. Earlier an estimate of trade complementarity between Pakistan's exports and Indian imports was given to be over $2 billion. The lower estimate of $1.3 billion is the realizable part of this potential given competition from other exporters to India. Major items of export to India include petrol oils, cotton fabrics, cement, and dates. Emerging exports, subject of course, to adequate market development activity, include medical and surgical instruments, citrus fruit, ethyl alcohol, woven fabrics, polycarboxylic acid and other made-up articles of textiles. This quantum of increase will hinge on adequate power / electricity supply to Pakistan's industry as discussed in the report.

In the medium run, the projections indicate that the trade deficit of Pakistan with respect to India could rise from $ 1.5 billion to about $ 5 billion as the volume of trade approaches $7.6 billion in the next three years or so. However, there is likely to be an improvement in the global trade balance due to

cheaper imports from India and larger exports. *Our analysis shows that the global balance of trade of Pakistan could improve by $ 240 million annually. This is not insignificant and will make some contribution to improving the rapidly deteriorating balance of payments position of the country.*

Significant consumer welfare gains can also result due lower landed prices of imports from India as compared to imports from other countries. The total consumer welfare gains are estimated at up to $ 727 million or Rs 70 billion (at Rs 96.29 to a $). This represents a benefit of over Rs 2300 (USD 23.9) per year per Pakistani household. Items which are likely to see a significant reduction in domestic prices are tea, textiles, onions, auto parts and energy (due to cheap coal from India). Overall, this could contribute to a reduction in the unit value of imports of over 4 percent.

While there are general expectations of favorable implications of the opening of trade with India, certain quarters are also concerned about displacement of economic activities. This displacement is likely when imports compete with production within Pakistan. While some imports are non-competing in nature, where the impact on domestic production base is small or negligible, it is expected that the competing industries including medicaments; insecticides; automobiles; auto parts and flat iron and steel products may experience some loss of output and employment. The estimated quantum of displacement in the above sectors is approximately PKR 27 billion (USD 27.87 million). As compared to this, the increase in output of export-oriented industries is expected to be PKR 78 billion (USD 80.50 million). Therefore, a net increase in employment in the industrial sector of about 100,000 is expected in the medium run.

0.5 Sectoral Case Studies

Profile of the key selected sectors of Pakistan including agriculture, textiles and clothing, chemicals and pharmaceuticals, iron and steel, engineering goods and automobiles is presented in the report. Statistics relating to production, value added, employment, cost structure, imports and exports, tariffs are given in detail. The case studies reveal, first, that export possibilities have been enhanced for agriculture, textiles and clothing in India but have been limited by the continued presence of some of the major exports in the SAFTA Sensitive List of India. This point has to be emphasized in future bilateral negotiations that what matters is not how many products are outside the Sensitive List but which products remain in the List.

Second, on the import side, major opportunities exist for India to enter the Pakistan market with products including iron and steel, engineering goods, chemicals and pharmaceuticals and the automotive sector. In the first three sectors India will face competition primarily from China (with which Pakistan has an FTA) and in the automotive sector from Japan. Significant potential also exists for Indian agricultural exports to Pakistan. Here the competition will be from diverse sources.

0.6 Perceptions of Industry: Findings of the Primary Survey

To identify the potential impact of opening of trade on textiles, chemicals and pharmaceuticals, engineering goods, iron and steel, food and beverages and leather and leather products, a structured questionnaire was administered on 174 industrial establishments, selected using a stratified, random selection technique in the 7 major manufacturing and trading hubs of the country including food processing, leather, textiles and clothing, chemicals and pharmaceuticals, iron and steel and engineering goods (including automobiles). The sample covered import-substituting as well export-oriented units. Cities covered in the survey include Karachi, Lahore, Faisalabad, Hyderabad, Sialkot Sheikhupura and Gujranwala.

The major findings of the survey are presented below:

- A significant proportion of industrial establishments in the sample operated at a lower level than their installed capacity, the average being 62 percent. The most important reason for the low capacity utilization, cited by 69 percent of the sample respondents, was load shedding, while for 23 percent of the respondents the most important factor was lack of demand.
- The prime destinations of exports by the sample firms are USA, United Kingdom and Afghanistan, while the prime origin of import in the case of import substituting industries surveyed is China and India
- Following the granting of the MFN status to India at the end of 2012, 59 and 80 percent of the fully import substituting and partially import substituting firms, respectively, expect competition from Indian products, largely because their products are not in the Sensitive List of SAFTA of Pakistan. Sample units belonging to leather and leather products, food and beverages and chemicals and pharmaceuticals sectors report the highest magnitude of competition along with food and beverages, textiles and articles and machinery and equipment.
- Overall, average domestic market share that could be taken up by import from India is assessed at 17 to 22 percent.
- Increased competition from India will reduce employment according to 47 percent of the respondents. Overall, for the sample of 117 firms, the contraction is reported to be in the range of about 7 percent.
- Out of the 75 total product groups covered by the survey, 36 product groups potentially face a `threat` as these are significant exports of India. Out of the 117 import-substituting units surveyed (both full and partial), 41 face maximum threat while another 30 fall in the moderate threat category. This implies that 60 percent of the firms in the selected sample for 25 product categories perceive a significant and 'real' threat, following trade liberalization with India.
- The firms in textiles and chemical, machinery producing, hides & skins and metal and articles units highlight a threat. The average market share that could be taken up reported by the 'threatened' units ranges from 5 to 60 percent, being lowest for units producing hides and skins and the maximum for chemical units.
- Competition from Indian imports is expected to affect employment. The average impact is expected at 22 percent for industries facing maximum threat and 12 percent for moderately threatened industries.
- Requested government action to mitigate against the negative impacts are: to reduce duty on imported raw material, raising import tariff on the product and introduction of quota on imports from India
- A small proportion, 7 percent, of sample firms export to India. Three-fourths of the export-oriented firms report that their product will become competitive if tariffs are lowered by India and NTBs are removed. 50 percent of the reporting firms indicate a potential increase in exports of 11-20 percent, while 23 percent of the units expect above 30 percent increase in exports.
- Forty (40) percent of firms stated that the potential increase in employment can be in the range of 11-20 percent, while 24 percent expected increase in employment by approximately 21-30 percent.
- The exporters surveyed indicated that to realize the potential increase in exports and employment, India should reciprocate by lowering tariff and easing the visa regime. They also suggested that the Government of Pakistan facilitate exports to India proactively: 74 percent suggest a subsidy on raw materials; 68 percent want an end to load shedding; 41 percent request that the import duties and levies on raw materials be reduced, if not subsidized.
- Out of the 37 product groups which Pakistan exports and were covered by the survey, significant exports are in only 15 product groups. Out of these, only 8 export product groups have a high potential of increase in exports. Potential increase in exports reported by the surveyed firms suggests additional exports of up to about $500 million for the surveyed industries as a whole.

These include polyesters, leather and articles, woven cotton fabrics, textile wadding and animal/vegetable fats and oils etc.

- 52 percent of sample units are planning to substitute imports of raw material/intermediate goods from other countries with imports from India following granting of MFN status to India. On an average, this substitution is expected to lead to savings of 2 percent of the total costs of intermediate goods.
- 66 percent of the respondents have ranked load shedding as a high constraint to expanding exports. During the month of September, 2012, sample units have on an average experienced 176 outages, losing approximately 6 hours daily. Units have made adjustments to minimize the losses due to load shedding by mostly acquiring self-generation capability that has increased the operational cost for the industry.

0.7 Assessing the Findings

The report has adopted two approaches to assessing the implications of trade liberalization between Pakistan and India: the first approach relies essentially on secondary data from a multiplicity of national and international sources, while the second approach uses a primary survey of 174 units from selected industries.

While the secondary data analysis covers the entire gamut of economic activities in the commodity – producing sectors, both in agriculture and industry, the focus of the primary survey is the industrial sector. But the overall sample size is small and covers less than 3 percent of the population of units in these industries.

A comparison of the findings from the survey reveals that while about two-thirds of the import-substituting units expect that imports from India could take up 11 percent to 13 percent of the domestic market, the secondary data analysis yields a projected average market share of imports from India of about 7 percent.

There are well defined reasons why the respondents may perceive a larger threat. These include, first, a ‘knowledge gap’ arising from some lack of awareness about the degree of competitiveness of Indian imports and the impact of tariffs and NTBs on imports. This highlights the need for a strong dissemination campaign to acquaint the Chambers and Trade Associations about the implications of opening up of trade with India. Second, there is likely to be an element of ‘lobbying’ or bias in the responses. An industry may feel that by magnifying the threat it can influence the government to take mitigating actions.

On the export side, firms expect total exports to rise by 20 percent due to increased export to India. The anticipated increase in employment is 17 percent. The results of the secondary data analysis indicate that the increase is limited by the fact that many of the major exports of agriculture and textiles and clothing of Pakistan still remain in the Sensitive List of India, despite the reduction in this list in September, 2012, by 30 percent. Overall, the growth of major exports is projected at 7 percent.

The survey, however, contains a very important message. Much of the potential for increased exports to India, following the removal of NTBs and tariff reduction by India under SAFTA, will remain unexploited due to high levels of domestic supply side constraints, primary of which is the energy / electricity deficit faced by the industry. Clearly, from the view point in general of raising industrial output and in particular of increasing exports to India, the incidence of power outages will have to be reduced on a priority basis.

Chapter 1 Introduction

This report focuses on the impact on specific sectors in Pakistan of having a liberalized trade regime with India. The terms of reference for this deliverable as described first. A review of the agricultural and industrial sectors of the two countries is undertaken in chapter 2. This is followed by an analysis of the revealed comparative advantage (RAC) by sectors of Pakistan and India respectively in Chapter 3. Chapter 4, which also highlights the implications of trade liberalization, presents the methodology of determining the extent of trade complimentarily and quantifies the level and composition of trade that is likely to emerge following the granting of MFN status to India, removal of non-tariff barriers and full implementation of SAFTA. Chapter 5 presents the key magnitudes of future bilateral trade following the opening of trade with India. It also discusses the implications for the balance of trade consumer's welfare gains and displacement of domestic economic activities. The case studies of selected sectors are presented in Chapter 6. Chapter 7 presents the perceptions of the industry emerging from the primary survey. Finally, Chapter 8 compares the findings of the secondary data analysis with that of the primary survey.

1.1 Terms of Reference

Deliverable 3: Impact on Specific Sectors in Pakistan of Having a Liberalized Trade Regime with India

Develop case studies on some key sectors that may potentially be impacted by the Pak-India trade liberalization in terms of 1) opening the sectors to bilateral trade and removing non-tariff barriers; 2) reducing tariff barriers. Each case study shall identify the specific sectors in goods and services where potential of imports from and exports to India exists, and estimate the total quantity/ value that might be traded, along with the savings that will result from trade diversion and diversification.

For each sector/product /service, this study will access the current state and estimate the direction of impact on local industry, the magnitude of impact in terms of annual income in USD and the estimated impact on local employment of shifts in employment patterns after the trade liberalization measures. The case studies should build up the basis for the macroeconomic impact study. Before this study can be completed, it is necessary to undertake the following types of technical analysis in order to assess the potential impact on different sectors of Pakistan's economy from trade liberalization.

Measurement of Revealed Comparative Advantage: Depending upon the extent to which disaggregated (in terms of the HS code) data for India and Pakistan respectively is available and for the world economy, the Balassa measure of Revealed Comparative Advantage (RCA) will be quantified in each product category in each country. *Measurement of the Trade Complementarity:* A Trade Complementarity Index (TCI) will be constructed of India and Pakistan to determine the scope for trade between the two countries following liberalization. The evolution of TCI over the last decade will also be quantified.

Following the assessment of the overall trade prospects after liberalization, largely on the basis of secondary data, in-depth sectoral case studies are proposed of some sectors. The criteria for choosing those sectors is where on the basis of the above types of analysis is there maximum potential, either for increasing exports to India or where Indian exports are likely to be relatively competitive in the Pakistani market. At this stage, sector studies are proposed for the following:

1. Agricultural Products
2. Textiles and Clothing
3. Chemicals and Pharmaceuticals

4. Iron and Steel
5. Automobile[1] and Engineering Goods

These sectoral studies will involve a component of primary data collection in the last four sectors. Given budgetary constraints, a sample of 4 to 5 units will be chosen from each sector. In addition, whatever secondary data is available on each sector will be analyzed.

It is expected that each sector study will contain the following facts on the sector:

1. Domestic production and sales
2. Value added
3. Employment
4. Profitability
5. Energy-dependence
6. tax contribution
7. Margin of unutilized capacity
8. Exports and imports
9. Level of tariffs an outputs and inputs
10. Direction of trade, especially actual / potential trade with India.

In the case of sectors with potential of export to India, like agricultural products, textiles and clothing, an assessment will be made of the quantum of the exportable surplus, both in the short run and in the medium run that can be marketed in India. As opposed to this, in sectors where India is likely to make inroads, an assessment will be made of the extent of trade diversion and trade creation.
The key deliverables from this study will be quantification in the aftermath of liberalization, both for the short run and for the medium run (next five years), for the economy of Pakistan as a whole of the following:

1. Extent of diversion of imports from the rest of the world to India
2. Extent of trade creation due to opening up of imports from India
3. Extent of net expansion of exports to India following the removal of NTBs

[1] IPP may be undertaking the study on the Automotive Sector of Pakistan for the International Growth Center, which will include an assessment of regional trade prospects. If undertaken, this study will be completed by March 15, 2011, and results obtained will be made available to this Project.

Chapter 2 Comparison of the Agricultural and Industrial Sectors in India and Pakistan

The objective of this chapter is to highlight the differences between the two countries in terms of the level and nature of development in the agricultural and industrial sectors, respectively. This is the first basic indicator of the potential volume and pattern of bilateral trade. The chapter commences with a review of the history of the overall GDP and sectoral growth in the two countries.

2.1 Economic Structure and Growth

Table 2.1 presents the sectoral composition of the two economies and changes over the last decade. As of 2011, the Indian economy is somewhat less dependent on agriculture and with correspondingly higher shares of industry and services. The process of structural transformation has proceeded at a relatively rapid rate in India and the share of agriculture has fallen from 23 to 17 percent, as compared to a change from 24 to 22 percent in the case of Pakistan. The services sector of India has experienced a big increase in share of the economy from 52 to 56 percent during the period. The shares of manufacturing are comparable in the two countries.

Table 2.1: Sectoral Shares in the GDP of India and Pakistan (Per Capita Income, 2001-2011) (%)

	2001		2006		2011	
	Pakistan	**India**	**Pakistan**	**India**	**Pakistan**	**India**
Agriculture	24.1	23.0	20.4	18.3	21.6	17.2
Industry (Manufacturing)	24.0 (15.5)	25.2 (13.9)	26.8 (19.1)	28.8 (16.1)	22.3 (14.5)	26.4 (13.9)
Services	51.9	51.8	52.8	52.9	53.1	56.4
GDP	100.0	100.0	100.0	100.0	100.0	100.0
Per Capita Income (Current US $ PPP)	1672	1613	2309	2454	2763	3652
Ratio* of Per Capita Income		0.96		1.06		1.32

*Source: World Bank, WDI * India to Pakistan*

Table 2.2 gives the sectoral growth rates of the two countries. The Indian economy has exhibited a consistently higher GDP growth rate during the last decade, of above 7.5 percent. The economy of the Pakistan exhibited some buoyancy in the first five years, with a growth rate close to 6 percent, which has since fallen to only 3.5 percent.

Agricultural growth has been relatively slow in both countries, at below 4 percent in the last decade (2001 – 2011). The manufacturing sector showed exceptional buoyancy in both countries in the first half of the decade (2001 to 2006), with a Cumulative Annual Growth Rate (CAGR) of 9 percent or more. But the sectoral growth in the second half (2006 to 2011) is substantially more in India than Pakistan

Table 2.2: Sectoral Growth Rates Of India and Pakistan 2001 To 2011 (Acgr %)

	2001 to 2006		2006 to 2011	
	Pakistan	**India**	**Pakistan**	**India**
Agriculture	3.9	2.4	2.2	3.3
Industry (Manufacturing)	7.9 (9.9)	9.2 (9.0)	3.7 (3.6)	6.6 (6.8)
Services	6.2	8.8	4.3	9.8
GDP	5.9	7.6	3.5	7.7
Per Capita Income	4.0	6.0	1.6	6.1

Source: World Bank, WDI

Per capita income increased consistently at a higher rate in India due to higher GDP growth and lower population growth. Consequently, the path of per capita income has diverged. In 2001, the per capita income of India was lower by 4 percent in relation to that of Pakistan. By 2011, it was 32 percent higher in the former country, at $3,652 per annum, as compared to $2,763 in the latter country.

2.2 Agriculture

The level and pattern of agriculture differ significantly between India and Pakistan. India produces substantially more rice on a per capita basis than Pakistan, as compared to wheat, shown in Table 2.3. This largely reflects the dietary consumption patterns in the respective countries. There appears to be a relative decline in the availability of other food grains in India.

The livestock sector of Pakistan is relatively more developed. While the population ratio between India and Pakistan is close to 7:1, the ratio of milk production in 2010-11 is about 3:1 and in meat output, 2:1.

Given the pre-dominantly vegetarian diet of the majority of the people of India, it is not surprising that the production of pluses and major vegetables like potatoes and tomatoes is relatively high. In fruits, Pakistan appears to have higher production per capita, especially in the case of mangoes and citrus fruit. However, banana production is vastly higher in India.

Within cash crops, the big change is in cotton. During the last decade, India has gone for bio-genetic varieties and production of cotton has more than trebled, while it has fallen somewhat in Pakistan. Consequently, the ratio has diverged from about 2:1 to over 8:1. India today enjoys a substantial exportable surplus of cotton.

Table 2.3: Level of Production of Agricultural Products of India and Pakistan (2000-01 and 2010-11)

	Unit	2000 – 01			2010-11		
		Pakistan	India	Ratio[a]	Pakistan	India	Ratio
Food grains	Million Tonnes	**25.99**	**196.81**	**7.57**	**34.30**	**215.28**	**6.27**
Wheat		79.02	69.68	3.66	25.21	86.87	3.44
Rice		4.80	89.68	18.68	4.82	95.98[b]	19.91
Others		2.17	37.54	17.26	4.27	32.43	7.59
Lives stock	Million Tonnes						
Milk		26.28	80.60	3.07	38.69	121.80	3.14
Meat		1.68	1.90	1.13	2.32	4.80	2.07
Pulses	Million Tonnes				**1.34**	**18.09**	**13.50**
Vegetables	Million Tonnes				**6.62**	**146.73**	**22.16**
Potatoes		-	-	-	3.49	42.34	12.13
Tomatoes		-	-	-	0.53	16.53	31.18
Onions		-	-	-	1.94	15.12	7.79
Others		-	-	-	0.66	72.75	110.23
Fruits	Million Tonnes						
Mango		-	-	-	1.89	12.75	6.75
Citrus Fruits		-	-	-	1.98	8.61	4.35
Bananas		-	-	-	0.15	26.21	170.24
Cotton	Million Tonnes	**4.33**	**9.52**		**4.02**	**33.0**	**8.20**
Sugar Cane	Million Tonnes	**43.61**	**295.26**		**55.31**	**292.3[c]**	**5.28**

[a] Ratio of India to Pakistan. For comparison purposes the population ratio is as follows:

2005-06	7.13
2010-11	6.80

[b] Affected by the devastating floods

[c] for 2009-10

Sources: Pakistan Economic Survey, Agricultural Statistics Year Book, India Economic Survey, India Statistics

It is interesting to observe the price gradient in agricultural items between cities of India and Pakistan. This reflects not only the impact of differences in per capita availability but also of trade barriers, both tariff and non-tariff. Adjusting for differences in the exchange rate, food prices appear to be generally higher in Pakistan, with the exception of atta (wheat), in Karachi as compared to Mumbai, and in some vegetables like onion and tomato. In the event of liberalization of trade in agricultural

commodities, it is likely that the volume of trade in food items could expand significantly in view of the large price gradients.

Table 2.4: The Price Gradient In Agricultural Items between Cities of India and Pakistan						
				(Ratio of $\frac{\text{Pakistan}}{\text{India}}$)		
	(as of 1 July 2012)			Per Kilo		
	Delhi (Indian Rs)	**Lahore (Pak RS)**	**Ratio***	**Mumbai**	**Karachi**	**Ratio***
Rice	24	59.0	**1.471**	27	51.54	**1.142**
Atta(Wheat)	17	30.00	**1.056**	26	35.00	**0.805**
Gram Dal	59	107.32	**1.088**	64	101.54	**0.949**
Moong Dal	68	120.43	**1.060**	69	123.08	**1.067**
Masoor Dal	57	99.29	**1.042**	60	103.08	**1.029**
Sugar	34	55.39	**0.974**	33	54.62	**0.990**
Milk	29	58.07	**1.198**	36	74.00	**1.230**
Vegetable Ghee	84	216.00	**1.538**	92	176.44	**1.148**
Tea (Loose)	172	657.90	**2.289**	200	710.55	**2.126**
Potato	19	31.79	**1.000**	20	21.54	**0.644**
Onion	14	20.86	**0.892**	15	23.08	**0.921**
Tomato	28	27.50	**0.588**	22	29.03	**0.790**
* Ratio of Prices in the Pakistani City to the Indian City with the Indian Rupee = 1.671 Pakistani Rupee						

Source: Pakistan Economic Survey, PBS, Retail Prices in Major Urban Centres Indiastats.com

2.3 Industry

A comparison is made in table 2.5 and 2.6 respectively of the industrial structure of India and Pakistan with that of developing countries as a whole. The objective is to highlight the level of sophistication and technological development and the extent of diversification of the industrial economy in each country.

Table 2.5 presents, for a particular industry, ratio of the share in value added in Pakistan to that in developing countries. There are industries (out of a total of 22) in which the share exceeds unity, viz., food products and beverages, textiles, wearing apparel, paper and paper products, chemicals and non-metallic mineral products (primarily cement). Most of these industries are agro-based in character.

Pakistan has a relatively underdeveloped engineering goods sector, especially of machinery, basic metals and fabricated metal products. Although the automotive sector has shown rapid growth, it is still at a relatively early stage of development.

Table 2.5: Comparison of the Industrial Structure of Pakistan with All Developing Countries 2005-06 (% of Manufacturing Value Added)

	All Developing Countries		Pakistan Value Added in (Million Rs)	%	Ratio
	2005	2009	2005-09		
Food and Beverages	12.9	12.2	184497	18.0	1.40
Tobacco Products	2.6	2.4	22618	2.2	0.85
Textiles	4.7	4.4	268882	26.3	5.61
Wearing Apparel	2.9	2.7	48388	4.7	1.62
Leather & Leather Products &Footwear	1.2	1.2	9799	1.0	0.83
Wood Products (including furniture)	1.3	1.1	5870	0.6	0.46
Paper &paper Products	2.2	2.1	26052	2.5	1.14
Printing and Publishing	1.7	1.4	3414	0.3	0.18
Coke, Refined Pet Prod	6.1	5.0	48087	4.7	0.77
Chemicals &Chemical Prod	10.9	11.0	164098	16.0	1.47
Rubber &Plastic Prod	3.6	3.5	10302	1.0	0.28
Non-metallic Mineral Prod	5.1	4.9	66644	6.5	1.27
Basic Metals	9.5	10.1	40512	4.0	0.42
Fabricated Metal Products	3.9	3.5	8692	0.8	0.20
Machinery and Equipment	5.4	5.3	2031	0.2	0.04
Office, Accounting &Comp Mach	2.0	2.0	0	0.0	0.00
Elect Mach & Appliances	4.6	5.7	18947	1.8	0.39
Radio, TV and Comm Equip	7.8	10.2	3160	0.3	0.04
Med, Prec, Optical Inst	1.5	1.3	5177	0.5	0.33
Motor Vehicles	5.3	4.8	45903	4.5	0.85
Other Transport Equip	2.4	2.7	15700	1.5	0.62
Other (incl Furniture)	2.4	2.4	5837	0.6	0.25
Total	**100.0**	**100.0**	**1023559**	**100.0**	**1.00**

Source: UNIDO, PES

Turning to India, Table 2.6 indicates that the shares are relatively large of 11 out of 22 industries, viz, textiles, wearing apparel, wood and products, petroleum products, non-metallic mineral products, basic metals, fabricated metal products, machinery and equipment and motor vehicles. Clearly, the industrial structure of India is more developed technologically, with a higher degree of diversification. India appears to be in a process of transition from basic agro-based and consumer goods to the production of intermediate goods, capital goods and consumer durables.

