

Terms of Reference

Study on the Economic Factors Underlying the Growth of Polyester Production and Consumption

Background

The market for textile fibers has changed significantly over the last five decades. Looking at the period from 1960-2014, world demand growth of major textile fibers has been 71.6 million tons, of which 70% is polyester. A very large part of the growth in polyester has come from China, where production and demand for the fiber have been very strong. In 1960, chemical fiber yarn production in China was only 418.000 tons and by 2000, it had reached 6.7 million tons. In 2014, production rose to 42.6 million tons accounting for about 69% of global production. Meanwhile, production in the rest of the world has remained stable at just over 18 million tons, ranging between 13 and 21.7 million tons in the past 35 years.

Even though cotton consumption has grown in volume, it has lost market share to other fibers, mainly polyester. In 1960, cotton demand was only 10 million tons globally and by 2007, it reached its maximum peak of 26.6 million tons. As a result of the global economic downturn and the increase in cotton prices, world mill consumption of cotton contracted by a record 4.4% in 2008, to 25.5 million tons. All regions of the world experienced a significant decline in mill use. Developing Asia, which has been the engine of growth for mill use since 1998, was also affected by declining global demand and higher costs, and mill use in the region contracted by 2% in 2008. In China (Mainland), mill consumption of cotton declined by 500.000 tons in 2008 and 570.000 tons in 2009. During 2011-2014, the Chinese government implemented a system of minimum support prices by directly purchasing cotton from producers and rebuilding the government strategic reserve. The effects of this policy had different effects. On the one hand, cotton prices were substantially higher than their long-term average; and traders benefited from increased export and import volumes. At the same time, this policy also caused mill use and the market share of cotton in China to shrink, and cotton prices lost competitiveness to polyester making it less attractive for spinning mills. The current situation is even less promising, as cotton consumption in China has declined for the 6th consecutive season to 7.1 million tons in 2015/16, and spinning mills still have no access to cotton at competitive prices. Furthermore, retail buyers have figured out that the use of blended products, as well as 100% MMF, seems fine with many consumers, changing the trend of many years by the consumer to wear garments made of 100% cotton.

One major driver behind the struggle for market share is the relative price of cotton to polyester.

In 2015/16, the gap between international cotton prices, as represented by the Cotlook A index, and polyester prices in China has continued to widen, with polyester prices falling from 52 cts/lb in August 2015 to 43 cts/lb in February 2016, averaging 48 cents/lb during the first half of 2015/16. During the same period, the Cotlook A Index has averaged 69 cents/lb, ranging from a high of 74 cents/lb to a low of 64 cents/lb.

China is currently the world's second-largest consumer of oil and moved from second-largest net importer of oil to the largest in 2014. Taking into account that Purified terephthalic acid (PTA) is key raw material used to make synthetic yarn, and is derivative of crude oil; it could be interpreted that the policies implemented by the Chinese government have favored the increase in the production of synthetic fibers.

The global cotton industry is aware that cotton suffers from several disadvantages relative to MMF, including processing difficulties due to contamination introduced during harvest, ginning and handling, annual fluctuations in the quantity and quality of production and consequent variability in prices. For cotton, competition with chemical fibers is a constant challenge as improvements in technology has resulted in lower costs of production and an increased range of uses for man-made fibers. It is important for the global cotton industry to understand its competitive advantages and disadvantages compared with man-made fibers in order to compete better across the board and in specific product categories.

Given the fact that China now accounts for 70% of the world's polyester production and 69% of all MMF production, it is critical to understand the events and government policies implemented by China, in order to explain the factors underlying the growth of polyester production and consumption and its future global competition with cotton.

Objective

The main objective is to identify the economic factors underlying the growth of polyester production and consumption, thus enabling ICAC members to better understand the dynamics of competition among fibers and suggest ways for cotton to better compete.

Scope (specific tasks)

In its 34th Meeting, the PSAP recommended that the ICAC undertake an economic study on the factors underlying the growth of polyester production and demand.

This study is divided into three sections:

Section one

Analysis of data already available, to highlight major findings and to avoid duplication. A presentation containing initial main findings will be delivered at the next PSAP meeting in Bremen on March 15, 2016.

Section two

The objective of this section is to identify whether the per-unit import values for fiber, intermediate and finished product from China and the rest of the world for different countries follow the same trend observed when analyzing per-unit apparel import values in the USA.

ICAC in conjunction with interested participants will gather and analyze trade data information on cotton and polyester fiber, yarn, fabric and finished apparel to evaluate per unit import values from China and the rest of the world in key countries such as United States, Brazil,

Vietnam, Indonesia, Bangladesh, Thailand, EU, India, Pakistan, Mexico, and South Korea. A list of the harmonized system codes selected are as follows:

- **Fiber Staple**

550320 Polyester

- **Yarn Filament**

540233 Textured yarn nes, of polyester filaments, not retail

540242 Yarn, polyester, part oriented, single, not retail

540243 Yarn, polyester, single, untwisted nes, not retail

540252 Yarn, polyester, single, >50 turn/m, not retail

540262 Yarn of polyester filament, multiple, nes, not retail

- **Yarn Staple**

550921 Yarn >85% polyester staple fibers, single, not retail

550922 Yarn >85% polyester staple fibers, multiple, not retail

550951 Yarn of polyester & artif staple fibers, not retail

550952 Yarn of polyester & wool or hair, not retail, nes

550953 Yarn of polyester & cotton, not retail, nes

- **Fabric**

551211 Polyester woven fabric. Woven fabric >85% polyester staple fiber Unbleached/bleached

551219 Polyester woven fabric. Woven fabric >85% polyester staple fibers, nes

- **Apparel**

610910 T-shirts, Singlets, Other Vests, Knitted or Crocheted, of Cotton

610990 T-shirts, Singlets, and Other Vests, of Other Textile Materials

Source of Data

The main source of trade data will be the Global Trade Information Services (GTI).

Section three

This third phase of the study should be conducted by an expert, who will perform a detailed analysis that answers the following questions:

- What are the drivers, restraints, and challenges affecting the growth of polyester in China?
- What are the polyester market dynamics and pricing differences between countries?
- What is the processing cost between cotton yarn and polyester yarn in China?
- What are the quality improvements in textiles for the polyester versus the cotton industry in recent years?
- What percentage of technology developments are focused to the cotton industry?

- Are there new investments in yarn spinning facilities in the US and other Southeast Asian countries (including Vietnam, Indonesia, and Bangladesh) oriented to processing cotton yarn?
- What are the views of brands and retailers on demand for cotton, quality issues, consumer behavior, and negative press on cotton?
- How do brands and retailers make a fiber choice of cotton versus polyester, and blends?
- How do retailers foresee the consumption of cotton versus polyester products in coming years?

Schedule, Budget and Member Involvement:

Guidance to be provided by PSAP members.