Changing Revealed Comparative Advantage: A Case Study of Footwear Industry of Pakistan

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1. INTRODUCTION

The global export patterns are changing fast as a result of reduction in trade barriers and technological advancements that have led to gains in productivity and change in comparative advantage patterns in world economies. Asian economies such as China and India are enjoying a notable growth in changing circumstances across the world. Pakistan also has great potential for higher growth however the political threats, socioeconomic environment and lack of updated technologies are obstruction in the way of progress.

Some sectors of Pakistan economy have shown a good performance in terms of production and exports. Footwear is one such industry which has increased its exports at large extent since 2003. This sector has pivotal importance in terms of providing and creating jobs, earning of foreign exchange with the help of exports and fulfilling the local consumption requirements.

Both in Pakistan and around the globe, the demand for footwear is increasing. Pakistan is one of the most populous countries in the World and according to an estimate with an average population growth of 2.25 percent, about 3 million children have been born during the year 2005-06, signaling the growing demand for footwear in Pakistan. It is also estimated that about 60 percent of the World's total consumption consists of simple footwear made entirely of non-leather materials and that for the remaining 40 percent only the upper part of the shoe is made of leather. In the manufacturing of footwear, most frequently used material consists upon leather, man-made materials, rubber / canvas / synthetic and textile along accessories. Different type of shoes are being produced by the local industry e.g. sportsmen, army, disabled persons and safety shoes for the industrial workers etc. The population of Pakistan is expected to be about 172 million in the year 2010. Keeping in view the growth in population, the growth in the demand of footwear industry is also anticipated.

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Though, significant growth has taken place in the Shoe Industry of Pakistan, but there is a view that it has not been up to the mark and the industry has suffered due to a growing and fierce competition of the emerging economies like India and China. There is a general perception that after suffering from the cut-throat competition especially with China, the footwear industry is doing better especially in the previous two years and it is regaining the strength to fulfill the local demand as well as compete efficiently in the world market.

The objective of this study is to analyse the comparative advantage of the footwear industry in Pakistan and compare it with China and India in the global perspective. The study will look into the issues facing industry regarding its competitiveness in the world market and will look at the future potential of growth in the footwear industry of Pakistan. The revealed comparative advantage Balassa Index (1965) will be used to analyse the comparative advantage at 2-digit and 4-digit level of industrial classification.

This paper is organised as follows: Section 2 reviews the literature and Section 3 focuses on the key trends in footwear industry of Pakistan. Section 4 describes the methodology and Section 5 measures and explains the empirical results. Last section concludes the study.

2. LITERATURE REVIEW

RCA measures provide indication on the movement in a region's comparative advantage. Richardson and Zhang (1999) have analysed the patterns of variation across time, sectors and regions for USA. They have used the Balassa index of RCA. They find the patterns to differ across different parts of the world, over time as also for different levels of aggregation of the export data. Differentials are accounted for by factors like geographical proximity of trading partners and per capita income with the extent of influence of these factors varying over time and across sectors/sub sectors.

Bender, Siegfried and Kui-Wai Li (2002) analysed the structural performance and shift of exports and the revealed comparative advantage of the Asian and Latin American regions over the period 1981-1997. They employed the revealed comparative advantage indices firstly to observe the related changes in export pattern among different regions and secondly to examine if changes in the export pattern are associated with shifts in comparative advantage between regions.

Utkulu and Seymen (2004) analysed the competitiveness and the pattern of trade flows from Turkey to the EU at sectoral levels. They made use of different measures of Revealed Comparative Advantage (RCA) (in addition to simple Balassa Index).

The change in Chinese exports patterns has been analysed by Yue (2001). It uses the RCA index to show the changing pattern. It is shown in his empirical investigation that the Chinese exports pattern have changed with its comparative advantage and that there are distinct differences in export patterns between the coastal regions and the interior regions in China.

Revealed Comparative Advantage (RCA) analysis has been undertaken by Batra and Khan (2005) at both the sector and product level. The study analysed the structural change across sectors in India and China during 2000-2003 and also made a comparative analysis of RCA for India and China for the years 2000 and 2003. It employed Balassa's

(1965) measure of relative export performance by country and industry/commodity for the two and six digit level of HS classification. The index of RCA (RCAI) is calculated using data on exports for both India and China from UN COMTRADE.

