

2007/08 World Cotton Outlook^{1,2}

World cotton production is forecast at 25.4 million tons in 2007/08, down slightly (2%) from the previous season. However, world cotton consumption is forecast to continue to increase to 27.0 million tons, up 3%. As a result, world cotton ending stocks are expected to decline by 12% to 10.9 million tons, the lowest in four seasons. The Secretariat, using the ICAC Price Model 2007, forecasts a season-average Cotlook A Index of 68 cents per pound in 2007/08.

World Cotton Production Down Slightly, but Record High in Asia

World cotton production averaged 20 million tons between 1994/95 and 2003/04. However, 2007/08 is expected to be the fourth consecutive season with world production above 25 million tons. This jump in production is primarily the result of much higher yields. The world average yield rose by 100 kilograms per hectare (16%) in 2004/05 and has not declined since. Higher area also contributed somewhat to the high levels of world production in recent years.

Cotton yields in many countries are benefiting from the expanded use of existing techniques, such as integrated pest management, better water management, minimum tillage, crop rotations and improved use of fertilizers, as well as new technologies. The most visible of these new technologies is biotech cotton. Biotech cotton is primarily risk and cost reducing, but in some countries it can contribute to increasing yield. In India, yields have increased sharply from 302 kilograms per hectare in 2002/03 to a record of 520 kilograms per hectare in 2006/07. This 72% yield increase over four seasons is in large part attributed to the expansion of biotech cotton area. In the rest of the world, the average yield increased by 16% over the same period. Recent yield increases in India, where a quarter of world cotton is planted, have significantly contributed to the rise in the world average yield. The world yield is forecast stable in 2007/08 at 756 kilograms per hectare.

Since 2004/05, world cotton area has remained between 34 and 36 million hectares, the upper half of its historic range (29 to 36 million hectares), despite lower prices than in the past. Several factors are responsible for the higher levels of world cotton area, but the most visible and also possibly the most important is the significant increase in cotton yields in some large producing countries over the last few seasons. Nevertheless, world cotton area is expected to decline slightly to 33.6 million hectares in 2007/08.

Production is expected to decline in many countries in 2007/08. In particular, significant production declines are expected in the United States (-20%), in Turkey (-9%) and in the African Franc Zone (-18%) due mainly to drops in cotton area. In the United States and in Turkey, corn was a more attractive alternative to cotton at planting time. In addition, Turkish growers experienced low cotton yields in 2006/07, which discouraged some of

¹ Paper presented to the 9th International Cotton Conference, 6-7 September 2007, Gdansk.

² Statistics as of September 1, 2007.

them from planting cotton this season. In the African Franc Zone, several seasons of low producers' prices combined with declining yields have reduced the incentive for many farmers to plant cotton.

However, production in Asia is expected to increase again in 2007/08 to a record of 14.9 million tons. This would represent 59% of projected world production, compared to 54% in 2006/07 and 45% in 2000/01. Most Asian cotton production is located in China (Mainland), India and Pakistan. Projected area and yield increases in India and Pakistan explain most of the forecast production increase in Asia in 2007/08. In particular, both area and yield are expected to reach record levels in India, which will remain the second largest producer for the second consecutive season.

World Cotton Mill Use Continues to Increase, Still Driven by China (Mainland)

World textile fiber consumption is driven by three major factors: income, population and fiber prices. It is also affected by trade rules and consumer preferences. World mill use increased at an impressive pace from 18.8 million tons in 1998/99 and 26.3 million tons in 2006/07, averaging annual growth of 4% compared to 1% in the previous two decades. This considerable expansion in mill use has been fueled by strong global economic growth, increases in population, lower prices of cotton relative to other fibers (in particular polyester), and the popularity and greater availability of cotton products vis-à-vis products made of other fibers. In addition, the removal of textile trade quotas agreed under the Multi Fiber Arrangement was completed at the end of 2004. This encouraged further geographical redistribution of textile production to countries with lower production costs, with the effect of lowering textile prices and boosting retail consumption. China (Mainland) has been the main driver of world cotton mill use since 1998/99, thanks in part to its accession to the WTO in 2001. Despite the safeguard mechanisms implemented against Chinese textile imports by the United States, Turkey and the European Union since 2005/06, these imports have continued to rise.

Global cotton mill use is expected to continue to increase in 2007/08, supported by economic and population growth, but the increase is expected to be smaller than in recent seasons owing in part to the expected increase in cotton prices. World cotton mill use is projected to increase by 3% to 27.0 million tons in 2007/08, compared to an annual growth of 5% in the last two seasons and 9% in 2004/05.

