### **TEXTILE INDUSTRY IN THE PRC**

The Chinese textile industry has undergone certain changes as China opened up its economy and the competition in the textile industry increases. The changes in the government policies to encourage private capital to invest in the textile industry have led to an increasing number of non-state-owned textile enterprises. In 1980, State-owned enterprises in the textile industry accounted for approximately 66% and the remaining were mainly collective enterprises. In 2003, non-state-owned enterprises accounted for approximately 84% of all the enterprises in the textile industry. Non-state-owned enterprises have become the major investment force in the textile industry.

The changes in the PRC government policies also led to an increase in foreign invested capital. In 2002, approximately 30.9% of the actual capital injected in the textile industry was foreign invested capital. The foreign investors also brought in advanced technologies and management expertise to the PRC. This significantly improved the technologies and the management skill of the textile industry in the PRC.

From 2001 to 2003, the PRC imported a large amount of machines to achieve technology advancement which led to changes in the industry and the product quality. The competitiveness of the textile products manufactured in the PRC has increased as a result. The textile machineries imported into the PRC amounted to approximately USD4,600 million in 2003 which represented a CAGR of approximately 35.7% over a three year period.

The reform of the China textile industry brought about a number of international cooperation, from setting up of factories with single-form fund or joint ventures, authorised productions and OEM productions. At the same time, advanced production and management approaches, sophisticated processing technologies and highly developed marketing concepts, were also introduced to China. These approaches, technologies and concepts are valuable for the future development of China's textile industry.

During the mid-1990s, around 60% of the garment fabrics were imported. The improvement in the technologies and management skills has led to an increase in the product quality of the garment fabrics. In 2003, garment fabrics export increased by 30% from the previous year to approximately USD10,818 million, while imported garment fabrics reduced slightly to approximately USD5,869 million.

The improvement in textile product quality and relatively inexpensive prices have attracted an increasing number of large retailers and importers to relocate their global or regional purchase centres to China and have contributed to the advancement of China's foreign trade of textile products and garments.

Domestic demand constitutes the major pulling force of the textile industry. With a vast population of about 1.3 billion, the rapid economy growth, the increase in the disposable income of the general population and rising living standard, there is a significant potential for the increase in the demand for textile products.

The value of industrial output of the PRC textile industry grew at a CAGR of about 13.0% from 1999 to 2002.



Annual textile production value in the PRC

Source:《紡織工業統計年報2002年》(Textile Industry Statistics Annual Report 2002) Statistics Center of China National Textile Industry Council.

Currently, the fibre consumption of the Chinese population is still relatively low. In 2001, the fibre consumption per head was only approximately 6.4 kg which was a long way from the world average of approximately 7.9 kg and the United States average of approximately 38.1 kg. The consumption of textile production in the PRC, both in quantity and quality, cannot be compared with that of the United States. There is still much room for improvement with regard to fabric innovation and garment design. From 2000 to 2003, the production of yarn and fabric in the PRC increased at a CAGR of about 14.4 and 10.5% respectively.







Annual fabric production in the PRC





The PRC textile industry is fragmented with no dominant major player in the industry. In 2001, there were in total 67 companies in the PRC textile industry which generated revenue of over USD100 million, but the aggregate amount of revenue of these 67 companies was only approximately 11% of the PRC textile industry.

After the entry into WTO, China will benefit from the cancellation of quota for export of textile products to European and North American markets. China's textile products can exert its competitive advantages of its relatively lower costs and reliable quality.

China's entry into WTO also provided China with a reduction of customs duties and admittance to service market. This is favourable to China's textile industry as it will have a tendency to attract foreign capital, advanced technologies and sophisticated management to reinforce cooperation in the textile industry and to promote the advancement in the Chinese textile industry.

### **COTTON INDUSTRY**

Cotton is noted for its versatility, its appearance, its performance and its natural comfort and can be used in a number of apparels. Cotton is the nature's wonder fibre, providing thousands of useful products.

The world's cotton production in 2004 is estimated to increase by approximately 5% from 2003. However, the estimated cotton production in 2004 is still lower than the world's cotton production in 2002. The estimated China cotton production in 2004 will also be lower than the previous year for the second year running.



### Annual cotton production

Source: "Cotton: World Markets and Trade", June 2004, United States Department of Agriculture, Foreign Agriculture Services.

