



Competition Commission of Pakistan  
Creating a level Playing Field

**Competition Impact Assessment Report**  
**On**  
**Polyester Staple Fibre Industry of Pakistan**

**March 2011**

**COMPETITION COMMISSION OF PAKISTAN**

This study assesses the level of competition in the polyester staple fiber sector of Pakistan, using secondary data and a survey conducted by the Competition Commission of Pakistan.

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# TABLE OF CONTENTS

<b>DISCLAIMER .....</b>	<b>II</b>
<b>LIST OF FIGURES .....</b>	<b>III</b>
<b>LIST OF TABLES.....</b>	<b>III</b>
<b>FOREWORD.....</b>	<b>V</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>VI</b>
<b>CHAPTER – 1: INTRODUCTION .....</b>	<b>1</b>
OVERVIEW .....	1
USAGE OF PSF .....	2
HISTORY OF THE PSF INDUSTRY IN PAKISTAN .....	3
MAJOR PLAYERS.....	4
SUPPLY AND DEMAND OF PSF IN PAKISTAN.....	6
<b>CHAPTER – 2: PSF VALUE CHAIN IN PAKISTAN .....</b>	<b>10</b>
OVERVIEW .....	10
PSF VALUE CHAIN AND ITS COMPONENTS .....	10
<i>Raw Material Sector: PTA.....</i>	<i>11</i>
<i>Intermediate Sector of the Value Chain: PSF.....</i>	<i>12</i>
<i>Ultimate User: Textile Industry.....</i>	<i>14</i>
<b>CHAPTER – 3: PRICING STRUCTURE .....</b>	<b>18</b>
OVERVIEW .....	18
NATIONAL PRICES.....	18
<i>Prices by Companies.....</i>	<i>20</i>
<i>Import vs National Prices.....</i>	<i>21</i>
<i>Import Prices by Countries .....</i>	<i>21</i>
<b>CHAPTER – 4: EFFICIENCY AND COMPETITION DYNAMICS .....</b>	<b>23</b>
OVERVIEW .....	23
COST OF PRODUCTION IN THE PSF INDUSTRY .....	23
EFFICIENCY AND ECONOMIES OF SCALE .....	25
<i>Capacity Utilization .....</i>	<i>26</i>
COMPETITION LANDSCAPE IN THE PSF INDUSTRY OF PAKISTAN.....	28
<i>ABUSE OF DOMINANCE.....</i>	<i>29</i>
<i>Concentration in the PSF Industry: The HH Index.....</i>	<i>31</i>
<i>POSSIBILITY OF A CARTEL OR COLLUSION.....</i>	<i>32</i>
ENTRY BARRIERS.....	35
<b>CHAPTER – 5: REGULATORY FRAMEWORK .....</b>	<b>37</b>
OVERVIEW .....	37
TARIFFS IN PLACE ON THE PSF INDUSTRY .....	37
PROTECTION IN REGIONAL COUNTRIES .....	38
DUMPING – THE BASICS AND THE PROCEDURE IN PAKISTAN .....	39
ANTIDUMPING DUTIES ON PSF IMPORTS .....	40
REGULATORY REQUIREMENT OF PUBLISHING COST AUDIT REPORTS .....	42

<b>CHAPTER – 6: CONCLUSION AND RECOMMENDATIONS</b> .....	<b>44</b>
CONCLUSION.....	44
KEY CHALLENGES.....	47
RECOMMENDATIONS.....	47
<b>ANNEX-1: SUPPLY AND DEMAND OF PSF</b> .....	<b>49</b>
<b>ANNEX-2: PTA &amp; MEG PRICES</b> .....	<b>50</b>
<b>ANNEX-3: PAKISTAN’S PSF IMPORTS BY COUNTRIES</b> .....	<b>51</b>
<b>ANNEX-4: COST SHEET OF 30/1 P.C. YARN</b> .....	<b>52</b>

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## List of Figures

Figure – 1	Textile Value Chain
Figure – 2	Share of Local Production and Imports in the PSF Supply
Figure – 3	Percentage Shares of Local Production and Import of PSF
Figure – 4	PSF Value Chain
Figure – 5	Share of PSF in Cost
Figure – 6	Average PSF Price per Month
Figure – 7	Relative Prices of Polyester and Crude Oil
Figure – 8	Local and Import Prices
Figure – 9	Weighted Average Cost of Production
Figure – 10	Cost of Production vs. Scale of Production
Figure – 11	PSF Production Share (%)
Figure – 12	HHI in the PSF Industry
Figure – 13	Import Price vs International Price

## List of Tables

Table - 1	PSF Composition and its Uses
Table - 2	Installed Capacity
Table - 3	Sources of PSF Import (%)
Table - 4	PSF Domestic Production
Table - 5	Demand and Supply of PTA
Table - 6	Export of Textile and Clothing
Table - 7	Percentage share of PSF in the cost
Table - 8	Average PSF Prices
Table - 9	Country-wise Import Prices
Table - 10	Cost of Production by Companies
Table - 11	Capacity Utilization
Table - 9	Tariffs for PSF Value Chain
Table - 10	Antidumping Duties by Countries
Table - 12	Labour Productivity
Table - 13	Tariffs for PSF Value Chain
Table - 14	Comparison of PSF Value Chain Tariffs
Table - 15	Antidumping Duties by Countries

## Abbreviations

APTMA	All Pakistan Textile Mills Association
BMR	Balancing, Modernization and Replacement
BOI	Board of investment
COP	Cost of Production
DEA	Data Envelop Analysis
DSFL	Dewan Salman Fibers Limited
EEC	European Economic Community
GOP	Government of Pakistan
HHI	Herfindahl-Hirschman Index
IFL	Ibrahim Fibers Ltd
ICI	ICI Pakistan Ltd
JV	Joint Venture
MEG	Mono Ethylene Glyco
MT	Metric Ton
NTC	National Tariff Commission
OECD	Organization for Economic Cooperation and Development
PAK	Pakistan
PET	Polyethylene Terephthalate
PSF	Polyester Staple Fibre
PSL	Pakistan Synthetics Ltd
PTA	Pure Terephthalic Acid
PX	Paraxylene
Rupali	Rupali Polyester Ltd
SECP	Securities and Exchange Commission of Pakistan
w.e.f.	With Effect From
WTO	World Trade Organization

## **Foreword**

The Competition Commission of Pakistan (CCP) regularly conducts competition assessments of key sectors of Pakistan's economy. These assessments look into the sectors from the competition stand point and thus represent pioneering work in Pakistan. So far, the studies completed include banking, sugar, fertilizer, aviation, power, cooking oil and ghee, and the automotive industry. We use these research studies as diagnostic tools to critically assess the state of competition in specific sectors. These studies evaluate the causal link of various factors with the overall competitive environment – such as the production and pricing behaviour of manufacturers, the regulatory framework maintained by the government and other institutions that affects competition, and most importantly, the likelihood of anti-competitive practices within the industry structure. The nature of competition law is that 'one size does not fit all', therefore, we have to be very focused while taking steps to promote competition in various sectors. The spirit behind this effort remains to better understand the 'relevant markets' and to effectively promote competition in such markets as mandated by the Competition Act, 2010.

This Report presents a competition assessment of Polyester Staple Fibre Industry of Pakistan - an important segment of Pakistan's textile industry. The Report covers a range of competition concerns such as the possibility of market dominance, collusion, barriers for potential market entrants, effects of international price fluctuations on the national market prices, etc. It is understandable that the immediate beneficiary of this report is the CCP; it will nevertheless be useful for a range of policy makers and regulators – in particular, the National Tariff Commission, Ministry of Textile Industry, Ministry of Industries, Production and Special Initiatives and the Securities and Exchange Commission of Pakistan. It will also be beneficial to those interested in the sector – market players, investors, academia and students.

CCP initially outsourced this study but later it was completed and finalized in-house by the CCP's Research team consisting of Ms. Kishwar Khan and Mr. Mustafa Mahmood, under the guidance of Mr. Mueen Batlay (Member, CCP). CCP acknowledges the contribution and cooperation of the PSF industry market players, representatives of the All Pakistan Textiles Mills Association and the National Tariff Commission.

**Rahat Kaunain Hassan**  
Chairperson  
March 2011

## Executive Summary

1. Polyester staple fiber (PSF) is a type of man-made fiber that is used in spinning for yarn manufacture, which is later woven into value added textiles. Since the early eighties, PSF manufacturing has contributed to Pakistan's GDP stream as an import substitution industry with forward linkages to the textile industry. It is estimated that the domestic PSF industry saves US\$ 225 - 250 million annually on account of import substitution. Considering its importance, the Competition Commission of Pakistan chose this sector for its competition assessment. The study is based on internationally acknowledged analytical tools and frameworks for competition assessment, such as the DFID's Competition Assessment Framework and the OECD Competition Assessment Toolkit. These structures provide operational guidelines for assessing the degree of competition and identifying competition vulnerabilities in specific sectors of the economy.
2. This Report attempts to identify features which matter the most with reference to competition, such as efficiency, market structure, entry barriers, regulatory issues and anti-competitive practices, i.e. abuse of dominance, cartels or collusive agreements. It draws upon observations made by companies active in the sector. For this purpose, a survey was conducted in July 2010. Based on the survey findings and information gathered from a range of stakeholders, recommendations have been developed to improve competition in the sector. We observe that an assessment of the competition dynamics of the sector does not call for action by the CCP. Our major conclusion is therefore to 'do nothing', with reference to Competition Act, 2010.
3. Looking into the historical perspective, PSF consumption in Pakistan was estimated to be 18,000 MT in 1981, which peaked to 526,453 MT in 2005-06. During 2008-09, the demand for PSF was about 454,093 MT. The supply side of polyester industry in Pakistan consists of five producers that meet about 80% of PSF demand, with an installed capacity of about 642,600 tones per annum. These units are ICI Pakistan Ltd., Pakistan Synthetics Ltd., Ibrahim Fibers Ltd., Rupali Polyester Ltd. and Dewan Salman Fibers Ltd. However, presently only 4 units are operational as Dewan Salman Fibers Ltd., a former market leader has ceased operations.
4. Initially, the industry was protected through import tariffs of about 25% till 1990. Since then, tariffs have been reduced gradually to 4.5% in 2010; opening the sector to foreign competition. We also observed that the share of local PSF in meeting demand has declined continuously since 2004-05 and that the share of imported PSF increased from mere 2.5% in 2004-05 to 19.8% in 2008-09. Price comparison shows that the imports from countries such as China, Indonesia and Thailand are relatively cheaper. Besides this, dumping of PSF is also affecting the local industry. After determination of dumping in certain cases, the National Tariff Commission imposed anti-dumping duties. For the purpose of the study, we collected historical data on international prices in the region (North East Asia) and made a comparison with the import price of PSF into Pakistan. The findings appear to substantiate NTC's determination of dumping of PSF into Pakistan. However, due to certain procedural technicalities, anti-dumping duties could not be collected. This left the national PSF sector vulnerable to unfair international competition.



5. The duty on PSF import affects the textile sector, where it is used as a raw material. But, the impact on textile exports is reduced through the duty and tax remission for export (DTRE) scheme. Our study shows that there remained a high concentration in the PSF sector, with one player achieving dominance. However, the ability of PSF producers to abuse their dominance and raise PSF prices artificially is curtailed, as PSF users have the option to substitute PSF with other fibers, and to switch to cheaper imports.
6. From a competition regulator's perspective, capacity utilization of manufacturing units is a very important factor, in case there is sufficient demand. Low capacity utilization or presence of large idle capacity serves as an entry barrier for potential market entrants. Incumbent firms may drive away competition via signaling a threat of increasing production if a new firm enters the market. Low capacity utilization may also indicate a nexus between producers to keep production low and prices artificially high. Our study notes that the PSF industry utilizes capacity fairly well, and is hence doing fine on this indicator from a competition perspective.
7. We have noted that the domestic PSF production declined by 15% during the last 5 years. This was a result of an interplay of various factors, such as local demand, which in turn rests on the price and production levels of its close substitute cotton, price of imported PSF and costs related to business and manufacturing. It was observed that the cost of doing business has increased manifold, cheap imported PSF is available from various countries and closure of a major PSF unit have all contributed to a decline in domestic production from 426,342 MT in 2004-05 to 364,354 MT in 2008-09.
8. Besides power and fuel cost, market dynamics of the downstream industry such as business negotiated discounts, credit facilities based on volume, and geographical location of the customer, are other determinants of price for individual buyers. Fluctuations in the international crude oil price also play a critical role in the determination of PSF prices, since its raw material is derived from crude oil. About 75-80% of the PSF manufacturing cost consists of raw material cost, i.e. PTA and MEG (crude oil by-products).
9. We observed that the prices of crude oil and polyester are fairly synchronized. This study shows that in the post-July 2008 period, when international crude oil prices crashed, there appears to be a wider gap between the price of polyester and crude oil, compared to the earlier period. This increasing differential between PSF and crude oil prices may be due to increased gross margins of PSF producers, or a surge in production cost. A deeper analysis into the operations of PSF producers, as well as the state of industry in Pakistan, reveals increasing cost of production due to the energy crisis and inflationary trend in the economy.
10. While comparing national and import prices, the historical trend shows that both prices follow a similar trend, though national prices have generally remained higher. There remains little variation in the prices charged by various producers. This is partially explained by exogenous factors, such as the cost of raw material and the relatively

homogenous nature of the commodity. The PSF industry was found to show signs of price parallelism. Competition agencies of Pakistan- MCA and later on the CCP- noticed this similarity in prices amongst PSF producers. Proceedings were initiated for a *prima facie* case of cartelization/collusion, but it could not be proved. During the course of the legal proceedings, the Commission asked the defendants to give an undertaking on behalf of their respective Boards of the non existence of any formal or informal association that coordinates to adopt or fix parallel pricing or output. All producers were willing to do this, and submitted affidavits in this regard.

11. Members of the All Pakistan Textile Mills Association (APTMA) are the main users of PSF, and this association has expressed its reservations repeatedly regarding the import duty on PSF, anti-dumping duties and the likelihood of cartelization amongst PSF producers. While conducting this study, an attempt was made to ascertain the views of APTMA, as their members stand to be most impacted by the state of competition in the sector. Analysis in this study, however, establishes that the APTMA's assertion regarding collusion or cartel of PSF producers is not supported by evidence.
12. While looking into the regulatory framework, we gathered that the SECP formulated a requirement for the polyester industry to conduct cost audits and make the reports public to all shareholders through the companies' respective websites. While reviewing this requirement from a competition perspective, we find that publicizing cost information through websites essentially amounts to disclosure of sensitive information, and competition agencies look at such information sharing between competitors rather suspiciously. It reduces the uncertainty in pricing and eases the competitive pressure on firms to reduce prices. Responding to the industry's protest, the SECP deferred this requirement to 2011. Given the market structure, it remains advisable from a competition standpoint that such disclosure requirements not be imposed.
13. To conclude, the Report identifies **key challenges** to Pakistan's PSF sector that need to be addressed promptly:
  - (a) The sector is directly affected by the developments in the textile industry. Pakistan's textile exports have fallen during the last three years; consequently the derived demand for PSF cannot be expected to remain stable.<sup>1</sup>
  - (b) The cost of doing business is rising in Pakistan. In particular, the energy costs are not competitive compared to other PSF manufacturing countries of the region.
  - (c) Closure of the Dewan Salman PSF unit is a setback for the industry and PSF users.