Another study that used the revealed comparative advantage (RCA) approach at HS 4-digit level is by Mahmood (2004). It examines export specialisation of Pakistan's non-agriculture production sectors during 1990-2000. The study explores the relative position of different non-agricultural production sectors within Pakistan's revealed comparative advantage profile and identifies those non-agricultural export categories, in which Pakistan is losing, gaining or maintaining its export competitiveness.

Hanif and Jafri (2006) construct Balassa's Revealed Comparative Advantage (RCA) index for the textile sector of Pakistan. Their study explores the relationship between the financial development and international trade competitiveness in the case of Pakistan. So they examined the role of access to external finance on the country's textile exports competitiveness. The results show that greater access to external finance has a strong positive impact in the improvement of country's textile sector competitiveness.

The above mentioned empirical studies on revealed comparative advantage provide evidence that the literature focuses more on the measurement of the comparative advantage for various sectors of economies.

3. FOOTWEAR INDUSTRY: FACTS AND PROBLEMS

In the global market, the demand for footwear is high and in most of the developing countries it is growing on average. It is also estimated that about 60 percent of the world's total consumption consists of simple footwear made entirely of non-leather materials and that for the remaining 40 percent only the upper part of the shoe is made of leather. [SMEDA (2006)]. According to UN COMTRADE data, Pakistan footwear exports for the year 2006 were about US\$ 135 million. Out of total footwear exports, leather footwear accounts for 43.15 percent, which makes leather footwear extremely significant.

Pakistan's footwear industry manufactures around 120 million pair annually for local consumption and it exports 2 million pair per annum roughly and the average price charged for each pair stands around \$10. Its share in Pakistan's total exports is about to touch the figure of \$200 million.

3.1. Trends and Patterns of Footwear Export Value and its Growth

Table 1

Trends in Footwear Exports Value

	Exports Value (USD Thousands) at HS2 Level										
	2005	2006									
Pakistan	75,307	90,204	105418	154,490	135,213						
India	622,589	758,292	849999	1049,255	1234,676						
China	11090,084	12954,806	15202,613	19052,503	21813,377						

Source: ITC, COMTRADE data.

	Table 2
Growth in	The Value of Footwear Exports
i	C1.:

	Paki	istan	Ch	ina	India		
	Growth of Growth of		Growth of Growth		Growth of	Growth of	
	Exports in	Exports in	Exports in	Exports in	Exports in	Exports in	
	Value (%)	Volume	Value (%)	Volume	Value (%)	Volume	
		(%)		(%)		(%)	
2006	14.00	3.00	18.00	11.00	19.00	-1.00	
2005	19.00	9.00	20.00	10.00	19.00	-1.00	
2004	24.00	16.00	17.00	3.00	17.00	-2.00	
2003	28.00	16.00	17.00	5.00	22.00	-2.00	

Source: ITC, COMTRADE data.

Export value of footwear in 2006 increased to US\$135.21 million compared to US\$75.31 million in 2002 i.e. an increase of 7 percent. For India the increase in value is 9 percent while china's footwear export value grew by 9 percent in the same period.

In the years 2003 and 2004, Pakistan's footwear export value grew by 2 percent and 24 percent respectively. However, in the same years, china's footwear exports growth rate increased by 1 percent whereas India witnessed a 2 percent and 1 percent growth rates respectively 2003 and 2004. In the years 2005 and 2006, growth in the value of footwear exports is positive but lower as compared to previous years for both Pakistan and India. However china witnessed a higher growth in the value of footwear exports in these years.

17 15 13 11 9 Values(%) 7 5 3 1 -1 2005 2006 2003 2004 -3 Years -◇- - Pakistan—- India ----- China

Fig. 1. Growth in Volume of Footwear Exports (%)

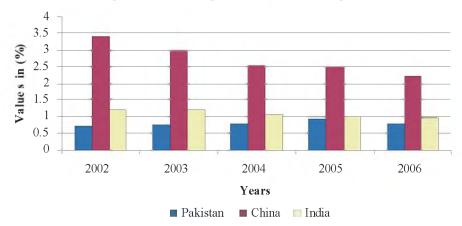
Volume of Pakistan's footwear exports grew at a considerable rate of 16 percent for the years 2003 and 2004. Whereas, India faced a negative growth of 2 percent in the volume of its footwear exports in the same period and China's footwear exports increased at a rate of 5 percent and 3 percent respectively. In the recent years i.e., 2005 and 2006 the volume of Pakistan's footwear exports increased at lower rates of 9 percent and 3 percent as compared to last two years. India's exports continued to decrease at a rate of 1 percent while china increased its volume of footwear exports by 10 percent and 11 percent respectively.