Table 2.6: Comparison of the Industrial Structure of India with All Developing Countries and Pakistan

Industry	(C_i /g_i)	India Share (%)	Developing Countries Share	Ratio India to Developing Countries	Ratio Pakistan to Developing Countries	Ratio of Pakistan/India
	2.754	8.1	12.2	0.66	1.40	2.12
Tobacco Products	0.444	1.3	2.4	0.54	0.85	1.57
Textiles	2.132	6.3	4.4	1.43	5.60	3.92
Wearing Apparel	1.062	3.1	2.7	1.15	1.62	1.40
Leather & Leather Products &Footwear	0.166	0.5	1.2	0.42	0.83	1.98
Wood Products (including furniture)	0.500	1.5	1.1	1.36	0.46	0.34
Paper &paper Products	0.333	1.0	2.1	0.83	1.14	1.37
Publishing and Printing	0.459	1.3	1.4	0.92	0.18	0.20
Petroleum products	2.471	7.3	5.0	1.46	0.77	0.53
Chemicals &Chemical Prod	3.377	9.9	11.0	0.90	1.47	1.63
Rubber &Plastic Prod	0.827	2.4	3.5	0.68	0.28	0.41
Non-metallic Mineral Prod	1.667	4.9	4.9	1.00	1.27	1.27
Basic Metals	5.273	15.5	10.1	1.53	0.42	0.27
Fabricated Metal Products	1.310	3.8	3.5	1.09	0.20	0.18
Machinery and Equipment	1.845	5.4	5.3	1.02	0.04	0.04
Office, Accounting &Comp Mach	0.129	0.4	2.0	0.20	0.00	0.00
Elect Mach & Appliances	3.313	9.7	5.7	1.70	0.39	0.23
Radio, TV and Comm App	2.142	6.3	10.2	0.61	0.04	0.06
Med, Prec, Inst	0.179	0.5	1.3	0.38	0.33	0.87
Motor Vehicles	1.632	4.8	4.8	1.01	0.85	0.85
Other Transport Equip	0.706	2.1	2.7	0.78	0.62	0.99
Other Manf	1.300	3.8	2.4	1.58	0.25	0.16
Total	**100.0**	**100.0**	**100.0**	**1.00**	**1.00**	**1.00**

Source: UNIDO, for India from IES

The difference in industrial structure of the two countries is highlighted in the last column of Table 2.5, which gives for a particular industry the ratio of shares in value added in Pakistan and India respectively.

Pakistan has a higher share in the following eight industries:

- Food products and beverages
- Tobacco products
- Textiles
- Wearing apparel
- Leather and leather products
- Paper and paper products
- Chemicals and (especially fertilizer[1])
- Non-metallic mineral products (especially cement)

India has higher shares in the following industries:

- Wood and products
- Publishing and printing
- Petroleum products
- Rubber and plastic products
- Basic metals
- Fabricated metal products
- Machinery and equipment
- Office and computing equipment
- Electrical machinery and appliances
- Ratio, tv and communications equipment
- Medical and precision equipment
- Motor vehicles
- Other transport equipment
- Other manufacturing

Prima facie, given the different industries in which each country specializes, there appears to be significant scope for trade in manufactured goods by both countries to each other, as identified in Chart 2.1.

At this initial stage of analysis, it might be argued that products within Type II industries (in which the ratio of the share of Pakistan in value added to developing countries is more than 1 and of India is less than 1) could be exported by Pakistan to India, while products of Type III (in which the ratio of the share of India in value added to developing countries is more than 1 and of Pakistan is less than 1) could be imported from India. However, it needs to be recognized, that the level of analysis is aggregative in character, and there could be particular 'niches' within each country where specialization has gone further than for the industry as a whole.

A more disaggregated picture of production levels of different manufactured goods is given in Table 2.5. Within consumer goods, per capita production levels are significantly higher in India of paper board, cloth and passenger cars. For example, India produces over twenty times as many cars as Pakistan does.

In the intermediate goods sector, India is ahead in most items except cotton yarn. Similarly, the dominance of India in output of basic goods is visible, with the exception of fertilizer (Pakistan has lower cost natural gas) and cement. For example, the production of steel in India is 24 times than that of Pakistan.

Chart 2.1 Potential Trade between India and Pakistan Based on the Pattern of Industrial Specialization

Type I	Type II	Type III	Type IV
RS_P[1] $\geq 1; RS_I$[2] ≥ 1	$RS_P \geq 1; RS_I < 1$	$RS_P < 1;\ RS_I \geq 1$	$RS_P < 1; RS_I < 1$
• Textiles	• Food products and beverages	• Wood & Products	• Tobacco prod
• Wearing Apparel	• Paper & Paper products	• Petroleum Products	• Leather & Leather Products
• Non-Metallic	• Chemicals & pharmaceuticals	• Basic Metals	• Publishing and Printing
• Mineral Products		• Fabricated • Metal Products	• Rubber & Plastic Products
		• Machinery and Equipment	• Office and Computing Equipment
		• Electrical Machinery & Appliances	• Radio, TV and Comm Equipment
		• Motor Vehicles	• Medical and Precision Instruments
		• Other Manufacturing	• Other Transport Equipment

[1] RS_p = Ratio of the share of Pakistan to developing countries
[2] RS_I = Ratio of the share of India to developing countries

Source: Derived

It also needs to be emphasized that production levels and patterns of agricultural and manufactured goods are only the first indicators of the level and nature potentially of bilateral trade. A more direct index is the revealed comparative advantage (RCA) in trade, which we turn to in the next chapter.

Table 2.7: Comparison of Production of Manufactured Goods in India and Pakistan 2010

Industry	Units	India	Pakistan	Ratio (India/Pakistan)
1. CONSUMER GOODS				
Paper & Paper Board	000 Tonnes	7065[a]	435	16.240
Cotton Cloth	MillSq Metres	18892	1029	18.360
Sugar	000 Tonnes	22500	4169	5.396
Cigarettes	Million Pieces	96120	65403	1.470
Banaspati/Edible Oil	000 tonnes	1539[a]	1081	1.423
Passenger Cars	000s No	2453	122[a]	20.106
Motor Cycles	000s No	10527	1389[a]	7.579
2. INTERMEDIATE GOODS				
Cotton Yarn	000 Tonnes	3377	2930	1.149
Petroleum Refined Prod	000 Tonnes	148914[a]	11524[a]	12.920
Jute Textiles	000 Tonnes	1111[a]	93	11.946
Synthetic Yarn	Million Kg	1477	n.a	n.a
Paints & Varnishes	000 Tonnes	1036[a]	26	39.846
3. BASIC GOODS				
Steel	000 Tonnes	56803[a]	2363	24.038
Fertilizers	000 Tonnes	16222[a]	5001	3.244
Cement	000 Tonnes	209660	28723	7.299
Sulphuric Acid	000 Tonnes	7436[a]	128	58.094
Caustic Soda	000 Tonnes	2168	172	12.605
4. CAPITAL GOODS				
Tractors	000 Nos	465	72	6.458
Diesel Engines	000 Nos	3378[a]	*n.a*	*n.a*

Source: IES, India Statistics, PES

Chapter 3 Revealed Comparative Advantage

We now look at the existing level and pattern of global trade of India and Pakistan to reveal the comparative advantage in different product groups. The Balassa Index is used to quantify the extent of revealed comparative advantage (RCA). Section 1 describes the methodology used to derive the magnitude of the index. Section 2 and 3 derive the areas of relative comparative advantage of the two countries. Section 4 then projects the potential pattern of trade after liberalization.

3.1 Methodology

The Balassa index is derived for the *i*th country and for the *j*th commodity group as follows:

$$RCA_{ij} = \frac{X_{ij}/X_i}{X_{wj}/X_w} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

where

X_{ij} = exports by the i th country of the j th commodity

X_i = total exports of country i

X_{wj} = global exports of the j th commodity

X_w = total global exports

Therefore, in effect, the Balassa Index is the ratio of the share of a commodity group in its global exports to the share of the commodity in global exports.

If $RCA_{ij} > 1$, then the country is considered as having a comparative advantage in the particular commodity group

The Balassa Index can also be looked at in a different way as follows:

$$RCA_{ij} = \frac{X_{ij}/X_{wj}}{X_i/X_w} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

That is, the ratio of the share of a commodity in global exports of the commodity to the share of the global exports of the country in total world exports.

3.2 Comparative Advantage of Pakistan and India

The magnitude of the RCA for each respective product group at the 2 digit level of the Harmonized Commodity Description and Coding System (HS) has been obtained from the data base of the International Trade Center (ITC) in Geneva. These are presented in descending order of exports for both Pakistan and India respectively in Table A-3.1 in the Statistical Annex.

It may be observed that in the case of the five largest export products of Pakistan (corresponding to Chapters 52, 63, 10, 61, 62) the magnitude of the RCA is substantially larger than unity. Four out of these chapters are of textiles and clothing. Altogether, in 28 chapters out of the total of 97, Pakistan has an RCA equal to or more than unity. As opposed to this, there are 41 chapters in which India appears to have a revealed comparative advantage. This tends to indicate that the export base of India is more diversified.

Four types of chapters/product groups are distinguished as follows:

Type I : $RCA_p \geq 1$; $RCA_I \geq 1$

Type II : $RCA_p \geq 1$; $RCA_I < 1$

Type III : $RCA_p < 1$; $RCA_I \geq 1$

Type IV : $RCA_p < 1$; $RCA_I < 1$

The distribution of chapters by the above types is given in Chart 3.1. There are 22 product groups at the HS 2 digit level in which both countries have a revealed comparative advantage. In eight other groups Pakistan has RCA of unity or more, and India does not. These are: chapter 01 (live animals), chapter 5 (products of animal origin), chapter 11 (milling products), chapter 22 (beverages), chapter 56 (wadding fat), chapter 60 (knitted fabrics), chapter 82 (implements, cutlery) and chapter 95 (toys, sports goods). In the presence of relatively free and unrestricted trade between the two countries these product groups have greater potential of exports to India, subject, of course, to being competitive in relation to other countries exporting similar products.

There are 19 chapters of type III, in which India has comparative advantage and Pakistan does not. These include petroleum oils, articles of iron and steel, tea, chemicals, and engineering goods. These findings are largely consistent with the production patterns described in the previous chapter. It can be expected that products from these chapters will feature more in India's exports to Pakistan.

There are as many as 48 chapters in which neither country has a revealed comparative advantage. Many of these chapters are of machinery and equipment, chemicals and some consumer goods. It is likely that most of the import requirements of these products will be met from a third country.

The above results are contrary to the traditional view that the two countries have similar pattern of comparative advantage and as such, the prospects for bilateral trade are limited. As the economies of the two countries have evolved, especially over the last two decades, they have moved in different directions of specialization even in the absence of a large volume of bilateral trade. This implies that the prospects for trade between Pakistan and India now are substantial, especially if tariff and non-tariff barriers could be relaxed.

Chart 3.1 Distribution of Chapters by Type				
Type I RCA p ≥ 1 ; RCA I ≥ 1 (both Pak and India)	**TYPE II** RCA $_p$ ≥ 1 ; RCA $_I$ < 1 (Pak → India)	**TYPE III** RCA $_p$ < 1 ; RCA $_I$ ≥ 1 (India → Pak)	**TYPE IV** RCA $_p$ < 1 ; RCA $_I$ < 1 (Neither India nor Pak)	**TYPE IV** RCA $_p$ < 1 ; RCA $_I$ < 1 (Neither India nor Pak
52 cotton –(A)	95 Toys, Sports Goods	27 Mineral fuels	39 Plastic and articles	59 Special textile or fabric
63 Other made up textile (A)	22 Beverages	26 Ores, Slag	90 Optical, medical instruments	69 Ceramic Products
10 Cereals	82 Tools, Implements, Cutlery	73Articles of iron and steel	84 Boilers, machinery	35 Albuminoids
61 Articles of Apparel (knit)	60 Knitted fabric	02 Meat	85 Electrical, electronic equipment	93 Arms and immunities
62 Articles of Apparel (non-knit)	11 Milling Prod	64 Footwear	30 Pharmaceutical products	49 Printing material
42 Articles of Leather	05 Products of Animal Origin	74 Copper and articles	94 Furniture	92 musical instruments
71 Pearls, Precious Stones	56 Wadding fat	89 Ships, boats	15 Animal vegetable fats and oils	65 Headgear and parts
25 Salt, Cement	01 Live Animals	09 Coffee, tea, spices	87 Vehicles	37 Photographic goods
55 Manmade Staple Fibers		29 Organic chemicals	04 Dairy products	83 Misc articles of base metal
41 Rawhides and Skins		23 Residue, animal fodder	76 Aluminum articles	47 Pulp of food
08 Edible Fruit, nuts		72 Iron &Steel	12 Oil seeds	99 Commodities n.e.s
03 Fish		32 Tanning, dyeing Extracts	20 Veg, fruit prepns	06 live trees
57 Carpets		68 Stone, etc	16 Meat, fish prepns	75 Nickel and articles
07 Edible Vegetables		38 Misc, chemical products	44 Wood and articles	86 Railway locomotives
17 Sugar		50 Silk	28 Inorganic chemicals	81 Other base metals
54 Manmade Filaments		79 Zinc & Articles	19 Cereal, milk prepns	43 Furskin
13 Lac, gums		97 Works of Art	48 Paper & paper board	31 Fertilisers
58 Special Woven fabrics		67 Bird skin, flowers	96 Misc Manf. articles	66 Umbrellas, sticks, etc
36 Explosives		24 Tobacco	70 Glass and glass ware	91 Clocks, watches
78 Lead and articles			34 Soap, lubricants, etc.	46 Manf of plating mat
14 Vegetable & plating mat.			21 Misc Edible Prepns	80 Tin and articles thereof
53 Vegetable Textile Fabric			51 Wool Animal hair	18 Cocoa & prepns
			88 Aircraft and Parts	45 Cork and articles
			33 Essential oils, perfumes	
			40 Rubber & articles	

Source: Derived

The extent to which the RCAs accurately reflect the global trade of each country is tested and results are summarized in Table 3.1. Bulk of Pakistan's exports ought to be from Type I and Type II chapters. This does appear to be the case, as the combined share of these products in Pakistan's total exports account for 78 percent in 2010-11. Imports are likely to be concentrated in type III and Type IV. This is also confirmed with joint share in the global imports of over 90 percent.

Table 3.1: : Distribution of Exports and Imports of India and Pakistan by Type (at the 2-digit level) (%)					
Type	**Description**	**Global Pakistan**		**Global India**	
		Exports	**Imports**	**Exports**	**Imports**
INCLUDING OIL TRADE					
Type I	$RCA_p > 1$; $RCA_I > 1$	74.8	9.2	32.7	19.2
Type II	$RCA_p > 1$; $RCA_I < 1$	3.2	0.3	0.7	0.5
Type III	$RCA_p < 1$; $RCA_I > 1$	11.3	49.7	39.5	48.9
Type IV	$RCA_p < 1$; $RCA_I < 1$	10.7	40.8	26.9	31.4
Total		**100.0**	**100.0**	**100.0**	**100.0**
EXCLUDING OIL TRADE					
Type I	$RCA_p > 1$; $RCA_I > 1$	79.8	14.0	38.8	28.8
Type II	$RCA_p > 1$; $RCA_I < 1$	3.4	4.6	0.8	0.8
Type III	$RCA_p < 1$; $RCA_I > 1$	5.4	23.2	28.6	23.3
Type IV	$RCA_p < 1$; $RCA_I < 1$	11.4	62.2	31.8	47.1
Total		**100.0**	**100.0**	**100.0**	**100.0**

Source: Derived

Similarly, Indian global exports, to the extent of 85 percent, are from type I and type III chapters, while imports with a similar share are from type II and type IV chapters. By and large, the RCAs are good predictors of the pattern of exports and imports. However, there are some items that belong to particular chapters which exhibit a contrary pattern. For example, 17 percent of Pakistan's exports are in chapters where RCA < 1. This indicates the need for analysis of revealed comparative advantage at a more disaggregated level.

We also examine below, the pattern to the current trade between the two countries in the presence of restrictions. The analysis is undertaken for the year 2010-11, when Pakistan had a limited Positive List of imports from India and the tariffs of India on imports were high, especially of agricultural products, textiles and clothing, along with the presence of many NTBs.

Exports of Pakistan to India could include products from type I and type II chapters. Table 3.2 shows that these chapters account for only 56 percent of the exports to India, demonstrating that tariff and non-tariff barriers by India have not only restricted, but also distorted the pattern of trade with Pakistan. The remaining 44 percent of the exports to India are of products where Pakistan has a higher RCA than India, but with a value of less than unity. As opposed to this, over 84 percent of Indian exports to Pakistan are from chapters in which it has revealed comparative advantage. As such, restrictions imposed by Pakistan appear to be less distortionary in character.

Table 3.2: Consistency between Revealed Comparative Advantage and Bilateral Trade (for products where exports or imports exceed $5 million)	
	Exports of Pakistan to India (%)
Type I + Type II	56.1
Type III + Type IV	43.9
Total	**100.0**
	Exports of India to Pakistan (%)
Type I + Type III	84.2
Type II + Type IV	15.8
Total	**100.0**

Sources: ITC, MOC ,India

3.3 RCA at a More Disaggregated Level

The analysis of revealed comparative advantage has been carried further to the 4digit level of the Harmonized System. Table 3.3 gives the list of commodities in which Pakistan has relative comparative advantage and India does not. Also, the exports of those commodity groups are at least $100 million per annum. The list includes 40 product groups at HS 4 digit level. Ten (10) out of these groups are from agriculture, 22 are from textiles and clothing and 8 from other mining and manufactured goods. Clearly, Pakistan's potential exports to India are mostly of agricultural and textile products. They include rice, wheat, dates, cotton yarn, gent's garments, leather and leather goods, citrus fruit, carpets, and vegetables oils. Almost 69 percent of Pakistan's export products could find a market in India in the absence of trade barriers.

Table 3.4 gives the list of items at the 4digit level, in which India has revealed comparative advantage and Pakistan does not. Also, India's global exports in each group are in excess of USD 500 million per annum. This is a longer list and contains 71 product groups, 12 from agriculture, 8 from textiles and clothing and 51 from other manufactured goods. India's potential exports to Pakistan include petroleum oils, jewelry, motor vehicles, iron ore, iron and steel, metal products, women garments, chemicals, medicaments, electrical equipment and tea. Over two thirds of India's exports are competitive with respect to Pakistan.

Table 3.3: Product Groups (At The 4-Digit Level) In Which Pakistan Has Relative Comparative Advantage Over India (where $RCA_p > 1$, $RCA_p > RCA_i$ and Exports Globally ≥ $ 100 m)				
HS CODE – COMMODITY	Type[a]	Pakistan Exports 2010-2011	Share (%)	In India's Sensitive List
6302 - Bed and Table Linen, Toilet and Kitchen Linen	T	2707	11.05	Y
1006 – Rice	A	2133	8.71	Y
5205 - Cotton Yarn not for Sewing Cotton more than	T	1530	6.25	Y
5209 - Woven Cotton Fabrics, Cotton more than 85% Wt	T	935	3.82	N
6113 - Garments, Made-ups Kn/Cr etc. of Rubber or	T	742	3.03	N
6105 - Gents Shirts, Knitted or Crocheted	T	577	2.36	Y
6203 - Men's or Boys' Suits, Ensembles etc, Not Knitted	T	523	2.14	Y
5208 - Woven Cotton Fabrics, Cotton more than 85% Wt	T	519	2.12	N
1001 - Wheat and Meslin	A	519	2.12	Y
2523 - Portland Cement, Aluminous Cement and Slag	T	496	2.02	N
5513 - Woven Fabrics of Synthetic Staple Fibres	M	485	1.98	Y
4203 - Articles of Apparel and Accessories of Leather	M	426	1.74	N
4113 - Leather further prepared after tanning (other	M	354	1.45	N
9506 - Articles and Equipments for Sports etc NES	T	342	1.4	N
5210 - Woven Cotton Fabrics, Cotton less than 85% Wt	M	306	1.25	N
9018 - Medical, Surgical and Dental Instruments etc.	M	295	1.2	N
2707 - Oils etc from High Temperature Coal Tar	T	288	1.18	N
6115 - Panty hose, Socks and other Hosiery Kn/Cr	T	285	1.16	Y
5212 - Woven Cotton Fabrics NES	M	272	1.11	Y
3907 - Polyesters, Epoxides and Polyesters, Primary	T	265	1.08	Y
5211 - Woven Cotton Fabrics, Cotton less than 85% Wt	T	257	1.05	Y
6103 - Gents Suits, Ensembles, Jackets etc. Kn/Cr	T	245	1	Y
5802 - Woven Terry Fabrics and Tufted Textile Fabric	T	237	0.97	N
5207 - Cotton Yarn not for Sewing Retail Packed	T	234	0.95	N
6307 - Made-Up Articles of Textile Materials NES	T	230	0.94	N
6109 - T-Shirts, Singlets and other Vests Kn/Cr	T	206	0.84	Y
2207 - Ethyl Alcohol, Strength: more than 80% Alcohol	A	184	0.75	Y
7203 - Spongy Ferrous Products and Iron 99.94% Pure	M	174	0.71	N
5203 - Cotton, Carded or Combed	A	156	0.64	N
5701 - Carpets and other Textile Floor Coverings,	T	139	0.57	Y
0805 - Citrus Fruit, Fresh or Dried	A	125	0.51	N
9404 - Mattress Supports, Articles of Bedding etc	M	121	0.49	N
6114 - Garments NES Knitted or Crocheted	T	116	0.47	Y
204 - Meat of Sheep or Goats, Fresh, Chilled or Frozen	A	114	0.46	Y
303 - Fish Frozen (Not Fish Fillets & other Fish Meat)	A	113	0.46	Y
5204 - Cotton Sewing Thread, Retail Packed or Not	T	112	0.46	N
2610 - Chromium Ores and Concentrates	M	110	0.45	N
1516 - Animal or Vegetable Fats and Oils	A	106	0.43	N
5202 - Cotton Waste Including Yarn Waste etc.	T	106	0.43	N
6116 - Gloves, Mittens and Mitts, Knitted or Crocheted	T	100	0.41	Y
804 - Dates, Figs, Pineapples, Avocados etc, Fr or	A	100	0.41	Y
[a] A = agriculture, T = textile, M= other mining and manufacturing				

Sources: ITC, SBP

Table 3.4: Product Groups (At The 4-Digit Level) In Which India has Relative Comparative Advantage over Pakistan ($RCA_I > 1$, $RCA_I > RCA_P$ and Exports Globally ≥ $ 500 m)			
HS CODE – COMMODITY	**Type[a]**	**2010-2011**	**Share (%)**
2710 - Oil from Petrol and Bituminous Mineral etc.	M	40992	17.56
7102 - Diamonds, Worked and Unworked, Not Mounted	M	25829	11.07
7113 - Articles of Jewelry and Parts thereof or Precious	M	8929	3.83
7403 - Refined Copper and Copper Alloys, Unwrought	M	7024	3.01
3004 - Medicaments NES	M	5503	2.36
8703 - Motor Cars and Vehicles for Transporting	M	5480	2.35
2601 - Iron Ores and Concentrates	M	4715	2.02
8517 - Electric Apparatus for Line Telephony,	M	3307	1.42
7305 - Tubes and Pipes NES, Diameter more than	M	3193	1.37
7202 – Ferroalloys	M	2946	1.26
5201 - Cotton, Not Carded Or Combed	A	2830	1.21
1701 - Cane or Beet Sugar and Sucrose in Solid Form	A	2216	0.95
8708 - Parts and Accessories for Motor Vehicles	M	2156	0.92
6204 - Women's or Girls' Suits, Ensembles etc. Not	T	2051	0.88
2304 - Soybean Oilcake and other Solid Residues	A	2002	0.86
202 - Meat of Bovine Animals, Frozen	A	1830	0.78
2902 - Cyclic Hydrocarbons	M	1774	0.76
7210 - Flat-Roll Iron and Non-Alloy >600mm, Clad,	M	1616	0.69
6206 - Women's or Girls' Blouses, Shirts etc. Not	T	1534	0.66
8803 - Parts of Balloons etc. Aircraft, Spacecraft etc.	M	1529	0.65
7208 - Flat-Roll Products Iron or Non-Alloy Steel	M	1524	0.65
6403 - Footwear, Outer Sole Rubber, Plastic or Leather	M	1380	0.59
5407 - Woven Fabric of Synthetic Filament Yarn	T	1371	0.59
3204 - Synthetic Organic Coloring Matter	M	1222	0.52
8704 - Motor Vehicles for Transport of Goods	M	1151	0.49
3808 - Insecticides, Rodenticides and Fungicides etc.	M	1144	0.49
306 - Crustaceans; Live, Fresh etc, and Cooked etc.	A	1091	0.47
6304 - Furnishing Articles of Textile Materials NES	T	1066	0.46
7114 - Articles of Goldsmiths' or Silversmiths' Wares	M	1038	0.44
4011 - New Pneumatic Tires of Rubber	M	1036	0.44
8534 - Printed Circuits	M	997	0.43
7508 - Articles of Nickel NES	M	991	0.42
8504 - Electrical Transformers, Static Converters	M	978	0.42
6205 - Men's or Boys' Shirts, Not Kn/Cr	T	844	0.36
7901 - Zinc, Unwrought	M	834	0.36
6802 - Worked Monumental or Building Stone and	M	830	0.36
8711 - Motorcycles and Cycles With Auxiliary Motor	M	826	0.35
8419 - Machinery etc for Temperature Change	M	815	0.35
5402 - Synthetic Filament Yarn Not Sewing Thread, Not	T	799	0.34

Table 3.4: Product Groups (At The 4-Digit Level) In Which India has Relative Comparative Advantage over Pakistan ($RCA_I > 1$, $RCA_I > RCA_P$ and Exports Globally ≥ $ 500 m)			
HS CODE – COMMODITY	**Type[a]**	**2010-2011**	**Share (%)**
3902 - Polymers of Propylene or other Olefins, Primary	M	773	0.33
4202 - Travel Goods, Handbags, Wallets, Jewelry Cases	M	749	0.32
1302 - Vegetable Saps and Extracts: Pectates, Agar-Agar	A	735	0.31
1005 - Maize (Corn)	A	730	0.31
2941 – Antibiotics	M	699	0.30
8409 - Parts For Combustion Engines etc.	M	693	0.30
7201 - Pig Iron and Spiegeleisen in Pigs, Blocks or	M	692	0.30
902 - Tea Whether or not Flavored	A	686	0.29
7325 - Other Cast Articles of Iron or Steel	M	684	0.29
8541 - Semiconductor Devices, Light-Emit Diodes etc	M	665	0.28
3920 - Plates, Sheets, Film etc.	M	661	0.28
2401 - Tobacco and Tobacco Refuse	A	659	0.28
7408 - Copper Wire	M	648	0.28
6214 - Shawls, Scarves, Mufflers, Mantillas, Veils etc.	M	646	0.28
3003 - Medicaments Mixtures for Therapeutic Use	M	637	0.27
1515 - Other Fixed Vegetable Fats and Oils NES, Not	A	619	0.27
8481 - Taps, Cocks, Valves and Similar Appliances for	M	614	0.26
801 - Coconuts, Brazil Nuts & Cashew Nuts, Fresh or	A	592	0.25
8901 - Vessels for Transport of Persons or Goods	M	588	0.25
8701 - Tractors Other Than Work Trucks used for Short	M	588	0.25
8538 - Parts for Electrical Apparatus etc of Switching,	M	582	0.25
7304 - Tubes, Pipes and Hollow Profiles Seamless of	M	580	0.25
2933 - Heterocyclic Compounds with Nitrogen	M	566	0.24
5509 - Yarn Not for Sewing Thread, Synthetic Staple	T	549	0.24
7222 - Other Bars and Rods of Stainless Steel etc.	M	549	0.24
2516 - Granite, Porphyry, Basalt etc., Crude or Cut etc.	M	533	0.23
7323 - Table, Kitchen or Household Articles & Parts of	M	520	0.22
8414 - Air or Vacuum Pump, Compressors and Fans	M	513	0.22
1207 - Other Oil Seeds and Oleaginous Fruits NES	A	510	0.22
8536 - Electrical Apparatus for Switching etc. Not Over	M	504	0.22
7209 - Flat-Roll Iron and Non-Alloy Steel Non Clad	M	502	0.21
7326 - Articles of Iron or Steel, NES	M	501	0.21
[a] A = agriculture, T = textile, M= other mining and manufacturing			

Sources: ITC, MOC India

Overall, the analysis of RCAs at the 4digit level is given in Table 3.5. Out of the total of 1109 product lines, Pakistan has a revealed comparative advantage, greater than that of India, in 356 lines, equivalent to 32 percent of the total (See chart below). India has a higher RCA in the remaining 753 product lines. Trade may not take place in all lines, but India does appear to have a wider range of lines. It can therefore be expected, that the volume of exports from India to Pakistan will be larger than Pakistan's exports to India.