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<sup>1</sup> Various reasons have been cited for this development, including increased interest rate, double digit inflation and devaluation of the Pakistani rupee. A study determines that exporters cannot effectively market their products as buyers are prevented from traveling due to adverse travel advisories, and it is becoming increasingly difficult for exporters to travel abroad. See 'Pakistan Textile Industry Facing New Challenges' by Aftab A. Khan and Mehreen Khan, available at:[http://www.eurojournals.com/rjis\\_14\\_04.pdf](http://www.eurojournals.com/rjis_14_04.pdf)

- (d) Low tariffs and weaknesses in the application of the trade remedy law, i.e. the anti-dumping mechanism, have exposed the PSF sector to unfair foreign competition.

14. We offer these recommendations to improve competition in the PSF sector:

- (a) The development of the textile industry is a pre-condition to boost the derived demand for PSF. The textile sector needs a stronger image and market development strategy. In particular, targeted efforts are required to check the rise in investors' negative perception of political instability and its associated impact on investment and sourcing decisions. Effective negotiations are needed to reduce access costs to major markets within the WTO framework or through bilateral arrangements. Efforts are required to establish long term competitiveness of the textile industry, focusing on the entire value chain including PSF.
  - (b) Economies of scale impact the cost of production. Therefore, to reap the benefits in the form of elevated efficiency and productivity, the PSF sector needs to improve its scale of production and technology profile. This will also enable the sector to better meet PSF demand.
  - (c) Dewan Salman Fibres Ltd. holds about 40% of the total installed PSF production capacity. This unit needs to be put back in operation.
  - (d) The tariff structure for the PSF industry should be managed so as to provide the industry and potential entrants long term viability for future planning and growth, while incentivising them to increase their international competitiveness.
  - (e) To safeguard the industry, implementation of the anti-dumping law needs strengthening.
  - (f) Disclosure of sensitive cost information through company websites is competition reducing in its effect. Therefore, the SECP needs to work out an alternate mechanism to collect necessary cost data. The CCP may consider giving its advice in the form of a policy note.
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## CHAPTER – 1: INTRODUCTION

### Overview

Polyester staple fiber is a type of man-made fiber that is used in spinning for yarn manufacture, which is later woven into fabrics. In non-woven uses, pillows, sofas and cushions etc are filled with it. Key raw materials used in the manufacture of PSF are PTA (Pure Terephthalic Acid) and MEG (Mono Ethylene Glyco). PSF manufactured using PTA & MEG or PET Chips is known as Virgin PSF while that made from recycled PET flakes is called Recycled PSF. 100% virgin PSF is usually more costly to manufacture compared to recycled PSF, and is also more hygienic. Depending on its luster, PSF is classified as semi, dull, or bright. By mixing colour master-batch, dope dyed PSF can also be obtained in several colors. PSF is available in different deniers with different cut-lengths. Major PSF producing countries include China, India, Taiwan, Indonesia, Vietnam, Malaysia and Korea.<sup>2</sup>

The history of PSF dates back to 1932, when Carothers laid the foundation for all processes used in the production of polyester and polyamide, using the poly-condensation process. Later in the 1940s, the use of Terephthalic acid for development of polyester fibers was implemented at almost at the same time by Schlack in Germany and by Whinfield & Dickson in England. Mass production of polyester began in 1947 by Imperial Chemical Industries (I.C.I.) in the United Kingdom and by DuPont in USA. Both the companies acquired patent rights from Calico Printers' Association Ltd. in Manchester. I.C.I. marketed its product as 'Terylene' while DuPont established 'Dacron' as its brand.<sup>3</sup>

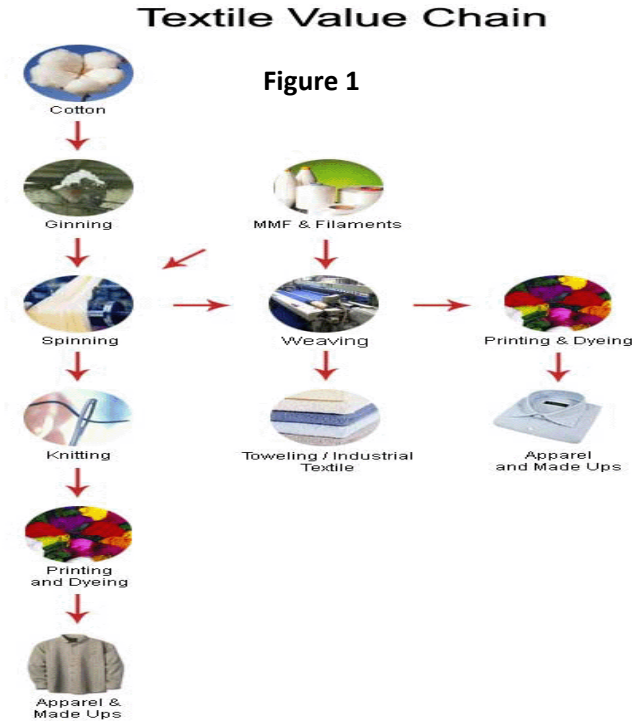
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<sup>2</sup> <http://en.wikipedia.org/wiki/Polyester>.

<sup>3</sup> [aasimahmed.files.wordpress.com/2008/05/polyester-technology1.ppt](http://aasimahmed.files.wordpress.com/2008/05/polyester-technology1.ppt) - Similar

## Usage of PSF

The term 'polyester' as a specific material generally refers to PET (polyethylene terephthalate). Depending on the chemical structure, polyester can be a thermoplastic or thermoset. The most



common polyesters are thermoplastics. About 40% of the world production of polyester is directly used to make yarn. As shown in Figure 1, the textile industry uses PSF for blending polyester yarn with cotton and viscose to produce value-added textiles. Polyester is added at the stage of spinning and weaving as shown in the figure.

Fabric woven from polyester thread or yarn is used extensively in apparel, furnishings such as clothing, bed sheets, blankets and upholstered furniture.

Industrial polyester yarns and ropes are used in tyre reinforcements, fabrics for conveyor belts, safety belts, coated fabrics and plastic reinforcements with high-energy absorption. Polyester fiber is used as cushioning and insulating material in pillows, comforters and upholstery padding. Though they have a less-natural feel, polyester fabrics provide certain advantages over natural fabrics, such as improved durability, wrinkle and stain resistance. Owing to these characteristics polyester fibers, are at times spun together with natural fibers to produce a cloth with blended properties.<sup>4</sup>

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<sup>4</sup><http://en.wikipedia.org/wiki/Polyester>.

**Table 1: PSF Composition and its Uses**

<b>Denier</b>	<b>Cut length (mm)</b>	<b>Luster</b>	<b>Application</b>
1.2, 1.4, 1.5	32, 38	Semidull	Non woven Spinning
2, 2.25, 2.5, 3, 6, 15	32, 38, 51, 64	Semidull	Non woven Spinning
1.2, 2	38, 51	Bright	Sewing thread
1.2, 1.4	38	Semidull optical bright	Luxury Spinning
6, 7, 15	32, 38, 51, 64, 76, 102, 128	Hollow Conjugate Siliconised	Filling
2, 7, 15	32, 38, 51, 64, 76, 102, 128	Hollow Conjugate Slick Non Siliconised	Filling
6, 7, 15	32, 38, 51, 64, 76, 102, 128	Hollow siliconised	Filling
6, 7, 15	32, 38, 51, 64, 76, 102, 128	Hollow silk non siliconised	Filling
1.5, 2, 3, 4, 6, 7, 9, 15	32, 38, 51, 64, 76, 102, 128	Solid non siliconised	Spinning Non-Woven Fabric
6, 7, 9, 15	32, 38, 51, 64, 76, 102, 128	Hollow dry	Non-Woven Fabric
6, 7, 9, 15	32, 38, 51, 64, 76, 102, 128	Hollow conjugate dry	Filling

Source: <http://www.kayavlon.com/psf.htm>

### History of the PSF Industry in Pakistan

The polyester staple fiber (PSF) industry in Pakistan started as an import substitution industry.<sup>5</sup> National Fibers, established in 1982 as a public sector unit was the country's first PSF

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<sup>5</sup> This was more in line with the then prevailing economic growth strategy of encouraging import substitution in most developing countries. Experience, however, showed this strategy to be competition distorting in the long run. As a result, countries gradually switched to more open, export oriented and liberal industrial policies. Tariff and non-tariff barriers were therefore reduced and less protection and more competition based policies became the norm. A detailed discussion on the subject is contained in the '*Industry in Developing Countries: Theory, Policy and Evidence*', by John Weiss, publishers Croom Helm Ltd, UK, 1991

manufacturing plant, with a capacity of 12,000 tons per annum. To meet domestic demand, a few other projects were set up later. As of now, the installed capacity is about 642,600 tones per annum. According to an estimate, the growth of the PSF industry kept pace with the growth of cotton yarn manufacturing, which had increased substantially after the bumper cotton crop of 1991-92. The number of spindles installed increased from 5.57 million in 1990-91 to 8.70 million in 1994-95. The number of rotors also increased from 75,000 to 135,000, during the same period.<sup>6</sup>

Currently, four PSF manufacturing units meet about 80% of the textile sector's demand for PSF, while the remaining quantity is imported. Initially, in addition to meeting the local demand, the industry exported some of its production. The textile industry is considered to be the backbone of Pakistan's economy, and PSF caters to about 16% of its raw martial requirements. The textile sector contributes about 50% of the total annual exports of Pakistan. However, the demand for polyester also rests on the price and production of cotton that is used in different proportions for blending with PSF. It is estimated that the domestic PSF industry saves the country about US\$ 225 - 250 million annually on account of import substitution.

Initially, the industry was protected through high import tariffs of about 25% till 1990. Since then, tariffs have been reduced gradually. Currently, they are as low as 4.5%. PSF consumption in Pakistan was estimated to be 18,000 MT in 1981 and peaked to 526,453 MT in 2005-06. During 2008-09, the demand for PSF was about 454,093 MT.

### **Major Players**

Major PSF producers are Ibrahim Fibers Ltd., ICI Pakistan Ltd., Pakistan Synthetics Ltd., Rupali Polyester Ltd. and Dewan Salman Fibers Ltd. However, presently only 4 units are operational as Dewan Salman Fibers Limited (DSFL), a former market leader has ceased operations. The closure of DSFL was primarily triggered by a financial crisis faced by the industrial group that owns the unit. This led to operating losses, shut down of plant operations due to non availability of working capital. The situation was further exacerbated by rising raw material prices and the

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<sup>6</sup> <http://www.pakistaneconomist.com/database2/cover/c96-69.asp>

problematic law and order situation.<sup>7</sup> Further details about market players are covered in the subsequent sections of this Report.

Rupali Pvt. Ltd. and Pakistan Synthetics Ltd. are smaller players with capacities of 24,000 and 28,000 Metric tons (MT) per annum respectively. Ruplai Private Ltd. also produces yarn and most of its PSF production is utilized for its own yarn production. Dewan Salman became the largest PSF manufacturer with an installed capacity of over 260,000 MT when it acquired Dhan Fiber in 2000. Ibrahim Fibers increased its installed capacity of 208,600 MT.

**Table 2: Installed Capacity**

<b>Year</b>	<b>Rupali</b>	<b>IFL</b>	<b>ICI</b>	<b>PSL</b>	<b>DSFL</b>	<b>Total</b>
2001-02	24,000	70,000	97,700	28,000	199,500	419,200
2002-03	24,000	208,600	108,700	28,000	240,000	609,300
2003-04	24,000	208,600	108,700	28,000	260,000	629,300
2004-05	24,000	208,600	108,700	28,000	260,000	629,300
2005-06	24,000	208,600	122,000	28,000	260,000	642,600
2006-07	24,000	208,600	122,000	28,000	260,000	642,600
2007-08	24,000	208,600	122,000	28,000	260,000	642,600
2008-09	24,000	208,600	122,000	28,000	260,000	642,600
2009-10	24,000	208,600	122,000	28,000	260,000	630,600

Source: Information gathered from companies

ICI is the third largest producer with an installed capacity of 122,000 MT. As a result of Dewan Salman shutting down, the ranking has altered and Ibrahim Fibers has emerged as the market leader and ICI is now the second largest producer.

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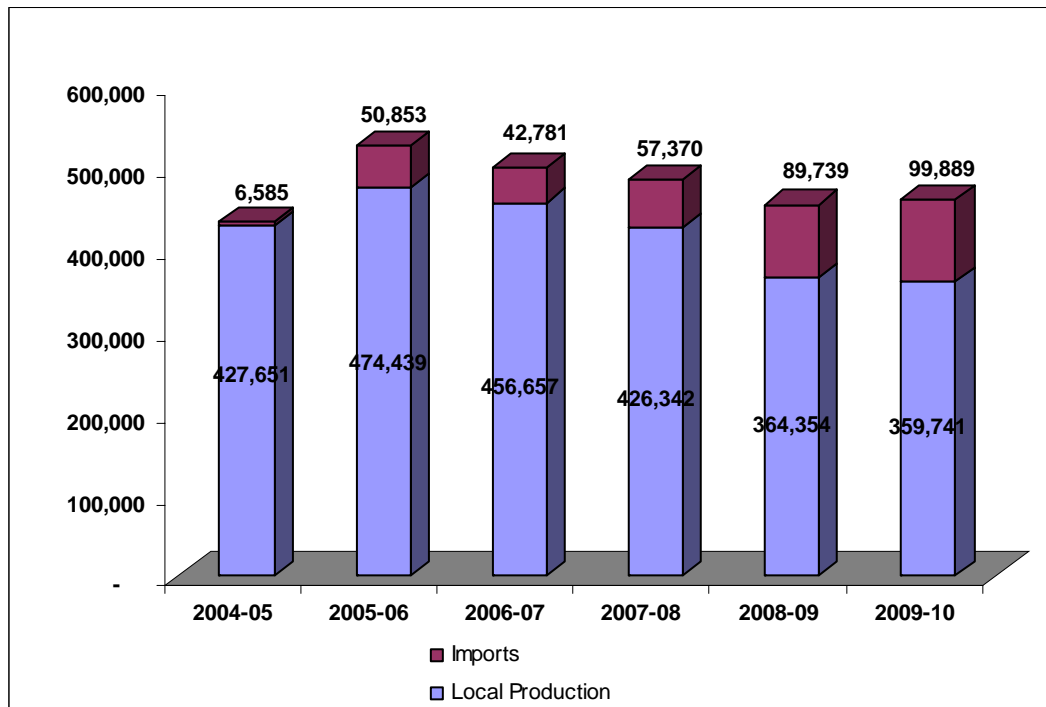
<sup>7</sup> Financial highlights, news and notices about Dewan Salman Fibers Ltd available at: <http://www.dewansalmanfibre.com/>; and Annual Report 2009 available at: [http://www.dewansalmanfibre.com/DSFL\\_Jun30\\_2009.pdf](http://www.dewansalmanfibre.com/DSFL_Jun30_2009.pdf).



## Supply and Demand of PSF in Pakistan

The total demand for PSF varies every year. During the last 5 years, its demand remained between 454,093 MT to 526,453 MT. During 2008-09, total demand for PSF declined by 6% mainly due to a slowdown in the overall economic growth and negative growth of the textile sector. The textile sector is an export oriented industry that faced an international demand shock in the year 2008-09 that resulted in lower derived demand for PSF in Pakistan. China, Bangladesh and India give tough competition to this industry by virtue of their competitiveness. About 75 to 80 per cent of the total produce of cotton and synthetic textile are exported in the form of yarn, fabric, readymade garments, bed-wears and made-ups. In 2008-09, the textile sector faced a number of problems including an increase in the cost of utilities and lack of international demand for its products. As a result, textile sector exports declined from US\$ 7.2 billion in 2008-09 to US\$ 6.5 billion in 2009-10.