Table 3
Footwear Exports Shares in Total Exports and World's Total Footwear Exports

	Paki	istan	Ch	ina	India		
	Exports as	Exports as	Exports as Exports as		Exports as	Exports as	
	Share of	Share of	Share of	Share of	Share of	Share of	
	Total World Exports Exports		Total	World	Total	World	
			Exports Exports		Exports	Exports	
	(%)	(%)	(%)	(%)	(%)	(%)	
2006	0.80	0.18	2.25	29.19	0.98	1.65	
2005	0.96	0.23	2.50	28.59	1.01	1.57	
2004	0.79	0.18	2.56	25.39	1.06	1.42	
2003	0.76	0.17	2.96	23.97	1.20	1.40	
2002	0.72	0.16	3.41	22.83	1.19	1.28	

Source: ITC, COMTRADE data.

Fig. 2. Footwear Exports as % of Total Exports



The share of Pakistan's footwear exports in the world's total footwear exports is about 0.18 percent while it is 1.6 percent for India and 29 percent for China in the year 2006. For Pakistan it rose from 0.16 percent to 0.23 percent in 2005 and decreased to 0.18 percent in 2006. Footwear exports share in Pakistan's total exports rose to 1 percent in 2005 from 0.7 percent in 2002 and it accounts for about 0.8 percent in 2006 of Pakistan's total exports. India's footwear exports account for about 1.6 percent of total exports while for China the same is 2.2 percent in the year 2006.

Footwear Exports at Disaggregated Level (HS-4)

The pattern of comparative advantage can be different across different levels of dis-aggregation in the sector. Also there are components or sub-products of footwear which contribute more in the total footwear export value of the country. So to analyse the state of sub-products of footwear we also calculate the exports value and their growth rates at the more disaggregated level i.e. the 4 digit level of HS classification.

In terms of sub sector across the footwear industry, footwear, upper of leather (6403) and Footwear, nes (6405) have the largest share in Pakistan's total footwear export value. Footwear nes, outer soles and uppers of rubber or plastics (6402) is on the third position in terms of its contribution in total footwear exports value. The products (6403) and (6405) have 43 percent and 38 percent share respectively in Pakistan's total footwear export for the year 2006. from the Appendix Tables 1, 2, and 3 it can be inferred that in general, the export value of footwear in sub sectors is increasing over the years. In China, Footwear, upper of leather (6403), Footwear nes, outer soles and uppers of rubber or plastics (6402) and Footwear, upper of textile mat (6404) are the three major sub sectors respectively in terms of their shares in China's total footwear exports value. The major footwear's sub sectors in India are different as compared with those of Pakistan and China. Footwear, upper of leather (6403), Part of footwear romovable in-soles, heel cushion etc., gaiter etc. (6406) and Footwear, upper of textile mat (6404) are respectively three major contributors to the total footwear export of India. While comparing across countries it is observed that the sector (6403) is largest sector for all the three countries of analysis.

3.2. Major Problems Facing Footwear Industry

- One of the most important problems hindering the growth of footwear industry
 is higher energy prices. Increasing energy and inputs prices leads to an increase
 in the cost of production that influences the expected production of the
 industries and thereby exports.
- Industries do not have footwear training institutes of quality and repute and in result there is a lack of skilled labour force. Thus there exists a problem of absorption capacity in advanced machinery.
- Outdated production methods are still prevailing in the shoe factories.
- Improper availability of raw material.
- There is no mechanism of collaboration between Industry units and other related research organisation and academic institution to improve their productivity.
- Transport and utility infrastructure facilities are not adequate.
- Industry is facing high competition from China providing cheaper footwear product in markets.
- Heavy taxes in the form of sales tax and income tax on retail businesses.

3.3. Role of Entrepreneurs

Entrepreneurs can play a vital role in the development and progress of the footwear sector of Pakistan.