Figure 1: % of Products Lines in which Pakistan has Comparative Advantage

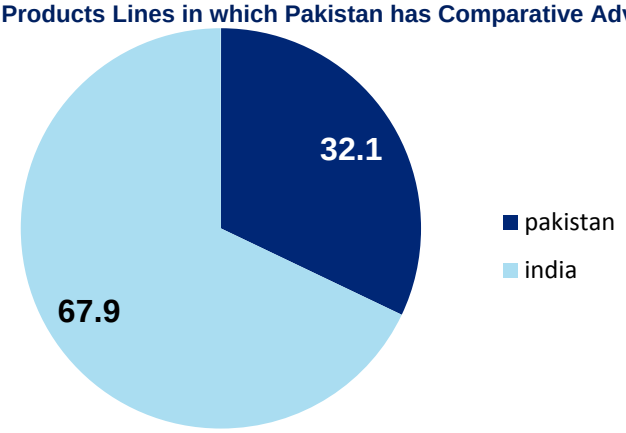


Table 3.5: Summary of Analysis of Comparative Advantage (At the 4 Digit Level)		
	Pakistan	**India**
Total Exports Covered ($ Million)	24489	233428
Total Exports of General Merchandise ($Million)	25141	251136
% of Exports Covered in the Analysis	97.4	92.9
Product Lines in which country has Comparative Advantage	356	753
Agricultural Products (chapter 1 to 24)	81	97
Minerals (chapter 25 to 28)	23	67
Industry (chapter 29 to 97)	252	589
% of Products Lines in which the country has Comparative Advantage	32.1	67.9
Total number of Product Lines = 1109		

Source: Derived

3.4 Intra-Industry Trade

The level of specialization of a country in international trade in a particular industry indicates the extent to which economies of scale are being reaped. The higher the level of intra-industry trade, the more efficient is likely to be the allocation of resources with the production pattern of a country reflecting more closely its factor endowments, and thereby, its relative comparative advantage. It may be also argued that as the level of development of a country rises, it is more likely to engage in intra-industry trade. Further, the process of specialization is likely to imply more cross-border investment flows.

A measure of sectoral intra-industry trade has been developed, commonly referred to as the Grubel-Lloyd Index (GLI). For calculating this index we designate the following:

X_i = exports by a country of products in industry *i*

M_i = imports by a country of products in industry *i*

Then,

$$GLI_i = 1 - \frac{|M_i - X_i|}{|M_i + X_i|} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

$$0 \leq GLI_i \leq 1$$

The higher the magnitude of GLI_i the greater the intra-industry trade.

There are two possible types of specialization. First, **vertical** specialization is when industry in a country is concentrated at a particular stage in the value chain. Second, **horizontal** specialization occurs when production is focused on a subset of products at the same stage of the value chain and the other products are largely imported.

The Grubel-Lloyd Index has been calculated for industries (according to the WTO industrial classification) of India and Pakistan respectively in Table 3.6.

The GLI is higher for most industries of India. The difference is most pronounced in iron and steel, chemicals, machinery and fuel. In agriculture, the GLI of both countries is high.

In a futuristic scenario, when close to free trade occurs in South Asia, it will be interesting to speculate what the pattern of intra-industry trade could develop among the four major countries in the sub-region – India, Pakistan, Sri Lanka and Bangladesh. This represents part of the agenda for future research, especially in sectors like agriculture, textiles, chemicals and pharmaceuticals, etc.

Table 3.6: Intra-Industry Trade Index of Pakistan and India

	GLI Pakistan	GLI India
Agricultural Products	**0.86**	**0.79**
Food	0.97	0.72
Raw Material	0.48	0.99
Fuel and Mining Products	**0.19**	**0.56**
Fuel	0.16	0.53
Mining Products	0.50	0.75
Manufactures	**0.25**	**0.56**
Iron and Steel	0.27	0.91
Chemicals	0.27	0.85
Pharmaceuticals	0.44	0.45
Machinery	0.10	0.73
Office & Telecom Equip	0.13	0.39
Automotive Products	0.07	0.74
Textiles	0.23	0.37
Clothing	0.04	0.05

Source: WTO

Chapter 4 : Extent of Trade Complementarity

The previous chapter has identified the product groups in which Pakistan and India have revealed comparative advantage. We now proceed to determine the extent of trade complementarity between the two countries, that is, the extent to which the exports of one country are the imports of the other country.

4.1Methodology

A trade complementarity index (TCI) has been constructed as follows:

$$TCI_i = 1 - \frac{1}{2}\sum_{k=1}^{n}|X_{ik} - M_{jk}| \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

where,

TCI_{ij} = Index of trade complementarity between exports of country *i* and imports of country *j*.
X_{ik} = Share in total exports of product group *k* in country *i*
M_{jk} = Share in total imports of product group *k* in country *j*

The value of *TCI* ranges from zero to unity. The higher the value of *TCI,* the greater the trade complementarity. This includes also the current exports and imports of country i to country j.

4.2 Estimates of TCI

The analysis of trade complementarity is conducted at HS 2digit level. The respective shares in exports and imports of each country are given in the Statistical Annex Table A-4.1.

The results are given in Table 4.1. It appears that the *TCI* between India's exports and Pakistan's imports is quite high at 0.580. However, the *TCI* between Pakistan's exports and India's imports is low at 0.230.

Table 4.1: Magnitude Of The Trade Complementarity Index*

Type	*TCI* (0≤ TCI ≤1)
1. Between India's Exports and Pakistan's Imports:	
All[a]	0.580
Items only in the Positive List	0.737
2. Between Pakistan's Exports and India's Imports	0.230

[a] excluding oil trade the TCI is higher at 0.676

Source: SBP, MOC, India.

This indicates that in the event of trade liberalization there is greater scope for diversion of existing imports of Pakistan to India than for Indian imports to Pakistan. This also explains why India also enjoys a relatively large surplus in trade with Pakistan.

4.3Potential Diversion of Trade

The next step is to identify the extent of potential diversion of trade following the granting of MFN status to India and relaxation of trade barriers.

Table 4.2 analyses the scope for diversion of Indian imports to Pakistan in products at the HS 4digit level. These products satisfy the following criteria:

(i) $RCA_P > 1$
(ii) $RCA_P > RCA_I$
(iii) Global exports of $100 million or more by Pakistan

The table clearly indicates that Pakistan's exports to India are limited by the fact that the exports are concentrated in textiles and clothing in which the latter is one of the largest global exporters.
The potential scope for diversion is measured by

$$S_{ijk} = \sum_{k=1}^{n} Min[X_{ik}, M_{jk}] \ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where

X_{ik} = Exports by country i of product, with n products

M_{jk} = Imports by country j of product k

S_{ijk} = potential diversion of imports of product *k* by country *j* to country i

The magnitude of S_{ijk} can be summed across *k* to determine the total quantum of potential diversion. Based on the above methodology, the total potential diversion of India's imports to Pakistan is given in Table 4.3. **The overall estimated magnitude is close to $2.2 billion** per annum, equivalent to 9 percent of existing global exports and almost eight times the actual level of exports to India.

Table 4.2: Extent of Complementarity between Pakistan's Exports and Indian Imports (Pakistan Global Exports of each product group > $100 m)

($ Million)

HS Code	Description	Global		S_{ijk}
		Pakistan's Exports X_{ik}	India's Imports M_{ik}	
6302	Bed and table linen	2707	3	3
1006	Rice	2133	-	-
5205	Cotton Yarn	936	60	60
5209	Cotton Fabrics	307	18	18
6113	Garments	742	1	1
6105	Gents' Shirts	577	5	5
6203	Men's or Boy's suits	523	34	34
5208	Cotton Fabrics	519	159	159
1001	Wheat	519	56	56
2523	Cement	496	77	77
5513	Fabrics of Syn Fibre	485	6	6
4203	Articles of Leather	426	12	12
4113	Prepared Leather	354	9	9
9506	Articles of Sports	342	117	117
5210	Woven Cotton Fabrics	306	18	18
5207	Cotton Yarn	234	-	-
6307	Made-up Articles	230	16	16
6109	T-shirts	206	19	19
2207	Ethyl Alcohol	184	76	76
7203	Spongy Ferrous Products	174	16	16
5203	Cotton	156	-	-
5701	Carpets	139	2	2
0805	Citrus Fruit	125	9	9
9404	Mattress Supports	118	-	-
6114	Garments nes	116	1	1
0204	Meat	113	-	-
0303	Fish	113	1	1
5204	Cotton Sewing Thread	112	1	1
2610	Chromium Ores	111	20	20
1516	Animal & Vegetables Fats & Oils	106	7	7
5202	Cotton Waste	106	3	3
6116	Gloves, Mittens, etc.	100	7	7
0804	Dates, Figs, etc.	100	180	100
	Total	**16058**	**2837**	**1445**

Source: MOC, India, SBP

Table 4.3: Estimate of Potential Diversion of Indian Imports To Pakistan (trade base of 2010-11) ($ Million)		
Type of Product	**Total Global Exports**	**S_{ijk}**
Major exports of Pakistan	16058	1445
Other exports[a]	8510	782
Total	**24568**	**2227**
[a] On the assumption that the extent of diversion is proportionately the same as for major exports.		

Source: Derived

Specific items in which there is significant potential for increasing exports to India include the following:

- Cotton yarn
- Cotton fabrics
- Wheat
- Cement
- Articles of sports
- Polyesters, primary
- Surgical instruments
- Ethyl alcohol
- Dates
- Men's or boy's suits
- Leather and leather products

We next turn to the scope for potential diversion of Pakistan's imports to India. Table 4.4 determines the scope for diversion for Pakistan's imports in products at the 4digit level which were identified as major exports of India in Table 3.4, according to the following criteria:

(i) $RCA_I > 1$
(ii) $RCA_I > RCA_P$
(iii) Global exports of $1 billion or more by India(a higher minimum level for India as compared to Pakistan of $100 million because exports of the former are over 10 times that of the latter)

Estimates of potential diversion of Pakistan's imports to India are given in Table 4.5. The overall estimated magnitude is large, at over $19 billion, equivalent to almost 8 percent of existing global exports of India and over 13 times the present exports to Pakistan. The potential increase is higher in India's case because the Positive List had precluded a lot of exports to Pakistan from India.

Table 4.4: Extent of Complementarity Between India's Exports And Pakistan's Imports 2010-11 (Global exports of each product above $ 1 billion) ($ Million)				
HS Code	Description	Global		S_{ijk}
		Indian's Exports X_{ik}	Pakistan's Imports M_{ik}	
2710	Oil from Petrol	40992	8261	8261
7102	Diamonds, worked	25829	0	0
7113	Articles of Jewellery	8929	0	0
7403	Refined Copper	7024	68	68
3004	Medicaments nes	5503	194	194
8703	Motor Cars	5480	477	477
2601	Iron Ores & Concentrates	4713	67	67
8517	Elect App for Telephony	3307	518	518
7305	Tubes and Pipes nes	3193	0	0
7202	Ferro Alloys	2946	40	40
5201	Cotton	2830	1031	1031
1701	Sugar	2216	691	691
8708	Automobile Parts	2156	120	120
6204	Women's or Girls' Suits	2051	0	0
2304	Soya bean Oil Cake	2002	142	142
0202	Meat	1830	3	3
2902	Cyclic Hydrocarbons	1774	467	467
7210	Flat-Roll Iron and Steel Products	1616	283	283
6206	Women's or Girls' Blouses	1534	0	0
8803	Parts of Aircraft	1529	74	74
7208	Flat Rolled Iron and Steel Products	1524	267	267
6403	Footwear	1380	6	6
5407	Woven Fabric of Syn Yarn	1371	21	21
3204	Syn Coloring Matter	1222	162	162
8704	Goods Transport Vehicles	1151	142	142
3808	Insecticides, etc.	1144	195	195
0306	Crustaceans	1091	0	0
6304	Furnishing Articles	1066	3	3
7114	Articles of Gold or Silver	1038	0	0
4011	Rubber Tyres	1036	144	144
	Total of Above	**139477**	**13376**	**13376**

Table 4.5: Estimate Of Potential Diversion Of Pakistan's Imports To India ($ Million)		
Type of Product	**Total Global Exports**	S_{ijk}
Major exports of India	139477	13376
Other exports[a]	111659	5806
Total	**251136**	**19182**
a On the assumption that the extent of diversion is proportionately the same as for major exports (excluding petroleum oils).		

Source: Derived

Major items in which Indian exports could increase after granting of full MFN status to India include the following:

- Petrol oils
- Medicaments
- Motor cars
- Electrical apparatus for telephony
- Cotton
- Sugar
- Cyclic hydrocarbons
- Automobile parts
- Parts of aircraft
- Flat-rolled products of iron and steel
- Synthetic coloring matter
- Goods transport vehicles
- Insecticides, etc.
- Rubber tires

The extent to which potential diversion translates into actual diversion depends upon import prices. For example, in the case of imports from India this will be facilitated if, first, Pakistani importers are offered lower prices by suppliers from India compared to present sources of imports and, second, if Indian exporters get a higher price in the Pakistani market.

A comparison is made of the magnitude of the TCI between India and Pakistan in Table 4.6. We have the important conclusion that the extent of trade complementarity between the two countries is showing an increasing trend and could receive a further fillip as bilateral trade is liberalized.

Other conclusions from Table 4.6 are that, first, the TCI between India and Pakistan is higher than that of India with Bangladesh, but lower than the TCI between India and Sri Lanka. Second, Pakistan's exports have a stronger trade complementarity with Bangladesh and Sri Lanka than with India. That is, Pakistan's global exports have greater similarity with the global imports of these countries

Table 4.6: Trend In Tci Between South Asian Countries 0 ≤ TCI ≤ 1

	2003	2007	2011
India and Pakistan	139477		13376
Indian Exports and Pakistan's Imports	0.487	0.523	0.580
Pakistan's Exports and Indian Imports	0.157	0.186	0.230
India and Bangladesh			
Indian Exports and Bangladesh's Imports	0.497	0.444	n.a.
Bangladesh's Exports and Indian Imports	0.063	0.053	n.a.
Bangladesh and Pakistan			
Bangladesh Exports and Pakistan's Imports	0.083	0.074	n.a.
Pakistan's Exports and Bangladesh Imports	0.371	0.368	n.a.
India and Sri Lanka			
Indian Exports and Sri Lankan Imports	0.554	0.605	n.a.
Sri Lankan Exports and Indian Imports	0.185	0.225	n.a.
Sri Lanka and Pakistan			
Sri Lankan Exports and Pakistan's Imports	0.199	0.217	n.a.
Pakistan's Exports and Sri Lankan Imports	0.314	0.316	n.a.

Source: UNESCAP, Trade Data Base

Also, it might be argued that even though the TCI of Pakistan's exports to Indian imports is low, the potential volume of Pakistan's exports to India could be large because of the size of the Indian market. This is not the case because even if the level of Indian imports globally is high, the above analysis considers the minimum of Pakistan's exports and Indian's imports. As such the quantum of potential diversion of exports to India is determined more by the level of Pakistan's global exports currently.

4.4Scope for Trade Creation

Trade creation possibilities also exist between India and Pakistan following the opening of the markets in the two countries. Product groups which have the potential of emerging as exports from India to Pakistan have been examined on the basis of the following:

Type I

i) $RCA_I > 1$
ii) $RCA_I > RCA_P$
iii) Global exports of India equal to or greater than $500 million
iv) Global imports of Pakistan currently are negligible
v) Was in the last Positive List of Pakistan
vi) Outside the SAFTA List of Pakistan, such that the customs duty will fall after 31st of December 2012

Type II

i) $RCA_I > 1$
ii) $RCA_I > RCA_P$
iii) Global exports of India equal to or greater than $500 million
iv) Global imports of Pakistan currently are negligible
v) Import from India was disallowed as the product was not in the last Positive List of Pakistan

Table 4.7 identifies the products in which trade creation possibilities for India exist in Pakistan. These include the following:

Type I

- Table, Kitchen articles

Type II

- Diamonds, worked
- Articles of jewelry
- Tubes and pipes, nes
- Crustaceans
- Articles of Leather

Most of the likely trade creation is in Type II products, which include items like jewelry and leather goods. Table and kitchen articles from India are more likely to penetrate the Pakistani market because of the large fall in customs duties, from 25 percent to 5 percent. Clearly, there are other candidates for trade creation among exports of India with global exports below $500 million. Also, trade creation is likely to take place in existing imports of Pakistan due to cheaper prices of imports from India.

Table 4.7: Product Groups in Which Trade Creation Is Likely In Pakistan By Exports From India								
Sr. No	**HS Code**	**Description**	**In Positive List (Y/N)**	**Global Exports of India $ Million**	**Current Customs Duty in Pakistan %**	**In Sensitive List (Y/N)**	**Scope for Trade Creation (Y/N)**	**Type**
1	7102	Diamonds, Worked	N	25829	5	N	Y	II
2	7113	Articles of Jewelry	N	8929	5	N	Y	II
3	7305	Tubes and Pipes nes	N	3193	10	N	Y	II
4	6204	Women or Girls Suits	N	2051	25	Y	N	
5	0202	Meat	Y	1830	0	N	N	
6	6206	Women and Girls Blouses	N	1534	25	Y	N	
7	6403	Footwear	N	1380	25	Y	N	
8	0306	Crustaceans	N	1091	10	N	Y	II
9	6304	Furnishing Articles	N	1066	25	Y	N	
10	7114	Articles of Gold and Silver	N	1038	5	N	Y	II
11	2942	Organic Compounds nes	Y	2352	5	N	N	
12	7222	Bars and Rods of Steel	Y	553	5	N	N	
13	7323	Table, Kitchen art	Y	532	25	N	Y	I
14	4202	Travel Goods, Hand bags of leather	N	786	25	Y	N	
15	4203	Articles of Leather	N	654	25	N	Y	II
Scope for trade creation in items outside the Sensitive List.								

Source: SBP, MOC, Pakistan and India

We next identify the scope for trade creation in India by exports from Pakistan. The identification is based on the application of the following criteria:

(i) $RCA_P > 1$
(ii) $RCA_P > RCA_I$
(iii) Global exports of Pakistan of at least $ 100 million
(iv) Global imports of India currently are negligible (below $ 10 million)
(v) Not in the SAFTA Sensitive List of India

Accordingly, the scope for trade creation is in the following products:

- Garments
- Citrus fruit
- Woven cotton fabrics
- Animal and vegetable fats & oils
- Woven terry fabrics

Table 4.8: Product Groups In Which Trade Creation Is Likely For Pakistani Exports To India				
HS Code No	**Description**	**Global Exports of Pakistan**	**Current Customs Duty in India %**	**In Sensitive List (Yes/No)**
6302	Bed and Table Linen	2707	10%/SD	Y
1006	Rice	2133	70% - 80%	Y
6113	Garments	742	10%	N
6105	Gent's Shirts	577	10%/SD	Y
5513	Fabric of Syn Fibre	485	10%	Y
2707	Oils from Coal Tar	288	10%	N
6115	Panty hose, Socks	285	10%	Y
5212	Woven Cotton Fabrics	272	10%/SD	N
5211	" "	256	10%/SD	N
6103	Gents Suits, etc	245	10%	Y
5802	Woven Terry Fabrics	237	10%	N
5207	Cotton Yarn	234	10%	Y
5701	Carpets	139	10%	Y
0805	Citrus Fruit	125	25% - 40%	N
6114	Garments nes	116	10%	Y
5204	Cotton Sewing Thread	112	10%	N
1516	Animal and Veg Fats and Oils	106	30%	N
6116	Gloves, Mittens etc	100	10%	Y
SD is a specific duty in Indian rupees per kilogram or unit. These duties are given in India Customs Tariff schedule, 2012-13, of the Central Board of Excise and Customs, Government of India. In some cases the effective duty can exceed 100%.				

Source: SBP, MOC, Pakistan and India

Overall, the scope for trade creation by Pakistan in the Indian market is in 8 items, at the 4 digit level, which are outside the Sensitive List of India, while the possibility of trade creation in Pakistan of Indian products is in 10 items outside the Sensitive List of Pakistan.

4.5 Extent of Trade Liberalization under SAFTA

The number of tariff lines in the revised SAFTA Sensitive Lists of India and Pakistan, respectively, are as follows:

Table 4.9: Number of Tariff Lines in Sensitive List		
	6-digit level of HS Code	**8-digit level of HS Code**
India	607*	1753
Pakistan	936	1577
* India's revised SAFTA Sensitive List is both at the 6-digit and 8-digit level as of September, 2012.		

Contrary to perceptions, while India has fewer tariff lines at the 6digit level, it has more tariff lines at the 8digit level. This has to be highlighted during bilateral negotiations.

Perhaps even more importantly, there is need to determine the extent to which exports of one country will receive preferential treatment in the other country under SAFTA, subject, of course, to the granting of MFN status to India. Estimates are given below.

Table 4.10: Percentage Of Exports Receiving Preferential Treatment Under SAFTA (at 4 Digit Level)		
	In India	**In Pakistan**
Pakistan's Agricultural Exports	43	-
India's Agricultural Exports	-	97
Pakistan's Textiles Exports	59	-
India's Textiles Exports	-	64
Pakistan's Other Exports	92	-
India's Other Exports	-	98
Pakistan's Total Exports	65	-
India's Total Exports	-	94

Striking conclusions emerge from the above table. India has 'opened' up considerably less to Pakistani exports than Pakistan has to Indian exports.

The difference is most pronounced in the case of agricultural items and textiles. The need to remove this asymmetry in the trading relations between the two countries may be used as leverage for further opening up by India, prior to the granting of MFN status. It is important to recognize that the issue is not the number of items outside the Sensitive List but which items are outside the Sensitive List.

As an example, if only the 10 items (at the six digit level) listed below are excluded from the Sensitive List of India, this would mean preferential treatment for 20 percent more global exports of Pakistan.

Table 4.11: Tariff Lines Which Need To Be Taken Out Of India's Sensitive List to Improve Access For Pakistan's Exports ($ Million)			
No	**HS Code (six digit level)***	**Description**	**Pakistan's Global Exports**
1	080450/20	Mangoes	105
2	100630	Milled rice	1892
3	110100	Wheat	352
4	520942	Woven fabrics of cotton	349
5	610510	Men's/boy's shirts kn/cr	350
6	610590	Men's/boy's shirts kn/cr	258
7	610910	T-shirts	266
8	620342	Men's/boy's trousers	637
9	620462	Women's/girl's trousers	435
10	630210	Bed linen, kn/cr	522
Total			**5166**

Chapter 5 Key Magnitudes of Future Bilateral Trade

The previous chapters have highlighted the differences in the pattern of revealed comparative advantage between India and Pakistan and the extent of trade complementarity between the two countries. We now proceed to make a quantitative assessment of the prospects for bilateral trade in a medium-run setting of three years.

This assessment factors in the impact of the overall process of trade liberalization, including the granting of MFN status to India and the transition to a regime of preferential treatment under SAFTA. In addition, it is assumed that significant progress will be achieved in the relaxation of the non-tariff barriers, which is currently an on-going process and major breakthroughs have already taken place. Further, it is expected that in the medium term, transport bottlenecks will largely have been removed and major steps taken to facilitate trade.

Therefore, the trade scenario that is developed in this chapter is optimistic in the sense that no interruptions are anticipated in the development of trade between the two countries, due to political or security related factors. However, as indicated below, the magnitude of the key parameters underlying the projections of the volume of trade are conservative but yield plausible magnitudes of the quantum of trade diversion and creation respectively.