**Figure 2: Share of Local Production and Imports in the PSF Supply (in MT)**

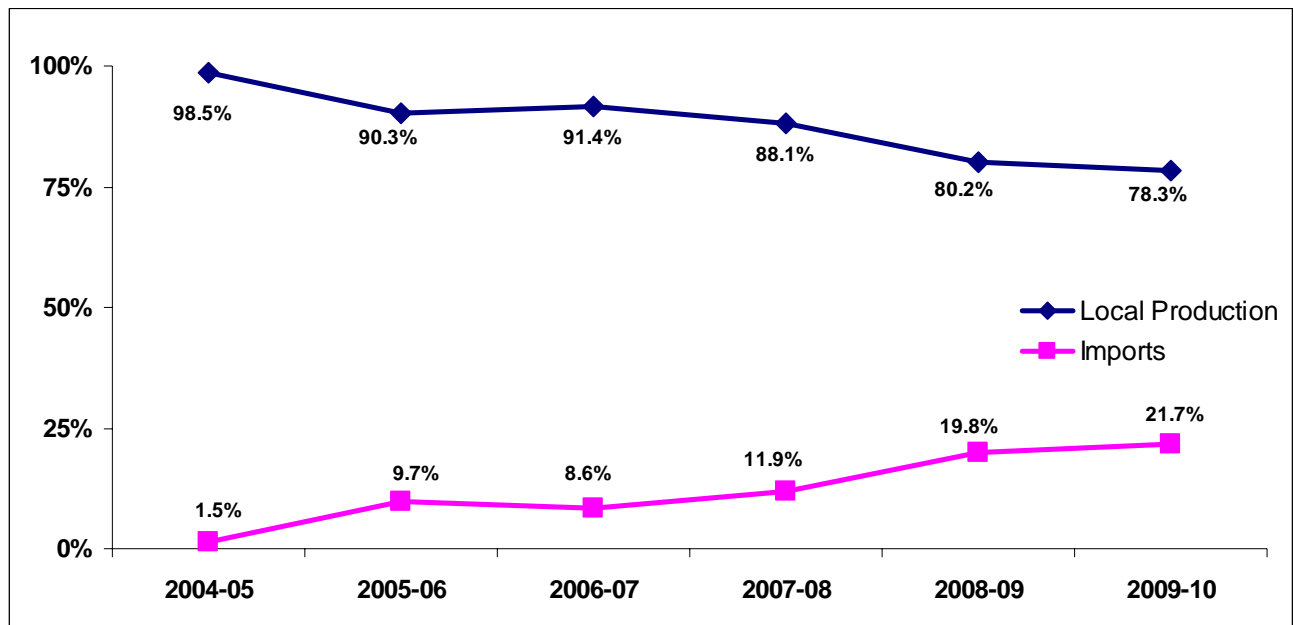


Consequently, the total demand, and hence production of PSF also declined in the country by about 30,647 MT between the financial years 2007-08 and 2008-09. The total demand in 2008-

09 was registered at 454,093 MT in the year 2008-09, as compared to 483,712 MT in the previous year. Local production declined from 426,342 MT in 2007-08 to 364,354 MT in 2008-09 and 359,741 MT in 2009-10.

Presently, the textile industry meets 78% of its PSF demand through local production whereas in 2004-05, the local PSF industry was able to meet about 98.5% of the PSF demand. This decline can be attributed to the closure of Dewan Salman’s PSF unit and the influx of cheaper imports due to low import tariffs. This aspect is briefly touched upon below and a more detailed discussion follows later in the report.

**Figure 3: Percentage Shares of Local Production and Import of PSF 2005-10**



The share of local PSF to meet total demand declined continuously since 2004-05 while the share of imported PSF increased from mere 2.5% in 2004-05 to more than 20% in 2009-10. Imports from countries such as China, Indonesia and Thailand are relatively cheaper. The share of China and South Korea in total imports was 81% in 2008-09. The National Tariff Commission imposed anti-dumping duties on certain manufacturers from China and Korea as they were found to have dumped PSF in Pakistan.

The share of China in total PSF imports in Pakistan in 2004-05 was only 1.6% which increased to 55.8% in 2008-09 while the share of South Korea declined from 51% to 24.8% during the same period<sup>8</sup>. Share of Indonesia and Malaysia was about 15% in total imports in 2008-09. Thailand, Taiwan and Japan were the other sources of PSF imports, with a negligible share.

		<b>Table 3</b>					
		<b>Sources of PSF Import (%)</b>					
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Factors that affect the domestic production of PSF include local demand, price of imported PSF and costs related	<b>China</b>	1.6	0.6	47.2	77.9	55.8	73.5
	<b>Indonesia</b>	0.0	16.6	27.1	6.9	8.3	0.4
	<b>Malaysia</b>	5.4	0.5	0.0	3.2	7.5	6.8
	<b>S. Korea</b>	51.1	29.3	6.2	9.4	24.8	15.9
	<b>Taiwan</b>	18.7	1.9	3.2	1.0	2.6	2.1
	<b>Thailand</b>	22.9	50.9	16.2	1.6	1.0	1.2
	<b>Others</b>	0.3	0.2	0.0	0.0	0.1	0.1
	<b>Total</b>	100	100	100	100	100	100
Source: PARAL & FBR							

to business and manufacturing. Domestic PSF production declined by 15% during the last 5 years. The PSF industry is of the view that the cost of doing business has increased manifold, cheap imported PSF is available from various countries and the closure of Dewan Salman Fibres Ltd have all contributed to a decline in domestic production from 426,342 MT in 2004-05 to 359,741 MT in 2009-10.

<b>Table 4</b>							
<b>PSF Domestic Production</b>							
<b>Year</b>	<b>Rupali</b>	<b>IFL</b>	<b>ICI</b>	<b>PSL</b>	<b>DSFL</b>	<b>Total</b>	<b>Growth (%)</b>
<b>2004-05</b>	24,387	112,405	94,412	19,570	176,877	427,651	
<b>2005-06</b>	22,442	162,380	96,559	23,225	169,833	474,439	10.9
<b>2006-07</b>	24,168	169,461	110,656	15,539	136,833	456,657	-3.7
<b>2007-08</b>	22,761	189,930	112,011	24,921	76,719	426,342	-6.6
<b>2008-09</b>	23,840	178,981	119,542	20,544	21,447	364,354	-14.5
<b>2009-10</b>	22,880	181,579	129,445	25,837	--	359,741	-1.3
Source: PSF Industry of Pakistan							

<sup>8</sup> PRAL.

Amongst the local players, Ibrahim Fiber Ltd. has emerged as the largest PSF producer. Its production increased by 59% during last 5 years. Contrary to this, during this time, the production of Dewan Salman declined by about 15% and eventually its unit was shut down in 2008-09.

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## CHAPTER – 2: PSF VALUE CHAIN IN PAKISTAN

### Overview

Pure Terephthalic Acid (PTA) and Mono Ethylene Glyco (MEG) are the basic raw materials for polyester staple fiber (PSF) manufacturing. Pakistan imported both these raw materials till 1998 when ICI PTA plant was commissioned. For this investment, the Government of Pakistan provided incentives to ICI in the shape of an investment agreement whereby tariff for PTA was to remain 15% for a period of 10 years, i.e. till 2008. Also, zero duty was introduced for locally manufactured PTA purchases. An additional incentive was given to the textile exporters, who were eligible to get a duty refund @7.5% for exporting textiles manufactured using local PTA. This PTA production unit has been taken over by Lotte PTA. The other raw material, MEG which is a petroleum by-product, is imported mainly from Middle Eastern countries. Kohap of South Korea and SABIC of Saudi Arabia are the main suppliers.<sup>9</sup> This Section covers the existing value chain in Pakistan that consists of PTA, PSF and fabrics.

### PSF Value Chain and Its Components

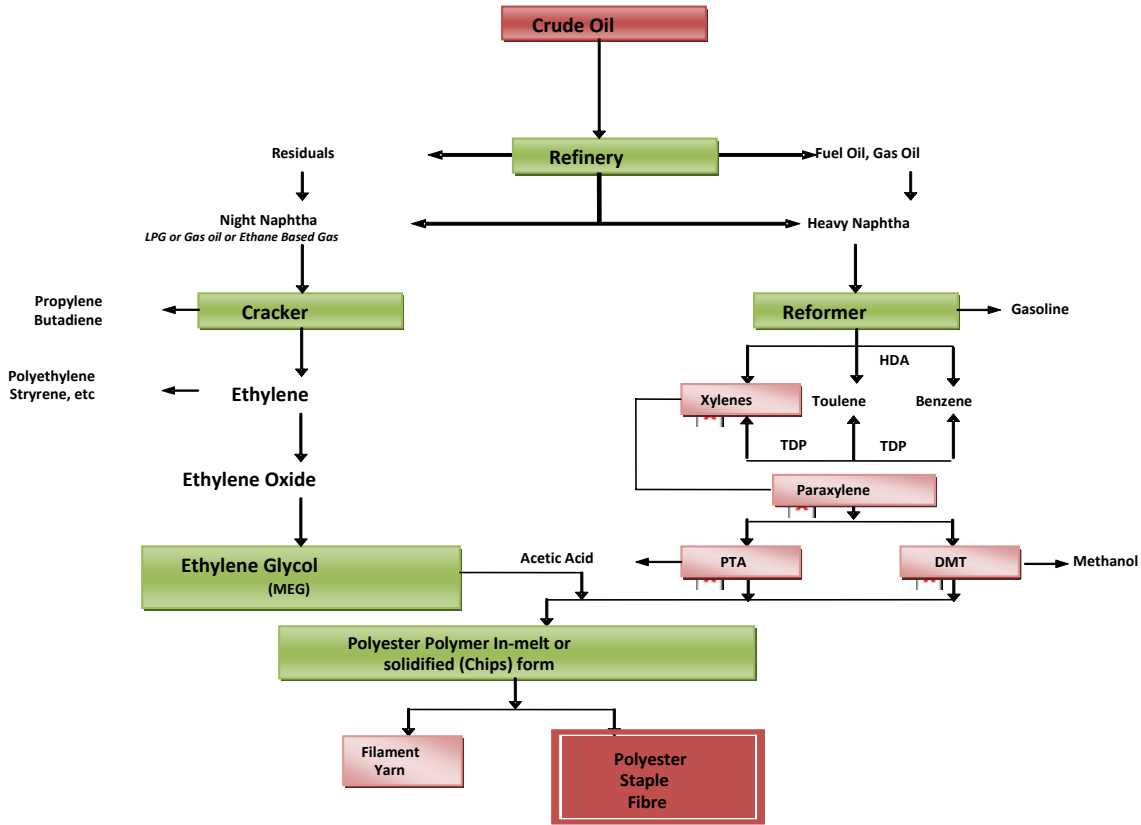
Figure 4 shows the process and components of the PSF value chain. Crude oil goes through various processes before the production of PTA and MEG, which are main raw materials for the production of PSF. Paraxylene (Px) is used as a feedstock for PTA, which is extracted from Naphtha (a petroleum by-product). Some of the world's largest PTA producers are British Petroleum, Reliance, Sinopec, Sk-Chemicals, Mitsui and Eastman Chemicals. PTA is also a raw material for producing PET resin bottles which are used to store beverages and other food products.

MEG is the other raw material required to produce PSF. Internationally, MEG is manufactured by 10 producers. The leading manufacturers of MEG are MEGlobal, a joint venture between DOW and PIC Kuwait, followed by SABIC of Saudi Arabia.

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<sup>9</sup> Pakistan Economic Survey 2008-09 and Board of Investment, Government of Pakistan.

**Figure 4: PSF Value Chain**



**Raw Material Sector: PTA**

In Pakistan, there is only one producer of PTA namely Lotte Pakistan PTA Ltd. This plant, established by the ICI Pakistan Ltd in 1998, was acquired by Lotte in 2009. Lotte, a Korean-based multinational company, deals in chemicals, beverages, confectionary, etc. The installed capacity of the unit stands at 500,000 tons per annum. The tariff protection to the industry is 7.5% customs duty on the import of PTA, whereas it is zero-rated as a refund to the user industries.

**Table 5**  
**Demand and Supply of PTA**

*(Tonne)*

Year	National Production	Imports	Total Consumption
2001-02	319000	225000	544000
2002-03	365000	260000	625000
2003-04	426000	230000	625000
2004-05	376000	187000	581000
2005-06	405000	157000	561000
2006-07	460000	106000	567000
2007-08	506857	58078	564935
2008-09	438892	53385	492277

The above information gathered from industry sources shows that the demand for PTA has shown a negative annual growth rate of 1%. Domestic production, on the other hand, has increased by 4.07 per cent per annum.

### ***Intermediate Sector of the Value Chain: PSF***

Pakistan's textile industry requires about 454,000 MT of PSF annually, 80% of this requirement is met by the local PSF industry consisting of five producers. Here are their profiles:

#### **Dewan Salman Fibre Ltd.**

Dewan Salman Fibre Limited (DSFL) used to be a major PSF producer. It produced 53% of the total PSF produced in Pakistan in 2001-02. However, in 2008, its plant was shut down due to financial problems faced by the Dewan Salman group. Dewan Salman is a major industrial group of Pakistan that has investments in automobile, cement, sugar, petroleum, acrylic fibre and acrylic tow manufacturing. Its PSF plant with a capacity of 25,000 MT per annum commenced commercial operations in July 2000.

The Fibre unit of Dewan Salman was incorporated as a public limited company in Pakistan in October 1989 under the name "Salmanese Fiber Limited". DSFL is a joint venture between

Dewan Mushtaq Group, Mitsubishi Corporation of Japan and Sam Yang Corporation of Korea. The joint venture agreement among these was signed in February 1990, and the company's name was changed to Dewan Salman Fiber Limited. The company's shares were listed on the Karachi and Lahore stock exchanges in 1991 and on the Islamabad Stock Exchange in 1993. DSFL set up a plant for the production of PSF at the tax-exempted area of Hattar, Khyber Pakhtoon Khawa (KPK). Its first unit had a production capacity of 52,500 MT of PSF per annum that started commercial production in 1992. DSFL enhanced its total capacity to 108,500 MT per annum by setting up another production line (Unit II), having a production capacity of 56,000 tons per annum of PSF that began its operations in 1995. In June 2000, the group acquired Dhan Fibre Limited, another PSF manufacturer. With this acquisition, Dewan Salman increased its capacity to 199,500 MT by the year 2000. It further enhanced the production capacity to 260,000 MT. Afterwards, Dewan Salman Group as a whole experienced working capital shortages that led to a closure of its PSF unit. However, negotiations with financial institutions to generate finances to revitalize the business are underway.

### **Ibrahim Fibres Ltd**

Ibrahim Fibres Limited (IFL) produces PSF and yarn. The PSF plant has been operational since 1996. In 2001-02, its total capacity of PSF production was 70,000 MT. IFL increased its production by about 60% in the last 5 years; its total production increased from 112,405 MT in 2004-05 to 178,981 MT in 2008-09. As a result, IFL's share in PSF production in the local market has increased from 26% to 49% in the same period. Reported profit after tax was Rs 1.58 billion in 2007-08 and Rs 1.63 billion in 2008-09.

### **AkzoNobel (ICI Pakistan Limited)**

ICI Pakistan Limited is a multinational company involved in the production of polyester, soda ash, paints, sodium bicarbonate, and other chemicals in Pakistan.<sup>10</sup> In January 2008, the company was acquired by AkzoNobel, which is one of the world's leading industrial companies. AkzoNobel is based in Netherlands, operates in more than 80 countries and employs 57,000 people globally. It produces paints, coatings and specialty chemicals. The company reported a turnover of over Rs 32.40 billion (consolidated) in 2009. In Pakistan, the profitability of the

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<sup>10</sup> <http://www.highbeam.com/doc/1G1-62141274.html>



company has also increased over time, with reported after-tax profits of Rs 2.04 billion in 2009. These figures compare well with Rs 566 million after tax profit in 2001. ICI commissioned its first PSF plant at Sheikhpura in 1982, with an installed capacity of 12,000 MT. ICI continued to increase the capacity of its PSF production over the years and currently its capacity stands at 122,000 MT per annum. Total production of PSF reported by the company was 119,542 MT in the year 2008-09. Its total share in PSF domestic production was 32% in 2008-09, while 5 years ago this share stood at 22%.