- They would employ the new techniques for production, design, marketing and management that can improve the business activity in footwear sector.
- They would focus on technical and managerial skills to improve production supply, consistency in production quality and level of production.
- Use of e-commerce strategies can broaden their product market.
- By increasing their supply network at national level and international level through better coordination with retailers and marketers.

- Entrepreneurs have to learn the preferences of domestic and foreign buyers, including quality of production and international standards for the price and delivery of export merchandise.
- By increasing the outlets at domestic level and refine delivery to appropriate sellers.
- Participation in trade fairs can increase the opportunities to find market for their exports.
- They have to develop the research and development activities for improving quality, physical testing services to tanneries and shoe factories.

4. METHODOLOGY

The revealed comparative advantage approach is one of the few formal methodologies to measure a country's comparative advantage and disadvantage in a particular industry. In theoretical models, comparative advantage is expressed in terms of relative prices evaluated in the absence of trade. Since these are not observed, in practice we measure comparative advantage indirectly. Revealed comparative advantage indices (RCA) use the trade pattern to identify the sectors in which an economy has a comparative advantage, by comparing the country of interests' trade profile with the world average. It defines the pattern in comparative advantage by using the trade flows, since this pattern in comparative advantage is revealed by the observed pattern of trade flows, therefore it is called 'revealed comparative advantage'.

The revealed comparative advantage has some merits and some demerits. The advantage of using the comparative advantage index is that it considers the intrinsic advantage of a particular export commodity and is consistent with changes in an economy's relative factor endowment and productivity. Demerit of using the comparative advantage index is that it is a partial equilibrium framework and a static situation for analysis. It provides general direction of movement and do not predict the potential future comparative advantage in particular sector of economy or of a country. The index is affected by anything that distorts the trade pattern, e.g., trade barriers.

The RCA index is defined as the ratio of two shares. The numerator is the share of a country's total exports of the commodity of interest in its total exports. The denominator is share of world exports of the same commodity in total world exports. RCA takes a value between zero and positive infinity. A country is said to have a revealed comparative advantage if the value exceeds unity. A country therefore has a revealed comparative advantage only in those products for which its market share of world exports is above its average share of world exports.

Based on the basic concept of revealed comparative advantage, many different RCA indices have been suggested [Bowen (1983); Yeat (1985); Vollrath (1991); Lafay (1992); Memedovic (1994); yet the one most widely adopted in empirical studies remains to be the standard Balassa's RCA index [Balassa (1965)] that is as follow

$$RCA = \frac{\sum_{d \text{ isd}}^{x} / \sum_{d \text{ sd}}^{X}}{\sum_{w \text{diwd}}^{x} / \sum_{d \text{ wd}}^{X}} \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad \dots$$
 (1)

Where s is the country of interest, d and w are the set of all countries in the world, i is the sector of interest, x is the commodity export flow and X is the total export flow. The numerator is the share of good i in the exports of the country s, while the denominator is the share of good i in the exports of the world. Mainly the data sources are world development indicators developed by World Bank and UN COMTRADE.

5. RESULTS

In this study, we are measuring the revealed comparative advantage indices for the footwear industry. The analysis is divided into two parts. In the first part of analysis, we examine the pattern of comparative advantage at aggregate level. The 2 digit-level of Harmonised System (HS-1996) classification is used to measure the RCA indices at aggregate level. In the second part of our analysis, the 4-digit level of HS-1996 classification is used to measure the RCA indices at disaggregated level. The disaggregation at 4-digit would show the pattern of RCA and the fact that it may differ across the industry at different level. We have calculated indices in both analysis for Pakistan and compare with the other Asian countries specially China and India.

5.1. Revealed Comparative Advantages Analysis at Aggregate Level

The estimations for the years 1996 to 2006 provide evidence on the movement in the pattern of revealed comparative advantage for Pakistan, China and India. At HS-2 level, Pakistan has an increasing movement in comparative advantage in footwear industry. The revealed comparative advantage index is greater than unity (RCA>1) for Pakistan's footwear industry since 2003 and increasing over the year. The reported results in Table 4 show that RCA for pakistan's footwear industry was less than in 1990's till 2002. The increasing export volume and value have shifted Pakistan's position from disadvantage to advantage in footwear and related industries. It indicates that Pakistan footwear industry has a great potential for growth. It has showed a good export performance that is reflected in changing comparative advantage in footwear industry.