Section 1 describes the methodology used for deriving the key magnitudes including the likely growth in volume of trade over the next three years or so, the quantum of savings in the import bill to Pakistan and the magnitude of consumer welfare gains to the people of the country. Section 2 gives the product wise projections of trade. Section 3 highlights the savings in the import bill, extent of reduction in prices and the impact on consumer welfare. These numbers are crucial from the viewpoint of highlighting the gains from the opening of trade between India and Pakistan.

5.1The Methodology

The methodology has been developed to enable a standardized approach to be applied on each product (at the 4digits level) which is likely to feature in the future trade between the two countries.

A mathematical statement of the methodology is given in the Technical Annex to the report. Application of this methodology leads to a number of key outputs by product. These include:

- Extent of trade diversion
- Savings in import bill
- Extent of trade creation
- Extent of displacement of domestic industry
- Magnitude of consumer welfare gains

The focus in the estimation process is primarily on the impact on Pakistan.

A number of key parameters drive the projections. These include the following:

(i) Elasticity of trade diversion of both countries with respect to the reduction in the landed price in two scenarios - one in which the trading regime remains of the type prevailing in the base year, 2010-11, and the other in which trade is liberalized and non-tariff barriers are removed, wherever possible. The elasticity as assumed at minus 2, which is based on an analysis of the historical relationship between the extent of divergence between the import price from India and that from the rest of the world and the share of India in total imports of Pakistan.

(ii) The elasticity of trade creation is assumed at minus unity. This is in line with observed price elasticities of import demand as estimated for South Asian countries by the World Bank [2012]

(iii) The supply elasticity for domestic industry is taken as 0.5. This allows for the fact that the supply response is likely to be low in Pakistan due to constraints like gas and power shortages.

5.2 Projections of Trade

Indian Exports to Pakistan

The application of the above mentioned methodology leads to the results (product wise at the HS 4 digit level) of the extent of diversion of imports of Pakistan and the quantum of trade creation in products which are major exports of India and enjoys a comparative advantage over Pakistan in these products. Altogether 18 products have been identified. The products which have been excluded from the analysis are either those in which it is assessed that scope for trade diversion does not exist or which Pakistan does not currently import.

Within these products, two types of products have been distinguished. The first type includes products which were in the last Positive List, as of 2010-11. Further diversion to India is likely to occur after the relaxation of NTBs and improved trade infrastructure. Also, some of these items, as discussed earlier, have been placed outside the SAFTA Sensitive List and import from India will become more attractive after the reduction of duties.

The second types of products are those which did not feature in the last Positive List and become importable from India after their MFN status to India. Some of these products will also receive preferential treatment under SAFTA.

The overall import of the first type of imports covers almost 60 percent of Pakistan's existing imports from India, as shown in Table 5.1. Import of these items from India is expected to increase by 80 percent, with 78 percent of this increase coming from trade diversion and the remaining 22 percent from trade creation. Major items of import which are likely to see further diversion to India include cotton, sugar, tea, and synthetic coloring matter. It is interesting that a large part of the diversion in existing imports is in agricultural items.

Items which have hitherto not been imported from India but are likely to emerge as significant imports include petroleum oils, electrical apparatus for telephony and vehicles and transport equipment (including parts).

The overall projected level of imports from India is given in Table 5.2. At the 2010-11 base, total imports of Pakistan from India are expected to increase to $ 6.3 billion in the medium run. Out of the projected increase of $ 4.5 billion, two-thirds is expected to come from trade diversion and the remaining one-third from trade creation. If these projections materialize, India will become the largest trading partner of Pakistan. This will partly hinge on the success of Indian exports in displacing Chinese and Japanese products from the Pakistani market.

Table 5.1: Change In Imports (C.I.F) Of Pakistan Of Major Import Products From India Following Removal Of NTBs And Implementation Of SAFTA In Selected Goods (at 2010-11 base) ($ Million)						
HS Code	**Description[b]**	**Existing imports from india [a] (cif)**	**Additional Potential Imports**		**Displacement of Domestic Value of Production**	**Total Potential Imports from India**
			Trade Diversion	**Trade Creation**		
In Original Positive List (Full or Partial)						
0703	Onions[c]	8	32	9	-	49
0902	Tea	34	105	21	-	160
1701	Sugar	86	110	14	-	210
2304	Soyabean Oil Cake[d]	162	-	-	-	162
2902	Cylic Hydrocarbons	212	34	11	-	257
3004	Medicaments	15	51	6	15	87
3204	Syn Coloring Matter	35	72	34	20	161
3808	Insecticides	20	38	4	-	62
5201	Cotton	467	205	52	-	724
Total of Above		**1039**	**647**	**151**	**35**	**1872**
Not in the Original Positive List						
2701	Coal	-	74	-	-	74
2710/11	Light Petroleum Oils	-	851	39	16	906
2710/19	Other Petroleum Oils	-	135	11	-	146
5402	Syn Filament Yarn	-	27	-	-	27
8517	Elect App for Telephony	-	180	36	-	216
8703	Passenger Vehicles	-	135	20	55	210
8704	Vehicles for goods	-	66	30	-	96
8708	Auto parts	-	60	20	32	112
7208	Flat Iron & Steel products	-	34	2	6	42
Total of Above		**-**	**1562**	**158**	**109**	**1829**
Overall Total		**1035**	**2209**	**309**	**144**	**3701**

[a] Imports at prices
[b] only those items are included from Table 3.4 where there appears to be scope for increase imports from India
[c] In the original positive list.
[d] All imports already from India

Source: Derived

Table 5.2: Overall Projection Of Imports By Pakistan From India (at 2010-11 base, c.i.f. price) ($ Million)					
	Existing Imports	**Additional Potential Imports**			**Total Potential Imports from India**
		Trade Diversion of Existing Imports	**Trade Creation**	**Displacement of Domestic Value of Production**	
A. Items in the Original Positive List	**1800**	**1120**	**261**	**61**	**3242**
Major Imports[a]	1039	647	151	35	1872
Other Imports	761	473	110	26	1370
B. Items not in the Original Positive List	-	**1953**	**198**	**136**	**2287**
Major Imports[a]	-	1562	158	109	1829
Other Imports[c]	-	391	40	27	458
C. Items in which Imports are negligible currently		-	**200**	**40**	**240**
D. Items which are currently being traded in the informal sector		-	**500**	**-**	**500**
Total	**1800**	**3073**	**1159**	**237**	**6269**

Notes
[a] from Table 5.1
[b] in the same proportion as for major imports with respect to trade diversion and trade creation
[c] assumed at 25% of major imports in this category
[e] 3% of Indian exports mentioned in Table 4.7 excluding jewelry and diamonds, etc.
[f] On the assumption that about 50% will be diverted

Sources: MOC, India, SBP, UN Comtrade Data Base

Pakistan's Exports to India

Table 5.3 indicates the extent to which the recently announced SAFTA Sensitive List (with 30 percent reduction) of India has provided an `opening` to Pakistan's exports. We focus here on major exports, in excess of $200 million globally. Despite the reduction, some of Pakistan's major export products including rice, cotton yarn, gent's shirts and bed and table linen continue to be in the India's SAFTA Sensitive List like. It is estimated that 44 percent of Pakistan's major export products are now outside the Sensitive List, while 58 percent continue to remain in the list. Clearly, Pakistan must negotiate for further liberalization in key export items.

Projected exports of Pakistan to India are given in Table 5.3. Existing export sectors could benefit from the removal of non-tariff barriers in India, while the exclusion of items from the SAFTA Sensitive List would also improve export prospects. It is interesting to note that perhaps, contrary to expectations, the biggest potential increase in exports is not in agricultural goods or in textiles and clothing. This is due to the fact that some of Pakistan's major exports of these products continue to be in the Indian Sensitive List as highlighted above.

Table 5.3: Extent Of 'Opening' Of Major Exports Of Pakistan In India Due To The New Sensitive List Of India (at the 4 digit level) Exports ≥ $ 250 million in 2010-11

No	HS Code	Description	Exports ($ Million)	Items in the Revised India SAFTA Sensitive List[a]	Opening if outside Sensitive List (Yes/No)	Custom Duty Rate (%)
Exports > 500 million						
1	1001	Wheat	519	4	No	b
2	1006	Rice	2133	4	No	-
3	2710	Oil from Petrol	1414	-	Yes	10
4	5205	Cotton Yarn	1530	3	No	-
5	5208	Woven Cotton Fabrics	519	-	Yes	10
6	5209	Woven Cotton Fabrics	935	-	Yes	10
7	6105	Gents Shirts Kn/Cr	577	3	No	-
8	6113	Garments	742	-	Yes	10
9	6203	Men's Boy's shirts	523	8	No	-
10	6302	Bed and Table Linen	2707	1	No	-
$ 500 million > Exports ≥$ 250 million						
10	2707	Oil from Coal Tar	288	-	Yes	10
11	3907	Polyesters, Primary	265	-	Yes	10
12	4113	Leather (after tanning)	354	-	Yes	10
13	4203	Articles of Leather	426	-	Yes	10
14	5201	Cotton, Not carded or combed	310	1	No	-
15	5210	Woven Cotton Fabrics	306	-	Yes	10
16	5211	Woven Cotton Fabrics	256	-	Yes	10
17	5212	Woven Cotton Fabrics NES	272	-	Yes	10
18	5513	Woven Fabrics, Synthetic	485	-	Yes	10
19	6115	Pantyhose, Socks, etc.	285	7	No	-
20	9018	Surgical & Medical Inst	295	-	Yes	10
21	9506	Sports Articles	342	-	Yes	10
Total of Above			**15483**			
Share of Total Exports			**63%**			

[a] at the 6-digit level
[b] not relevant
Customs duty not given for items which continue to be in Sensitive List of India

Source: Derived

Overall, Pakistan's exports to India are projected to increase in the medium run, from under $300 million to just over $1.3 billion, an increase of over 300 percent as shown in Table 5.4. Major items of export to India include petrol oils, cotton fabrics, cement, and dates. Emerging export products, subject of course, to adequate market development activity, include medical and surgical instruments,

citrus fruit, ethyl alcohol, woven fabrics, polycarboxylic acid and other made-up articles of textiles. This quantum of increase will hinge on reduction in alleviating supply side constraints in Pakistan, primary of which is the energy / electricity deficit as discussed later in the report.

Table 5.4: Projection of Exports of Pakistan To India (at 2010-11 base) ($ Million)

No	HS Code	Description	Existing Exports	Potential Exports	% increase
A. Agricultural Goods			**62**	**239**	**285**
1	0703	Onions [b]	3	3	
2	0804	Dates	46	125	
3	0805	Citrus Fruit	-	40	
4	1006	Rice [b]	13	13	
5	2207	Ethyl Alcohol	-	58	
B. Textiles and Clothing[c]			**46**	**278**	**504**
6	52	Cotton Fabrics	32	141	
7	55	Woven Fabrics	-	42	
8	57	Carpets & Floor Coverings	1	7	
9	58	Terry Fabrics	-	11	
10	60	Knitted / Crocheted Fabrics	-	25	
11	61	Wearing Apparel	1	8	
12	62	Wearing Apparel	-	11	
13	63	Other Made up Articles	12	33	
C. Non-Agricultural and Non-Textile Manufactured Goods			**98**	**664**	**577**
14	2523	Cement	39	217	
15	2707	Oils from Coal Tar	14	25	
16	2710	Oils from Petrol	15	235	
17	2847	Hydrogen Peroxide	4	6	
18	2917	Polycarboxylic Acid	12	83	
19	4107	Leather	8	24	
20	9018	Medical and Surgical Inst	5	62	
21	95	Sports Goods	-	12	
D. OTHER GOODS[d]			**80**	**120**	**50**
E. Total Exports of Pakistan to India			**286**	**1301**	**355**

Source: Derived

Balance of Trade between India and Pakistan

In the medium run, the above projections indicate that the trade deficit of Pakistan with respect to India could rise from $ 1.5 billion to about $ 5 billion, as the volume of trade approaches $7.6 billion in the next three years or so. However, there are likely to be an improvement in the global trade balance due to cheaper imports from India and larger exports, the magnitude of which is discussed in the next section.

5.3 Impact on Global Balance of Trade

The expected impact on the global balance of trade is presented in Table 5.5. We first quantify the savings in the import bill for existing imports, due to lower c.i.f. prices of imports from India. This is estimated at $ 721 million per annum (at the 2010-11 base). A detailed product wise breakup of the savings in import bill is given in Table 5.6

Table 5.5: Impact on Global Balance Of Trade (2010-11 Base) Medium Run Projection ($ Million)

	Medium Run Projections
Savings in the Import Bill on Existing Imports due to Diversion to India	-721
Quantum of Trade Creation +Displacement of Domestic Production (additional imports) from India	1,396
Increase in Exports to India [a]	-915
Change in Global Balance of Trade	**-240**

[a] on the assumption that these exports are additional to existing exports

Table 5.6: Product wise Savings In Import Bill, Reduction In Landed Price And Consumer Welfare Gains

HS Code	Description	Savings in Import Bill* ($ Million)	% Reduction in Landed Price	Magnitude of Consumer Welfare Gains ($ Million)
	Existing			
3004	Medicaments*	7	3	8
1701	Sugar*	14	2	18
0902	Tea	29	8	34
5201	Cotton*	60	6	62
0808	Insecticides	4	2	4
3204	Synthetic Col Mat*	52	29	68
2902	Cyclic Hydrocarbons	17	3	18
0703	Onions	13	15	13
Total of Above		**201**	**6**	**220**
	New			
2710/11	Light Petroleum Oils*	12	1	11
2710/19	Other Petroleum oils*	53	1	60
5402	Syn. Filament Yarn	0	0	1
8708	Auto Parts*	31	23	46
8704	Vehicles for Goods*	27	16	44
8703	Vehicles for Passengers*	25	4	36
8517	Elec App for Telephony	44	8	48
2701	Coal	82	52	52
2601	Iron Ore	28	16	9
7208	Flat Rolled Iron & Steel	-1	1	2
Total of Above		**302**	**4**	**307**
Total of Above Selected Items		**503**	**4½%**	**527**
Others		**250**	**n.a.**	**200**
TOTAL		**753**	**n.a.**	**727**

[a] higher cif price but lower landed price(which includes customs duty and GST)

Source: Derived

As opposed to this, the quantum of trade creation is $ 1.396 billion, implying that the overall global import bill could rise by $ 675 million. The potential for increased exports to India is $1.015 billion. If this potential is realized then the global balance of trade of Pakistan could improve by $ 240 million. This is not insignificant and will make some contribution to improving the rapidly deteriorating balance of payments position of the country.

5.4 Consumer Welfare Gains

In the case of consumer goods, welfare gains accrue to consumers via lower landed prices of imports from India as compared to imports from other countries. However, lower prices of raw materials/intermediate goods work their way to final welfare gains via the prices of consumer goods which use these inputs. According to Table 5.6, the biggest consumer welfare gains from trade with India include petroleum oils, cotton, coal, synthetic coloring matter, electrical goods for telephony and in the import of motor vehicles and transport equipment.

The total consumer welfare gain is estimated to be upto $ 727 million or Rs 70 billion (at current exchange rate). This is of large magnitude and represents a benefit to households in the country of over Rs 2300 (USD 24 (at Rs 96 per $) per household per annum. In particular, items which are likely to see a significant reduction in domestic prices are tea, textiles, onions, auto parts and energy (due to cheap coal from India). Overall, this could contribute to a reduction in the unit value index of imports by over 4 percent.

5.5 Displacement of Domestic Economic Activities

The displacement of economic activities in the process of trade with India is likely when imports compete with production within Pakistan. However, some imports are non-competing in character where the impact on domestic production base is small or negligible. In the case of trade with India, the following imports can be considered as largely non-competing in character:

- Tea
- Soya bean oil cake
- Cyclic hydrocarbons
- Electric apparatus for telephony

Also, the major imports, sugar, cotton and onions are essentially decided on an ex-post basis after, more or less, information of levels of crops outputs become available.

Given the list of imports from India mentioned in Table 5.1 it is expected that the following industries may experience some loss of output and employment following the liberalization of trade with India:

- Medicaments
- Synthetic coloring matter
- Insecticides
- Petroleum refining
- Synthetic filament yarn
- Automobiles
- Auto parts
- Flat iron and steel products

Estimate of the quantum of displacement in the above sectors are given in Table 5.7. The magnitude is Rs 27 billion (USD 27.87 million). As compared to this, the expected increase in output of export-oriented industries is Rs 78 billion (USD 80.50 million). Therefore, there is expected to be a net increase in employment in the industrial sector of about 100,000 per annum. This is derived by estimating the difference in employment likely to be generated in export-oriented industries, and the loss of employment in import-substituting industries. This estimate will be compared with the results of the survey.

Table 5.7: Extent of Displacement Of Domestic Activities (2005-06 Base[a])

Industry	Value of Production/Sales	% change in landed price	% change in production/Sales[b]	Reduction in Sales/Output (Rs in Billion)
• Medicaments*	84.1	3	1.5	1.3
• Synthetic Coloring Matter*	11.7	29	14.5	1.7
• Insecticides*	2.8	2	1.0	n
• Petroleum Refining	271.5	1	0.5	1.4
• Synthetic Filament Yarn	69.3	0	0.0	n
• Vehicles	135.4	7	3.5	4.7
• Auto parts	23.1	23	11.5	2.7
TOTAL OF ABOVE	**597.9**			**11.8**
				(27.4)[c]

[a] given the data available in the latest Census of Manufacturing Industries of 2005-06
[b] given a supply elasticity of 0.5 and

$$\frac{dS}{S} = (1 + \varepsilon_s)\,\frac{dp}{P}$$

where S= sales, p= price, ϵ_S=supply elasticity.
[c] Converted to an estimate with 2010-11 base
n=negligible

Source: CMI 2005-06 and Derived

5.6 Estimated Key Magnitudes

The key magnitudes of the impact of liberalization of trade between Pakistan and India in a medium run setting (with 2010-11 as base) are as follows:

(i) Indian exports to Pakistan are expected to rise to $ 6.3 billion from $ 1.8 billion in 2010-11. The share of India in Pakistan's imports could rise from 5 to 18 percent and India could emerge as the largest trading partner of Pakistan.

(ii) Pakistan's exports to India are projected to rise from under $ 300 million to just over $ 1.3 billion. The increase is limited by the inclusion of those products by India in its SAFTA Sensitive List, in which Pakistan has high export potential to India. Also, the increase will depend on the extent to which supply-side factors to raising output are removed.

(iii) The trade deficit of Pakistan with India is expected to increase from $ 1.5 billion to $ 5 billion. However, due to savings in the cost of existing imports which may be diverted to India and higher exports to India, the impact is favorable on Pakistan's global balance of trade to the tune of $ 240 million per annum.

(iv) Welfare gains to consumers in Pakistan due to the lower prices of Indian imports are sizable and approach USD 727 million, equivalent to over Rs 2300 (USD 24) per household per annum. The overall units value index of imports could be lower by over 4 percent.

(v) Displacement of Pakistan industry is limited by the non-competitive nature of many Indian imports. Overall, the loss of production is estimated at Rs 27 billion in import-substituting industries, as compared to an increase in the value of output of export-oriented industries of Rs 78 billion.

(vi) The above derived magnitude of projections for bilateral trade will be used for making macroeconomic estimates of the impact on Pakistan's economy of the liberalization of trade with India.

Chapter 6 Sectoral Case Studies

This chapter undertakes case studies of a number of key sectors of Pakistan including agriculture, textiles and clothing, chemicals and pharmaceuticals, iron and steel, engineering goods and automobiles. The key parameters of each sector are highlighted and an initial assessment made of the impact of liberalization of trade with India following the granting of MFN status and implementation of SAFTA, along with the reduction in non-tariff barriers in both countries.

6.1 Case Study of Agricultural Products

Introduction

A comparison has been made of the agriculture sector in India and Pakistan, respectively, in Chapter 2. The focus here is on trade in agricultural products. The data has been extracted from the Pakistan Economic Survey (PES) and the Agricultural Statistics Yearbook.

Production

The total value of production by the agricultural sector of Pakistan is Rs 4968 billion in 2011-12. It has increased annually at the rate of 3 percent in constant prices and by 22 percent in current prices since 2005-06. The share of the subsectors of crops and livestock is 42 percent and 55% respectively, with the remainder, 3%, being accounted for by forestry and fishing. Production of individual crops and livestock products is given in Table 6.1.

Table 6.1: Production of Crops and Livestock Products

Product	Unit	2000-01	2005-06	2011-12	Growth Rate (%)
Wheat	000 tons	19024	21277	23517	2.1
Rice	000 tons	4803	5547	6160	2.5
Total food grains	000 tons	25987	30396	34459	2.9
Cotton	000 tons	11240	13019	13595	1.9
Sugar	000 tons	43066	44666	58038	3.0
Citrus fruit	000 tons	1898	2458	1832	-0.4
Mango	000 tons	990	1754	1699	5.5
Milk	000 tons	26284	31970	38690	3.9
Meat	000 tons	1676	2003	2398	3.6
Hides & skins	000 tons	46.0	54.7	63.5	3.3

Source: PES

Value Added

Inputs of water, fertilizer, seeds, etc. are estimated to constitute 22 % of the value of production. As such the value added by the sector is Rs 3900 billion in 2011-12, representing a share of 20% of the national GDP.

The respective contribution of crops, to the sectoral value of output by the crop sub sector, is 39 percent by wheat, 15 % by rice, 12 percent by sugarcane and 9 percent by minor crops, including fruits and vegetables.

Employment

The share of agriculture in the labor force of Pakistan is 45 percent in 2010-11. With an unemployment rate of about 5 percent, the total number of workers employed in the sector is 24 million. Bulk of the workers are self-employed or unpaid family workers.

Cost Structure

The share of major inputs like water, fertilizer and seeds in the value of output of crops is estimated at 3 percent, 9 percent and 5 percent respectively.

Exports and Imports

Table 6.2 lists the major commodities exported from Pakistan, with a value in 2010-11 in excess of $ 20 million each. The largest export is rice at $2,132 million, followed by wheat at $519 million, ethyl alcohol at $ 184 million, citrus fruit at $125 million, meat at $114 million, fish frozen at $113 million, vegetable fats/oils at $ 107 million and dates at $100 million. Other exports are below $100 million in each case. The total value of major agricultural exports was in excess of $4 billion in 2010-11.

In 2010-11 Pakistan's agricultural exports to India in the major products, listed in Table 6.2, was $64 million, equivalent to about 12 percent of India's global imports. The only significant export to India was dates, worth $46 million.

Turning to major agricultural imports of Pakistan, each exceeding $50 million in value, there are 12 such items at the 4-digit level, aggregating to $4.2 billion in 2010-11. The largest import is palm oil at $1850 million, followed by cotton at $1031 million, sugar at $ 691 million, rape or colza seeds at $506 million, leguminous vegetables at $ 370 million and tea at $ 311 million.

The principal sources of supply of agricultural products are diverse, with palm oil from Malaysia, cotton from India, onions from China, milk and cream from New Zealand, tea from Kenya, sugar from Dubai and rape or colza seeds from Canada.

Table 6.2: Trade In Agricultural Products Major Items* Exports of Pakistan ($ Million)

HS Code	Description	Global		Exports of Pakistan from India	Presence in India's SAARC Revised Sensitive List**	Current Rate of Customs Duty of India	Trade Comple-mentarity
		Exports of Pakistan	Imports of India				
0201	Meat	63	-	-	N	30	N
0204	Meat	114	-	-	Y	30	N
0303	Fish Frozen	113	-	-	Y	30	N
0304	Fish Fillets	46	5	-	Y	30	Y
0306	Crustaceans	36	4	-	Y	30	Y
0504	Guts, etc. of Animals	27	-	-	N	30	N
0701	Potatoes	33	-	-	Y	30	N
0703	Onions	34	7	3	Y	30	Y
0709	Other Vegetables	39	2	-	N	30	Y
0710	Vegetables Frozen	21	-	-	N	30	N
0712	Vegetables Dried	23	-	-	Y	30	N
0804	Dates, etc.	100	180	46	Y	30	Y
0805	Citrus Fruit	125	9	-	N	40	Y
1001	Wheat	519	55	-	Y	100	Y
1006	Rice	2132	-	13	Y	70 – 80	N
1101	Wheat Flour	32	-	-	Y	80	N
1301	Lac, natural gum	44	85	-	N	30	Y
1516	Animal or Vegetables Fats, Oils	107	7	-	N	30	Y
1604	Prepared Fish	62	-	-	N	30	N
1605	Crustacean Molluscs	26	-	-	N	30	N
1704	Sugar Confectionary	28	15	-	N	30 – 45	Y
1905	Bread, pastry, cakes	23	17	-	Y	30 – 45	Y
2009	Fruit juices	55	29	2	Y	30 – 45	Y
2201	Waters	25	-	-	N	30	N
2207	Ethyl Alcohol	184	76	-	Y	30 – 150	Y
2401	Tobacco & Refuse	24	10	-	Y	30	Y
TOTAL		**4035**	**501**	**64**			

* items in which global exports of Pakistan exceed $20 million

Source: SBP, MOC India, SAARC

As shown in the Table, 11 out of the 26 major agricultural exports of Pakistan are outside the revised Sensitive List of India. These products could capture a larger share of the Indian market, given the sizable decline in the customs duty.

India is already the biggest source of import of cotton, soya bean oil cake and seeds. Currently, India supplies about 13 percent of Pakistan's requirement of agricultural products. In fact, excluding palm oil (which is imported from Malaysia and India also imports this product), India has potential of raising this share substantially. Out of the 11 major agricultural items imported by Pakistan, India will be given a tariff reduction under SAFTA in 7 items.