### **Pakistan Synthetics Limited**

The Company was incorporated in November 1984 as a private limited company in Pakistan, and subsequently converted into a public limited company in December 1987. The shares of company are listed on all national stock exchanges. Initially, the company had an installed capacity of 15,000 MT. Currently the total capacity stands at 28,000 MT per annum. Its total share in domestic production was 5% in the year 2004-05, which increased to 5.4% in 2008-09. In 2008-09, the company reported gross sales of Rs 2.503 billion and a net after tax profit of Rs 42 million.

### **Rupali Polyester Limited**

Rupali Polyester Limited was incorporated in Karachi in May 1980 as a Public Limited Company, and is currently listed on all stock exchanges of Pakistan. It owns and operates composite facilities to manufacture polyester fiber and filament yarn. The total installed capacity of Rupali Polyester Limited is 24,000 MT. The capacity has remained constant since 1980. Its share in total production remains between 5-6% during the last 5 years. The company produced 24,400 MT of polyester in 2004-05 and 23,840 MT in 2008-09.

### ***Ultimate User: Textile Industry***

In the value chain, the textile industry (fabric/garment sector) is the final user of PSF. This implies that the PSF production depends on its derived demand for textiles. The textile industry uses PSF for blending with cotton in various proportions. Cotton and textiles are both important segments of Pakistan's economy. Pakistan is the fourth largest cotton producer and the 3<sup>rd</sup> largest consumer of cotton in the world. The textile industry is considered the engine of the export-based industry in Pakistan. Its importance can be gauged from the fact that the textile sector accounts

for 38 per cent of total manufacturing and 8 percent of the GDP; it employs about 40 per cent of the industrial workforce. Pakistan's textile industry, based on locally-grown cotton, produces cotton yarn, cotton cloth, and made-up textiles and apparel. The PSF industry in Pakistan meets about 80% of the total PSF demand of the Pakistan's textile sector. The growth in cotton production and expansion of the textile industry has been impressive in Pakistan since 1947. Cotton production increased from 1.1 million bales in 1947 to 10 million bales by 2000. The number of mills increased from 3 in 1947 to 600 presently. Total spindles increased from about 177,000 to 805 million in the same period. Similarly, looms and finishing units increased, though not at the same rate.<sup>11</sup>

The major buyers of Pakistan's textile clothing and accessories are the United States and Western Europe. Export of textiles totaled US\$ 5.4 billion in 1996-97, and increased to US\$ 7.193 billion in 2008-09. Textile export increased steadily since 2000, however in 2008-09 textile sector exports declined by about 7% compared to the previous years. Some reasons for this decline are an increasing cost of production, power shortages, depreciation and the industry's inability to reap the benefits of the Multi Fiber Agreement's (MFA) post quota regime as compared to other regional competitors. China, India and Bangladesh pose a tough challenge to Pakistan's textile exports by virtue of their competitiveness. Recently, the price of textiles and apparel is rising in the international market. This trend will have positive implications for Pakistan's textile sector. In any case, the textiles industry needs improvement in quality, image building and change in business philosophy in addition to developing human skills, technology innovations and research & development to sustain/ improve its global position.

**Table 6**  
**Export of Textile and Clothing (US \$ Billions)**

	1990	2000	2004	2005	2006	2007	2008	2009
World Textile	104.4	157.3	195.5	202.7	220.4	240.4	250.2	211.0
World Clothing	108.1	197.7	260.6	276.8	309.1	345.8	361.9	316.0
<b>Total</b>	<b>212.5</b>	<b>355</b>	<b>456.1</b>	<b>479.5</b>	<b>529.5</b>	<b>586.2</b>	<b>613.1</b>	<b>527.1</b>
Pakistan Textile	2.6	4.5	6.1	7.1	7.5	7.4	7.2	6.5
Pakistan Clothing	1.0	2.1	3.0	3.6	3.9	3.8	3.9	3.0
<b>Total</b>	<b>3.6</b>	<b>6.7</b>	<b>9.1</b>	<b>10.7</b>	<b>11.4</b>	<b>11.2</b>	<b>11.1</b>	<b>9.5</b>
% of World Trade	1.73	1.88	2.01	2.23	2.15	1.91	1.81	1.80

Source: Pakistan Economic Survey, 2010/11

<sup>11</sup> <http://www.textileguides.com/merchandising/22-merchandising/94-history-of-pakistan-textile-industry>

After removal of MFA restrictions in 2005, major importers i.e., USA and Europe are now freer to source textile and clothing orders from the cheapest suppliers anywhere in the world. This increased flexibility in sourcing along with improvements in supply-chain management techniques has augmented the degree of competition among textile suppliers. The future of Pakistan's exports depends largely on the capacity of its firms and policy makers to meet external and internal challenges that affect its competitiveness.

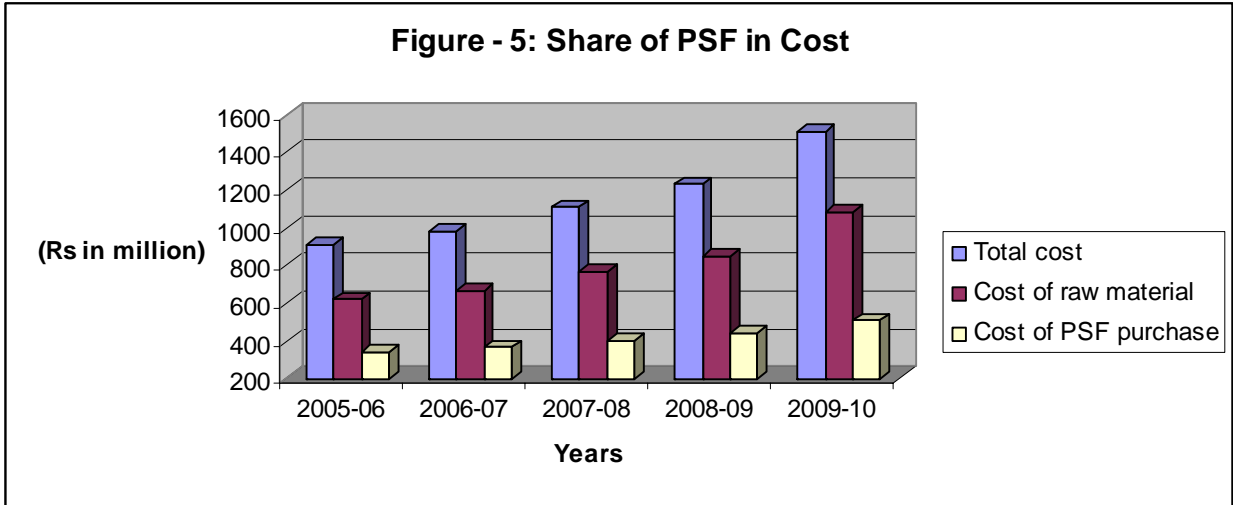
For the purpose of this report, All Pakistan Textile Mills Association (APTMA) was contacted for its views on the issues being addressed in this study. APTMA is the trade association representing 396 textile mills. Hence it is the main user of PSF and the ultimate beneficiary of competition in the PSF sector. The total installed capacity of APTMA member mills consists of 9,661,366 spindles, 61,608 rotors, 10,452 Shuttleless/Airjet Looms and 1,897 conventional looms.<sup>12</sup>

When asked for the cost break-up for the spinning industry, APTMA provided the cost breakup for a 30,000 spindle mill (basis-count 30, PSF/cotton ration 50:50), terming this type of mill as being representative of the industry. Based on this structure provided by APTMA, PSF and cotton are than main raw materials, and they constitute 70% of the textile production cost. Other cost drivers are energy (electricity/gas) and interest rates, each cost driver constituting 10% of the total cost. This is followed by wages and transportation cost, with a 6% and 4% share respectively. We present these numbers in courtesy to APTMA, as a key representative of the textile industry. However, we must note that this type of mill may not be a reasonable reflection of the entire industry, which includes mills of much larger size, and other PSF/cotton rations besides 50:50.<sup>13</sup>

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<sup>12</sup> <http://www.apتما.org.pk/Aboutus.asp>

<sup>13</sup> A detailed cost sheet is attached in Annex 4.



Source: APTMA

Figure 5 depicts the share of PSF in the cost of a 30,000 spindle spinning mill with a 50:50 cotton/PSF ratio. During last five years, the share of PSF in the total cost has declined as shown in Table 7.

**Table 7**

**Percentage share of PSF in the cost**

	2009-10	2008-09	2007-08	2006-07	2005-06
Percentage of PSF in total cost	34	36	36	37	37
Percentage of PSF in raw material cost	47	52	52	55	55

Source: APTMA

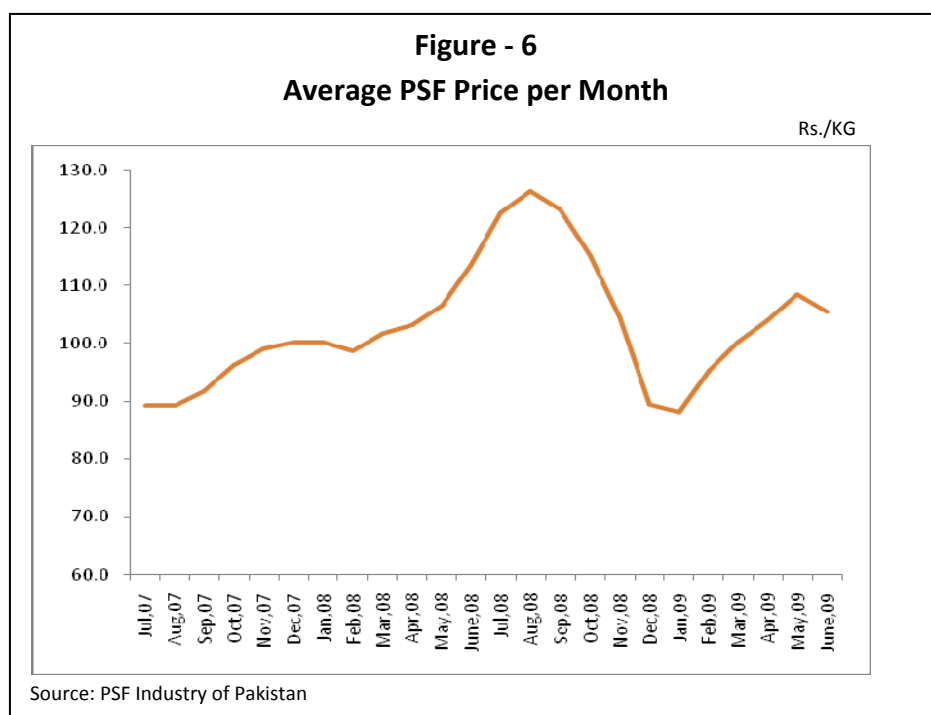
## CHAPTER – 3: PRICING STRUCTURE

### Overview

A number of factors determine PSF prices. PSF is a petrochemical-based industry and its raw materials are derived from crude oil, therefore fluctuations in the international crude oil price play a pivotal role in the determination of PSF prices. The industry reports that 75% of its cost of manufacturing is dependent on raw materials, i.e. PTA and MEG (crude oil by-products). Another factor for price determination of PSF, as pointed out by the industry, is the demand and supply situation in China, which is a major source of imports into Pakistan. Besides power and fuel cost, market dynamics of the downstream industry constituted by business negotiated discounts, credit facilities based on volume, and geographical location of the customer, are other determinants of price for individual buyers.

### National Prices

Subsequent to unprecedented increase in the international crude oil price, the PSF prices in the national market surged by about 18% in the last two years. The year 2007-08 was a challenging year for the PSF industry, when crude oil price increased by 97%, i.e.



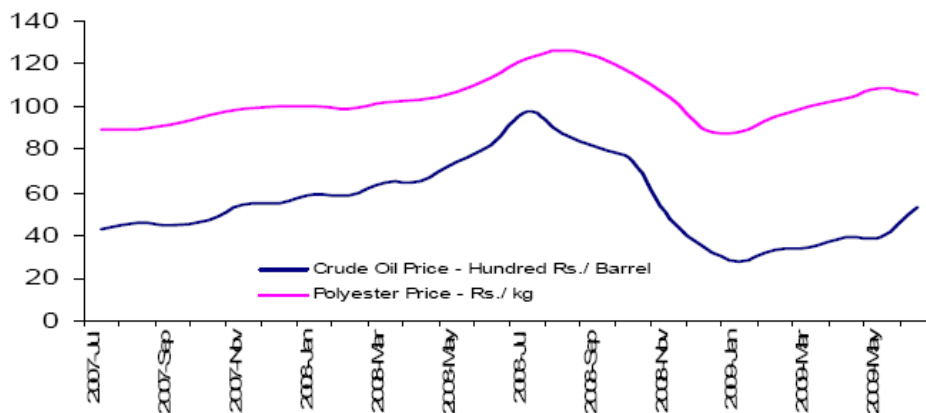
from US\$ 68 per barrel in July 2007 to US\$134 per barrel in June 2008. As a result, the prices of PSF raw materials also shot up dramatically. The average price of PSF in Pakistan increased from Rs 89.4/kg to Rs 123/kg, i.e. by 38% between July 2007 and September 2008. Prices started declining after September 2008 in line with the decline in crude oil prices, PTA and MEG prices in the international market. Another reason for the surge in MEG price, as pointed out by

the industry, is the breakdown of a MEG plant in the Middle East. This resulted in a high cost of production and a surge in the price of PSF in Pakistan, in 2007-08. However, in 2008-09, the PSF prices in Pakistan started declining after September, and reached Rs. 95/kg by February 2009. During the last quarter of 2008-09, PSF prices started showing an upward trend and touched Rs. 105/Kg. Figure 6 shows the average PSF price trend in Pakistan from 2007 to 2009. The dependence of the polyester price on crude oil is depicted in Figure 7, which shows the relative prices of crude oil and the average price of polyester on the same graph. In order to keep the comparison valid, the price of crude oil has been converted into rupees using the prevalent exchange rate, as the rupee depreciated considerably at that time. Although price movements are fairly synchronized, the figure shows that in the post July 2008 period, when crude oil prices crashed, there appears to be a wider gap between the price of polyester and crude oil compared to the earlier period.

There can be two possible reasons for this increasing differential between PSF and crude oil prices. PSF producers could have increased their gross margins. Alternatively, gross margins could have remained the same while, the cost of production may have surged. A deeper analysis into the operations of the PSF producers as well as the state of the industry in Pakistan in general reveals increasing cost of production. The principal factors behind the increase in the cost of production are the prevalent energy crisis and inflationary trends in the economy.

**Figure 7 - Relative Prices of Polyester and Crude Oil**

**Jul 2007- May 2009**



### *Prices by Companies*

Table - 8 exhibits average yearly prices charged by all PSF producing companies. It shows about a 10% increase in the PSF prices from 2004 to 2009. The average price for the last 5 years is about Rs95/kg.