Asian cotton mill use is expected to continue to increase by 4% in 2007/08 to a record of 20.3 million tons. This would represent 75% of world cotton mill use, up from 74% in 2006/07 and 61% in 2000/01. Once again, most of this increase will be driven by China (Mainland), where mill use is forecast at 11.0 million tons, up 5% from 2006/07 and accounting for 40% of world cotton mill use. Mill consumption of cotton is also expected to increase in India to 4.2 million tons (+5%) and in Pakistan to 2.6 million tons (+2%). Mill use in other Asian countries is forecast stable at 2.4 million tons: increases forecast in Bangladesh, Vietnam and Indonesia are expected to offset projected declines elsewhere. Cotton mill use is expected to increase in Central Asia, Turkey and South America but to continue declining in the United States and the European Union. The end

of the safeguard mechanisms against Chinese imports in the European Union at the end of 2007 could increase pressure from imported products for the European textile industry, but it is not yet clear if this will accelerate the decline in cotton mill use.

Estimates of Production and Mill Use in China (Mainland) Revised

China (Mainland) is by far the largest cotton producer and consumer. As Chinese cotton mill use rose significantly in recent seasons, it became increasingly difficult to reconcile estimates of production, mill use and trade.

The Secretariat modified its Chinese balance sheet four times between September 2006 and August 2007: the first time in September 2006, the second time in May 2007, the third time in June 2007 and the fourth time in August 2007. At the beginning of 2006/07, the Secretariat was faced with evidence regarding Chinese 2005/06 ending stocks that could not be reconciled with estimates of 2005/06 beginning stocks, production, consumption and trade. In September 2006, the Secretariat introduced a systematic positive stock adjustment factor in the Chinese balance sheet, starting in 1994/95. The objective was to reconcile estimates of production, consumption and trade with estimated 2005/06 ending stocks. In May 2007, the Secretariat lowered the stock adjustment factor and made this factor variable over time, dependent on the growth rate of domestic production and consumption. These changes were made in order to increase estimates of 2006/07 ending stocks. In June 2007, the Secretariat eliminated the stock adjustment factor by raising Chinese production estimates starting in 1994/95. There seems to be a consensus in the Chinese cotton industry that production estimates published by the National Bureau of Statistics generally underestimated actual production in recent seasons. Finally in August 2007, the Secretariat raised production estimates again, starting in 2004/05, to reflect production underestimations in Xinjiang.

The lack of accurate information on major elements of the Chinese balance sheet forces the Secretariat to adjust its estimates from time to time to better reflect the market situation or additional information.

Expected Rebound in World Cotton Trade

World cotton trade expanded for five consecutive seasons, from 5.9 million tons in 2000/01 (30% of world production) to a record 9.8 million tons in 2005/06 (39% of world production). Chinese imports were the main driver of this expansion: they grew from 58,000 tons in 2000/01 (1% of world cotton imports) to 4.2 million tons in 2005/06 (43% of world imports), fueled by increasing domestic mill use. However, in 2006/07, world imports dropped by 16% to 8.2 million tons. Despite continued growth in Chinese cotton mill use, Chinese imports fell by almost half to 2.3 million tons. A record crop, an increase in the duty rates for low-priced cotton under the sliding-scale duty system, a reduced gap between Chinese and international cotton prices, the fact that apparently no cotton was imported for the national cotton reserve (as was the case in 2005/06), and the auction of national reserve stocks in the last two weeks of the season led to reduced Chinese imports in 2006/07. U.S. exports dropped from 3.9 million tons in 2005/06 to 2.8

million tons in 2006/07, mainly due to the decline in Chinese demand, as well as increased competition from Indian exports. The share of the United States in world exports dropped from 40% in 2005/06 to a six-year low of 34% in 2006/07, whereas the share of India increased from 8% to 12%.

In 2007/08, world cotton trade is expected to rebound by 8% to 8.9 million tons due to larger forecast Chinese imports (3.4 million tons). Chinese mill use is projected to increase faster than production in 2007/08, and mills will need to import more cotton so as not to deplete their stocks. Imports by the rest of the world are forecast down by 7% to 5.5 million tons. U.S. exports, boosted by large domestic stocks accumulated during 2006/07, are projected to rebound to 3.6 million tons in 2007/08. Brazilian exports could more than double to a record of 615,000 tons, as a result of the record 2006/07 crop. Indian exports are also expected to increase to a record of 1.1 million tons, as domestic supplies are forecast to continue to grow faster than domestic mill use. However, exports from Uzbekistan, the CFA zone and Australia are expected to decline. The share of the United States in world exports is expected to rebound to 40% in 2007/08.

Prices Rising

International cotton prices, as measured by the Cotlook A Index, averaged 59 cents per pound in 2006/07, or 3 cents higher than in the previous season and 7 cents higher than in 2004/05. However, international cotton prices remain much lower than in previous decades. The Cotlook A Index averaged about 74 cents per pound between 1973/74 and 1997/98 compared to 56 cents per pound between 1998/99 and 2006/07.

Since 1988 the Secretariat has used a statistical model to forecast the season average Cotlook A Index. This model was adjusted from time to time to reflect structural changes in the world cotton market, and functioned relatively well until 2003/04. The main variables used by the model were the stocks-to-use ratio in the world-less-China (Mainland) and the net imports by China (Mainland) as a share of non-China mill use. However, this price model did not function as well starting in 2004/05, and the model functioned very poorly in 2005/06 and 2006/07.