China is the largest importer of cotton in the world. Due to the rising demand of cotton in China, the 2004 estimate for cotton import is approximately 1.92 million tonnes, representing an increase of over 180% of that in 2003. The estimated increase is mainly caused by the increase in demand for cotton and the expected reduction of domestic production in China.

In 2003, China, the United States, India, Pakistan and Uzbekistan were the five largest cotton production countries or regions in the world, which accounted for approximately 25.6%, 19.5%, 12.0%, 8.8% ad 5.2% respectively of the world's total cotton production in 2003. Other large cotton production countries included Turkey and Brazil, which accounted for approximately 4.7% and 4.4% respectively of the world's total cotton production in 2003. The world geographic distribution of cotton production has remained relatively stable in recent years and China has remained as the largest cotton production country in 2003. The following is the distribution of the cotton producing countries in the world in 2003.



### Cotton production by countries in 2003

Source: "Cotton: World Markets and Trade", June 2004, United States Department of Agriculture, Foreign Agriculture Service.

### **COTTON FUTURES TRADING**

In 2003, the world cotton price fluctuated considerably. As cotton futures trading is seen as a price-hedging tool to provide stability to the price of cotton, trials on the cotton futures trading was conducted in the Zhengzhou Commodities Exchange in Henan province in June 2004. During the trial, two varieties of cotton, namely the inland cotton and Xinjiang cotton are available for trading.

### SPANDEX

In 1937, Bayer first produced spandex using the dry-spinning method. However spandex produced by Bayer did not produce satisfactory properties for use in textile production. In 1959, Du Pont introduced the dry-spinning method to produce spandex fibre and spandex was later put into commercial production. Since then, spandex is used in many commercial yarns and fabrics to add elasticity to garments.

Spandex was used initially in ladies' foundation garments as a replacement for rubber. Spandex, also known as elastane, is currently a fibre on the leading edge of fashion for all kinds of different garment. Spandex is always blended with other fibres such as cotton, wool, silk and linen. Spandex is lighter than rubber thread and does not break easily even when exposed to body oils, perspiration, detergents and lotions.

The properties of spandex allows spandex to become a popular fibre. Soft and rubbery segments of the fibre allow spandex to stretch up to 600% and then recover to its original shape. Spandex has become one of the most commonly used blending fibres. Blending spandex with other fabrics provides a higher level of comfort and a more durable garment. Of all the different materials used to blend with spandex, cotton is one of the most widely used fibre in the fashion industry. Spandex is also blended with suiting and dress fabrics, such as wool, silk and rayon, to create a light and more flexible fabric.

Since spandex blended textile materials were first used by Du Pont in outer garments in 1991, the demand of spandex has continued to grow. Advancement in technologies in the textile industry has contributed to the development for the different applications of spandex. The promotion by Du Pont of its Lycra blended cotton and the gradual acceptance of spandex products in the consumer market have made spandex a leading textile material. Spandex has become a contemporary textile material which is used in a variety of textile products including leisure clothing, highly stretchable fashionable garment fabrics and top-end garments.

In 1990, the world production capacity was only approximately 60,000 tonnes. As the production techniques of spandex improved and investment cost reduced, more spandex productions were established. The world production of spandex also increased significantly as the consumption for spandex increased. In 2003, the world annual production capacity of spandex reached approximately 270,000 tonnes. From 1990 to 2003, the world production capacity of spandex increased at a CAGR of approximately 12.3%.



#### Annual production capacity of spandex

Sources: "1999-2006年世界氨綸市場生產與需求現狀分析" (Analysis on the demand and supply of the world spandex production market 1999-2006), April 2004, (China Textile Economic Information Website). "中國為何能迅速發展成為世界氨綸第一生產大國" (How China can develop rapidly into the largest spandey, production country in the world) January 2004, China Chemical Fiber

largest spandex production country in the world), January 2004, China Chemical Fiber Association.

South Korea, China, American, Japan and Taiwan are the five largest spandex producing countries or regions of the world. As at September 2003, the annual production capacity of South Korea, China, American, Japan and Taiwan were approximately 27.5%, 22.9%, 14.4%, 9.3% and 6.4% respectively. The production of South Korea, China, American, Japan and Taiwan together accounted for to approximately 80.5% of the total world annual production capacity.

### The annual world production capacity of spandex as at September 2003



Source: "中國為何能迅速發展成為世界氨綸第一生產大國" (How China can develop rapidly into the largest spandex production country in the world), January 2004, China Chemical Fibers Association.