<b>Year</b>	<b>ICI</b>	<b>Ibrahim</b>	<b>DSL</b>	<b>Rupali</b>	<b>PSL</b>	<b>Average Price</b>
2004-05		89.28			103.8	97
2005-06	82.8	84.7	83.3	87.0	83.4	84
2006-07	89.7	90.0	89.5	89.4	89.6	90
2007-08	99.0	100.5	98.7	98.7	99.0	99
2008-09	106.6	107.7	106.9	106.8	106.6	107
2009-10	--	124.6	--	123.9	123.0	--

Source: PSF industry of Pakistan

Due to market dynamics, manufacturers producing a fairly homogeneous product are constrained by prices offered by competitors. In such industries, prices charged by various producers are very close to each other. The ability of buyers to substitute between producers of the same product ensures that all producers adjust prices to the lowest price offered in the market. Therefore, identification of price parallelism alone is not sufficient to analyze competition dynamics in such an industry. Perfect competition and cartelization lie on two ends of the spectrum of competition in an industry. Economic theory predicts that, in such product markets, prices shall always remain parallel. Hypothetically speaking, in a perfect competition scenario, competitors engage in a continuous ‘race to the bottom’ interaction by undercutting each other’s prices. As an outcome of this undercutting process, prices offered by firms move together. Conversely, firms operating under a collusive nexus coordinate to charge a higher yet similar price. Price movements of the colluding firms in such a scenario are also identical.

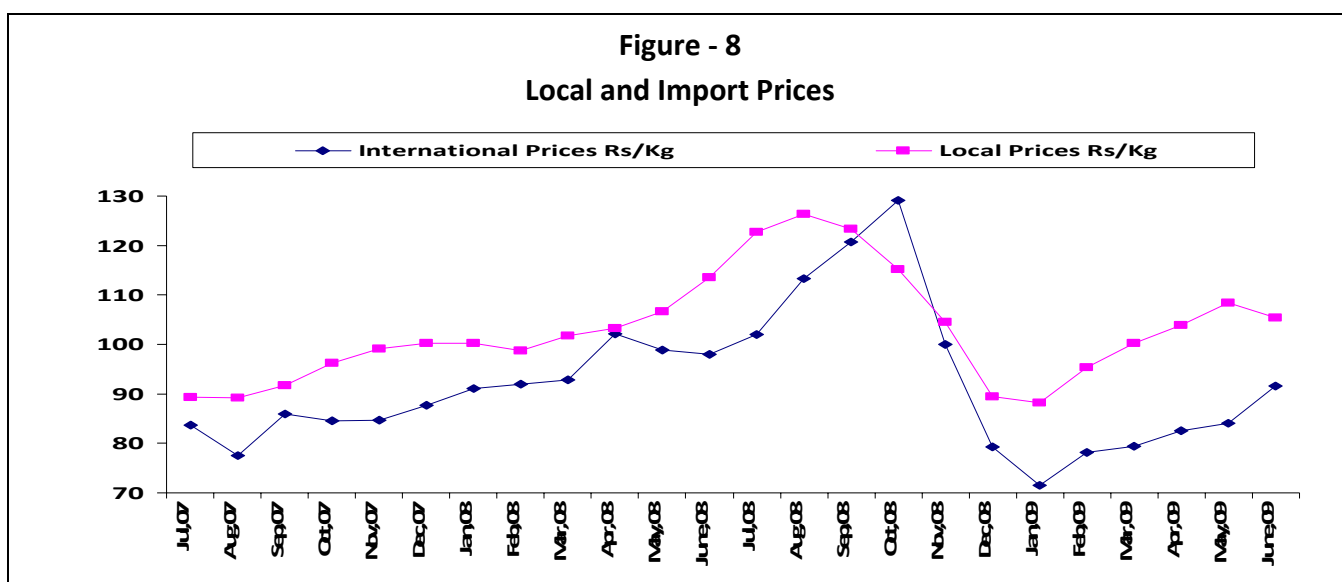
PSF pricing behaves in this way, as it is a fairly homogenous product. Table 8 illustrates that there is little variation in the prices charged by the producers. A more detailed analysis of competition dynamics, which looks at other indicators of competition in the industry, is presented in subsequent sections of the study.

2007-08 was a year when the world economy was hit by a severe financial crisis. There was an unprecedented surge in inflation in Pakistan and a decline in economic growth. PSF prices also increased by 10-12% during that year.

### *Import vs National Prices*

Figure 8 shows the historical trend in the import price of PSF.<sup>14</sup> The import price increased by about 17% in 2007-08, mainly due to the surge in international crude oil price. In July 2007, the average import price for PSF was Rs.83.7/kg, which increased to Rs. 102/Kg in April 2008. The prices touched a peak of Rs 129/kg in October 2008.

While comparing the national and the import prices, it can be observed from Figure - 8 that the



local and international prices follow a similar trend, although the national prices have generally remained higher.

### *Import Prices by Countries*

Table - 9 shows the import price of PSF from various countries in 2004-09. It can be noted that China is the cheapest source of PSF imports in Pakistan; it serves as a bench mark for local

<sup>14</sup> Prices have been calculated using C&F prices of imported PSF by various sources into Pakistan during 2007-2009.



industry to set their prices. China offers the lowest prices in the world market as well.

<b>Table- 9</b>					
<b>Country-wise Import Prices</b>					
	Rs/Kg				
	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
China	57.58	71.23	76.40	86.94	96.55
Indonesia	---	71.83	80.64	90.69	90.27
Malaysia	75.98	83.80	---	90.69	76.14
S. Korea	82.51	74.22	89.74	100.07	95.77
Taiwan	79.54	82.00	93.98	101.95	87.92
Thailand	78.95	95.77	84.28	130.10	134.23
Average	79.24	79.808	87.16	102.70	96.87
Source: PRAL and the authors' calculations					

## CHAPTER – 4: EFFICIENCY AND COMPETITION DYNAMICS

### Overview

Efficiency of a firm relative to other market players helps determine its competitiveness and market share. According to the economics of competition, a firm's impulse to increase its market share serves as an incentive to further improve efficiency by adopting measures to reduce cost and increase labour productivity. Cost of production depends on various factors including price of raw materials, wages for labour and utilities required for production. In recent years, the cost of doing business in Pakistan has increased in general, due to factors such as currency depreciation, power shortage, increase in energy tariffs, increase in labour cost, poor law and order situation and relatively high cost of borrowing. In addition to currency devaluation, some estimates show the following escalation in the rates within a short span from June'09 to Dec'10:

- Natural Gas (Rs / MMBTU) 13%,
- Electricity (during peak hours) (Rs / kWh) 50%,
- Minimum wage (Rs) 56%,
- Diesel (Rs / litre) 48%,
- Petrol (Rs / litre) 42%.

All these factors have increased the cost of doing business for existing producers.<sup>15</sup> This Section focuses on production cost, economies of scale and an overview of the competition landscape of the PSF industry.

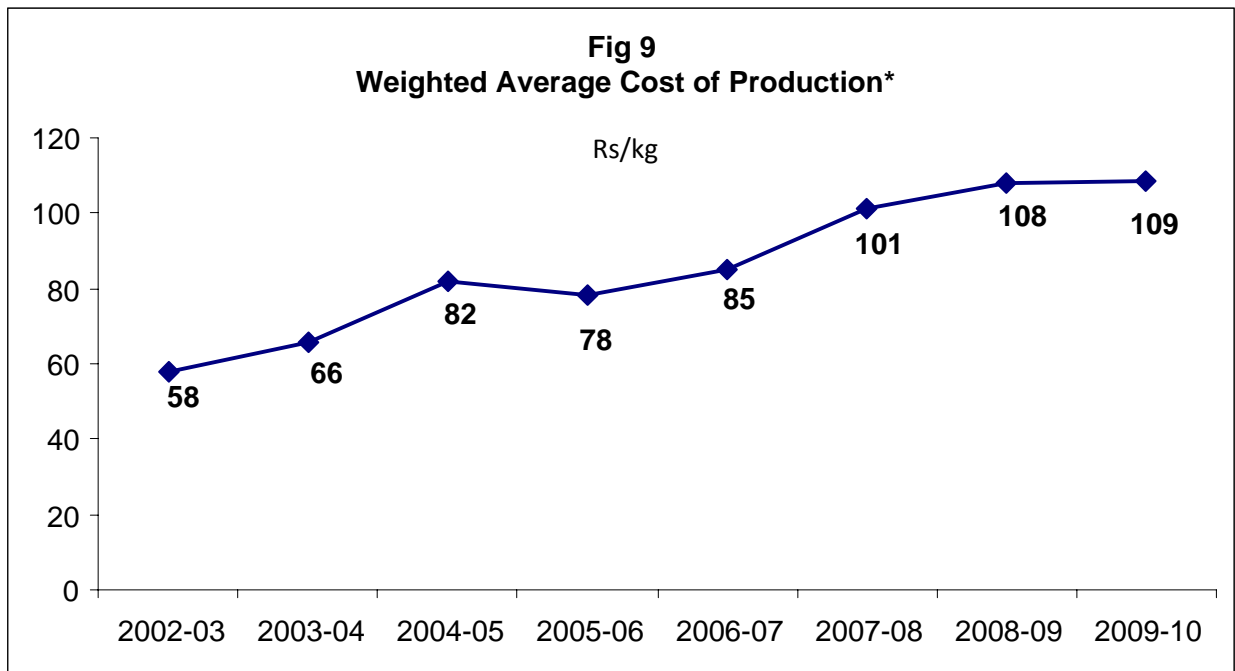
### Cost of Production in the PSF Industry

Raw materials, i.e. PTA and MEG, constitute about 75-80% of the total cost of production. In addition, power and fuel expenses are other determinants of production cost. Raw material prices depend on international crude oil prices, along with the demand-supply situation in China. In

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<sup>15</sup> Cost related to new market entry depicts a different picture. For instance, according to the World Bank's Report on 'Doing Business', for the past seven years, Pakistan has been an easier place to do business compared to Brazil, Russia, India and China. The 2010 report ranks Pakistan higher than any other South Asian nation.

recent years, a rapid increase in fuel and gas prices burdened the PSF industry. This neutralized the benefit of any decrease in raw material cost.



The weighted average cost of production of the PSF industry increased by about 85% between 2001 and 2010.<sup>16</sup> This is in line with the inflation rate. The Consumer Price Index also increased by 84% during the same period.<sup>17</sup> Table 10 shows that Dewan Salman has reported an uncharacteristically high cost of production between 2007 and 2009. This high cost of production reflects the financial troubles that the company was going through, that ultimately led to its closure in 2008. Rupali also reported a high cost of production over the years but this may not be truly representative as figures for yarn and PSF are consolidated.

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<sup>16</sup> Weighted on the basis of production shares. Calculation does not include figures for Rupali as costs for yarn and PSF were not provided separately.

<sup>17</sup> Economic Survey of Pakistan, 2009-10, Government of Pakistan.

<b>Table- 10</b>						
<b>Cost of Production by Companies</b>						
<i>Rs/kg</i>						
Year	Rupali*	IFL	ICI	PSL	DSFL	Average
2001-02	88	40	56	51	53	58
2002-03	102	56	62	56	65	68
2003-04	119	65	78	65	69	79
2004-05	139	83	82	87	92	97
2005-06	149	73	81	76	92	94
2006-07	162	79	83	102	108	107
2007-08	174	87	100	86	173	124
2008-09	165	94	100	112	383	171
2009-10	188	112	121	120	--	135

Source: PSF Industry of Pakistan

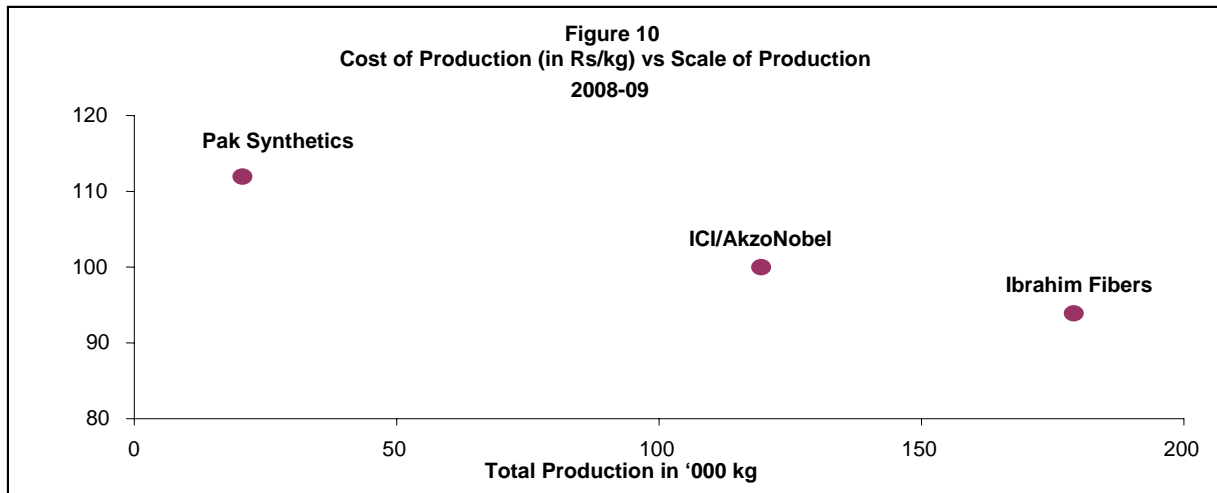
\* Cost of production by Rupali group is not representative of the true cost per/KG of PSF because it produces PSF and Filament yarn and they do not have separate accounting or costs for PSF. This includes the cost for yarn as well.

### **Efficiency and Economies of Scale**

It is assumed in economic literature that private producers are successful optimizers as they tend to attain maximum efficiency. However, in practice, it is observed that some producers are more efficient than others. Economies of scale presume that increasing size leads to lower costs. It is also argued that competition in the market enhances efficiency as market forces drive out the inefficient firms. A case in point may be Dewan Salman. Apart from high cost, the annual/quarterly reports show that the company faced problems in raising capital for its operations, suffered on account of lower capacity utilization, increased cost of production and losses on its

operations. As a cumulative effect of these factors, the efficiency of the company dropped significantly.<sup>18</sup>

Investigation of prevalence of economies of scale can be done by looking at cost relative to the scale of production. This tool became popular in literature particularly for benchmarking and incentive regulations. Figure 10 plots the cost of production against annual production for ICI, Ibrahim and Pakistan Synthetics. The figure shows a clear negative relationship between size and cost, which suggests presence of economies of scale in the PSF industry. It also explains IFL's lead by a fair margin from all of its competitors, in terms of profitability. As mentioned earlier in the report, cost figures for Rupali are not comparable and hence not included in the graph.



### Capacity Utilization

Year	Rupali	IFL	ICI	PSL	DSFL
2001-02	99	100	100	98	121
2002-03	95	73	104	103	91

<sup>18</sup> See for instance: Page 5, Quarterly Report, September 30, 2007, Half Yearly Report 2007 for the period I July 2007 to 31 December 2007, Page 5, Half Yearly Report 2007 for the period I July 2007 to 31 December 2007, Page 13 and Half Yearly Report 2007 for the period I July 2007 to 31 December 2007

Table - 11 shows that the industry is utilizing almost all of its productive capacity except Dewan Salman. Capacity utilization is an important indicator from a competition regulator's perspective. There are potentially two problematic scenarios

2003-04	100	94	104	97	92
2004-05	102	72	87	70	68
2005-06	94	78	79	83	65
2006-07	101	81	91	55	57
2007-08	95	91	92	89	32
2008-09	99	86	98	73	9
2009-10	191	87	106	92	--

that low capacity utilization is indicative of. Firstly, low capacity utilization can serve as an entry barrier for prospective entrants. Incumbent firms may drive away competition via signaling a threat of increasing production if any firm wishes to enter. The threat becomes more credible if ample capacity lies non-utilized. The second more prominent issue that low capacity utilization suggests is the possibility of a nexus between producers to keep production low and prices artificially high. The Competition Commission has on multiple occasions issued adverse orders on finding evidence of a collusive nexus between producers. The cement and poultry industries are two notable cases in this regard.<sup>19</sup> Table 11 suggests that the PSF industry seems to be doing fine from a competition standpoint, as judged on the basis of capacity utilization. Rupali is the most efficient player with an average utilization of 98% between 2001 and 2009, while ICI reported a capacity utilization of 95% during the same time period.