Table 6.3: Trade In Agricultural Products Imports of Pakistan Major Items* ($ Million)

HS Code	Description	Global		Imports of Pakistan from India	Presence in Pakistan's Sensitive List**	Current Rate of Customs Duty	Trade Comple-mentarity
		Imports of Pakistan	Exports of India				
0402	Milk and Cream, Conc.	89	52	-	Y	25	Y
0703	Onions	71	409	6	N	0	Y
0713	Leguminous Vegetables	370	191	58	N	0	Y
0802	Other nuts	58	44	-	N	5 – 10	Y
0902	Tea	311	707	27	Y	10	Y
1205	Rape or Colza	506	-	-	N	0	Y
1209	Seeds	52	40	21	N	0	Y
1502	Fats of Bovine Animals	50	-	-	N	10	N
1507	Soyabean Oil	60	-	-	Y	SD[a]	N
1511	Palm Oil	1850	-	-	Y	SD	N
1701	Sugar	691	1196	69	Y	25	Y
2304	Soyabean Oil Cake	141	2057	141	N	10	Y
	Cotton	1031	3388	372			
TOTAL		**5280**	**8084**	**694**			

* items in which global imports of Pakistan exceeded $50 million
** if at least one item at the 6-digit level is included in the Sensitive List
[a] Specific duty

Source: SBP, MOC India, SAARC

Tariffs

Pakistan's exports to India are severely constrained by the high tariffs on agricultural products. India has a customs duty of 100 percent on wheat, 70 to 80 percent on rice and 30 percent on other commodities. In addition, there are state sales tax and cesses. There does not appear to be much liberalization of agricultural exports of Pakistan and many exports remain on India's SAFTA Sensitive List, revised last in September, 2012. This includes items like wheat, rice, ethyl alcohol, dates and fruit juices. It is only in products like meat, some vegetables, citrus fruit, lac and natural gum, animal or vegetable fats & oils that some preferential access has been provided to the Indian market. But in most of these products, imports by India are currently very limited.

Turning to the tariffs on agricultural imports into Pakistan, the country appears to have moved to the other extreme of trade liberalization, in complete contrast to India. Items like onions, leguminous vegetables, rape or colza seeds and seeds are totally exempt from customs duty. On other products, the maximum rate of duty is currently 25 percent. Although the statutory rate on sugar is 25 percent, the Economic Committee of the Cabinet (ECC) has withdrawn the duty on occasions when there was a large deficit in production within the country.

The agricultural trade policy of India appears to be primarily geared to protecting the interests of farmers. Not only are import tariffs very high but there is a very large subsidy on agricultural inputs (as

quantified in the report on Non-Tariff Barriers in India and Pakistan and their Impact). Pakistan has opted for a trade policy which primarily looks after consumer interests rather than the farming community. Clearly, in the bilateral trade negotiations Pakistan must emphasize to India the need to open up its agricultural commodity markets. What matters is not the number of items in India's SAFTA Sensitive List but which items. To conclude, potential agri exports of Pakistan to India face tariff walls that are substantially high. In comparison, potential agri exports by India to Pakistan face low tariff walls.

6.2 Case Study of Textiles and Clothing

Introduction

The textile sector is the largest industry of Pakistan, with strong forward and backward linkages with the rest of the economy. It accounts for almost 3 percent of the GDP, 25 percent of large-scale manufacturing and 52 percent of exports. It includes cotton yarn, man-made staple fibres, carpets, special woven fabrics, knitted/crocheted wearing apparel and other made-up articles.

Data for this case study has been obtained from PES, Pakistan Statistical Yearbook, Census of Manufacturing Industries (CMI), 2005-06, of PBS and SBP.

Production

The value of production by the large-scale component of the textile sector of Pakistan is estimated at Rs 1297 billion ($ 15.3 billion) in 2010-11, with over 48 percent destined for international markets. As shown in Table 6.4, the major contribution to value of production of 49 percent is by spinning, followed by fabrics at 29 percent. Therefore, Pakistan appears to have a comparative advantage at early stages in the value chain.

The trend in physical output is given in Table 6.5. Cloth production has been dynamic with growth rate of 16 percent. Yarn production has shown modest growth of 5 percent.

Table 6.4: Trend In Value Of Production In Textiles And Clothing In Pakistan (Rs in Billion)

	2005-06	Share (%)	2010-11	Growth Rate (%)
Spinning	379.6	49	1167.2	11.4
Textile Fabrics	218.7	29		
Finishing of Textiles	79.2	10		
Made-up Textile Art.	45.4	6	84.3	13.1
Knitted and Crocheted Fabrics	33.4	4	34.2	0.5
Others	10.7	2	11.0	0.5
TOTAL	**767.0**	**100**	**1296.7**	**11.1**

Source: CMI 2005-06

Table 6.5: Trend In Production In Textiles And Clothing In Pakistan

	Unit	2000-01	2005-06	2010-11	Growth Rate (%)
Yarn	million kg	1721.0	2556.3	2938.6	5.5
Cloth	million sq. meters	490.2	915.3	1029.8	16.0

Source: PES

Value Added

The trend in value added is given in Table 6.6. It is estimated at over Rs 576 billion in 2010-11 in large-scale units. The share of value added upto the finishing stage is over 91 percent. Overall, at current prices, value added by the sector has been increasing at an annual rate of 16 percent.

Table 6.6: TREND IN VALUE ADDED IN TEXTILES AND CLOTHING (Rs in Billion)

	2005-06	Value Added as percentage of Value of Production	2010-11	Growth Rate (%)
Spinning	129.1	34	528.2	17.1
Textiles Fabrics	88.5	40		
Finishing of Textiles	22.5	28		
Made-up Textile Art	14.2	31	21.6	8.8
Knitted & Crocheted Fabrics	10.9	33	18.8	11.5
Others	4.5	42	7.7	11.5
TOTAL	**269.7**	**35**	**576.3**	**16.4**

Source: CMI 2005-06

Employment

The employment in the sector, inclusive of small-scale units (employing upto 10 persons), was estimated at 2.6 million in 2005 by the Economic Census. It is likely to have exceeded 3 million by 2010-11. Textiles is one of the most labor-intensive industries in the country, while it accounts for about one-third of manufacturing value added, it employs more than half the number of workers.

Cost Structure

The cost structure in different parts of the sector is presented in Table 6.7. The sector is characterized by a heavy dependence on domestic materials of up to 61 percent, and minimal requirement of imported raw materials. The energy dependence is moderate, with a high of 21 percent in the case of finishing of textiles.

Table 6.7: Cost Structure Of Textiles & Clothing Share in the Value of Production (%)

	Domestic Raw Materials	Imported Raw Materials	Energy Cost
Spinning	55	5	7
Textiles Fabrics	49	3	6
Finishing of Textiles	42	8	21
Made-up Textile Art	61	3	4
Knitted & Crocheted Fabrics	59	1	3
Others	24	9	4
TOTAL	**53**	**4**	**8**

Source: CMI

Tax Contribution

Both export and domestic sales of textiles have been zero rated from GST. As such, the tax contribution of the sector is minimal.

Capacity Utilization

The total installed capacity of the industry is as follows: spinning capacity of 1,550 million kg of yarn; weaving capacity of 4,368 million square meters of fabric; finishing capacity of 4,000 million square meters; 670 million units of garments; 400 million units of knitwear; and, 53 million kg of towels.

The spinning sector comprises of 442 units, while around 124 large and 425 small units are engaged in weaving. There are approximately 20,600 power looms in operation in the country, while the industry has around 10 large and 625 small finishing units. The industry is characterized by high rates

of capacity utilization, at 91 percent in the case of yarn and 71 percent in cotton cloth. Investment in the sector has considerably slowed down in recent years.

Exports

As highlighted above, textile industry is the largest exporter of Pakistan, at over $13 billion in 2010-11, when international prices were favorable. Table 6.8 reveals that the exports of cotton and yarn fetched over $4.7 billion, followed by knitted/crocheted apparel at $2.7 billion and other made-up articles at $3.2 billion. The fastest growth has been observed in man-made stable fiber and special woven fabrics.

Table 6.8: Exports Of Textiles & Clothing ($ Million)

	2005-06	2010-11	Growth Rate (%)
Cotton and Yarn	3598	4758	5.7
Man-made staple fibers	72	601	52.7
Carpets	257	153	-9.9
Special woven fabrics	32	295	55.9
Wearing Apparel Kn/Cr	1754	2736	9.3
Wearing Apparel not Kn/Cr	1307	1076	-3.9
Other Made-up Articles	3156	3232	0.5
Others	292	379	5.4
Total	**10468**	**13230**	**4.8**
% of Exports		**52**	

Source: SBP

In terms of share of world, exports from Pakistan accounted for 1.7 percent of the world trade in T&A in 2011, down from a share of 2 percent in 2005. In comparison, the share of India's T&A exports in world trade has recorded a much higher increase.

The principal destinations of exports are given in Table 6.9. At the earlier stages of value added the major markets are Bangladesh, China and Turkey. For wearing apparel and other made-up articles the pre-dominant markets are USA, UK and other European countries.

The deep recession in the economies of EU and stagnation in USA implies that Pakistani textile exports may be affected adversely and efforts will have to be made to find new market. Further, with the onset of the acute energy crisis that has gripped Pakistan since 2008, the weaving and processing/finishing sub-sectors have been hit. Since these are process industries that rely on uninterrupted power, but are not large enough to afford self-generation, the extended power and gas outages that occur as a result of demand-management by the utilities, has seriously affected the competitiveness of many firms in this sub-sector of textiles.

Table 6.9:Destinations Of Major Exports* Of Textiles And Clothing			
HS Code	**Description**	**Total Exports**	**Major Markets[a]**
5201	Cotton	310	Bangladesh(29)[b], China(14), Indonesia(12)
5205	Cotton Yarn	1530	China (40), Hong Kong(16), South Korea(7)
5208	Woven Cotton Fabrics	519	Italy (10), Turkey(10), Germany (7)
5209	Woven Cotton Fabrics	935	Bangladesh (16), China(7), Turkey(16)
5210	Woven Cotton Fabrics	306	Turkey(8), USA(7), UK(7)
5211	Woven Cotton Fabrics	256	Bangladesh (14), Turkey(23), Germany (7)
5212	Woven Cotton Fabrics	271	Bangladesh (11), Turkey(10), China (7)
5213	Woven Fabrics Synthetic	485	UK(7), South Africa(7), Mexico(7)
6103	Gents Suits	250	USA(44), UK(11), Germany(5)
6105	Gents Shirts	577	USA(57), UK(18), Spain(4)
6113	Garments, rubber or plastic	742	Germany(18), USA(47), Spain(4)
6115	Panty hose, socks, etc	285	USA(55), Belgium(7), Netherlands(7)
6203	Men's Suits, not knitted	523	USA(25), UK(19), Germany(12)
6302	Bed & Table Linen, etc	2707	USA(36), UK(11), Spain(4)
*above $250 million [a] Top 3 markets [b] % share Source: SBP			

Imports

Pakistan's imports of textiles and clothing are limited to about $ 2.5 billion, consisting primarily of cotton ($ 1091 million), man-made filament ($ 526 million) and man-made staple fibers ($ 582 million) in 2010-11. The primary sources are India for cotton and China for synthetic filament yarn and fibre.

Tariffs

The tariffs in India on textiles and clothing imports are presented in Table 6.11. In the case of items which are major exports of Pakistan. Also, the table indicates if the item is in the SAFTA Sensitive List of India or not. There has been a limited opening made by India under SAFTA. Items which will see a reduction in tariffs include woven cotton fabrics and garments. But cotton, cotton yarn, fabrics of synthetic fibre, gents' shirts, panty hose, socks, men's suits and bed linen remain in the Sensitive List, and in many cases, subject to high specific duties. Box 6.1 highlights the trading relations in textiles between India, Sri Lanka and Bangladesh and derives the implications for Pakistan.

Major imports by Pakistan of textiles and clothing are either duty free or at low rate of 5 to 10 percent. They are also outside the SAFTA Sensitive List of Pakistan.

BOX 6.1
IMPACT ON PAKISTAN OF TRADE RELATIONS IN TEXTILES OF INDIA IN SOUTH ASIA

India has on an FTA with Sri Lanka under which India has offered the following concessions on import of textiles from the former:

(i). Concessions on items in Chapters 51 to 63 shall be restricted to 25%. (These chapters relate to textiles and clothing.)

In addition, preferential treatment under SAFTA by India is available to Sri Lanka. Under SAFTA, as of November 2011, India has cut drastically its Sensitive List for SAARC LDC member states, including Bangladesh, to only 25 items from 480 items (at 6 digit level). None of the remaining 25 items relates to textiles.

In a recent announcement, India proposed to cut the Sensitive List for SAARC non-LDC countries by 30 percent to 607 items at the 6-digit level. The revised list still includes 181 items from textiles.

Therefore, while Sri Lanka and Bangladesh have been given an across-the-board concession in textiles, only 59 percent of Pakistan's textiles exports will receive preferential treatment in India under SAFTA. The greatest opening has been offered to Bangladesh.

What is the current distribution by country of textiles imports by India? This is given below.

	2011-12 Textiles Exports to India ($ Million)	Share (%)
Bangladesh	279	24
Sri Lanka	68	6
Pakistan	63	6
Others	730	64
Total	**1140**	**100**

Bangladesh already has a share of almost one fourth in the Indian market. This share is likely to increase further. Pakistan will not be able to make much inroads in some value added products because of competition, especially from Bangladesh, and due to the relatively limited opening given by India.

Profitability

The rates of profitability of quoted companies in Pakistan in the textile sector are given in Table 6.10 below. Profitability is relatively low in the sector although it showed some increase in 2010-11.

Table 6.10: Rate Of Profitability In Textiles And Clothing %

	2005	2010	Comment*
Spinning, Weaving and Finishing of Textiles			
Return on Equity	3	5	Below KSE Average
Return on Capital Employed	5	8	Below KSE Average
Made-up- Textiles			
Return on Equity	2	4	Below KSE Average
Return on Capital Employed	4	6	Below KSE Average
* compared to overall average for all companies quoted in Karachi Stock Exchange			

Source: SBP

Table 6.11: Tariffs In India On Textile Exports Of Pakistan Major Items* ($ Million)					
HS Code	Description	Global		Presence in the SL of India	Current Rate of Duty (%)
		Exports of Pakistan	Imports of Pakistan		
5201	Cotton Yarn, Not Carded	310	132	Y	10
5205	Cotton Yarn	1530	23	Y	10
5208	Woven Cotton Fabrics	519	159	N	10/SD[a]
5209	Woven Cotton Fabrics	935	60	N	10/SD
5210	Woven Cotton Fabrics //	306	18	N	10/SD
5211	Woven Cotton Fabrics //	272	8	N	10/SD
5513	Fabrics of Syn Fiber	485	6	Y	10/SD
6105	Gents Shirts	577	5	Y	10/SD
6113	Garments	742	-	N	10
6115	Panty hose, socks	285	7	Y	10
6203	Men's Socks	523	34	Y	10/SD
6302	Bed Linen	2708	3	Y	10/SD
	Total	**10546**	**523**		

*exports above $250 million
[a] 10 % or a specific duty whichever is higher

Source: CBEC, India

Therefore, out of 12 major textile exports of Pakistan, only 5 are outside the revised Sensitive List of India.

6.3 Case Study of Chemicals and Pharmaceuticals

Introduction

The chemicals and pharmaceuticals industry is a major industry of Pakistan with a share of 14 percent in the value added by the large-scale manufacturing sector. Within the sector, the three sub-sectors of chemicals, pharmaceuticals and fertilizer have shares of 18, 37 and 45 percent, respectively. The fertilizer industry has developed on the back of cheap supplies of natural gas, which is now increasingly in short supply. Within chemicals, the important industries are man-made fibres and basic chemicals.

Production and Value Added

The trend in the value of production and value added in each sub-sector is given in Table 6.12.

Table 6.12: Values Of Production And Value Added In Chemicals And Pharmaceuticals (Rs in Billion)	
	2005-06
1. Value of Production	**351**
Basic Chemicals	29
Man-Made Fibers	73
Pharmaceuticals	90
Fertilizers	93
Others	66
2. Value Added	**174**
Basic Chemicals	15
Man-Made Fibers	23
Pharmaceuticals	49
Fertilizers	58
Others	29

Source: CMI

The trend in production of selected products within chemicals and pharmaceuticals is given in Table 6.13. Production of most items has increased between 2000-01 and 2009-10. But there has been a significant fall in some industries in 2010-11, especially of fertilizer by almost 20 percent due to the emerging gas shortage.

Employment

Inclusive of small-scale units, the employment in the sector was estimated at 179,000 in 2005-06, indicating that this is a relatively capital-intensive industry. The share of small-scale units (employing up to 10 persons) is low at 16 percent. Overall, this sector accounts for 3 percent of the total employment in the manufacturing sector of Pakistan.

Table 6.13: Production Of Selected Products Of Chemicals And Pharmaceuticals

Production	Unit	2000-01	2005-06	2009-10	2010-11
Soda Ash	'000 tonnes	218	319	410	378
Caustic Soda	'000 tonnes	146	219	183	172
Sulphuric Acid	'000 tonnes	57	94	85	128
Chlorine	'000 tonnes	14	18	16	15
Fertilizer	'000 tonnes	5142	6088	6481	5253
Paints & Varnishes	'000 tonnes	44	65	97	*n.a.*
Toilet Soap	'000 tonnes	23	61	81	*n.a.*
Motor Tyres	'000 Nos	2439	5942	8672	9319

Source: PES

Cost Structure

The cost structure of the major industries in the sector is presented in Table 6.14.

Table 6.14: Cost Structure Of Major Industries In Chemicals And Pharmaceuticals%

Industry	Cost of Domestic Raw Materials	Cost of Imported Raw Materials	Cost of Energy Inputs
Basic Chemicals	21	17	12
Man-Made Fibres	41	24	4
Pharmaceuticals	33	11	2
Fertilizers	23	4	10
Total	**33**	**12**	**6**

Source: CMI

The dependence on imported raw materials is the highest in the case of man-made fibers followed by basic chemicals. The energy-intensity is relatively high in the case of basic chemicals and fertilizers.

Tax Contribution

The tax contribution in the form of GST by different industries in the sector is given in Table 6.15. The combined contribution is Rs 6 billion. The two major industries with relatively high yields are nylon chips/polyester chips and inorganic chemicals. However, given its size, the industry makes relatively less contribution to the exchequer. The fertilizer sector and many pharmaceutical items are exempt from GST. It is only recently that fertilizer has been brought into the tax net.

Table 6.15: GST REVENUES FROM CHEMICALS AND PHARMACEUTICALS(Rs In Million)

Industry	2006-07	2010-11
Caustic Soda	467	155
Chemicals Inorganic/ Industrial Gases	1056	947
Chemicals Organic	180	219
Synthetic Resins	106	57
Insecticides	37	113
Liquid Glucose	312	632
Nylon Chips/Polyester Chips	709	1252
Paints and Varnishes	326	481
Perfumery and Cosmetics	206	342
Pharmaceuticals Products	200	340
Polypropylene	60	78
Polystyrene	111	96
Resin Material	206	822
Soda Ash	279	322
Varnishes and Lacquers	90	110
Total	**4345**	**5966**

Source: FBR

Margin of Unutilized Capacity

Estimates of the rates of capacity utilization are available for some industries. In the fertilizer sector it has fallen after the commissioning of the large new Engro plant at a time of depleting supplies of annual gas for the industry. It is estimated in 2011-12 at 64 percent, while it is 76 percent in soda ash and 75 percent in caustic soda.

Exports and Imports

The exports from the sector in 2010-11 were polyesters ($ 265 million), polymers ($ 50 million), artificial graphite ($ 62 million) and medicaments ($ 56 million). Exports to India were marginal. The share of competing imports in the sector is estimated at 38 percent. As shown in Table 6.16, imports of products, in excess of $ 150 million, are cyclic hydrocarbons ($ 466 billion), with India already meeting 40 percent of the requirements, polymers ($ 896 million), acylic alcohol ($ 328 million) and fertilizer ($ 289 million). The total import from India of the major imported items was $ 312 million in 2010-11.

Table 6.16: Chemicals And Pharmaceuticals Exports Of Pakistan* ($ Million)

HS Code	Description	Global		Exports of Pakistan to India	Presence in the SAFTA Sensitive List of India	Current Rate of Duty (%)
		Exports of Pakistan	Imports of India			
3004	Medicaments	56	764	0.2	Y	10
3801	Artificial Graphite	62	34	0.4	N	10
3901	Polymers	50	1971	0.0	N	10
3907	Polyesters	265	1025	0.0	N	10
Total		**433**	**3794**	**0.6**		

Source: SBP, Ministry of Commerce, India

The primary source of imports again is China, being the largest exporter to Pakistan in 36 percent of the items. Other important sources are Saudi Arabia and various developed countries. India is the biggest exporter to Pakistan of cyclic hydrocarbons.

There is potentially a high degree of trade complementarily between imports of Pakistan and exports of India in chemicals and pharmaceuticals, following the granting of MFN status to the latter. Over 70 percent of the requirements can be met by India. But the outcome also in the Pakistani market will depend largely on the competition between China and India.

Given their larger size, greater research capability and higher R&D spending, local availability of raw materials, and a greater export-orientation/international competitiveness, India's fast-growing, generics-focused pharmaceuticals industry is likely to pose a serious competitive threat to Pakistani producers.

Tariffs

Within each major import of Pakistan at the 4 digit level, there is a variation in rates of tariff at the 8 digit level. The range is wide in some cases like medicaments, insecticides and rubber tyres, as shown in Table 6.17. Following the implementation of SAFTA, 7 out of the 11 major imports are likely to see a decline in tariffs to 5 percent for imports from India. This will substantially improve the competitiveness of Indian chemicals and pharmaceuticals in Pakistan.

Table 6.17:Chemicals* And Pharmaceuticals Imports Of Pakistan
($ Million)**

HS Code	Description	Global		Exports of India to Pakistan	Presence in the SL of Pakistan	Current Rate of Duty (%)
		Imports of Pakistan	Exports of India			
2809	Phosphoric Acid	254	6	-	N	5
2902	Cyclic Hydrocarbons	466	1593	185	N	5 – 10
2905	Acyclic Alcohol	328	212	-	N	0 – 20
2917	Polycarboxylic Acid	200	149	-	Y	5 – 20
3004	Medicaments	200	5637	7	Y	5 – 25
3105	Fertilizer	289	23	-	N	0
3204	Syn Coloring Matter	162	1249	33	Y	0 – 20
3808	Insecticides	195	1139	25	N	0 – 25
3901	Polymers	461	224	3	N	5
3902	Polymers =	435	771	17	N	5
4011	New Tyres of Rubber	144	1029	42	Y	5 – 25
Total		**3134**	**12032**	**312**		

Source: SBP, Ministry of Commerce, India

Therefore, out of the 11 major imports of chemicals and pharmaceuticals by Pakistan, as many as 8 items have been kept outside its SAFTA Sensitive List.

Profitability

The profitability ratio for quoted companies in the sector is given in Table 6.18.

Table 6.18: Rate Of Profitability In Chemicals And Pharmaceuticals %

	2005	2010	Comment
Return on Assets	21	12	Above KSE Average
Return on Equity	43	30	Above KSE Average
Return on Capital Employed	37	17	Above KSE Average

Source: SBP

Although profitability has declined from 2005 to 2010, the industry still remains more profitable than the average for all quoted companies in the KSE.

Overall, Pakistan's chemicals and pharmaceuticals industry is likely to face competition from India following the implementation of SAFTA.

6.4 Case Study of Iron and Steel

Introduction

The iron and steel industry is a medium-sized industry of Pakistan with a share in value added of about 8 percent in large scale manufacturing. The sector is dominated by the large public sector unit, Pakistan Steel Mills Cooperation (PASMIC) with the capacity of 1.1 million tons.

In the steel melting sub-sector, there are about 110 units with an installed capacity of 2.0 million tons per annum. Most of these units are run in the informal sector and their product range includes continuous cast billets, thin ingots, and a non-standard product called 'runners'.

Until a few years back, the ship demolition sub-sector was a supply source of close to a million tons of re-rollable & re-meltable scrap besides forged steel shafts, non-ferrous scrap and serviceable engineering goods. However, due to a sharp increase in the international market for demolition vessels, the output of this source has declined to a negligible 0.2 million tonnes.

Production and Value Added

The production consists primarily of pig iron, billets/ingots and HCR sheets/plates with shares in value added of 29, 28 and 43 percent respectively. The value of production is estimated at Rs 100 billion in 2010-11. It has shown a negative growth of 10 percent annually since 2005-06, when the last CMI was undertaken. In particular, the sales of PASMIC have fallen from Rs 43 billion in 2007-08 to Rs 27 billion in 2010-11. The share of value added in value of production was 2.4 percent in 2005-06. It is likely to have become negative due to the transition of PASMIC from being a profitable entity to a large loss-making one (seeking a bailout package of Rs 10-12 billion from the Government). Exports sales by the sector are marginal. The production of pig iron and billets has fallen by 77 percent and 36 percent respectively since 2004-05.

Employment

Inclusive of small scale units, employment in the sector is estimated at 88,000 in 2005-06, with about 20 percent of the employment in PASMIC. Large-scale units (with employment above 10 persons) dominate the industry, with a share in employment of three-fourths.

Cost Structure

The share of domestic materials, imported materials and energy costs in the value of production is 32, 15 and 12 percent respectively. This is a relatively energy-intensive industry and is likely to have been more adversely affected by power load shedding.

Tax Structure

The sector as a whole yielded GST revenues of Rs 3.5 billion from iron products and Rs 0.7 billion from mild steel products. A big tax contribution of almost Rs 2.3 billion has come from the ship breaking industry. Overall, the indirect tax contribution is Rs 6.5 billion in 2011-12. As compared to this, the downstream metal products industry has generated tax revenues of less than Rs 1 billion.