The production of spandex in the PRC began in 1989 and experienced a slow development until the turn of the Century. The production capacity of spandex in the PRC increased from about 6,000 tonnes in 1999 to about 64,000 tonnes in September 2003. The rapid development of spandex production in the PRC in the past few years was principally attributable to the rapid development of the PRC textile industry, the reducing investment cost for spandex production, the increasing application of spandex in garment production and the establishment of spandex production facilities in the PRC by international manufacturers.

## LAWS AND REGULATIONS RELATING TO THE TEXTILE INDUSTRY IN THE PRC

## **Textile Industry Guiding Policies**

Pursuant to《關於紡織工業深化改革調整結構解困扭虧工作有關問題的通知》(Notice on the Relevant Issues of In-depth Reform and Structural Adjustment and Relief of the Textile Industry) issued by the State Council in 1998, the PRC government has acted in accordance with the market demand, by eliminating out-of-date spindles to improve the technical levels and product quality. During the three-year period from 1998 to 2000, the domestic textile industry successfully eliminated approximately 9.4 million out-of-date spindles.

According to 《2002年總量調控、結構調整工作指導意見》(2002 Guiding Opinion on the Total Quantity Regulation and Structural Adjustment Work), the PRC government, on one hand, continues to employ the policy of eliminating out-of-date machines and control the total output of the textile industry, and on the other hand, relies on the advancement in technology and system innovation to enhance its international competitiveness as well as to expand the export market of textile clothing.

According to 《關於用高新技術和先進適用技術改造提升傳統產業的實施意見》 (Opinions on the Implementation of Transforming and Upgrading Traditional Industries by High & New Technology and Advanced Applied Technology) issued by the National Economic and Trade Commission in 2002, the PRC government encourages the use of high & new technologies and advanced technologies in the textile industry. According to 《外商投資產業指導目錄》(Catalogue for the Guidance of Foreign Investment Industries) issued in 2002, the PRC government encourages foreign investors to invest in the manufacture of special or top grade textiles.

According to《關於調整新增棉紡生產能力政策有關問題的通知》(Circular on the Adjustment Policies to Increase Cotton Spinning Productivity) issued by National Development and Reform Commission in August, 2004, the PRC government abolished the permit system for purchase of cotton spinning mule frame to encourage technology promotion, upgrade the textile industry, and enhance the development of the manufacturing industry of textile machineries.

### Policies on Textile Production and Cotton Circulation

Since 1985, China has carried out reforms on the cotton circulation system. China has taken the measure of cotton order by contracts but the orders are designated by the PRC government. The remaining amount of cotton which is not ordered is permitted to be sold freely in the market. In 1992, according to  $\langle \mbox{\ M}\mbox{\ M}\mbox{\ C}\mbox{\ M}\mbox{\ B}\mbox{\ D}\mbox{\ D}$  (Opinions on the Reform of the Cotton Circulation System), China conducted further reform on the cotton business designated by the PRC government can sign cotton purchase contracts with farmers; ii) through cotton wholesale market or other channels, the textile enterprises and cotton trade enterprises can sign cotton purchase contracts directly; iii) the selling price of cotton can be negotiated freely by the selling and purchasing parties; and iv) the government allowed other enterprises with cotton operation qualifications to purchase and process cotton directly.

According to《關於深化棉花流通體制改革的決定》(Decisions on Further Deepening Reform on the Cotton Circulation System), further reform was implemented on cotton circulation system by China in 1999. Such reform mainly aimed at: i) determination of cotton price by the market under the government's macroscopic directions; ii) implementation of a cotton purchasing and processing assessment system, under which enterprises with qualifications were allowed to engage in the cotton purchase and processing business directly; and iii) development of a cotton circulation market and establishment of an information system of cotton supply and demand as well as cotton prices in the market.

According to《國務院關於進一步深化棉花流通體制改革的意見》(Opinions of the State Council on Further Deepening the Cotton Circulation System Reform), China continues to reform the cotton circulation system. The main aim is to strengthen the administration of the purchase and processing of cotton and the cotton market. The government encourages the qualified enterprises in cotton business to purchase cotton either directly or through agents from the main cotton-producing regions. The enterprises engaged in the cotton business shall abide by the provisions of《棉花收購加工與市場管理暫行辦法》(Provisional Measures for the Administration of Cotton Purchase, Processing and Market) and shall apply to provincial governments for qualification assessment.