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<sup>19</sup> CCP's orders for cement and sugar industries are available at: <http://www.cc.gov.pk>

## Labour Productivity and availability of financing

Another variable that depicts efficiency is labour productivity; Table-12 provides company-wise estimates for PSF industry. ICI is the most efficient player with a productivity of 334 MT per worker during 2001-09, followed by Ibrahim Fiber Ltd with 123 MT per worker. Dewan Salman is the most inefficient, whose productivity declined by about 82% during the last 8 years and finally the unit has been shut down.

<b>Table- 12</b>					
<b>Labour Productivity</b>					
<b>(MT per worker)</b>					
<b>Year</b>	<b>IFL</b>	<b>ICI</b>	<b>PSL</b>	<b>DSFL</b>	<b>Average</b>
2001-02	57	281	114.4	69	130
2002-03	124	324	117.1	64	157
2003-04	156	322	113.9	72	166
2004-05	92	267	80.5	56	124
2005-06	131	282	102.8	57	143
2006-07	137	366	72.3	49	156
2007-08	149	396	107.9	40	173
2008-09	141	433	87.4	12	168
2009-10	161	471	--	--	--
<b>Average</b>	123	334	100	52	152.25
Source: PSF industry of Pakistan					

Among other things, reputation and stature of business groups is a factor that helps determine availability of financing to any industry, as banks are risk averse and selective to extend loans. The PSF industry did not report any difficulty to generate new financing for its projects.

### Competition Landscape in the PSF Industry of Pakistan

Competition is a process that forces producers to become efficient and offer improved choices of goods and services at a lower price. They tend to increase efficiency, while engaging in innovation and foster technological progress. The process thus gives rise to enhanced consumer welfare and efficiency.<sup>20</sup> Competition laws promote competition by discouraging anti-

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<sup>20</sup> R. S. Khemani and D.M. Shapiro, 'Glossary of Industrial Organization Economics and Competition Law' University of British Columbia, Vancouver, B.C. Canada.

competitive practices such as price-fixing cartels, abuse of dominance, indulging in deceptive marketing, and mergers and acquisitions that may have anti-competitive outcomes. According to the Competition Assessment Framework devised by the Department for International Development (DFID) UK, factors that potentially restrict competition can be considered within three broad categories. The following sub-sections analyze the PSF sector within this framework:

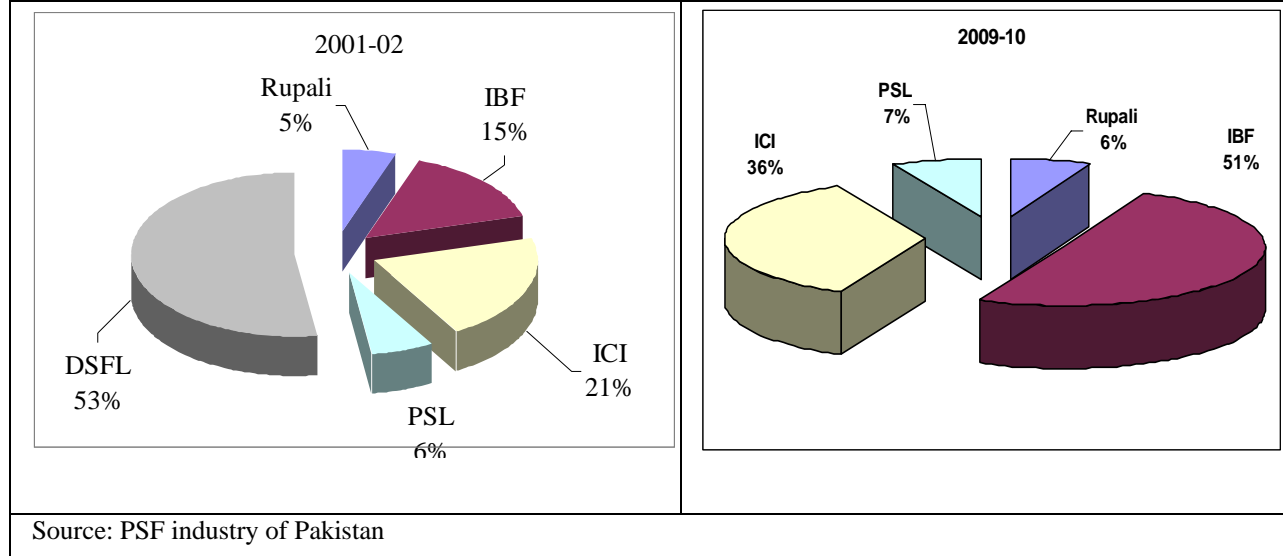
### *Abuse of dominance*

A firm or group of firms can obtain a dominant position in a market simply by attaining a higher market share. In case of Pakistan's PSF sector, high concentration indicates dominance of a single player. Once this is determined, it remains to be seen whether the dominance has been abused or not. Price manipulation is a fairly common practice. High prices may result in exploitation of consumers, whereas low prices could potentially hurt smaller competing firms. Larger players may exploit both possibilities without being adversely affected due to their stronger financial position and economies of scale that they may enjoy.

Market power may be gauged through production shares of market player. We find that shares of major PSF producers changed during 2001-09. However, the market remained concentrated, with one producer holding a dominant position. Dewan Salman lost its entire market share of 53% that it had held in 2001-02. Ibrahim Fibers emerged as the largest player with a 51% share in 2008-09.



**Figure - 11**  
**PSF Production Share (%)**

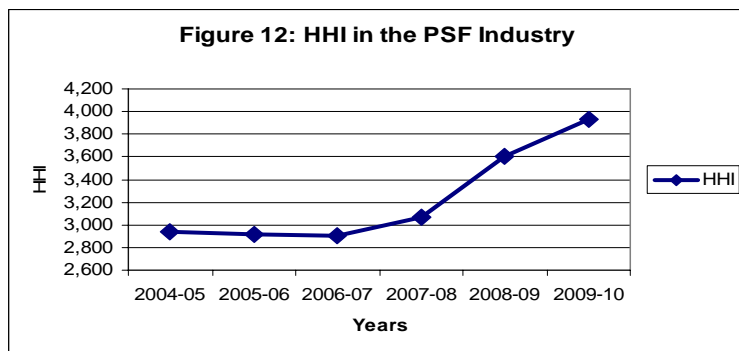


ICI steadily increased its share from 21% in 2001-02 to 36% in 2009-10. Market share of Rupali and Pakistan Synthetics remained almost unchanged.

According to the competition law in Pakistan, a dominant position can be deemed to exist if participating firms have the ability to behave, to an appreciable extent, independently from competitors, consumers and suppliers; and the position of an underlying firm is presumed to be dominant if its share of the relevant market exceeds 40%. Though the dominance of a firm can be established in a relatively simple manner, determination of price manipulation is tricky. Predatory pricing to hurt competitors cannot be substantiated easily, as firms in this sector tend to show convergence over pricing. Setting higher prices is also not feasible as prices of locally manufactured PSF are linked to a great extent with the international crude oil price, which is beyond the control of domestic PSF producers. Overall, therefore, exogenous factors such as the crude oil price (which in turn determines price of industry raw materials – PTA and MEG) and foreign competition in the shape of imports have a strong effect on the pricing mechanism that considerably restrains PSF producers from charging prices that are either too high or low. This

view is reinforced by the observation that during 2008, when the cost of production declined by 8.5%, the ex-factory sale price was also reduced by 7.23%<sup>21</sup>, implying that a sizeable benefit of reduction in the cost was passed on to the buyers. This behaviour reflects presence of enough competitive pressure on the two major producers.

### Concentration in the PSF Industry: The HH Index



The Herfindahl-Hirschman Index (HHI) is a statistic commonly applied in competition law. It reflects the size of firms in relation to the industry and thus measures market concentration. Markets with HHI between 1000 and 1800 are

considered to be moderately concentrated, and those with an HHI above 1800 are considered to be highly concentrated. Figure 12 indicates that the PSF industry of Pakistan has remained highly concentrated over the years. High concentration *per se* is not an adequate indicator of high market power, nor does it suggest a problem with competition. The issues that need to be looked into carefully are the following:

- a. Has the state of high concentration has substantially prevailed over a long period? The key is to find out whether high concentration itself has been sustained in the sector, and whether this tendency will persist in the long term. In the case of the PSF sector, concentration has remained high over many years. However, the presence of competition cannot be established merely on the basis of the observation that new players or capacities have come into the market and both concentration and HHI have started to decrease from their historical levels. Due to the closure of Dewan Salman Fibres Ltd., the concentration increased again.

<sup>21</sup> This relates to ICI and IFL.

- b. Existing players have not found it difficult to expand their production capacity over the years. The PSF market has mostly remained supply deficient, thereby giving room for imports to enter the market.
- c. Has the state of high concentration has substantially prevailed over a long period? The key is to find out whether high concentration itself has been sustained in the sector, and whether this tendency will persist in the long term. In the case of the PSF sector, concentration has remained high over many years. However, the presence of competition cannot be established merely on the basis of the observation that new players or capacities have come into the market and both concentration and HHI have started to decrease from their historical levels. Due to the closure of Dewan Salman Fibres Ltd., the concentration increased again.
- d. Existing players have not found it difficult to expand their production capacity over the years. The PSF market has mostly remained supply deficient, thereby giving room for imports to enter the market.

### ***Possibility of a Cartel or Collusion***

Members of the All Pakistan Textile Mills Association (APTMA) are the principal users of PSF. The association has expressed its reservations regarding what they allege as collusive practices of the PSF producers. They point out that PSF producers link their prices to the international price, and charge a markup on the basis of the duty levied and other incidentals that accrue on imports. The association argues that the adjustment made by the PSF producers to compete with imported PSF is an example of a collusive practice.<sup>22</sup>

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<sup>22</sup> For instance, [http://www.fibre2fashion.com/news/textile-news/textiles-policy-news/pakistan/newsdetails.aspx?news\\_id=69263](http://www.fibre2fashion.com/news/textile-news/textiles-policy-news/pakistan/newsdetails.aspx?news_id=69263) and <http://www.onepakistan.com/finance/news/cotton-textiles/3246-aptma-reacts-to-manufacturers-bid-to-raise-psf-import-duty.html>; and [http://www.yarnsandfibers.com/news/index\\_fullstory.php?id=23525](http://www.yarnsandfibers.com/news/index_fullstory.php?id=23525)

Economic theory and evidence across various sectors suggests that cartelization is generally easier when a few firms produce a relatively homogenous product.<sup>23</sup> As discussed earlier in the report, PSF prices by different producers have generally remained within a narrow range. The industry can be characterized to have followed price parallelism irrespective of production cost, size, location, profitability and productivity. One may draw the inference from such behavior that the PSF firms could have colluded to fix prices. Reference can be made to instances in this regard. In 2003, while allowing the merger of Dhan Fibres Limited and Dewan Salman Fibre Limited, the Monopoly Control Authority (MCA) noted in its Order:

*“Analysis of the prices of local PSF as well as those of imported PSF, as provided by the respondents for the period 1992-95, 1998-2001, revealed that except for some period in 1992 to 1994, the prices of PSF produced by them had an edge over imported prices. Their prices of PSF moved up and down along with imported prices establishing that the respondents had linked the prices of their PSF with those of imported PSF. The prices of respondents had not been fixed on the basis of real cost of production and the respondents failed to satisfy the Authority on this point.”*

On another occasion, the MCA, and later on, the CCP observed that there seemed to be unity among the PSF producers as they were quoting and charging one price across Pakistan.<sup>24</sup> There was a possibility that they had an understanding not to compete with each other in price, and were also sharing commercial information. MCA initiated proceedings as per law, while taking cognizance of the almost identical price quoted by companies in the daily Business Recorder from 2004 to 2007. This *prima facie* indicated cartel like behavior amongst producers. The CCP in its order, gave the ‘benefit of doubt’, also all the PSF producers voluntarily furnished undertakings on behalf of their board of directors and affidavits of their chief executive officers, affirming that they have not organized themselves in any formal/ informal association to adopt or fix parallel pricing or levels of output. The producers assured to comply with competition law

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<sup>23</sup> <http://www.oecd.org/dataoecd/8/61/2376087.pdf>

<sup>24</sup> The action was initiated under the provisions of Monopolies and Restrictive Trade Practices (Control & Prevention) Ordinance, 1970 by the Monopoly Control Authority (MCA). However when the MRTPO, 1970 was repealed, the Order was passed by the Competition Commission of Pakistan as the successor of MCA under Section 59 of the Competition Ordinance, 2007.

and categorically confirmed that they had neither quoted any prices in the media nor provided any information in this regard.<sup>25</sup>

From the above quoted orders, it can be inferred that despite following parallel pricing, PSF producers were not involved in cartelization or collusion. However, they appear to have linked PSF prices with import prices. This behavior can be explained as PSF is generally known to be an import-led commodity and producers set prices little higher than the import price, taking advantage of the long-run contracts with textile industry.<sup>26</sup> Contrary to APTMA, we are of the view that the linking practice does not 'necessarily' imply collusion among the producers. Collusion could be inferred if PSF producers were found to be *mutually agreeing* to fix a certain price. No evidence of such an agreement was found as reported above with reference to the two cases with the MCA and the CCP.

Generally cartels seek to increase price by limiting quantity, therefore, low capacity utilization by producers raises serious suspicion regarding the likelihood of cartelization in an industry. However, in case of the PSF industry, all producers are utilizing almost a hundred per cent of their installed capacity.

Import duty on PSF is another cause of concern for APTMA, as it ultimately affects the textile industry. APTMA is of the view that there should be no duty on PSF import. We observe that the duty's impact on export competitiveness of textile sector must be somewhat mitigated by the duty and tax remission for export (DTRE) scheme.<sup>27</sup> Also our analysis has determined earlier that the ability of PSF producers to raise PSF prices artificially is curtailed by the ability of PSF users to switch to cheaper imports.

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<sup>25</sup> The matter was disposed of vide Order dated 10-06-2008, available at:[http://www.cc.gov.pk/images/Downloads/order/Staple\\_Fibre\\_order.pdf](http://www.cc.gov.pk/images/Downloads/order/Staple_Fibre_order.pdf).

<sup>26</sup> A somewhat similar situation was observed in India, where domestic PSF producers have been pegging their prices to landed cost of imports and taking advantage of tariff protection. See, Competition Regime and Business welfare #2/2007, Viewpoint Paper by Udai S. Mehta and CUTS-CCIER, available at: <http://www.cuts-international.org/pdf/Viewpoint-CompeRegBusinessWelfare.pdf>

<sup>27</sup> Under the scheme, duties paid are refundable in case of re-export after processing. In the year 2008-09, the customs duty on import of PSF was fixed at 4.5%, whereas PSF was allowed to be imported in the 'duty and tax remission for export' (DTRE) scheme.

## Entry Barriers

While assessing competition, we look into three forms of barriers – natural, strategic and regulatory. It is also essential to underline whether such barriers actually exist and in case they do, whether they restrict competition.

***Natural barriers*** emanate as a result of a cornered resource, process or technology that is potentially at the disposal of incumbent firms and is not accessible to new entrants. Economies of scale, a deeper penetration or wider distribution network can serve as a barrier for new entrants. Running these tests for the PSF sector depicts a limited degree of natural barriers. Though some of the bigger firms indeed enjoy economies of scale, it is still not sufficient to drive smaller players out of the industry and they continue to operate successfully, such as Rupali and Pakistan Synthetics Ltd., who have maintained their market share over the years.