In this study, although we are concerned with the changing pattern in comparative advantage of footwear sector in Pakistan, we are also comparing the movement in comparative advantage in footwear industry with China and India. Batra (2005) provides evidence that China and India hold comparative advantage in footwear sector at HS-2 level however China is more advantageously placed than India. Our estimated results are consistent with Batra (2005). China has comparative advantage since 1980's in footwear industry. The RCA indices for China are greater than one since 1996 however they show a decreasing pattern from the year 2001. It decreased from 4.86 in 2001 to 3.55 for the year 2006. India's comparative advantage in footwear industry is revealed since 1990's and the RCA index continued to increase till the year 2002. After that India witnessed relatively less growth in exports of footwear industry that decreased the RCAs since 2002. The RCA indices show that China and India still have comparative advantage in this industry but with the decreasing pattern.

Table 4

Revealed Comparative Advantages Analysis at Aggregate Level

Years	HS Code	Pakistan	China	India	Indonesia	Thailand
2006	64	1.61	3.55	1.414	2.74	1.36
2005	64	1.47	3.89	1.505	2.64	1.29
2004	64	1.17	3.88	1.63	3.15	1.22
2003	64	0.98	4.15	1.71	2.74	1.44
2002	64	0.71	4.56	1.63	2.7	1.71
2001	64	0.6	4.86	1.96	3.43	1.64
2000	64	0.338	5.25	1.94	3.57	1.78
1999	64	_	5.28	1.99	4	1.78
1998	64	-	5.07	1.99	3.24	_
1997	64	-	4.8	1.6	3.34	_
1996	64	_	4.3	1.58	4.03	_

The grey area represents the changing pattern of comparative advantage. It clearly shows that Indonesia, Thailand, India and China have comparative advantage with a decreasing pattern of RCA indices. From the estimated results, we assessed that Pakistan has potential for higher growth in this sector. It has not only one of the top winning countries by giving 6 percent production growth¹ in this sector but it has also shifted its position from disadvantage to comparative advantage.

5.2. Revealed Comparative Advantage Analysis at Disaggregated Level

In the second part of analysis, we measured the RCA at disaggregated level to observe the difference in exports performance within the footwear sub-sector for Pakistan and compared them with China and India. At 4-digit level HS-1996 classification, there are further 6 sectors in footwear industry. Pakistan is enjoying the comparative advantage since 2005 in the sectors of foot,outer sole/upper of rbr/pla(6401), footwear upper of leather(6403) and footwear nes(6405). It has revealed disadvantage in the sectors of footwear nes outer soles and uppers of rubber or plastics(6402), footwear upper of textile mat(6404) and part of footwear removable in-soles, heel cushion etc gaiter etc. (6406).

From the RCAs trend, we can predict that Pakistan may have revealed comparative advantage in the sector of footwear nes outer soles and uppers of rubber or plastics (6402) within next two years. Table 6 shows that the RCA are greater than 1 for all subsectors of China's footwear industry. It indicates that China not only enjoys the comparative advantage in the overall footwear industry but also in all the sub-sectors within the industry. All sectors have similar movement in the revealed comparative advantages except the sector of footwear, nes (6405). The RCA indices trend in Table 7 present the pattern of comparative advantage in footwear industry of India. The results shows that the three sectors have RCA>1 and the other three sectors have RCA<1 that represent the comparative advantage and disadvantage respectively within the footwear industry.

¹An analysis of world leather value chain and footwear market, Report by TATA international.

Table 5

Revealed Comparative Advantage Analysis at Disaggregated Level: Pakistan

HS					
Codes	Industries	2006	2005	2004	2003
6400	All industries in sector 64	1.3	1.5	1.2	0.98
6401	W/p foot, outer sole/upper of rbr/pla	2.7	1.3	0.1	0.1
6402	Footwear nes, outer soles and uppers of rubber or plastics	0.7	0.2	0.1	0.02
6403	Footwear, upper of leather	1	0.9	1.1	1.1
6404	Footwear, upper of textile mat	0.4	0.4	0.5	0.3
6405	Footwear, nes	13.2	20.1	12.3	8
6406	Part of footwear; romovable in-soles, heel cushion etc; gaiter etc.	0.2	0.4	0.1	0.2