According to《關於印發整頓棉花流通秩序工作方案的通知》(Circular on Rectification of Cotton Circulation Order), during the period from October 2004 until early 2005, the rectification within the national coverage has been carried out to thoroughly examine the qualifications and operations of the enterprises that purchase and process cotton, and reorganise the cotton transaction market for better cotton circulation order.

### **Textile Export Policies**

According to 《中華人民共和國貨物進出口管理條例》(Regulations of the People's Republic of China on the Administration of Import and Export of Goods), the administrative measures that China took to control exporting products mainly include: export quotas, export licenses, state-operated trade restrictions, designated trading and passive export quotas.

Over a long period of time, China used to take relatively stringent administrative measures to control textile export. Since China's admission to the WTO in 2001, the above administrative measures to control textile export have been weakened, even partially abolished. According to  $\langle 2003 \pm 1 \square$   $\Rightarrow \Pi$   $\Leftrightarrow \Pi$   $\Rightarrow 0$   $\Leftrightarrow 0$  (2003 Catalogue of Commodities Subject to Export License Administration), China did not implement export quota controls and export license controls on cotton textile any longer, but retained export quota and export license controls on cotton in 2003. According to  $\langle 1 \square$   $\Leftrightarrow 0$  (Catalogue of Goods Subject to State-operated Export Trade Administration), China no longer implements controls on cotton. Pursuant to  $\langle 1 \square$   $\implies 0$  (Catalogue of Goods Subject to Export Designated Trade Administration), China no longer implements designated trade controls on the export of cotton textiles and cotton.

### **Textile import policies**

According to《中華人民共和國貨物進出口管理條例》(Regulations of the People's Republic of China on the Administration of Products Import and Export), China's administrative measures to control import products mainly include: import quotas, import licenses, import tariff quotas, state-operated trade restrictions and designated trading.

Since China's admission to the WTO in 2001, the above administrative measures to control textile import have been weakened, even been partially abolished. According to  $\langle 2003 \mp \pm \square$  許可證管理商品目錄》 (2003 Catalogue of Commodities Subject to Import License Administration), China didn't implement import quota controls and import permit controls on textile products and cotton any longer in 2003. According to  $\langle \pm \square$  國營貿易管理貨物目錄》 (Catalogue of Goods Subject to State-operated Import Trade Administration), China no longer implements state-operated trade controls on the trading of import cotton textile products, but still retained state-operated trade controls on the trading of cotton. Pursuant to  $\langle \pm \square$  指定經營管理貨物目錄》 (Catalogue of Goods Subject to Import Designated Trade Administration), China no longer implements designated trade controls on the import of cotton and other textile products than acrylic fibers.

40%, otherwise they are levied a tariff rate of 125%. According to 《2004年糧食、棉花進口 關税配額數量、申請條件和分配原則》 (2004 Amount, Application Requirements and Distribution Principles of Tariff Quota on Food and Cotton Imports,), in 2004 the tariff quota of cotton import is 894,000 tons, of which 33% are imported by state-operated trade.

According to the establishment of Closer Economic Partnership Arrangement between Mainland and Hong Kong, zero tariff policy is implemented on a variety of yarn, fabrics, textiles and garments whose country of origin are Hong Kong.

### Policies on environmental protection in the textile industry

《中華人民共和國環境保護法》(Law of the People's Republic of China on Environmental Protection) ("Environmental Protection Law" issued in 1989), establishes the legal framework of environmental protection in China. The Environmental Protection Law is formulated for the purpose of protecting and improving living environment and ecological environment, preventing pollution and other public hazards and safeguarding human health. The administration department of environmental protection of the State Council implements unified supervision and management on the national environmental protection work, and also establishes the national standards for pollutants discharge, etc.. The Environmental Protection Bureaus at or above the county level are responsible for the environmental protection work within their respective jurisdictions.

Enterprises that cause environmental pollution and other public hazards shall incorporate the work of environmental protection into their plans and establish a responsibility system for environmental protection. Such enterprises shall also take effective measures to prevent and control the pollution and harms caused to the environment by waste gas, waste water, waste residues, dust, malodorous gases, radioactive substances, noise, vibration and electromagnetic radiation generated in the course of production, construction or other activities.

Enterprises discharging pollutants shall apply for registration in accordance with the requirement stimulated by the administration department of environmental protection of the State Council. Enterprises discharging pollutants in excess of the prescribed national or local discharge standards shall pay a fee for the excessive discharge according to state provisions.