***Strategic barriers:*** Strategic entry deterrence involves any move by existing firms to strengthen their position against other firms or potential rivals. In case of the PSF sector, we find that the strength of strategic barriers, such as excess supply, is less relevant as there remains a supply-demand gap to be filled in by the imports.

***Regulatory barriers:*** The government's policy framework could act as an entry barrier generally as well as specifically. In general, there is no entry barrier for any local or foreign investor to enter this industry. Any local or foreign company can establish a PSF plant in Pakistan. For foreign investment, the Board of Investment has already issued guidelines which are available online. Pakistan offers a liberal Foreign Direct Investment policy where any foreign company can establish a business in Pakistan including in industry, where the minimum requirement for foreign investment has been further slashed to only US\$ 0.15 million, and foreign investors can repatriate 100% of their profits. For local investors there is no bar to establish a PSF plant in Pakistan.

The Government of Pakistan's general policy framework is considered to be investment-friendly in nature, and no threat to entry in the PSF sector prevails on the part of the

government. Nevertheless, the regulatory framework specific to the PSF sector, such as lower tariffs and weak application of trade remedy law appears to serve as a barrier. Such issues are known in advance and a businessman evaluates the prospects of market entry accordingly. The subsequent chapter addresses these issues in detail.

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## **CHAPTER – 5: REGULATORY FRAMEWORK**

### **Overview**

In Pakistan, the PSF industry is governed by general trade and tariff rules announced by the government from time to time. In 2004, the government established a separate Ministry of Textile Industry to prepare textile policy containing measures for the improvement in the textile sector, including the PSF industry. The Ministry of Commerce is responsible to recommend appropriate tariffs for all commodities which are announced by the Federal Government annually in the Budget. The National Tariff Commission (NTC) is an organ of the Ministry of Commerce that recommends the level of protection for local industry through tariff rebalancing. NTC is also responsible for investigation and imposition of antidumping duties on established instances of dumping in Pakistan from any country, in accordance with the WTO rules.

### **Tariffs in Place on the PSF Industry**

The PSF industry started operation in 1981 under the control of the public sector. The industry initially remained under heavy tariff protection. This protection was been reduced gradually over time, with the aim to make it more efficient and competitive with the rest of the world. The duty structures for this industry and its value chain show a continuous change over the period, as shown in Table - 13.

Effective July 1, 2010, tariffs for various products in the PSF value chain were changed. The tariff for PTA was reduced from 7.5% to 3%, while that of fabrics remained the same. The tariff of PSF was increased from 4.5% to 6%, while that of Polyester Filament Yarn was increased from 9% to 10%.



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**Table- 13: Tariffs for the PSF Value Chain**

Product	1998-99		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10		2010-11	
	SRD	CRD	SRD	CRD	SRD	CRD	SRD	CRD	SRD	CRD	SRD	CRD	SRD	CRD	SRD	CRD
<b>PTA</b>	15	Nil	20	15*	15	Nil	15	Nil	15	Nil	15	7.5**	15	7.5**	15	3**
<b>MEG</b>	10	Nil	10	Nil	5	0*	5	0**	0	Nil	0	Nil	0	Nil	0	Nil
<b>PSF</b>	25	Nil	20	Nil	6.5	Nil	10	6.5**	10	6.5**	10	4.5**	10	4.5**	10	6**
<b>Polyester Filament Yarn</b>	35	Nil	25	20*	7	Nil	10	7**	10	9**	10	9**	10	9**	10	Nil
<b>P-xylene</b>	10	Nil	5	0*	5	0*	5	0**	5	0**	5	0**	5	0**	5	0**
<b>Fabrics</b>	35	Nil	25	Nil	14	Nil	15	14**	15	Nil	15	Nil	15	Nil	15	Nil

Source: FBR.

Notes: SRD and CRD stand for Statutory Rate of Duty and Concessionary Rate of Duty, respectively.

\* Under SRO 457 (I)/2004 dated 12-06-2004

\*\* Under SRO 567 (I)/2006 dated 05-06-2006

### Protection in regional countries

In order to look into the protection granted to the PSF industry, it is imperative to compare the regional protection levels available to the industries in the value chain. Tariff rates of various countries are reported in Table14. It shows that PSF and PFY are less protected as compared to PTA and MEG in China. In India, PTA is protected at a higher rate than the PSF and PFY. According to NTC, the nearest model to Pakistan is Korea as its tariffs are based on cascading principles. Pakistan has no industries manufacturing P-xylene and MEG. In future as well, there are no indications for establishment of these, therefore zero rated imports seems fairly reasonable. As regards PTA production is concerned, the sole unit Lotte is capable of meeting 90% of the demand for PTA. But due to closure of DSFL, PTA demand has gone down.

**Table 14: Comparison of PSF Value Chain Tariffs**

<b>Product</b>	<b>Pakistan</b>	<b>China</b>	<b>India</b>	<b>Indonesia</b>	<b>Malaysia</b>	<b>Korea</b>
<b>PTA</b>	3.0	6.5	7.5	0	0	4.75
<b>MEG</b>	0	6.5	3	0	0	3
<b>PSF</b>	6.0	5	5	5	0	8
<b>Polyester Filament Yarn</b>	10	5	5	5	10	8
<b>P-xylene</b>	0	2	0	0	0	3
<b>Fabrics containing PSF and PFY</b>	10	10	22.37	15	10	8

#### **Dumping – the Basics and the Procedure in Pakistan**

Since the establishment of the World Trade Organization (WTO) in 1995, world trade is governed by a rule-based system, under which all member countries have rights and obligations for the smooth flow of trade in goods and services. Under WTO trade rules, a member country has obligation to lower and bind its tariffs (at certain agreed rates of import duties) under market access commitments. However, the WTO Agreement on anti-dumping allows members to impose anti-dumping duties, once dumping is established and found to have caused injury to the domestic industry by the country's investigating authority. Dumping is defined as selling of a product in another country's market at a price lower than that charged for the like-product in the domestic market of the exporting country. The WTO trade regime considers dumping as an unfair trade practice, as it distorts prices of a product in the importing country's market.

Pakistan was a contracting party to the General Agreement on Tariffs and Trade signed in 1947, and is also a founding member of the WTO. Consequently, Pakistan is required to bring its trade laws in conformity with the provisions of WTO agreements. Accordingly, Pakistan enacted trade remedy laws to give effect to Pakistan's commitment to the WTO. Pakistan promulgated the Anti-dumping Duties Ordinance in 2000, the Countervailing Duties Ordinance in 2001 and the Safeguard Measures Ordinance in 2002, in line with WTO agreements. All industries are eligible

to request for remedy against dumping of a product, if they feel that they are affected by such dumping. The domestic industry can approach the NTC for imposing anti-dumping duties on the exporters/ producers of the dumped product from exporting countries. The NTC conducts a detailed inquiry under the Antidumping Duties Ordinance 2000 to determine whether a product is dumped (exported at below normal value) into the Pakistani market and whether such dumping has caused injury to the domestic industry producing the same product. NTC determines the margin of dumping on the basis of information provided by the exporters, and injury to the domestic industry is determined from the information supplied by the applicant industry. Anti-dumping duties on producers engaged in dumping (equal to margin of dumping calculated during the investigation) may be imposed for a period of five years.

#### **Antidumping Duties on PSF Imports**

On multiple occasions, NTC determined that Pakistan's PSF industry had to compete with dumped imports originating from various countries. The industry approached the NTC for imposition of anti-dumping duties on the dumped imports of PSF from Indonesia, Korea and Thailand in 2006. The Commission conducted an investigation to determine dumping of PSF from these countries and consequent injury to the domestic PSF industry. The inquiry concluded that certain producers from these countries were involved in PSF dumping in Pakistan which caused injury to the local PSF industry. As a Result, the Commission imposed antidumping duties on specific exporters/ producers from these countries with effect from Feb. 9, 2007, for a period of five years (see Table - 9). In July 2008, the PSF industry approached the Commission again for imposition of anti-dumping duties against dumped imports of PSF from China. The NTC inquiry found certain exporters from China to be engaged in dumping of PSF into Pakistan, causing injury to the Pakistani PSF industry. Accordingly, the Commission imposed anti-dumping duty at the rate of 10.44% on C&F value on dumped imports from these producers of PSF from China with effect from Feb. 6, 2009, for a period of five years.<sup>28</sup> The All Pakistan Textile Mills Association filed a writ against NTC's order. On account of a procedural

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<sup>28</sup> The argument of dumping by Chinese PSF producers gains credence as the European Union and USA have in recent years also imposed anti-dumping duties on PSF imports originating from China. For details see, National Tariff Commission, 2009, Non Confidential Report on Final Determination and Levy of Definitive Anti-dumping Duty on Import of PSF into Pakistan Originating in and/or Exported from the People's Republic of China.

irregularity of non-compliance with the statutory quorum requirement, the Lahore High Court set aside the NTC ruling in May 2010. The High Court decision has been challenged in the Supreme Court and while the NTC has restarted proceedings, duties are not being collected since May 2010 on Chinese imports that were determined to being dumped into Pakistan. Although the NTC has started inquiry afresh, industry fundamentals have changed during this period following DSFL's closure. It may be legally challenging and procedurally complex to impose/collect anti-dumping duties several years after the transactions and determination of injury, in the ex-post scenario. The point remains that the PSF industry suffered losses during this period on account of dumping.

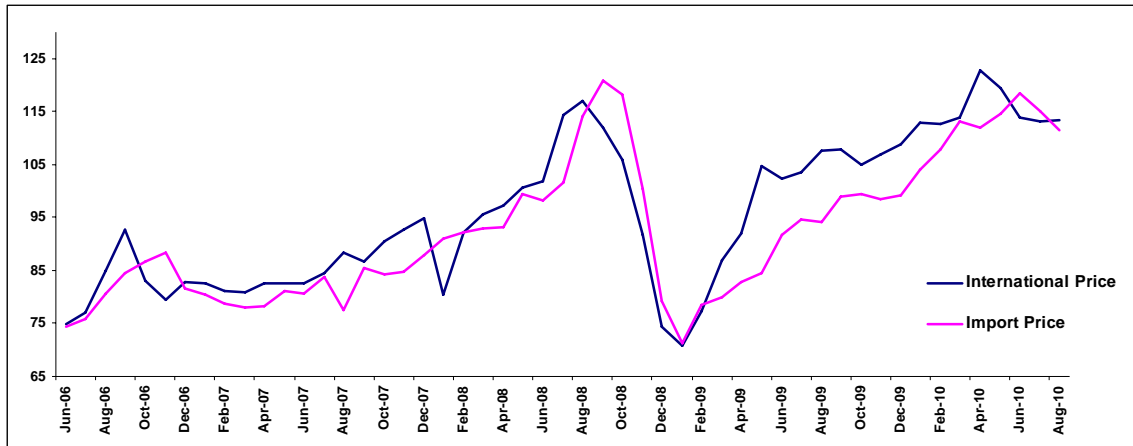
Anti dumping duties on PSF imports from Korea, Indonesia and Thailand are still in place. However, China supplies the lion's share (see Table 3) of imports (78% in 2007-08 and 56% in 2008-09), for which anti dumping duties are not being collected.

<b>Table- 15</b>	
<b>Antidumping Duties by Countries</b>	
<b>Country/Exporter</b>	<b>Antidumping Duty (%)</b>
<b>Indonesia</b>	
<i>PT Polysindo Eka, Indonesia</i>	5.04
<i>All other exporters from Indonesia</i>	5.04
<b>South Korea</b>	
<i>South Korea (all exporters except Huvis Corporation)</i>	2.14
<b>Thailand</b>	
<i>Thai Polyester Co., Thailand</i>	4.34
<i>Kangwal, Thailand</i>	8.32
<i>All other exports from Thailand</i>	8.32
<b>China</b>	10.44
Source: NTC, Government of Pakistan	

An illustrative evaluation of prevalence of dumping involves comparison between the import price of PSF into Pakistan, and the prevalent price of PSF in the international market/geographic region. Import into a country consistently at prices lower than those prevalent in the region would suggest dumping into the country. Figure 13 does this analysis for PSF. For this purpose, information was collected from two sources. Data on import prices was collected from the Federal Board of

Revenue, which is responsible for collection of all duties on imported items in Pakistan. International prices were taken from the PCI Consulting Group's calculation of polyester prices in the North East Asia Region. The consulting group provides pricing and other market information to the world PSF industry on a regular basis.

**Figure 13: PSF Import Price vs International Price (Rs/kg)**



The figure illustrates that for the 4 years for which the information is shown, import prices have been below the international prices prevalent in the North East Asia region. Import prices have been above international prices only in times when prices have generally been falling. A possible explanation could be time lags involved in shipping.

Dumping hurts the producers of like-products whereas other users of the commodity consider the cheaper imports beneficial for themselves. This is the case in Pakistan as well, where APTMA has raised its voice on multiple occasions against anti dumping duties imposed by the NTC.<sup>29</sup> APTMA claims that the NTC is inclined towards imposition of anti dumping duties every time local producers file an application alleging dumping. APTMA points out that the NTC has imposed anti dumping duties in the majority of cases that it has handled. It is not in the scope of the present study to investigate whether the anti dumping duties were correctly imposed or not. However, our independent analysis of the matter does give credence to the argument that dumping of PSF took place.

#### **Regulatory requirement of publishing cost audit reports**

In October 2008, the SECP formulated a requirement for the polyester industry, amongst other industries, to conduct cost audits and make the reports public to all shareholders through companies' respective websites. Although cost auditing is an important tool for firms to identify

<sup>29</sup> For instance, writ petitions 24852 / 2009 and 15496 / 2009 in the Honourable Lahore High Court.

areas where efficiency gains can be made, making cost information public through the website is essentially disclosure of sensitive information.

From a competition standpoint, this amounts to information exchange between competitors. Competition agencies generally look at sharing of cost information suspiciously. Although welfare impacts of such information sharing are generally ambiguous, economic theory suggests that in markets where firms compete on price, rather than quantity, which is the case for the PSF industry of Pakistan, such information sharing is welfare-reducing. It reduces the uncertainty in pricing and eases the competitive pressure on firms to reduce prices. The PSF industry has protested the requirement; consequently the SECP has deferred it till 2011. Given the market structure, it remains advisable from a competition standpoint not to impose such disclosure requirements.

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## CHAPTER – 6: CONCLUSION AND RECOMMENDATIONS

### Conclusion

The textile sector contributes about 55% to Pakistan's export earnings and polyester staple fiber (PSF) is one of the crucial raw materials in the textile value chain. PSF is a type of man-made fiber that is used in spinning for yarn manufacture, which is later woven into value-added textiles. Since the early eighties, PSF manufacturing has been contributing to Pakistan's economy and saves about US\$ 225 - 250 million annually for the country on account of import substitution. Considering its importance, the Competition Commission of Pakistan chose this sector for a thorough competition assessment based on internationally acknowledged analytical tools and frameworks.

This Report addresses a range of issues relating to efficiency, market structure, entry barriers, regulatory framework and competition concerns in the PSF sector. This Report draws on observations made by the PSF producers, for which a comprehensive survey was conducted in July 2010. Based on the survey findings and information gathered from a range of stakeholders, recommendations have been chalked out to improve competition in the sector. We observe that an assessment of the competition dynamics of the sector does not call for action by the CCP. Our major conclusion is therefore 'do nothing' with reference to Competition Act, 2010.