Margin of Unutilized Capacity

Pakistan's total installed manufacturing capacity of steel is estimated to be around 4 million MT. Out of the total installed capacity, the capacity to produce long steel products is around 2.5 million tonnes, flat products around 1.2 million tonnes and 0.3 million tonnes of other products.

Estimates of the rates of the capacity utilization in the sector are available in the PES upto 2010-11 but it is likely to have fallen in the last few years precipitously, given the problem of financial sustainability of PASMIC. In 2010-11, it was 35 percent in pig iron, 45 percent in hot rolled coils/ plates and 42 percent in cold rolled coils.

Profitability

Major losses are being incurred by PASMIC, with cumulative losses of as much as Rs 86 billion. It is receiving from the federal Government a subsidy which is reported at Rs 2 billion in 2011-12. Earlier, part of the debt was converted into equity. Other public quoted companies like Metropolitan Steel Corporation and Pakistan Engineering Company (PECO) have low profitability ratios of zero and 3 percent on capital employed.

Exports and Imports

Competing imports constitute about 26 percent of the domestic market for iron and steel. The major products imported, with a value in excess of $ 100 million are flat rolled products (7208-7210[2]) as shown in Table 6.19. The total import value is $766 million. These products were outside the Positive List and, consequently, there have been no imports from India. They are also in Pakistan's SAFTA Sensitive List and, therefore, the duty rates will remain unchanged at 10-20 percent.

Table 6.19: Iron And Steel Imports Of Pakistan*

HS	Description	Global		Presence in the SL of Pakistan	Current Rate of Duty (%)	Current Rate of Duty (%)
		Imports of Pakistan	Exports of India			
7208	Flat Rolled Prod	267	861	-	Y	10 – 20
7209	=	213	403	-	Y	10 – 20
7210	=	286	1383	-	Y	10 – 20
Total		**766**	**2647**	**-**		
* Above $ 100 million						

Source: SBP, FBR

The principal source of imports is China. In 40 percent of the tariff lines of import, China has the largest share in exports to Pakistan, followed by Japan with 20 percent. India is the principal supplier in two relatively minor products, viz, containers for compressed or liquid gas and ferro alloys. Following the granting of MFN status, India will also be in a position to supply iron and steel to Pakistan. The outcome will hinge largely on the competition between India and China in the Pakistani market. China, of course, has the advantage of the FTA with Pakistan, which includes iron and steel.

6.5 Case Study on Engineering Goods (Excluding Automobiles)

Introduction

The engineering goods industry (excluding automobiles) is at an early stage of development in Pakistan and currently accounts for less than 4 percent of the industrial value added in the country. The major industries in this sector are sewing machines, bicycles, diesel engines and electrical machinery and equipment.

Production and Value Added

The total value of production is estimated at Rs75 billion in 2010-11, with an annual growth at current prices since 2005-06, implying a decline in levels of physical output. Value added is estimated at Rs. 20 billion, with a somewhat faster growth of 6 percent.

Employment

The total employment, including small-scale units was 77,000 in 2005-06. It has probably declined by 2010-11, especially in the manufacturing of sewing machines and electrical tubes. Almost 50 percent of the employment is estimated to be in units employing less than 10 workers.

Cost Structure

For the sector as a whole, the cost of inputs in value of production is estimated at 73 percent. The share of domestic materials, imported inputs and energy inputs is 40 percent, 21 percent and 4 percent respectively.

Tax Contribution

The sector as a whole contributed about Rs 5 billion in revenues from the GST in 2010-11. Major contributors were deep freezers, machinery parts (mechanical), electrical goods and parts and storage batteries

[2] Product groups at the 4-digit level of HS

Capacity Utilization

Estimates of rates of capacity utilization are not available, but it is likely that there is a significant margin of unutilized capacity since production levels in many industries have fallen sharply from the peak levels attained in the mid-2000s.

Profitability

For publicly quoted companies in this sector, the rate of return on capital employed is only 8 percent in 2010, compared to 27 percent in 2005. The corresponding rates of return on assets and equity are 4 percent and 11 percent respectively.

Exports and Imports

Exports have a negligible share of less than 1 percent of the output of the sector. Competing imports are estimated to be taking up almost 75 percent of the domestic market. China is the main supplier, being the largest source of over 60 percent of the products imported.

Major Imports

Products which are imported into Pakistan with a value in excess of $ 100 million in 2010-11 are shown in Table 6.20. The largest import item is electrical appliances for telephony at $518 million, followed by electricity generating sets at $289 million. Overall, these products account for imports of over $ 1.5 billion. There have been virtually no imports from India as most of these items were outside the Positive List.

Table 6.20: Engineering Goods Imports Of Pakistan Major Imports* ($ Million)

HS CODE	Description	Global Imports of Pakistan	Global Exports of India	Exports of India to Pakistan	Presence in the SL of Pakistan	Current Rate of Duty
8411	Turbojets	122	237	-	N	5
8414	Air, Vacuum Pump	163	537	1	Y	5-30
8445	Textile Machinery	118	40	-	N	5
8471	Data Proc mach	103	285	-	N	0
8502	Elect. Gen. Sets	289	132	-	Y	0 – 20
8517	Elect. App for Telephone	518	3329	-	Y	5 – 20
8525	Transmission app	217	34	-	Y	5 – 15
	Total	**1530**	**4594**	**1**		

*More than $ 100 millions
Source: SBP, FBR, MOC, India

Tariffs

Within each group, there is a range of customs duties, generally ranging from 0-5 percent to 20-30 percent. It is expected that tariffs with respect to India will come down for most of the imports following implementation of SAFTA.

6.6 Case Study[3] of the Automotive Sector

The automotive sector has emerged as a major industry of Pakistan during the last decade. It now has a weight of almost 7 percent in the index of production by large-scale manufacturing. The sector undertakes manufacture/assembly of tractors, bases, cars, jeeps, three-wheelers and motorcycles. The auto parts industry is also a part of the automotive sector.

[3] Prepared on the basis of the study by Hafiz A. Pasha and others on the **Automotive Sector of Pakistan** for the International Growth Centre, UK.

Production

The trend in production by vehicle is given in Table 6.21. Production grew rapidly upto the mid-year of the last decade, but has floundered since then. For example, the production level of cars has fallen by 21 percent from the peak level attained in 2005-06. However, there continues to be some dynamism in the demand for motorcycles and the output has increased by 3 percent in the last five years.

Table 6.21: Estimated Levels Of Production Of Different Types Of Vehicles, 2000-01 to 2010-11

Type of Vehicle	2000-01	2005-06	2009-10	2010-11
Cars	**41,556**	**170,487**	**121,647**	**133,972**
1300-1800cc	17,664	69,283	60,360	62,111
1000cc	14,716	47,459	23,330	25,287
800cc	9,176	53,745	37,957	46,574
Jeeps, Pickups, LCVs	**5,441**	**21,624**	**16,940**	**20,025**
Motorcycles, Rickshaws				
Motorcycles	117,858	817,387	1,481,111	1,710,841
Rickshaws		2,166	14,676	17,259
Tractors	**32,533**	**50,257**	**73,844**	**72,303**
Buses		**1,073**	**661**	**526**
Trucks		**4,593**	**3,691**	**2,932**

Sources: Statistical Information Section of PAMA (http://www.pama.org.pk/images/stories/pdf/historical-data.pdf), APMA (http://www.motorcycleexport.com/), Pakistan Economic Survey, Ministry of Finance Presentation on Automobile Sector, EDB.

The estimated turnover of the sector is Rs 401 billion in 2009-10. The major part of the sales is of auto parts with a share of 42 percent followed by cars with 30 percent. It is estimated that there are almost 2200 vendors of auto parts in the country.

Valued Added

The estimated value added in the sector was Rs 108 billion in 2009-10, equivalent to about 25 percent of the value of production. This indicates that there is still scope for deletion in the production of vehicles. The major part, almost 42 percent, of the value added is by auto parts manufacturers.

Employment

Employment in the sector is difficult to estimate because a high proportion of vendors are in the small-scale/informal sector. The IGC study places employment at close to 209,000 with 89 percent in the auto parts industry and the remainder, 11 percent with OEMs

Cost Structure

The cost structure of vehicles and parts is given in Table 6.22 below. The production of vehicles is import-intensive.

Table 6.22: Cost Structure In The Automotive Sector (%)

Share in Value of Production:	Vehicles	Auto parts
Domestic Raw Materials	37	42
Imported Raw Materials	31	21
Energy Cost	1	3

Source: CMI

Tax Contribution

The automotive sector is a major contributor to the national exchequer. In 2009-10, its revenue contribution in the form of indirect taxes (GST, customs duty and excise duty) was almost Rs 49 billion, while the yield from direct taxes was Rs 13 billion. Overall, the sector accounts for close to 5 percent of federal tax revenue, second only to the petroleum sector.

Capacity Utilization

Rates of capacity utilization in the sector are low, especially in relation to the peak attained five to six years ago. Currently, it is estimated that the extent of capacity utilization is 44 percent in cars, 69 percent in motorcycles/rickshaws and trucks/buses, 40 percent. The only segment of the industry with high rate of capacity utilization is tractors at 110 percent.

Exports and Imports

Exports from the automotive sector are limited at $16 million in the case of tractors and $13 million of auto parts. As opposed to this imports are sizeable and exceeded $940 million in 2010-11, consisting of vehicles in the either CKD or in CBU form and auto parts. As shown in Table 6.23, the largest import is of motorcars followed by trucks and auto parts. The largest source of imports generally is Japan, with the exception of Belarus in the case of tractors. These products were not on the Positive List and, therefore, there have been no imports from India.

But India is a major exporter of vehicles and has the ability to meet a large part of Pakistan's requirements, subject, of course, to being competitive in the local market.

Table 6.23: Major Imports In Automotive Sector 2010-11
$ Million

HS Code	Description	Global		India Exports to Pakistan	Presence in Sensitive List of Pakistan
		Imports of Pakistan	Exports of India		
8701	Tractors	72	752	_	Y
8702	Motor Vehicles for Ten or more persons	34	233	–	Y
8703	Motor Cars	477	3624	_	Y
8704	Vehicles for Transport of Goods	142	867	_	Y
8708	Parts and Accessories for Vehicles	120	2756	-	Y
8711	Motorcycles	96	1230	-	Y
	Total	**941**	**9462**	**-**	Y

Source: SBP, MOC, India

Profitability

The automotive sector reached a peak of profitability in 2006 as shown in Table 6.24. For companies quoted publicly the return on equity was as high as 51 percent. Since then there has been a significant fall in profitability, but the automotive sector still remains more profitable than industry as a whole.

Table 6.24: Rate Of Profitability In The Automotive Sector (%)

	2006	2010	Comment
Return on Assets	19	13	Above KSE Average
Return on Equity	51	26	Above KSE Average
Return on Capital Employed	46	23	Above KSE Average

Source: SBP

Tariffs

The duty structure in Pakistan on various types of vehicles and parts are given in Table 6.25. There is a clear cascading of the tariff structure, with the highest rates on CBU vehicles.

These rates range from a low of zero percent in the cast of CNG Buses to 15 percent on tractors, on large vehicles at 51-100 percent and on motor cycles at 65 percent. These rates will remain unchanged after implementation of SAFTA as products of the automotive sector are all in Pakistan's SAFTA Sensitive List. Currently, various proposals are under discussion for rationalizing the structure of duties in the automotive sector.

The basic question is whether India vehicles imported into Pakistan, at existing duty rates, will be competitive in terms of price in the domestic market. A comparison is made of the landed price of India vehicles with the domestic price in Pakistan in Table 6.26. It appears that cars and trucks from India will be competitive in Pakistan. This part of the automotive sector in Pakistan is more likely to face a threat after granting of MFN status to India.

The survey respondents in the International Growth Centre study, both Original Equipment Manufacturers (OEMs) and vendors, were asked what measures are required to protect the automobile industry from possible 'serious injury' from Indian imports, as contained in WTO and SAFTA* provisions.

The proposals put forward are as follows:

	% of responses
(i) Develop standards to ensure import only of quality products (Especially parts) from India	59
(ii) Reduce tariffs on imported sub-assemblies and sub-components	56
(iii) Raise tariff on indigenized parts and domestically produced vehicles	53
(iv) Put Indian imports on the Negative List	41
(v) Strengthen valuation and anti-dumping mechanisms	38

Table 6.25: Duty Structure On Automotive Sector (During 2011-12)									
S. No.	Category	Duty Structure (%)							
		SRO 655(I)/2006				Rate of Duty on CKD on Non-localised parts		SRO 693(I)/2006	1st Schedule of Customs Act 1969 (CBU)
		Rate of duty on raw Materials	Rate of duty on sub-components	Rate of duty on components	Rate of duty on sub-assemblies	SRO 656(I)/2006	Statutory	Duty on localised parts under SRO and/or Statutory	
1	Agriculture Tractors of PCT 8701	0%	0%	0%	0%	0%	35%	35%	15% (0% SRO 567)
2	Road Tractors for Semi-Trailers (Prime Mover) of 280HP and above of PCT 8701	0%	0%	0%	0%	0%	35%	35%	15%
3	Road Tractors for Semi-Trailers (Prime Mover) less than 280HP PCT 8701	0%	0%	0%	0%	10%	35%	35%	30%
4	Buses-Falling CNG-Dedicated of PCT 8702	0%	0%	0%	0%	0%	35%	35%	0%
5	Buses-Falling PCT 8702 (Non-CNG)	0%	5%	10%	15%	5%	35%	35%	20%
6	For Vehicle of PCT 8703	0%	5%	10%	20%	32.50%	35%	50%	50-100%[a]
7	Trucks of g.v.w not exceeding 5 tons falling under PCT 8704	0%	5%	10%	15%	20%	35%	50%	60%
8	Trucks of g.v.w exceeding 5 tons falling under PCT 8704	0%	5%	10%	15%	10%	35%	35%	30%
9	For vehicle of PCT 8711 motorcycles	0%	5%	10%	20%	15%	20%-35%	47.50%	65%
10	For bicycles falling under PCT heading 8712	0%	5%	10%	10%	Nil	Nil	Nil	35%
11	Other vehicles	0%	5%	10%	15%	Nil	Nil	Nil	35%
12	Trailers of PCT 8716					5%	5%	Nil	15%

Customs Tariff, 2011-12, *FBR.*

[a] rate on CBU for 800cc cars is 50%; 55% for exceeding 800cc but not exceeding 1000cc; 60% for exceeding 1000cc but not exceeding 1500cc; 75% for exceeding 1500cc but not exceeding 2000cc and 100% + 50% RD for exceeding 1800cc but not exceeding 3000cc.

Source: EDB

Table 6.26: Landed Prices Of 'Potential' Indian Exports Of Automobile Products To Pakistan Domestic Prices					
	Price f.o.b. of exports from India ($)	**Price cif of imports at border* ($)**	**Duty + sales tax paid price ($)**	**Price in Rs (Rs) (000)**	**Price of Local Vehicle (with sales tax) (Rs) (000)**
• Tractor	8474	9321	9321	839	*h.c.*
• Buses AC and for more than 13 persons	41012	45113	62727	5652	5500[g]
• Three wheeled vehicles	1447	1592	2493	224	175[h]
• Car					
< 1000cc	4855	5340	9292	836	826[a]
1000cc - < 1500cc	7001	7701	14293	1286	1419[b] – 1571[c]
≥ 1500cc	9337	10270	19061	1715	1908[d] – 1882[d]
• Goods Vehicles < 5 tons	4540	4994	9269	834	1 1106[e]
• Motorcycles					
75cc – 250cc	615	676	1295	117	114[f]

[a]Diahatsu Cuore, [b]Honda City, [c]Toyota Corolla, [d]Honda Civic, [e]Honda CG-125, [f]Master Highland, [g]Hino, [h]Sazgar
* 10% is the cost of insurance and freight
** The relative competitiveness of Indian products has been enhanced by the 14.2 percent devaluation of the Indian rupee as compared to 5.7 percent in the case of the Pakistani rupee since July 1, 2011.

Source: Authors' own calculations.

6.7 Summary and Conclusion

The above case studies reveal, first, that export possibilities have been enhanced for agriculture, textiles and clothing in India, but have been limited by the continued presence of some of the major exports in the SAFTA Sensitive List of India. This point has to be emphasized in future bilateral negotiations that what matters is not how many products are outside the Sensitive List but which products are in the list.

Second, on the import side, major opportunities exist for India to enter the Pakistani markets, including iron and steel, engineering goods, chemicals and pharmaceuticals and the automotive sector. But in the first three sectors India will face competition primarily from China (with which Pakistan has an FTA) and in the automotive sector from Japan. Significant potential also exists for Indian agricultural exports to Pakistan. Here the competition will be from diverse sources.

Chapter 7 Perceptions of Industry: Findings of the Primary Survey

This chapter highlights the findings from the primary survey of a sample of units in the selected industries, described in the previous chapter. The objectives are; first, to determine industry perceptions about the threats and opportunities created by the liberalization of trade between India and Pakistan and; second, to compare the perceptions with the results of the technical analysis undertaken with secondary data in the previous chapters.

7.1 Sample Characteristics

To identify the potential impact of opening of trade on important sectors like textiles, chemicals and pharmaceuticals, engineering goods, iron and steel, food and beverages and leather and leather products, a structured questionnaire was administered on 174 industrial establishments selected using a stratified, random selection technique. The sample of units that were successfully interviewed is given in Table 7.1.

Table 7.1: Distribution Of Sample By Industrial Sectors

	Frequency	Percent
Textiles and Clothing	29	16.7
Chemicals and Pharmaceuticals	25	14.4
Iron and Steel	17	9.8
Engineering Goods	50	28.7
Food and Beverages	41	23.6
Leather Products	12	6.9
Total	**174**	**100.0**

About 20 percent of the sample units employed up to 10 people and were therefore, essentially small-scale units (See table 7.2). The small scale units surveyed mostly belong to the engineering goods, leather and iron and steel sectors.

Table 7.2: Employment In Sample Units %

	Frequency							Percent
	Upto 10	11 - 20	21-40	41-60	61-100	101-200	201-300	Total
Textile and Clothing	3.4	0	3.4	3.4	13.8	13.8	62.1	100
Chemicals and Pharmaceuticals	9.1	9.1	18.2	4.5	18.2	4.5	36.4	100
Iron and Steel	23.5	5.9	35.3	23.5	-	-	11.8	100
Engineering Goods	40.4	21.3	0	12.8	6.4	2.1	17	100
Food and Beverages	7.5	0	5	15	7.5	5	60	100
Leather Products	41.7	16.7	0	8.3	16.7	8.3	8.3	100
Total	**20.4**	**9.0**	**7.8**	**11.4**	**9.6**	**5.4**	**36.5**	**100**

Distribution of the sample by cities, which constitute major manufacturing and trading hubs of the country, is given in Table 7.3. The distribution reflects the underlying location of the selected industries within Pakistan. However, the target size of the sample in Karachi was not achieved due to some non-response.

Table 7.3: Distribution Of Sample By City

Cities	Number (Target)	Number (Actual)	Percentage
Lahore	51	51	29.3
Faisalabad	25	25	14.4
Gujranwala	17	17	9.8
Sheikhupura	13	13	7.5
Sialkot	16	16	9.2
Hyderabad	13	13	7.5
Karachi	45	39	22.4
Total	**180**	**174**	**100**

Distribution of the sample by cities, which constitute major manufacturing and trading hubs of the country, is given in Table 7.3. The distribution reflects the underlying location of the selected industries within Pakistan. However, the target size of the sample in Karachi was not achieved due to some non-response.

Table 7.4: Frequency Of Different Types Of Units

Cities	Number (Target)	Number (Actual)
Exporting Units	57	33
Import – Substituting Units	117	67
Partial	78	45
Full	39	22
Total	**174**	**100**

Also, an effort was made to cover all three types of industrial units: those producing products which are not imported into Pakistan (fully import-substituting units); those producing products which are also imported (partial import-substituting units), and; those producing products for export. As revealed in Table 7.4, 33 percent of the sample units are export-oriented while 67 percent were import-substituting, 22 percent of which were fully import substituting units.

The major findings of the survey are presented below:

Table 7.5: Average Capacity Utilization Of Sample Units

Industrial Categories	
Textile and Clothing	58.6
Chemicals and Pharmaceuticals	61.9
Iron and Steel	70.2[a]
Engineering Goods	60.4
Food and Beverages	61.5
Leather Products	73.3
Total	**62.5**

[a] Looks high, because PASMIC was not part of the sample

7.2 Production and Marketing

A significant proportion of industrial establishments in the sample operated at a lower level than their installed capacity as shown in Table 7.5. The average percentage of capacity utilization in 2011 is reported at 62 percent, that is, there was idle capacity of close to 38 percent. Textile and clothing, engineering goods and food and beverages were among the sectors operating at low capacity.

The most important reason for the low capacity utilization, cited by 69 percent of the sample respondents, was load shedding while for 23 percent of the respondents the most important factor was lack of demand (See Table 7.6). The Table also indicates that the second important factor for 38 and 31 percent of the respondents was non-availability of human resources and lack of demand respectively.

Table 7.6: Ranking Of Factors Restricting Utilization Of Capacity (%)

	Reasons	Ranks			
		1	2	3	4
Textile and Clothing	Lack of Demand	72.7	12.9	13.3	34.8
	Non- Availability of Human Resources	18.2	25.8	16.7	34.8
	Load shedding	0.0	51.6	26.7	4.3
	Non- Availability of Raw Materials	9.1	9.7	43.3	26.1
	Total	100	100	100	100
Chemicals and Pharmaceuticals	Lack of Demand	22.7	30.0	38.9	15.8
	Non- Availability of Human Resources	0.0	35.0	38.9	26.3
	Load shedding	72.7	15.0	5.6	0.0
	Non- Availability of Raw Materials	4.5	20.0	16.7	57.9
	Total	100	100	100	100
Iron and Steel	Lack of Demand	27.8	7.7	46.2	25.0
	Non- Availability of Human Resources	5.6	53.8	23.1	16.7
	Load shedding	55.6	23.1	15.4	0.0
	Non- Availability of Raw Materials	11.1	15.4	15.4	58.3
	Total	100	100	100	100
Engineering Goods	Lack of Demand	35.4	27.0	25.0	11.1
	Non- Availability of Human Resources	0.0	40.5	41.7	19.4
	Load shedding	60.4	16.2	19.4	2.8
	Non- Availability of Raw Materials	4.2	16.2	13.9	66.7
	Total	100	100	100	100
Food and Beverages	Lack of Demand	7.7	42.1	28.9	21.6
	Non- Availability of Human Resources	0.0	42.1	39.5	16.2
	Load shedding	87.2	7.9	7.9	0.0
	Non- Availability of Raw Materials	5.1	7.9	23.7	62.2
	Total	100	100	100	100
Leather Products	Lack of Demand	0.0	58.3	25.0	18.2
	Non- Availability of Human Resources	0.0	16.7	58.3	18.2
	Load shedding	75.0	25.0	0.0	0.0
	Non- Availability of Raw Materials	25.0	0.0	16.7	63.6
	Total	100	100	100	100
Total	Lack of Demand	22.9	30.8	28.6	20.3
	Non- Availability of Human Resources	1.8	38.5	37.1	21.7
	Load shedding	68.7	18.2	10.0	1.4
	Non- Availability of Raw Materials	6.6	12.6	24.3	56.5
	Total	**100**	**100**	**100**	**100**

The pattern across all sectors is similar with load shedding being the most important factor. The only exception is textile and clothing, wherein three-fourth of the sample units were large scale units (with

more than 100 employees). However, over half of these units considered load shedding as the second most important factor after lack of demand.

Table 7.7: Prime Destination Of Exports Of Sample Firms (%)	
USA	18
UK	14
Afghanistan	14
Iran	5
UAE	9
China	4
Japan	4
Other (Including India)	32
Total	**100**

The prime destinations of exports by the sample firms are USA, 18 percent, and United Kingdom and Afghanistan, 14 percent each, as shown in Table 7.7. The prime origin of import in the case of import substituting industries surveyed is China, 26 percent and India, 15 percent (See Table 7.8).

Table 7.8: Prime Origin Of Imports Of Sample Firms (%)	
China	26
India	15
UK	7
Japan	7
Iran	6
Other	39
Total	**100**

Major factors which have contributed to making the import substituting products competitive in the domestic markets are the relative comparative advantage (with 80 percent of firms reporting it as a factor) and effective protection. NTBs in Pakistan (reported by most of the remaining units) have also played a role, albeit a minor one.

7.3Findings on Import-Substituting Industries

Currently Fully Import-Substituting Units

As mentioned earlier, 22 percent of the sample units were fully import-substituting, i.e. there are no competing imports for their products, while 45 percent were manufacturing products which faced competition from imports.

Following the granting of the MFN status to India at the end of 2012, 80 percent of the firms which currently do not face competition from imports expect some competition from Indian products. Among these units, 63 percent feel that increased competition will be because their products are not in the Sensitive List of SAFTA of Pakistan. When enquired about the expected magnitude of competition from Indian imports, 79 percent of firms report high to moderate competition while 21 percent indicate that the extent of competition will be low (See Table 7.9). Sample units belonging to leather and leather products, food and beverages and chemicals and pharmaceuticals sectors report the highest magnitude of competition. About 41 percent of sample units in engineering goods sector report a somewhat lower level of competition. Overall, average domestic market share that could be taken up by imports from India is assessed at 17 percent. Since there is currently no import of these products, it appears that sample units expect some `trade creation` as a result of liberalization of trade with India. Sample units in the chemicals and pharmaceutical sectors are most apprehensive about Indian imports. 44 percent of sample units fear that more than one-thirds of the market will be captured by Indian imports (See Table 7.10).