Table 6
Revealed Comparative Advantage Analysis at Disaggregated Level: China

HS						
Codes	Industries	2006	2005	2004	2003	2002
6400	All industries in sector 64	3.6	4.1	3.9	3.9	4.5
6401	W/p foot, outer sole/upper of rbr/pla	3.9	4.1	3.6	3.5	5.2
6402	Footwear nes, outer soles and uppers of		7.6	7.2	6.0	0.5
	rubber or plastics	6.3	7.6	7.3	6.9	8.5
6403	Footwear, upper of leather	2.6	3	2.9	3	3.4
6404	Footwear, upper of textile mat	4.7	5.1	4.4	4.4	5.5
6405	Footwear, nes	6	5.3	4.8	5.7	5.1
6406	Part of footwear, romovable in-soles, heel					
	cushion etc; gaiter etc.	1.6	1.4	1.5	1.4	1.6

Table 7
Revealed Comparative Advantage Analysis at Disaggregated Level: India

HS						
Codes	Industries	2006	2005	2004	2003	2002
6400	All industries in sector 64	1.6	1.6	1.6	1.7	1.6
6401	W/p foot, outer sole/upper of rbr/pla	1.8	2.3	4.1	1.3	1.2
6402	Footwear nes, outer soles and uppers					
	of rubber or plastics	0.1	0	0.2	0.1	0
6403	Footwear, upper of leather	2.1	2.1	2	2	1.7
6404	Footwear, upper of textile mat	0.5	0.4	0.7	0.7	0.6
6405	Footwear, nes	0.6	8.0	0.9	0.7	0.5
6406	Part of footwear; romovable in-soles,					
	heel cushion etc; gaiter etc.	3.7	3.7	3.8	4.2	4.6

India has comparative advantage in the sub-sector of W/p foot, outer sole/upper of rbr/pla(6401), footwear upper of leather(6403) and part of footwear romovable insoles,heel cushion etc; gaiter etc. (6406). Whereas it has disadvantage in the sub-sectors of footwear nes outer soles and uppers of rubber or plastics(6402) and footwear upper of textile mat(6404) and footwear nes (6405).

6. CONCLUSION

In this study, we have analysed the performance of footwear industry of Pakistan and made its comparison with China and India. The revealed comparative advantage index has been employed to analyse exports of footwear industry at both two-digit and four-digit level of industrial classification. Our estimated results highlight the pattern of comparative advantage in the footwear sector for the time period 1996 to 2006.

At two-digit level of classification of footwear industry in Pakistan, there have been shifts in the comparative advantage since 2003 and the RCA are increasing over the years. China and India have comparative advantage since 1990, however, their revealed comparative advantages are decreasing in terms of level since 2001. Since 2003, Pakistan experienced an increase in its volume as well as in value of footwear exports that has caused a shift in the position of industry from disadvantage to comparative advantage.

At four-digit level of industrial classification of footwear sector, Pakistan has experienced a strong growth in the industries of sole/upper of rbr/pla (6401), Footwear, upper of leather (6403) and footwear nes (6405). Whereas India has comparative advantage in the sector of W/p foot, outer sole/upper of rbr/pla(6401) and footwear upper of leather(6403) and part of footwear romovable in-soles,heel cushion etc;gaiter etc(6406). On the other hand, China has comparative advantage in all sub-sectors across the industry.

The changing revealed comparative advantage in Pakistan's footwear industry i.e., its shift from disadvantage situation to comparative advantage indicates that there is a potential in this sector for higher growth and the industry can become a source of higher exports earnings. There is a growing perception that the increasing cost of doing business in Pakistan is eroding the competitiveness of the footwear industry in Pakistan. Thus in the rapidly changing global economic environment, there is an urgent need to strengthen the competitiveness of the footwear industry.

Appendix Table 1

Pakistan: Footwear Industry's Exports at HS-4 Level of Industrial Classification

		~	1		J		J		
		2006		2005		2004		20	03
HS Codes	Industries	Exports Value(USD Thousands)	Growth of Exports in Value (%)						
6401	W/p foot, outer sole/upper of rbr/pla	2705	-5	1611	15	89	49	109	72
6402	Footwear nes, outer soles and uppers of rubber or plastics	15704	67	3575	75	1571	116	264	162
6403	Footwear, upper of leather	58357	10	52834	17	51777	17	52527	18
6404	Footwear, upper of textile mat	4658	9	4367	12	5230	15	2301	21
6405	Footwear, nes	52040	30	89084	35	45960	97	33065	176
6406	Part of footwear;romovable in-soles,heel cushion etc;gaiter etc.	1749	34	3020	35	791	40	1938	58

Source: COMTRADE Database.