The government may, according to the circumstances and the extent of the pollution, impose administrative penalties of different types and degrees on the violators (enterprises or individuals) of the Environmental Protection Law. Such penalties include: warnings, fines, orders to make treatments within a specific period, orders to suspend production, orders to reinstall and put to use pollution treatment facilities that have been dismantled or left idle without prior approval, administrative sanctions on relevant responsible personnel and orders to close the business. The government may also impose fines together with any of the above-mentioned administrative penalties. The organisations or individuals that have caused environmental pollution hazard would be responsible to compensate the victim. If a violation of the Environmental Protection Law causes a serious environmental

pollution accident, the personnel directly responsible for such an accident shall be investigated for criminal liability.

《中華人民共和國大氣污染防治法》(Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution) (the "Atmospheric Pollution Preventive Law" issued on 5 September 1987, revised on 29 August 1995 and further revised on 29 April 2000) establishes the provisions of the prevention, treatment and management of atmospheric pollution. The Atmospheric Pollution Preventive Law is formulated for the purpose of preventing and controlling atmospheric pollution, protecting and improving living environment and ecological environment, safeguarding human health, and promoting the sustainable development of economy and society. The administration departments of environmental protection at or above the county level are responsible for unified supervision and management of the prevention and control of atmospheric pollution. The administration department of environmental protection of the State Council is responsible for establishing the national standards for atmospheric environment quality and the discharge of pollutants into air.

New construction projects, expansion or reconstruction projects that discharge pollutants into air shall comply with the State regulations on environmental protection for such projects. Organisations that discharge pollutants into air must report to the local administrative department of environmental protection its existing discharge and treatment facilities for pollutants and the categories, quantities and concentrations of pollutants discharged under normal operation conditions and submit to the same department relevant technical data concerning the prevention and control of atmospheric pollution. Organisations that discharge pollutants into the atmosphere shall pay a discharge fee according to the type and amount of pollutants discharged. The concentration of the discharged pollutants shall not surpass the national and local standards.

Where the Atmospheric Pollution Preventive Law is violated, the administration departments of environmental protection may, according to the circumstances, impose the following penalties on the violations: orders to stop the illegal activities, orders to rectify within a specified period, warnings, fines, order to make treatments within a specified period, order to suspend or close the business. The organisation that has caused the atmospheric pollution shall have the responsibility to remove the hazard and to indemnify the organisations or individuals that have suffered direct losses.

《中華人民共和國水污染防治法》(Law of People's Republic of China on Prevention and Control of Water Pollution) (the "Water Pollution Preventive Law" issued on the 11 May 1984 and revised on 15 May 1996), establishes legal standards for prevention and control of pollution of rivers, lakes, canals, irrigation channels, reservoirs and other surface water bodies and of underground water bodies within the Chinese territory. The environmental protection authorities of government at all levels shall implement unified supervision and management on the prevention and control of water pollution. The environmental protection department of the State Council establishes the national standards for water environment quality and the discharge of pollutants. New construction projects and expansion or reconstruction projects and other installations on water that directly or indirectly discharge pollutants to water bodies shall be subject to relevant State regulations on environmental protection for such projects. Organisations that discharge pollutants directly or indirectly into a water body shall report to and register with the local environmental protection department their existing facilities for discharging and treating pollutants, and the categories, quantities and concentrations of pollutants discharged under their normal operating conditions, and also submit to the same department technical data concerning prevention and control of water pollution. Enterprises that have discharged pollutants into water shall pay a pollutants discharge fee pursuant to the regulations. If the discharge of pollutants exceeds the prescribed standards, the enterprises shall pay an excessive fee for pollutants discharge.

Where the Water Pollution Preventive Law is violated, the administration departments of environmental protection may, according to the circumstances, impose warnings, fines, orders to suspend production or even orders to close the business on the violators. The organisations that have caused the environmental water pollution hazard shall be responsible to remove such hazard and to indemnify the organisations or individuals that have suffered direct losses.

## Regulations on the establishment and operation of back-up electric generators

According to current national and local laws and regulations of PRC, the establishment and operation of a back-up electric generator owned by an enterprise shall satisfy some specific requirements if the electricity generated by the back-up electric generator is linked to the electricity power grid. On the other hand, there is no national law or regulation that governs the use of non-network generators. However, there are some special provisions in certain provinces relating to the setting up and operation of non-network back-up electric generators. Under these provisions, enterprises with non-network back-up electric generators shall apply for approval from, and sign an agreement with, the local electricity supply bureau.