Table 7.9: Expected Magnitude Of Competition From Indian Imports After Granting Of Mfn Status (%)							
	Textile and Clothing	Chemicals and Pharmaceuticals	Iron and Steel	Engineering Goods	Food and Beverages	Leather Products	Total
High	50.0	66.7	37.5	18.2	41.7	33.3	36.5
Medium	33.3	22.2	50.0	40.9	50.0	66.7	42.9
Low	16.7	11.1	12.5	40.9	8.3	0.0	20.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table 7.10: Approximate Percentage Of Domestic Market Share That Could Be Taken Up By Indian Imports(%)							
Market Share	Textile and Clothing	Chemicals and Pharmaceuticals	Iron and Steel	Engineering Goods	Food and Beverages	Leather Products	Total
UPTO 5%	0.0	0.0	20.0	38.7	21.4	16.7	23.7
6-10%	50.0	22.2	10.0	16.1	7.1	33.3	18.4
11-20%	16.7	33.3	20.0	32.3	35.7	16.7	28.9
21-30%	33.3	0.0	20.0	3.2	21.4	16.7	11.8
31-50%	0.0	33.3	30.0	3.2	0.0	16.7	10.5
51-100%	0.0	11.1	0.0	6.5	14.3	0.0	6.6

Partially Import-Substituting Units

As far as the partial import substituting units are concerned, 22 percent indicate that their product was on the Positive List of imports from India, while 46 percent are protected by the Negative List. Around half the sample units report that their product is on the Sensitive List of imports of SAFTA of Pakistan.

Around 59 percent of sample firms expect increase in competition from India following the granting of MFN status. Industries from which the responding units expect increased competition include food and beverages, textiles and articles, chemicals and allied products and machinery and equipment. Overall, it is anticipated that average market share that could be taken by imports from India is 22 percent. As such, there is a strong perception of 'trade-diversion' by sample firms following the granting of MFN status to India. Product wise expectation of increase in competition is presented in Table 7.11. Increased competition from India is attributed to lowering of tariff, by 88 percent of respondents, while 12 percent attribute it to relaxation of NTBs, especially the visa regime.

Table 7.11: Number Of Partial Import-Substituting Firms Reporting Increase In Competition Following The Granting Of Mfn Status To India		
Industrial Categories	**Number**	**Average Market Share (%)**
Textile and Clothing	15	23.0
Chemicals and Pharmaceuticals	10	25.0
Iron and Steel	1	50.0
Engineering Goods	8	20.6
Food and Beverages	17	21.2
Leather Products	3	11.7
Total	**54**[a]	**22.3**

Table 7.11: Number Of Partial Import-Substituting Firms Reporting Increase In Competition Following The Granting Of Mfn Status To India		
Industrial Categories	**Number**	**Average Market Share (%)**
Textile and Clothing	15	23.0
Chemicals and Pharmaceuticals	10	25.0
Iron and Steel	1	50.0
Engineering Goods	8	20.6
Food and Beverages	17	21.2
Leather Products	3	11.7
[a] This is 69 percent of the sample of such units		

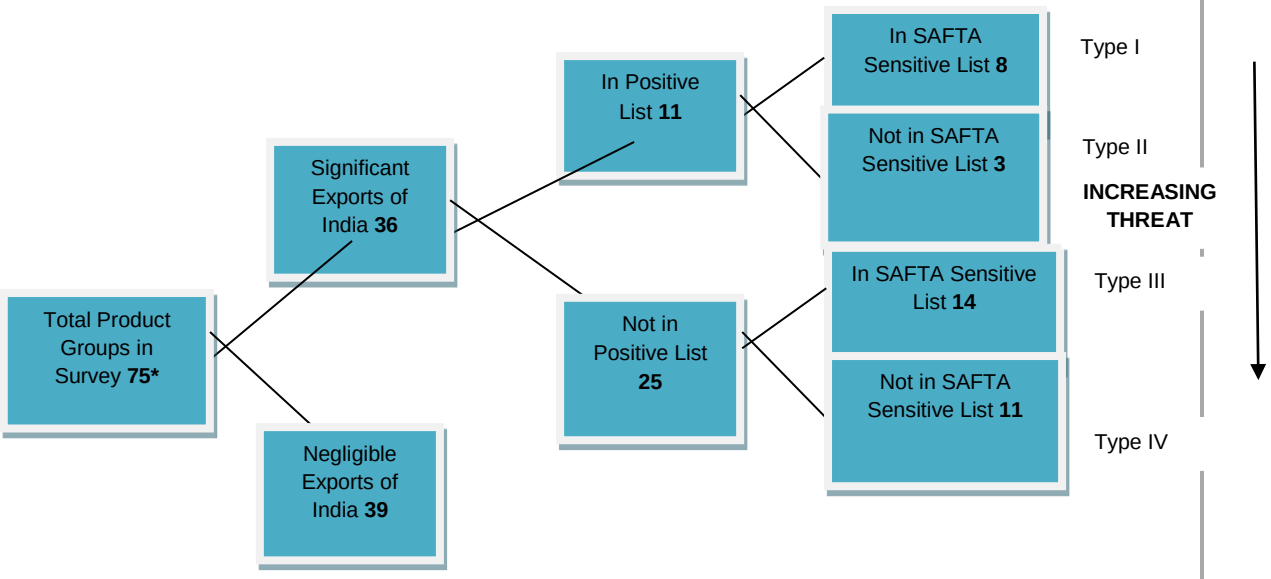
Increased competition from India will reduce employment according to 47 percent of the respondents. Overall, for the sample of 117 firms, the contraction is reported to be in the range of about 7 percent.

7.4 The "Threat-Analysis"

A schematic diagram for purposes of "Threat-Analysis" is presented in Figure 7.1. Overall, there are a total of 75 total product groups covered by the survey at the 4 digit HS level which can potentially face competition following the opening up of trade with India. However, not all of these product groups are significant exports of India and, therefore realistically speaking, do not pose a significant threat to Pakistani industry. Currently, Indian global exports in 39 of these product groups are insignificant (at less than $100 million). The other 36 product groups in Pakistan potentially face a `threat` as these are significant exports of India.

From among these 36 product groups, 11 were in the Positive List of Pakistan (which means that these products have already been facing competition from India) while 25 were not in the Positive List. Among the former product groups, 8 are now in the Sensitive List of Pakistan. For such products there will be no change in the nature of trade relations with India. Therefore, these product groups face the least 'threat' following trade liberalization with India and are categorized as Type I (facing least threat) for the purpose of analysis in this section. The three remaining product groups which were in Pakistan's Positive List and are not in the SAFTA Sensitive List of Pakistan do face some 'threat'. These are categorized as Type II in our analysis.

CHART 7.1
SCHEMETIC DIAGRAM OF THREAT ANALYSIS



At the 4 digit level of HS.

From among the 25 product groups which are major exports of India but were not in the Positive List (and therefore were protected), 14 have been put on the Sensitive List of SAFTA and as such will continue to have unchanged tariffs after the opening up of the Pakistani market. As such, they can be categorized as moderately 'threatened' industries. We categorize these as Type III industries.

Finally, the most 'threatened' industries are those product groups which were excluded from the Positive List and will be opened up to India following the granting of MFN status to India along with less protection as these are not included in the Sensitive List. These are categorized as Type IV products which face the maximum 'threat'. The distribution of product groups covered by the survey facing different levels of threat is presented in Table 7.12.

Table 7.12: Product Groups By Level Of 'Threat' Products Facing Maximum Threat					
Sr. no	**Code No**	**Description**	**Inside Positive List (Y/N)**	**Inside Sensitive List (Y/N)**	**Type**
Food and Beverages					
1	1905	Cakes, biscuits, etc.	N	N	IV
Chemicals					
2	2827	Chlorides	N	N	IV
3	3824	Chemicals n.e.s.	Y	N	II
Leather Products					
4	4113	Leather	N	N	IV
5	4203	Articles of Leather	N	N	IV
Textile and Clothing					
6	5209	Woven Fabrics	N	N	IV
7	5402	Synthetic Filament Yarn	N	N	IV
8	5503	Synthetic Staple Fabrics	N	N	IV
Iron and Steel					
9	7224	Other Ingots	N	N	IV
10	7305	Tubes, Pipes	N	N	IV
11	7318	Screws, Nuts, etc.	N	N	IV
12	7323	Kitchen Articles	N	N	IV
Engineering Goods					
13	8411	Turbo Jets	Y	N	II
14	8448	Auxiliary Machines	Y	N	II
Other Products					
Food and Beverages					
1	1701	Sugar	Y	Y	I
Chemicals and Pharmaceuticals					
2	3004	Medicaments	N	Y	III
3	3907	Polyacetals	Y	Y	I
4	4016	Articles of Rubber	Y	Y	I
Textile and Clothing					
5	5407	Fabrics Synthetic Yarn	N	Y	III
6	5702	Carpets	N	Y	III
7	6110	Jerseys, etc.	N	Y	III
8	6302	Bed linen	N	Y	III
9	6304	Other Furnishing Articles	N	Y	III
Iron and Steel					
10	7208	Flat Rolled Products	N	Y	III
11	7209	Flat Rolled Products	N	Y	III
12	7326	Other Articles of Iron	Y	Y	I
Engineering Goods					
13	8408	Internal Comb Engine	Y	Y	I
14	8413	Pumps	N	Y	III
15	8414	Vacuum Pumps	Y	Y	I
16	8418	Refrigerators	N	Y	III
17	8474	Machinery	Y	Y	I
18	8504	Electric Transformers	Y	Y	I
19	8535	Electric Circuits	N	Y	III
20	8537	Electric Instruments	N	Y	III
21	8544	Electrodes	N	Y	III
22	9405	Lamps & Lightings	N	Y	III
Y= Yes, N=No					
Threat level increases by Type: Type I shows least threat, Type II and III medium threat; Type IV maximum threat.					

The classification of industries surveyed by level of threat is presented in Table 7.13. Out of the 117 import-substituting units surveyed, (both full and partial) 41 belong to Type IV, and they face

maximum threat while another 30 fall in the moderate threat category. This implies that 60 percent of the firms face a significant and 'real' threat following trade liberalization with India. The firms realize this as textile and chemical units highlight the threat as do 75-80 percent of machinery producing units, 25-50 percent of hides & skins units and 17 percent of metal and articles units. The average market share that could be taken up reported by the 'threatened' units ranges from 5 to 60 percent, being lowest for units producing hides and skins and the maximum for chemical units.

Table 7.13: Classification Of Industries Surveyed By Level Of 'Threat'

HS Chapter No	Description	# of Units	% reporting that imports from India will increase	Average India Share	% reporting that employment will decrease	Average of employees laid off
MAXIMUM THREAT						
Chemicals and Pharmaceuticals						
28	Chemicals & Allied Products	1	100	15	33	35
Leather Products						
41	Hides & Skins and Leather Products	4	50	20	25	25
42	Hides & Skins and Leather Products	7	25	5	30	25
Textile and Clothing						
52	Textiles and Articles	4	100	32	40	22
54	Textiles and Articles	5	100	13	80	100
Iron and Steel						
72	Metals and Articles	14	17	50	66	40
		41				**22**
MODERATE THREAT						
30	Chemicals	9	33	60	33	38
63	Textiles	2	100	25	66	20
84	Machinery	16	75	17	37	31
85	Machinery	2	80	15	50	38
94	Miscellaneous	1	0	22	-	-
		30				**12**

Competition from Indian imports is expected to affect employment. The average impact is expected at 22 percent for industries facing maximum threat and 12 percent for moderately threatened industries, as perceived by the sample respondents.

The perceived threat posed is based on the price differential between the landed price (in Pak rupees including customs duty and GST) of imports from India and the current ex-factory price of units in Pakistan reported in the survey. The landed price of Indian imports in Pakistan has been estimated from the database of UNCOMTRADE. It appears that opening up of trade with India will not affect most of the products of the textile sector, where Pakistan appears to be competitive as shown in table 7.14. Other industries which are competitive include some food products and leather.

Table 7.14:Price Analysis Of 'Most Threatened' Industries					
HS Code	**Description**	**Unit**	**Domestic Units Ex-Factory Price ($) (1)**	**Export Price Globally of India ($) (2)**	**Percent Difference**
PRICE ANALYSIS OF 'MOST THREATENED' INDUSTRIES					
Food and Beverages					
190531	Biscuits	Kg	2.14	1.26	-41
190540	Toasted prod	Kg	1.05	1.53	46
190590	Bread, etc.	Kg	0.37	1.32	256
Chemicals and Pharmaceuticals					
282710	Amm Chloride	Kg	0.1	0.19	90
Leather Products					
41132000	Prepared leather	Kg	8.25	24.04	191
Textile and Clothing					
520942	Woven fabrics	Kg	2.84	6.35	123
550320		Ton	524.1	1130	116
Iron and Steel					
722490	Ingots of steel	kg	4.08	1.64	-60
PRICE ANALYSIS OF 'OTHER THREATENED' INDUSTRIES					
Chemicals and Pharmaceuticals					
300490	Medicaments	Kg	39.25	19.72	-50
Textile and Clothing					
540754	Woven Fabrics	Kg	5.75	13.9	142
570231	Woven Fabrics	Kg	12.69	15.57	23
630419	Bed linen	Kg	4.66	9.86	112
Iron and Steel					
720610	Ingots	Ton	2433.86	1452.72	-40
721420	Bars & Rods	Ton	63.429	856.29	35
721491	Bars & Rods	Ton	354.83	810.66	128
Engineering Goods					
841311	Pumps	Kg	61.74	23.36	-62

[1] $= \left[\frac{(2)-(1)}{(1)} x\ 100\right]$

The threat level is higher for industries which are operating at a price disadvantage with respect to India. The survey reveals that this is the case in the steel, metal products and pharmaceutical industries.

7.5 Measures Recommended by Sample Units

Given the importance of 'threat' to some import- substituting product groups and the consequent effect on employment, sample firms have requested for government action to mitigate against the negative impacts. Table 7.15 presents the measures requested. The most frequent move asked for by firms is to reduce duty on imported raw material, followed by raising import tariff on the product, introduction of quota on imports from India, placing product on SAFTA Sensitive List and maintain negative list for a longer period. The ranking of measures of the most 'threatened' units is slightly different with 'introduce quota on imports from India' being the most frequent response.

Table 7.15: Measures Recommended By Sample Of Import- Substituting Units Against Competition From India							
			Requested Measures by Government				
HS Code	**Description**	**No of Units**	**Maintain Negative List for longer period**	**Introduce Quota on imports from India**	**Raise import tariff on product**	**Put product in SAFTA Sensitive List**	**Reduce Duty on imported raw materials**
'MAXIMUM THREAT'							
Food and Beverages							
1905		3	2	3	3	1	3
Chemicals and Pharmaceuticals							
2827		1	0	1	1	0	1
Leather and Products							
4113		1	0	1	2	1	2
4203	Leather and Products	6	1	4	3	2	4
Textile and Clothing							
5209		3	1	3	2	1	2
5402		1	1	1	1	1	0
5503		1	1	1	0	1	0
Iron and Steel							
7224		1	1	1	1	1	1
7305		1	0	1	1	0	1
	Total	**18**	**7**	**16**	**14**	**8**	**14**
			(39)	**(89)**	**(78)**	**(44)**	**(78)**
'MODERATE' THREAT							
Chemicals and Pharmaceuticals							
3004		9	7	6	6	4	7
Textile and Clothing							
5407		2	0	1	1	1	3
5702		1	1	1	1	1	1
6302		1	0	1	1	0	1
6304		2	2	1	2	1	1
Iron and Steel							
7208		1	1	1	1	1	-
7209		-	-	-	-	-	-
Engineering Goods							
8413		2	1	1	2	1	3
8537		1	0	0	1	0	1
8544		2	2	2	1	1	1
	Total	**21**	**14**	**14**	**16**	**10**	**18**
			(67)	**(67)**	**(76)**	**(48)**	**(86)**
ALL INDUSTRIES							
		84	**25**	**54**	**73**	**34**	**80**
			(30)	**(64)**	**(87)**	**(40)**	**(95)**
only from responding import substituting Units							

7.6 Findings on Export Oriented Industries

According to the survey key factors which have made their product competitive in the international market include access to cheap domestic raw material, locally developed technology and favorable government policies. A small proportion, 7 percent, of sample firms export to India. The reported reasons for the low level of export to India are, first, 82 percent report that India also exports the product, second, 50 percent report that imports of India from other countries are more competitive, and, third, 30 percent because of a number of NTBs in India. Analysis of impediments to export to India include: clearance issues with customs reported by 42 percent; visa and security issues, 28 percent and; transportation bottlenecks, 30 percent. These findings are consistent with our findings in the earlier report on NTBs.

Regarding future prospects with an opening of trade with India, three-fourths of the export-oriented firms report that their product will become competitive if tariffs are lowered by India and NTBs are removed.

The extent of potential exports to India and its impact on employment is given in Table 7.16. 50 percent of the reporting firms indicate a potential increase of 11-20 percent while 23 percent of the units expect above 30 percent Increase in exports. This will, of course, lead to an increase in employment. 40 percent of firms stated that the potential increase in employment can be in the range of 11-20 percent, 24 percent at around 21-30 percent and another 23 percent of upto 10 percent. Overall 96 percent of export oriented firms reported a potential increase in employment in case of an increase in exports to India.

The exporters, however, indicated that to realize the potential increase in exports and employment, India should reciprocate by lowering tariff and easing the visa regime. Also, the government should assist in realizing the potential gains in foreign exchange earnings. Table 7.17 gives the measures government may consider to facilitate exploitation of the full potential of exports to India. 74 percent suggest a subsidy on raw materials, particularly because India provides significant subsidies on inputs. This will ensure a “level-playing field” for Pakistani exporters. 68 percent of exporters want an end to load shedding, 41 percent request for duty on raw materials to be reduced if not subsidized. Establishing a better image of Pakistan and better knowledge on markets is also part of the action plan suggested for government action, especially by TDAP.

Table 7.16: Potential Increase In Exports And Employment (Percentage Exporting Units)														
	Textile and Clothing		micals and Pharmaceuti		Iron and Steel		Engineering Goods		Food and Beverages		Leather Products		Total	
	Increase in Exports	Potential Increase in Employment	Increase in Exports	Potential Increase in Employment	Increase in Exports	Potential Increase in Employment	Increase in Exports	Potential Increase in Employment	Increase in Exports	Potential Increase in Employment	Increase in Exports	Potential Increase in Employment	Increase in Exports	Potential Increase in Employment
0-10	7	25	0	0	50	50	17	18	25	25	0	0	3	23
20-Nov	53	50	67	50	0	0	42	73	50	0	50	67	50	40
21-30	20	13	33	50	50	50	42	9	0	0	17	17	24	24
Above 30	20	13	0	0	0	0	0	0	25	75	33	17	23	13
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 7.17: Measures By Government To Increase Exports (Percent of exporting units)							
	Textile and Clothing	Chemicals and Pharmaceuticals	Iron and Steel	Engineering Goods	Food and Beverages	Leather Products	Total
Subsidy on raw material	78	89	60	53	100	83	74
Finish load shedding in industrial sector	78	56	60	40	125	100	68
Establish image outside Pakistan	28	22	20	13	25	50	25
Give knowledge about market	11	22	40	13	0	17	16
Reduce duty on import	50	33	40	40	75	0	40
Give social security	0	11	0	13	25	0	7
Control inflation	0	0	0	0	25	0	2

7.7 Analysis of Export Potential

Within the product groups of exporting units, Table 7.18 highlights major exports globally and items which are on the Sensitive List of India of SAFTA. The potential of exports to India is likely to be higher in the case of product groups which are: one, currently significant exports of Pakistan (greater than US $ 20 million) and; two, will not be protected by India under SAFTA. Such product groups are categorized as Type I. Products which are significant exports of Pakistan but will continue to be on the Sensitive List of India, have a relatively low potential for increase and are classified as Type II. Analysis indicates that out of the 37 product groups covered by the survey which Pakistan exports, significant exports are in only 15 product groups. Out of these, only eight export product groups have a high potential of increase in the sample. These include polyesters, leather and articles, woven cotton fabrics, textile wadding and animal/vegetable fats and oils etc.

Table 7.16: Analysis Of Export Potential

HS Code	Description	Pakistan Global Exports ($ Million)	India's SAFTA Sensitive List	Type
Food and Beverages				
1006	Rice	2132	Y	II
1516	Animal/Vegetable Fats&Oils	106	N	I
1704	Sugar Confectionary	28	N	I
Chemicals and Pharmaceuticals				
3004	Medicaments	56	Y	II
3907	Polyesters	265	N	I
Leather Products				
4113	Leather	354	N	I
4203	Articles of Leather	426	N	I
Textile and Clothing				
5209	Woven Cotton Fabrics	935	N	I
5211	Woven Cotton Fabrics	257	N	I
5407	Woven Synthetic Fabrics	59	Y	II
5601	Textiles Wadding	26	N	I
6302	Bed & Table Linen	2708	Y	II
6304	Furnishing Articles	40	Y	II
Engineering and Goods				
8414	Air/Vacuum Pumps	47	Y	II

Table 7.19 gives the export potential in surveyed units. Potential increase in exports reported by the sample units in the eight maximum potential product groups ranges from 15-40 percent, yielding additional exports up to about $500 million.

To maximize the export potential, however, as highlighted earlier the sample units in the `maximum potential` products want cessation of load shedding, subsidy on raw material, better knowledge of markets and better law and order situation.

Table 7.17: Export Potential In Surveyed Units		
HS Code	**Description**	**Potential Increase in Export %**
Maximum Potential (Type 1)		
1516	Animal and Veg Fats and Oils	40
1704	Sugar Confectionary	15
3907	Polyester	15
4113	Leather	20
4203	Articles of Leather	22
5209	Women Cotton Fabrics	15
5211	Women Cotton Fabrics	35
5601	Textile Welding	NR
Less Potential (Type II)		
1006	Rice	
1701	Sugar	
3004	Medicaments	NR
5407	Woven Syn Fabrics	32
6302	Bed and Table Linen	100
6304	Furnishing Articles	25
8414	Vacuum Pumps	25
NR= Not Reported		

7.8 Import of Raw Material / Intermediate Goods

Turning next to imports of raw materials or intermediate goods, 52 percent of the 174 sample units import raw material/intermediate goods. Major countries of import are China, UK, Malaysia and Iran. Also, 19 percent of the sample units are already importing from India. Table 7.20 presents reasons why the remaining sample units are not importing from India. Major reasons are, first, material is not available in India, second, it is not of a good quality, third, because of NTBs and, fourth, the price is high.

It appears that, 52 percent of sample units are planning to substitute imports from other countries with imports from India following granting of MFN status to India. On an average, this substitution is expected to lead to savings of 2 percent of total costs. The principal sources of cost saving are lower prices and lower transport costs (see Table 7.21).

Table 7.18: Reasons For Not Importing From India							%
	Textile and Clothing	**Chemicals and Pharmaceuticals**	**Iron and Steel**	**Engineering Goods**	**Food and Beverages**	**Leather Products**	**Total**
Material not available in India	58	69	50	67	76	80	68
Not a good quality material	21	8	50	0	0	0	9
Price of material is too high	0	8	0	0	0	0	2
Other (NTBs, Tax Barriers, ETC)	21	15	0	33	24	20	21
Total	100	100	100	100	100	100	100

Table 7.19: Sources Of Cost Saving (percent)	
Lower Price	45
Lower transport cost	43
Good quality	12
Total	**100**

7.9 Power Load Shedding

The survey findings have identified power load shedding as the most important constraint to utilization of existing capacity for export expansion, 66 percent of the respondents have ranked it as a high

constraint and 22 percent as a medium constraint (see Table 7.22). During the last month, sample units have on an average experienced a high incidence of as many as 176 outages, losing approximately six hours daily. Units have made adjustments to minimize the losses due to load shedding. As shown in Table 7.23, these mostly are in the form of acquiring self-generation capability (by 87 percent of sample units), working overtime or changing shift timing.

Table 7.20: Ranking Of Power Shortage As A Constraint%

	Textile and Clothing	Chemicals and Pharmaceuticals	Iron and Steel	Engineering Goods	Food and Beverages	Leather Products	Total
High	75.9	56.0	70.6	62.0	68.3	66.7	66.1
Medium	17.2	36.0	11.8	20.0	22.0	33.3	22.4
Low	6.9	8.0	17.6	18.0	9.8	0	11.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.21: Percentage Firms Who Have Made Adjustments To Loadshedding

	Textile and Clothing	Chemicals and Pharmaceuticals	Iron and Steel	Engineering Goods	Food and Beverages	Leather Products	Total
Self-Generation	86.2	96.0	70.6	78.0	100.0	83.3	86.8
Shift Changes	24.1	12.0	17.6	6.0	51.2	41.7	24.1
Working Overtime	27.6	20.0	35.3	12.0	46.3	66.7	29.9

Despite these adjustments, sample units reported that they have lost almost 30 percent of output. A high proportion, 60 percent, of the sample units firms feel that load shedding currently limits their ability to exploit any opportunity which opens up following the SAFTA tariff implementation and/or relaxation of NTBs by India.

Overall, the Survey has proved to be useful in identifying the treats to and opportunities for the industries covered. Sample units are wary of the potential threat of larger imports from India. However, while significant export potential in India has also been identified, the Survey has highlighted the constraints to exploitation of this potential due to supply-side factors like load shedding. A number of measures have been proposed by the respondent units to mitigate against the threat and to fully seize the emerging opportunities. These proposals merit serious consideration by the Government.