The supply side of the polyester industry in Pakistan consists of five producers that meet about 80% of PSF demand with an installed capacity of about 642,600 tones per annum. These units are ICI Pakistan Ltd., Pakistan Synthetics Ltd., Ibrahim Fibres Ltd., Rupali Polyester Ltd. and Dewan Salman Fibres Ltd. However, presently only 4 units are operational as Dewan Salman Fibres Ltd., a former market leader, has ceased operations.

Looking into the historical perspective, PSF consumption in Pakistan was estimated to be 18,000 MT in 1981, which peaked to 526,453 MT in 2005-06. During 2008-09, the demand for PSF was about 454,093 MT. We also observed that the share of local PSF in meeting demand declined continuously since 2004-05 and the share of imported PSF increased from merely 2.5% in 2004-

05 to 19.8% in 2008-09. Initially, the industry was protected through import tariffs of about 25% till 1990. Since then, the tariffs have been reduced gradually to 6.0% in 2010-11, implying that the sector faces increased foreign competition. Besides this, the dumping of PSF is also affecting the local industry. After determination of dumping in certain cases, the National Tariff Commission (NTC) imposed anti-dumping duties. Our study also substantiates NTC's determination of PSF dumping into Pakistan. However, owing to certain procedural technicalities and the subsequent stay order granted on the matter, the anti-dumping duties could not be collected, which has left the national PSF sector vulnerable to unfair competition from imports.

Our study shows that there has remained a high concentration in the sector with dominance of one player. However, the ability of PSF producers to abuse their dominance and raise PSF prices artificially is limited on account of the option available for PSF users to substitute with other fibers and to switch to cheaper and competitive imports.

From a competition regulator's perspective, capacity utilization of manufacturing units is a very important factor. Low capacity utilization or presence of large idle capacity serves as an entry barrier for potential market entrants. Low capacity utilization can also be indicative of a nexus between producers to keep production low and prices artificially high. Our study suggests that the PSF industry utilizes capacity fairly well, and is hence doing fine on this indicator from a competition perspective.

We have noted that the domestic PSF production declined by 15% during last 5 years. This was a result of interplay of various factors such as local demand, which in turn rests on the price and production levels of its substitute cotton, price of imported PSF and costs related to business and manufacturing. It was observed that the cost of doing business has increased manifold, cheap imported PSF is available from various countries and closure of a major PSF unit have all contributed to a decline in domestic production from 426,342 MT in 2004-05 to 364,354 MT in 2008-09.

In addition to the cost of energy, market dynamics of the downstream industry such as business



negotiated discounts, credit facilities based on volume, and geographical location of the customer are determinants of price for individual buyers. Fluctuations in the international crude oil price and hence changes in the PTA and MEG prices play a pivotal role in the determination of PSF price since it is a petrochemical-based industry and about 75-80% of the cost depends on these raw materials.

We observe that the relative prices of crude oil and price of polyester are fairly synchronized. This study shows that in the post July 2008 period, when crude oil prices crashed, there appears to be a wider gap between the price of polyester and crude oil compared to the earlier period. This increasing differential between PSF and crude oil prices may be due to increased gross margins of PSF producers or a surge in production cost. A deeper analysis into the operations of PSF producers and the state of industry in Pakistan in general reveals increasing cost of production on account of the energy crisis and inflationary trend in the economy.

While comparing the national and import prices, the historical trend shows that both the prices follow a similar trend, though the national prices have generally remained higher. There remained little variation in the prices charged by various producers. This is partially explained by exogenous factors such as the cost of raw material, and the relatively homogenous nature of commodity. The PSF industry was found to show signs of price parallelism. Competition agencies of Pakistan- MCA and later on the CCP- noticed this similarity in prices amongst PSF producers. Proceedings were initiated for a *prima facie* case of cartelization/collusion, but it could not be proved. CCP in its Order, gave 'benefit of doubt'. During the course of the legal proceeding, the Commission asked the defendants to give an undertaking on behalf of their respective Boards of the non existence of any formal or informal association that coordinates to adopt or fix parallel pricing or output. All producers were willing to do this, and submitted affidavits in this regard.

Members of the All Pakistan Textile Mills Association (APTMA) are the main users of PSF and this association has expressed its reservations repeatedly regarding the import duty on PSF, anti-dumping duties and the likelihood of cartelization amongst PSF producers. This study does not support APTMA's view regarding collusion of PSF producers.

While analyzing the regulatory framework, it was observed that the SECP formulated a requirement for the polyester industry to conduct cost audits and make the reports public to all shareholders through the companies' websites. We are of the view that publicizing cost information through websites is essentially disclosure of sensitive information and competition agencies are suspicious about such information sharing between competitors. It reduces the uncertainty in pricing and eases the competitive pressure on firms to reduce prices. Although the SECP deferred the requirement till 2011, given the market structure, it remains advisable from a competition standpoint not to impose such disclosure requirements.

## Key Challenges

The Report identifies the following **key challenges** to Pakistan's PSF sector that need to be addressed promptly:

- (a) The sector is directly affected by the developments in the textile industry. Pakistan's textile exports have decreased during the last few years; consequently the derived demand for PSF cannot be expected to remain stable.
- (b) The cost of doing business is rising in Pakistan. In particular, the energy costs are not competitive compared to other PSF manufacturing countries of the region.
- (c) Closure of Dewan Salman PSF unit is a setback for the industry and PSF users.
- (d) Low tariffs and weaknesses in the application of the trade remedy law, i.e. the anti-dumping mechanism, have exposed the PSF sector to unfair foreign competition.

## Recommendations

In the above scenario, the following recommendations need consideration to improve competition in the PSF sector:

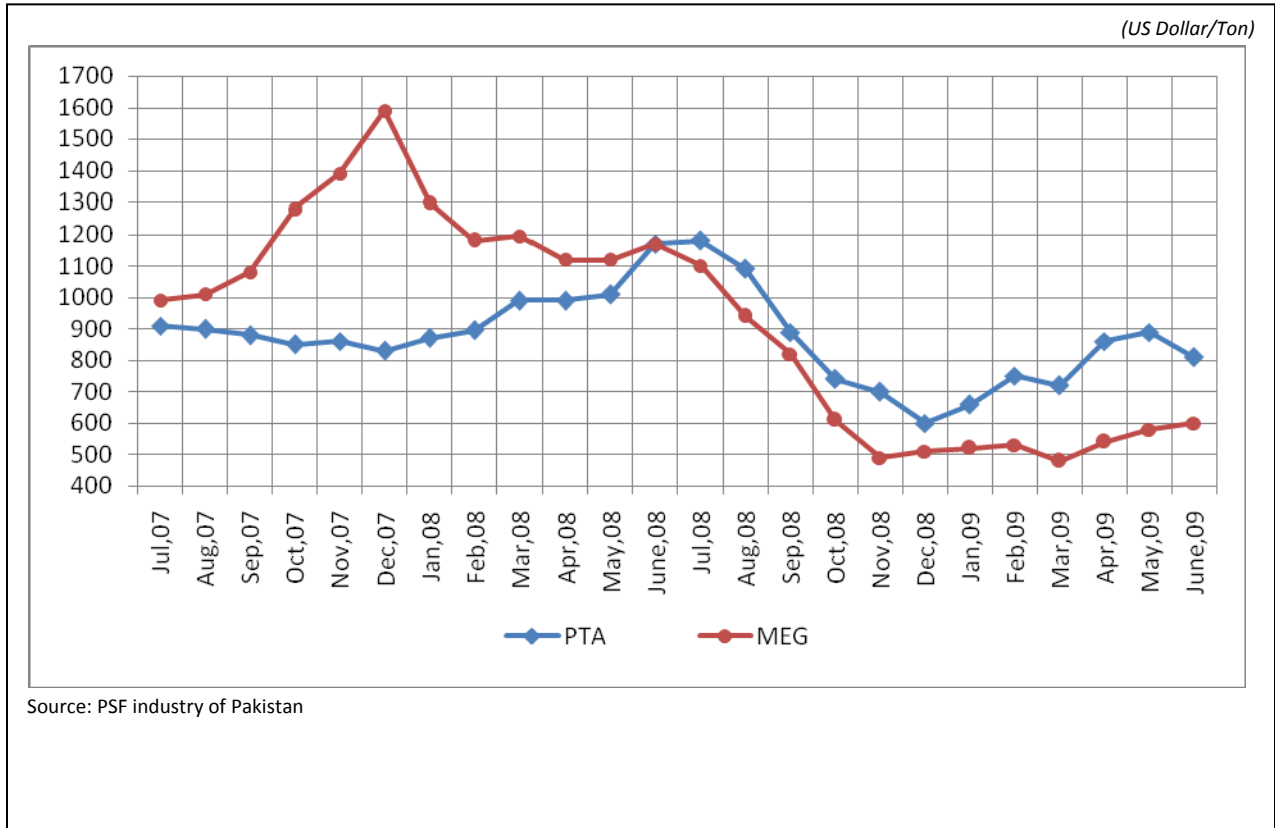
- (a) The development of the textile industry is a pre-condition to boost the derived demand for PSF. The textile sector needs a stronger image and market development strategy. In particular, targeted efforts are required to check the rise in investors' negative perception of political instability and its associated impact on investment and sourcing decisions. Effective negotiations are needed to reduce access costs to major markets within the WTO framework or through bilateral arrangements. Efforts are required to establish long

term competitiveness of the textile industry, focusing on the entire value chain including PSF.

- (b) Economies of scale impact the cost of production. Therefore, to reap the benefits in the form of elevated efficiency and productivity, the PSF sector needs to improve its scale of production and technology profile. This will also enable the sector to better meet PSF demand.
- (c) Dewan Salman Fibres Ltd. holds about 40% of the total installed PSF production capacity. This unit needs to be put back in operation.
- (d) The tariff structure for PSF industry should be managed so as to provide the industry and potential entrants long term visibility for future planning and growth.
- (e) To safeguard the industry, implementation of the anti-dumping law needs strengthening.
- (f) Disclosure of sensitive cost information through company websites is competition reducing in its effect. Therefore, the SECP needs to work out an alternate mechanism to collect necessary cost data. The CCP may consider giving its advice in the form of a policy note.

<b>Annex-1: Supply and Demand of PSF</b>		
<i>Tones</i>		
<b>Year</b>	<b>Supply</b>	<b>Demand</b>
2003-04	427,651	492,069
2004-05	440,344	451,389
2005-06	423,731	477,490
2006-07	440,573	483,908
2007-08	412,370	470,839
2008-09	356,682	426,421
2009-10		465,000
Source: PRAL & PSF industry of Pakistan. Supply comprises of domestic production and imports.		

## Annex-2: PTA & MEG Prices



**Annex-3: Pakistan's PSF Imports by Countries**

	<i>(Kg)</i>					
	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>
China	103,705	301,400	16,300,786	45,509,690	50,062,987	73,382,766
Indonesia		8,638,038	9,339,132	4,005,669	7,465,238	350,700
Malaysia	347,700	237,600		1,859,872	6,727,981	6,838,378
S. Korea	3,278,704	15,229,474	2,133,720	5,482,780	22,214,380	15,881,058
Taiwan	1,200,838	995,794	1,120,687	565,647	2,333,374	2,140,236
Thailand	1,467,510	26,493,354	5,607,689	930,504	887,144	1,185,003
Others	19,823	119,288	9,083	NA	48,075	110,824
<b>Total</b>	<b>6,418,280</b>	<b>52,014,948</b>	<b>34,511,097</b>	<b>58,398,557</b>	<b>89,739,179</b>	<b>99,888,965</b>
Source: PRAL						

**Annex-4: Cost Sheet of 30/1 P.C. Yarn**

	<b>2009-10</b>	<b>2008-09</b>	<b>2007-08</b>	<b>2006-07</b>	<b>2005-06</b>
No. of Spindles	30240	30240	30240	30240	30240
O.P.S 30/1 PC (52:48)	7.5	7.5	7.5	7.5	7.5
Production lbs	15,309,000	15,309,000	15,309,000	15,309,000	15,309,000
Production K.G	6,944,117	6,944,117	6,944,117	6,944,117	6,944,117

**Raw Material:**

Polyester in K.G 99%	3,647,415	3,647,415	3,647,415	3,647,415	3,647,415
Cotton In K.G 82%	4,064,849	4,064,849	4,064,849	4,064,849	4,064,849
Cotton In Mnd	108,907	108,907	108,907	108,907	108,907
PSF Rate Per K.G	125.31	108.62	98.96	89.87	83.78
Cotton Rate Per Mnd	4,990	3,483	3,156	2,545	2,385

Cost of Polyester	509,366,214	441,523,886	402,257,446	365,307,969	340,553,040
Cost of Cotton	543,446,467	379,323,456	343,710,832	277,168,589	259,743,452
<b>Raw Material Cost</b>	<b>1,052,812,681</b>	<b>820,847,342</b>	<b>745,968,277</b>	<b>642,476,558</b>	<b>600,296,491</b>

<b>Packing Cost</b>	2	1.75	1.5	1.5	1.25
	30,618,000	26,790,750	22,963,500	22,963,500	19,136,250
<b>Raw Material Cost including Packing Cost</b>	<b>1,083,430,681</b>	<b>847,638,092</b>	<b>768,931,777</b>	<b>665,440,058</b>	<b>619,432,741</b>
<b>Electricity:</b>					
Electricity Unit Cosumed	27,216,000	27,216,000	27,216,000	27,216,000	27,216,000
Rate Per Unit	6.65	5.66	4.35	4.05	3.75
<b>Electricity Cost</b>	<b>180,986,400</b>	<b>154,042,560</b>	<b>118,389,600</b>	<b>110,224,800</b>	<b>102,060,000</b>

Contd.....

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	<b>2009-10</b>	<b>2008-09</b>	<b>2007-08</b>	<b>2006-07</b>	<b>2005-06</b>
<b>Salaries &amp; Wages:</b>					
<i>Salaries &amp; Wages of 450 workers</i>	32,400,000	32,400,000	32,400,000	24,840,000	21,600,000
<i>Fringe Benefits</i>	12,960,000	12,960,000	12,960,000	9,936,000	8,640,000
<i>Salaries &amp; Wages of 200 workers</i>	36,000,000	31,200,000	28,800,000	26,400,000	24,000,000
<i>Fringe Benefits</i>	14,400,000	12,480,000	11,520,000	10,560,000	9,600,000
	<b>95,760,000</b>	<b>89,040,000</b>	<b>85,680,000</b>	<b>71,736,000</b>	<b>63,840,000</b>

<b>Store Consumption</b>	18,000,000	15,652,174	13,610,586	11,835,292	10,291,558
<b>Other Overheads</b>	10,000,000	9,090,909	8,264,463	7,513,148	6,830,135
<b>Depreciation</b>	13,500,000	12,272,727	11,157,025	10,142,750	9,220,682
<b>Administration</b>	15,000,000	13,636,364	12,396,694	11,269,722	10,245,202
<b>Financial Expense</b>	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000
	<b>423,246,400</b>	<b>383,734,734</b>	<b>339,498,368</b>	<b>312,721,712</b>	<b>292,487,576</b>
	<b>1,506,677,081</b>	<b>1,231,372,826</b>	<b>1,108,430,145</b>	<b>978,161,770</b>	<b>911,920,318</b>

<i>Cost Per lbs</i>	98.42	80.43	72.4	63.89	59.57
<i>Profit/Frame/day</i>	6000	5000	5000	4000	4000
<i>Per lbs</i>	8.89	7.41	7.41	5.93	5.93
<b>Sale Price</b>	<b>107.31</b>	<b>87.84</b>	<b>79.81</b>	<b>69.82</b>	<b>65.49</b>
<b>Sales Revenue</b>	<b>1,642,757,081</b>	<b>1,344,772,826</b>	<b>1,221,830,145</b>	<b>1,068,881,770</b>	<b>1,002,640,318</b>

Source: APTMA.