Appendix Table 2

China: Footwear Industry's Exports at HS-4 Level of Industrial Classification

		200	06 2005		2004		2003		2002		
		Exports	Growth of								
HS		Value(USD	Exports in								
Codes	Industries	Thousands)	Value (%)								
6401	W/p foot,outer sole/upper of rbr/pla	219475	16	196273	17	153914	12	136703	11	4753075	13
6402	Footwear nes, outer soles and uppers of rubber or plastics	7860345	19	6667186	19	5554458	19	4653986	19	3924579	12
6403	Footwear, upper of leather	8697711	16	7990087	19	6248522	15	5279301	11	1418663	_
6404	Footwear, upper of										
	textile mat	2876681	19	2380480	19	1874334	15	1612084	14	461265	_
6405	Footwear, nes	1360422	31	1199665	38	795133	31	807740	75	409443	-
6406	Part of footwear; romovable in-soles, heel cushion etc; gaiter										
	etc.	798743	18	618811	15	576253	19	464991	14	123060	_

Source: COMTRADE Database.

Appendix Table 3

India: Footwear Industry's Exports at HS-4 Level of Industrial Classification

		2006		2005		2004		2003		2002	
		Exports	Growth of								
HS		Value(USD	Exports in								
Codes	Industries	Thousands)	Value (%)								
6401	W/p foot,outer										
	sole/upper of rbr/pla	13465	32	17466	58	24083	134	6213	40	4463	_
6402	Footwear nes, outer										
	soles and uppers of										
	rubber or plastics	11886	36	5854	19	5178	22	4428	27	3516	_
6403	Footwear, upper of										
	leather	908778	23	751793	24	565320	20	501907	28	392982	-
6404	Footwear, upper of										
	textile mat	40119	15	31116	10	39155	30	31720	36	23316	_
6405	Footwear, nes	16482	25	23253	50	19106	67	16173	138	6830	_
6406	Part of footwear;										
	romovable in-soles,										
	heel cushion etc; gaiter										
	etc.	243946	6	219773	5	197157	1	197852	3	191482	-

Source: COMTRADE Database.

REFERENCES

- Balassa, B. (1965) Trade Liberalisation and 'Revealed' Comparative Advantage. *The Manchester School* 33, 99–123.
- Batra and Khan (2005) Revealed Comparative Advantage: An Analysis for India and China. Indian Council for Research on International Economic Relations. (Working Paper 168).
- Bender, Siegfried and Kui-Wai Li (2002) The Changing Trade and Revealed Comparative Advantages of Asian and Latin American Manufacture Exports. Yale University, Economic Growth Center. (Discussion Paper Series No. 843.)
- Hanif, Muhammad N. and Sabina K. Jafri (2006) Financial Development and Textile Sector Competitiveness: A Case Study of Pakistan. South Asia Economic Journal 9:1, 141–158.
- Mahmood, Amir (2004) Export Competitiveness and Comparative Advantage of Pakistan's Non-agricultural Production Sectors: Trends and Analysis. *The Pakistan Development Review* 43:4, 541–561.
- Richardson, David J and Chi Zhang (1999) Revealing Comparative Advantage: Chaotic or Coherent Patterns Across Time and Sector and U.S Trading Partner? National Bureau of Economic Research. (Working Paper 7212).
- Utkulu, Utku and Dilek Seymen (2004) Revealed Comparative Advantage and Competitiveness: Evidence for Turkey *vis-à-vis* the EU/15. Paper prepared for the European Trade Group 6th Annual Conference, ETSG 2004, Nottingham.
- Vollrath, T. L. (1991) A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage. *Weltwirtschaftliches Archiv* 130, 265–79.
- Yeats, A. J. (1985) On the Appropriate Interpretation of the Revealed Comparative Advantage Index: Implications of a Methodology Based on Industry Sector Analysis. *Weltwirtschaftliches Archiv*.
- Yue, Changjun (2001) Comparative Advantage, Exchange Rate and Exports in China. Paper prepared for the International Conference on Chinese Economy, CERDI, France.