Chapter 8 Assessing the Findings

We have adopted two approaches to assessing the implications of trade liberalization between Pakistan and India. The first approach described in Chapters 3 to 5 relies essentially on secondary data from a multiplicity of national and international sources including PBS, SBP, MOC, FBR, World Bank, UNCTAD, UNCOMTRADE, ITC, WTO, UNIDO, SAARC and MOC (India).

The second approach adopted is a primary survey of 174 units from selected industries, which are either import substituting in character or export-oriented. While yielding relevant estimates, the survey is expected to determine the magnitude of threat perceptions on the part of import substituting units of the impact of opening up of the domestic market to imports from India. In the case of exporters the survey is expected to gauge their perceptions of the opportunity for larger exports to India following the relaxation of the major NTBs and scaling down of tariffs under SAFTA.

We attempt to assess and compare the findings under the two approaches.

8.1Comparison of Coverage

The secondary data analysis covers the entire gamut of economic activities in the commodity – producing sectors, both in agriculture and industry. The focus on the import side is the extent of penetration, likely in the Pakistani market, of products which are currently major global exports of India. On the export side, the prospects for increased exports to India of products which currently constitute major exports of Pakistan are determined.

The primary focus of the survey is the industrial sector. A number of product groups are covered including textiles and clothing, chemicals and pharmaceuticals, iron and steel, machinery and equipment, food, leather and footwear, vehicles and transport equipment. But the overall sample size is small and covers less than 3 percent of the population of units in these industries. Also, some industries like tobacco products, wood and wood products, paper and paper products, petroleum refining, rubber and plastic products, non-metallic products (including cement) and medical and optical instruments have not been included in the survey due to budgetary constraints and in lieu of an initial assessment of threat by industry and export prospects.

8.2 Imports from India

The principal findings of the survey regarding the future level of imports from India following liberalization are as follows:

Full Import Substituting Industries

- 80 percent of the firms who currently do not face competition from imports expect some competition from Indian products.
- 63 percent expect this competition due to the product being outside the Sensitive List.
- Overall, average domestic market share that can be taken up by India imports is assessed at 17 percent. This is the component of ‘trade-creation’.

Partially Import Substituting

- Among partially import substituting units, 59 percent expect an increase in competition from India following granting of MFN status.
- These units expect that the market share taken up by imports from India could be 22 percent.
- Overall, the loss of employment is estimated at 7 percent.
- There is minimal threat to textiles and leather industries. Maximum threat is in the case of iron and steel, metal product and chemicals and pharmaceuticals.

The above findings are compared with results of the secondary data analysis. The results of the survey are that about two-thirds of the import-substituting units expect that imports from India will take up 17 to 22 percent of their domestic market in Pakistan. This implies that the overall market share of

India could range from 11 percent to 13 percent. The secondary data analysis yields a projected average market share of imports from India of about 7 percent. Both approaches indicate a likely threat to industries relating to chemicals, auto-parts and goods vehicles sectors. But the survey result of 11 to 13 percent appears to be on the high side. If applied to all import-substituting industry, this would indicate that level of imports from India (after the granting of MFN status and implementation of SAFTA) of Pakistan could exceed $12 billion. As opposed to this, the secondary data analysis reveals that imports from India could reach $6.5 billion in the medium run.

There are well defined reasons why the respondents may perceive a larger threat as follows:

i. This may reflect a 'knowledge gap' arising from some lack of awareness about the degree of competitiveness of Indian imports and the impact of tariffs and NTBs on imports. This highlights the need for a strong dissemination campaign to acquaint the Chambers and Trade Associations about the implications of opening up of trade with India.
ii. There is likely to be an element of 'lobbying' in the responses as industry may feel that by magnifying the threat it can influence government to take mitigating actions. It is important that the government has access to objective analysis of the likely impact at the time when it may face pressure to retain at least part of the Negative List and not grant full MFN status to India.

It must be recognized, however, that the survey has the value of acquainting policy makers with the threat perceptions of industry, so that efforts can made to allay the fears. Also, some industries like pharmaceuticals, chemicals, iron and steel, metal products, engineering goods, vehicles and transport equipment are vulnerable to significant displacement by Indian Imports according to both approaches. Measures to protect these industries from 'serious injury' are discussed in the next Deliverable.

The survey also indicates that the imports substituting units expect labor displacement of about 7 percent. This is significantly higher than the estimated reduction in employment from the secondary data analysis of approximately 2 percent.

8.3Exports to India

The principal findings from the survey of exporters are as follows:

- 75 percent of the firms report that they will become competitive if India lowers tariffs
- Firms expect total exports to rise by 20 percent due to increased export to India. The anticipated increase in employment is 17 percent.
- A large majority of the units indicate that the principal factor which will constrain realization of the export potential is power load shedding.

The results of the secondary data analysis indicate that the increase is limited by the fact that many of the major exports of agriculture and textiles and clothing of Pakistan still remain in the Sensitive List of India, despite the recent reduction in this list by 30 percent. Overall, the growth of major exports is projected at 7 percent as compared to 20 percent from the survey. Excluding textiles and clothing, both approaches indicate that the increase can be large in the case of dates, citrus fruits, ethyl alcohol, woven fabrics, cement, polycarboxylic acid, leather and surgical instruments. Employment increase is anticipated at 3 percent as compared to about 17 percent in the survey.

The survey, however, contains a very important message. Much of the potential for increased exports to India, following the removal of NTBs and tariff reduction by India under SAFTA, will remain unexploited due to high levels of load shedding being experienced by industry today. The sample firms have reported that on average they experience load shedding five times a day and lose as much as 30 percent of their working hours. Clearly, from the view point in general of raising industrial output and in particular of increasing exports to India, the incidence of power outages will have to be reduced

on a priority basis. Otherwise, following the process of trade liberalization the deficit in trade with India could rise even more sharply and provoke an outcry from opponents to this process.

A note of caution. The estimates of the impact of liberalization between Pakistan and India are based on a number of assumptions which may or may not materialize. The estimates must be seen as indicative of the orders of magnitude and not as very precise projections.

In conclusion, the study indicates that India should be granted MFN status because of an overall improvement in the global balance of trade of Pakistan, lower inflation, positive net employment generation and consumer welfare gains.

A number of policy actions for the government also emanate from this report. These include:

1. Negotiating Strategy with India: The government needs to demonstrate that India has opened up less than Pakistan under SAFTA. India needs to liberalize more, especially in agriculture and textiles. This means not only removing the NTBs but more importantly, lowering tariffs in the Sensitive List and taking items of importance to Pakistan out of the Sensitive List also.
2. Launch a Dissemination Campaign: to convince the industry that the displacement of local industry is unlikely to be as big as they anticipate. Also, the findings of the study will be useful in justifying the phasing out of the Negative List.
3. Need to Highlight Consumer Welfare Gains: indicating the commodities where there is likely to be a reduction in market prices which includes petroleum oils, cotton, coal, synthetic coloring matter, electrical goods for telephony, motor vehicles, transport equipment, tea, textiles, onions, auto parts and energy.
4. Review Measures Recommended by Respondants: respondants have suggested to introduce quota on imports from India, raise import tariffs on various products, put some products in SAFTA Sensitive List and reduce duty on imported raw materials along with removal of supply side infrastructural constraints, especially load shedding.

The government may consider preparing a detailed action plan for the operationalization of the above strategies as policies for dealing with industries facing threat is concerned.

Annex 1

BALASSA INDEX OF COMPARATIVE ADVANTAGE BY PRODUCT GROUP OF INDIA AND PAKISTAN AT 2-DIGIT LEVEL 2010				
HS Code	**Product Group***	**Pakistan**	**India** **	**Type**
52	Cotton	49.3	5.3	I
63	other made textile and articles	49.5	4.0	I
10	Cereals	20.1	2.8	I
61	Articles of apparel (Knit)	7.8	2.3	I
62	Articles of apparel (non- Knit)	6.2	2.8	I
27	Mineral fuels	0.4	1.0	III
42	Articles of leather	8.5	2.4	I
71	Pearls, precious stone	1.0	7.4	I
25	Salt, cement, etc	10.0	2.4	I
55	Manmade staple fiber	11.4	3.5	I
41	Raw hides and skins	10.2	2.0	I
39	Plastics and articles thereof	0.6	0.4	IV
90	Optical, medical instruments	0.4	0.2	IV
08	Edible fruit, nuts	2.4	1.1	I
84	Boilers, machinery, etc	0.1	0.3	IV
03	Fish	2.0	1.5	I
95	Toys, sports goods	1.8	0.1	II
22	Beverages	1.6	0.1	II
26	Ores, slag and ash	0.6	3.6	III
73	Articles of iron and steel	0.4	1.4	III
85	Electrical, electronic equipment	0.1	0.4	IV
30	Pharmaceutical products	0.2	0.9	IV
57	Carpets	6.7	6.7	I
02	Meat	0.9	1.0	III
07	Edible vegetables	1.6	1.2	I
94	Furniture, etc.	0.4	0.3	IV
82	Tools, implements, cutlery	1.3	0.8	II
64	Footwear	0.7	1.3	III
74	Copper and articles	0.4	1.0	III
17	Sugar	1.5	1.7	I
15	Animal and vegetable fats/ oils	0.8	0.6	IV
87	Vehicles	0.1	0.5	IV
60	Knitted fabrics	2.3	0.3	II
89	Ships, boats, etc.	0.3	1.9	III
54	Manmade filaments	1.2	3.9	I
09	Coffee, tea, spices	0.9	3.8	III
11	Milling products	2.8	0.3	II
04	Dairy products	0.5	0.2	IV
29	Organic chemicals	0.1	1.7	III
23	Residues, animal fodder	0.5	2.4	III
76	Aluminium and articles	0.2	0.6	IV
12	Oil seeds	0.3	0.8	IV
72	Iron and steel	0.1	1.2	III
20	Vegetable. Fruit prepns	0.5	0.4	IV
13	Lac, gums	4.7	5.0	I
05	Products of animal origin	2.8	0.6	II
16	Meat, fish prepns	0.6	0.4	IV
44	Wood and articles	0.2	0.1	IV
28	Inorganic chemicals	0.2	0.7	IV
56	Wadding, fat etc.	1.1	0.7	II
32	Tanning, dyeing extracts	0.3	1.5	III
01	Live animals	1.0	1.0	II
58	Special woven fabrics	1.6	1.4	I
19	Cereal, milk prepns	0.4	0.3	IV
68	Stone cement etc	0.4	1.9	III
48	Paper and paper board	0.1	0.3	IV
36	Explosives etc.	5.0	2.0	I
96	Miscellaneous Manf articles	0.1	0.8	IV
38	Miscellaneous chemical products	0.1	1.0	III
70	Glass and glassware	0.2	0.5	IV
34	Soaps, lubricant, etc.	0.2	0.4	IV
21	Misc edible prepns	0.2	0.4	IV
78	Lead and articles	1.5	1.0	I
51	Wool, animal hair	0.6	0.8	IV

88	Aircraft and parts	0.1	0.6	IV
33	Essential oils, perfumes, etc.	0.1	0.8	IV
40	Rubber and articles	0.0	0.7	IV
59	Special textile fabrics	0.4	0.4	IV
69	Ceramic products	0.2	0.4	IV
35	Albuminoids	0.3	0.7	IV
14	Vegetable planting materials	3.0	2.0	I
93	Arms and ammunitions	0.5	0.1	IV
49	Printed material	0.1	0.4	IV
53	Vegetable textile fabrics	1.0	5.0	I
92	Musical instruments	0.5	0.3	IV
65	Headgear and parts	0.3	0.3	IV
37	Photographic goods	0.1	0.1	IV
83	Misc articles of base metal	0.0	0.5	IV
47	Pulp of wood, etc.	0.0	0.0	IV
99	Commodities n.e.s.	0.0	0.7	IV
50	Silk	0.0	7.5	III
06	Live trees, flowers, etc.	0.0	0.3	IV
75	Nickel and articles	0.0	0.1	IV
86	Railway locomotives, etc.	0.0	0.1	IV
79	Zinc and articles	0.0	2.9	III
81	Other base metal	0.0	0.3	IV
43	Furskins	0.0	0.0	IV
31	Fertilizers	0.0	0.3	IV
66	Umbrellas, sticks, etc	0.0	0.0	IV
91	Clocks and watches	0.0	0.1	IV
97	Works of arts	0.0	1.0	III
46	Manf of plaiting material	0.0	0.0	IV
80	Tin and articles thereof	0.0	0.3	IV
18	Cocoa and perpns	0.0	0.0	IV
67	Bird skin, feathers, etc.	0.0	3.7	III
45	Cork and articles	0.0	0.0	V
24	Tobacco	0.2	1.9	III

* Presented in descending order of size of exports by product group of Pakistan
** For 2009

SHARE OF DIFFERENT GROUPS (AT THE 2 DIGIT LEVEL) OF PAKISTAN AND INDIA RESPECTIVELY OF EXPORTS AND IMPORTS										
HS Code	PAKISTAN (Thousand $)				INDIA (Million $)				Imports of Pakistan and Exports of India $\lvert M_{ji} - X_{ki} \rvert$	Exports of Pakistan and Imports of India $\lvert M_{ki} - X_{ji} \rvert$
	Exports	%	Imports	%	Exports	%	Imports	%		
1	9142	0.047	48477	0.155	12	0.007	11	0.004	0.149	0.043
2	99087	0.511	2334	0.007	1170	0.632	1	0.000	0.624	0.511
3	160545	0.828	662	0.002	1292	0.697	42	0.015	0.695	0.814
4	25814	0.133	44022	0.141	346	0.187	70	0.024	0.046	0.109
5	18706	0.097	1726	0.006	41	0.022	21	0.007	0.017	0.089
6	1852	0.010	4	0.000	81	0.044	10	0.003	0.044	0.006
7	94236	0.486	286278	0.917	768	0.414	2254	0.782	0.503	0.296
8	228575	1.179	66896	0.214	1087	0.587	1247	0.433	0.373	0.747
9	29116	0.150	255084	0.817	1687	0.910	315	0.109	0.093	0.041
10	2172605	11.209	949004	3.040	3345	1.805	67	0.023	1.235	11.186
11	45439	0.234	3870	0.012	55	0.030	27	0.009	0.017	0.225
12	72869	0.376	368329	1.180	885	0.478	172	0.059	0.703	0.316
13	31093	0.160	6162	0.020	460	0.248	92	0.032	0.229	0.129
14	5503	0.028	15190	0.049	31	0.016	7	0.003	0.032	0.026
15	104054	0.537	1477369	4.733	591	0.319	5645	1.958	4.414	1.421
16	63437	0.327	3308	0.011	227	0.123	4	0.001	0.112	0.326
17	93113	0.480	65223	0.209	1118	0.603	1318	0.457	0.394	0.023
18	427	0.002	10917	0.035	18	0.010	80	0.028	0.025	0.025
19	30585	0.158	32829	0.105	240	0.129	31	0.011	0.024	0.147
20	66300	0.342	16811	0.054	272	0.147	47	0.016	0.093	0.326
21	8539	0.044	20194	0.065	259	0.140	56	0.019	0.075	0.025
22	119624	0.617	1580	0.005	122	0.066	296	0.103	0.061	0.514
23	22898	0.118	101271	0.324	2323	1.254	182	0.063	0.929	0.055
24	15327	0.079	12593	0.040	751	0.405	25	0.009	0.365	0.070
25	582266	3.004	96001	0.308	1266	0.683	1681	0.583	0.376	2.421
26	153844	0.794	96464	0.309	5456	2.945	4574	1.586	2.636	0.792
27	1192097	6.150	10762990	34.482	28437	15.347	96321	33.402	19.136	27.251
28	48718	0.251	569347	1.824	1144	0.617	3430	1.190	1.207	0.938
29	98572	0.509	1557012	4.988	7464	4.028	9407	3.262	0.960	2.753
30	99356	0.513	274661	0.880	5079	2.741	1098	0.381	1.861	0.132
31	180	0.001	450685	1.444	75	0.041	5992	2.078	1.403	2.077
32	28530	0.147	259582	0.832	1306	0.705	913	0.317	0.127	0.169
33	19863	0.102	61352	0.197	852	0.460	302	0.105	0.263	0.002
34	22781	0.118	157688	0.505	278	0.150	333	0.115	0.355	0.002
35	8972	0.046	31103	0.100	209	0.113	175	0.061	0.013	0.015
36	26090	0.135	1074	0.003	64	0.034	14	0.005	0.031	0.130
37	324	0.002	19059	0.061	37	0.020	280	0.097	0.041	0.096
38	78089	0.403	404336	1.295	1882	1.016	2444	0.848	0.280	0.445
39	358425	1.849	1091075	3.496	2544	1.373	5515	1.913	2.123	0.063
40	47220	0.244	232568	0.745	1549	0.836	1825	0.633	0.091	0.389

SHARE OF DIFFERENT GROUPS (AT THE 2 DIGIT LEVEL) OF PAKISTAN AND INDIA RESPECTIVELY OF EXPORTS AND IMPORTS										
HS Code	PAKISTAN (Thousand $)				INDIA (Million $)				Imports of Pakistan and Exports of India $\lvert M_{ji} - X_{ki} \rvert$	Exports of Pakistan and Imports of India $\lvert M_{ki} - X_{ji} \rvert$
	Exports	%	Imports	%	Exports	%	Imports	%		
41	478855	2.471	70380	0.225	739	0.399	406	0.141	0.173	2.330
42	367615	1.897	1991	0.006	1595	0.861	95	0.033	0.854	1.864
43	545	0.003	281	0.001	0	0.000	2	0.001	0.001	0.002
44	19540	0.101	68458	0.219	176	0.095	1626	0.564	0.124	0.463
45	133	0.001	95	0.000	2	0.001	4	0.001	0.001	0.001
46	809	0.004	30	0.000	4	0.002	2	0.001	0.002	0.004
47	4028	0.021	62668	0.201	1	0.001	883	0.306	0.200	0.286
48	45871	0.237	323119	1.035	542	0.292	1459	0.506	0.743	0.269
49	4967	0.026	24055	0.077	224	0.121	440	0.153	0.044	0.127
50	42608	0.220	19099	0.061	334	0.180	384	0.133	0.119	0.087
51	17857	0.092	9631	0.031	122	0.066	248	0.086	0.035	0.006
52	3463853	17.871	645848	2.069	3149	1.699	499	0.173	0.370	17.698
53	13014	0.067	58286	0.187	196	0.106	128	0.044	0.081	0.023
54	52590	0.271	265809	0.852	1543	0.833	557	0.193	0.019	0.078
55	395427	2.040	315693	1.011	1249	0.674	307	0.106	0.337	1.934
56	20167	0.104	14992	0.048	162	0.087	102	0.035	0.039	0.069
57	155667	0.803	6605	0.021	1071	0.578	52	0.018	0.557	0.785
58	232383	1.199	8406	0.027	215	0.116	94	0.033	0.089	1.166
59	61061	0.315	25460	0.082	104	0.056	525	0.182	0.025	0.133
60	68631	0.354	5331	0.017	100	0.054	159	0.055	0.037	0.299
61	2138941	11.035	4991	0.016	5048	2.724	44	0.015	2.708	11.020
62	931212	4.804	2238	0.007	5903	3.186	64	0.022	3.179	4.782
63	2743949	14.157	25475	0.082	2371	1.280	199	0.069	1.198	14.088
64	81625	0.421	17915	0.057	1548	0.836	152	0.053	0.778	0.368
65	913	0.005	370	0.001	21	0.011	6	0.002	0.010	0.002
66	287	0.001	60	0.000	1	0.001	14	0.005	0.000	0.003
67	164	0.001	55	0.000	180	0.097	9	0.003	0.097	0.002
68	77097	0.398	10375	0.033	897	0.484	263	0.091	0.451	0.306
69	12705	0.066	66080	0.212	214	0.115	407	0.141	0.096	0.076
70	20371	0.105	32665	0.105	409	0.221	451	0.156	0.116	0.051
71	111713	0.576	5570	0.018	28466	15.363	46322	16.063	15.345	15.487
72	216938	1.119	1427926	4.575	7533	4.066	8814	3.057	0.509	1.937
73	110640	0.571	229749	0.736	5783	3.121	2793	0.968	2.385	0.398
74	64017	0.330	110463	0.354	1817	0.981	1171	0.406	0.627	0.076
75	1061	0.005	13090	0.042	25	0.013	412	0.143	0.029	0.137
76	38887	0.201	141928	0.455	1166	0.629	1523	0.528	0.174	0.328
78	16777	0.087	36459	0.117	29	0.016	463	0.161	0.101	0.074
79	337	0.002	28321	0.091	407	0.220	284	0.099	0.129	0.097
80	170	0.001	2172	0.007	28	0.015	109	0.038	0.008	0.037
81	15805	0.082	10174	0.033	38	0.021	195	0.068	0.012	0.014

82	42451	0.219	25263	0.081	530	0.286	435	0.151	0.205	0.068
83	3393	0.018	16434	0.053	349	0.189	330	0.114	0.136	0.097
84	140360	0.724	2620157	8.394	7994	4.314	23990	8.319	4.081	7.595
85	49025	0.253	2043556	6.547	9541	5.149	22074	7.655	1.398	7.402
86	1061	0.005	23911	0.077	62	0.033	466	0.162	0.043	0.156
87	39725	0.205	751068	2.406	6002	3.239	3101	1.075	0.833	0.870
88	10160	0.052	87336	0.280	1467	0.792	4944	1.714	0.512	1.662
89	5826	0.030	230282	0.738	3716	2.005	3213	1.114	1.267	1.084
90	267244	1.379	406677	1.303	1161	0.627	4399	1.526	0.676	0.147
91	764	0.004	7521	0.024	46	0.025	132	0.046	0.001	0.042
92	9517	0.049	459	0.001	15	0.008	18	0.006	0.007	0.043
93	22182	0.114	45972	0.147	14	0.007	24	0.008	0.140	0.106
94	140752	0.726	34081	0.109	549	0.296	551	0.191	0.187	0.535
95	317066	1.636	6343	0.020	141	0.076	209	0.073	0.056	1.563
96	14372	0.074	42676	0.137	244	0.132	240	0.083	0.005	0.009
97	2209	0.011	131	0.000	297	0.160	22	0.008	0.160	0.004
98	-	-	-	-	152	0.082	4763	1.652	-	-
99	2869	0.015	923616	2.959	4776	2.578	1469	0.509	0.381	0.495
Total	**19382419**	**100.0**	**31212926**	**100.0**	**185295**	**100.0**	**288373**	**100.0**	**84.046**	**153.931**

Annex 2

Deriving the Key Impacts

We designate the following variables for particular products:

M_w = imports from rest of world, fob

M_i = imports from India, fob

fp_w = price of imports from rest of the world, fob price

fp_i = price of imports from India, fob price, fob

fp_x = price of exports by India to the rest of world

C_0 = current customs duty on imports

C_1 = duty rate after implementation of SAFTA

Cp_i = price of imports from India, cif

Cp_w = price of imports from rest of the world, cif

Lp_i = landed price of imports from India,

Lp_w = landed price of imports from rest of the world

t_0 = extent of mark up on fob price due to freight and insurance

t_1 = extent of mark up on fob price following improvement of trade infrastructure in imports from India

We have the following equations for price determination.

Before Removal of Trade Restrictions with India and SAFTA

$cp_{i0} = fp_i.(1 + t_0)$

$Lp_{i0} = fp_i(1 + t_0)(1 + C_0)$

$Lp_w = fp_w\,(1 + t_0)(1 + C_0)$

After Removal of Trade Restrictions with India and Duty Reductions Following SAFTA

$Cp_{11} = fp_i\,(1 + t_1)$

$Lp_{11} = fp_i\,(1 + t_1)(1 + t_1)$

Existing quantity traded,

$$M_0 = \frac{M_W}{fP_W} + \frac{M_I}{fP_I}$$

The % difference in landed price following trade liberalization

$$\Delta Lp_{I=} \frac{Lp_{i1-}\, Lp_w}{Lp_w}$$

The % difference in landed price following trade liberalization

$$\Delta\, q_i = E_d\ .\ \Delta\, Lp_i$$

Where ε_d is the elasticity of trade diversion with respect to the difference in price, then

$$Q_{i1} = \frac{M_I}{fp_I} + \Delta q_i \left[\frac{M_w}{fp_w}\right]$$

and

$$Q_{w1} = (1 - \Delta_{qi}) \frac{M_w}{fp_w}$$

The import value cif of trade diversion to India

$$\Delta M_{i1} = \Delta q_i \left[\frac{M_w}{fp_w}\right] CP_{i1} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

The saving in import bill on existing quantity of import is

$$S = [Q_{i1} . CP_{i1} + Q_{wi} CP_w] - [M_w (1 + t_0) + M_i (1 + t_0)] \quad \ldots\ldots\ldots (2)$$

Average Landed Price

before:

$$Lp_0 = \frac{M_i}{fp_i} Lp_{i0} + \frac{M_w}{fp_w} . Lp_w$$

after

$$Lp_1 = Q_{i1} . Lp_{i1} + Q_{w1} . Lp_w$$

And the percentage difference in landed price is given by

$$\Delta Lp = \frac{Lp_1 - Lp_0}{Lp_0}$$

And the value of trade creation, TC, is at cif prices

$$TC = \left(E_c . \Delta Lp . \frac{M_w}{fp_w}\right) Cp_{i1} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Finally, the consumer welfare gain is arrived at as follows:

$$CWG = [M_w (1 + t_0)(1 + C_0) + M_i (1 + t_0)(1 + C_0)] - [Q_{i1} . Lp_{i1} + Q_{w1} . P_w] + \frac{1}{2} \cdot [Lp_0 - Lp_1] \frac{TC}{CP_{i1}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$