The Secretariat recently developed a new model to forecast the season-average Cotlook A Index. The first published forecast of this model is dated August 1, 2007. The new model includes two main variables: the stocks-to-mill use ratio in the World-less-China (Mainland) and the stocks-to-mill use ratio in China (Mainland). The most important variable is the stocks-to-mill use ratio in the World-less-China (Mainland):

- A 10% increase in the stocks-to-mill use ratio in the World-less-China (Mainland) in the current season causes a 10% decline in the Cotlook A Index this season;
- A 10% increase in the stocks-to-mill use ratio in the World-less-China (Mainland) in the previous season causes a 4% decline in the Cotlook A Index in the current season;
- A 10% increase in the stocks-to-mill use ratio in China (Mainland) in the previous season causes a 1% decline in the Cotlook A Index in the current season.

The first forecast of the season-average Cotlook A Index for 2008/09 will be published on April, 1, 2008, or four months before the beginning of the season. Also, price forecasts are now adjusted each month depending on the actual values of the Cotlook A Index to that date.

As of September 1, 2007, the new ICAC price model 2007 predicts a season-average Cotlook A Index of 68 cents per pound for 2007/08, with a 95% confidence interval ranging from 59 to 77 cents per pound. The main reason for this projected price increase from 59 cents per pound in 2006/07 is the expected decline in the stocks-to-mill use ratio in the World-less-China (Mainland) from 60% in 2006/07 to 52% in 2007/08. This would be the lowest ratio since 2003/04, but the ratio would remain higher than the 25-year average of 45%.

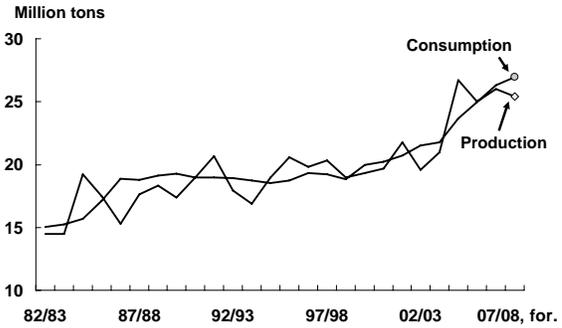
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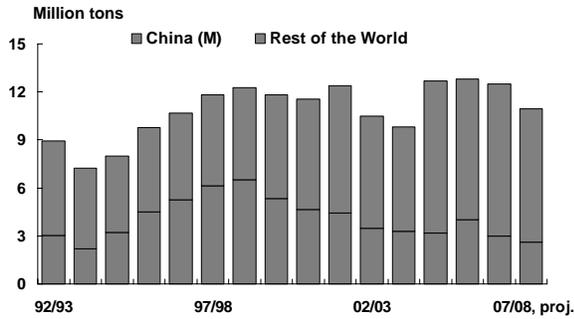
Armelle Gruere, ICAC

9th International Cotton Conference
6-7 September 2007, Gdansk

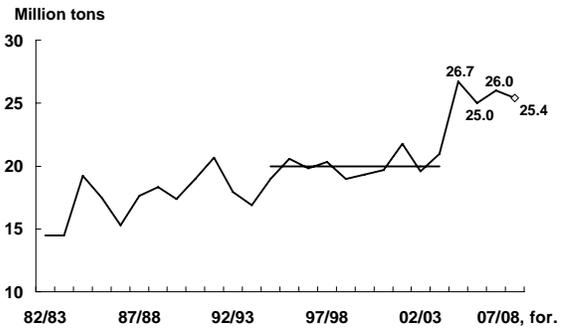
World Production & Consumption



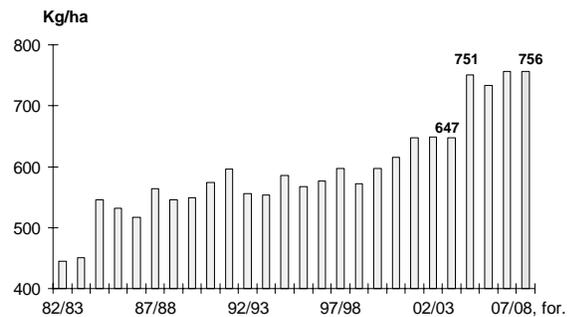
World Ending Stocks



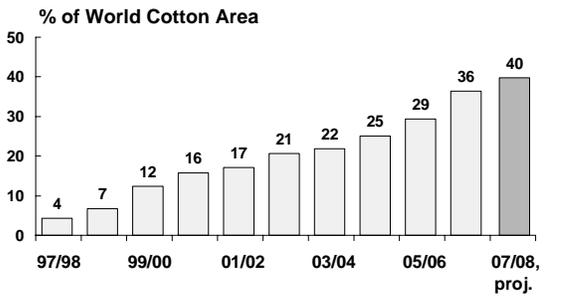
World Production

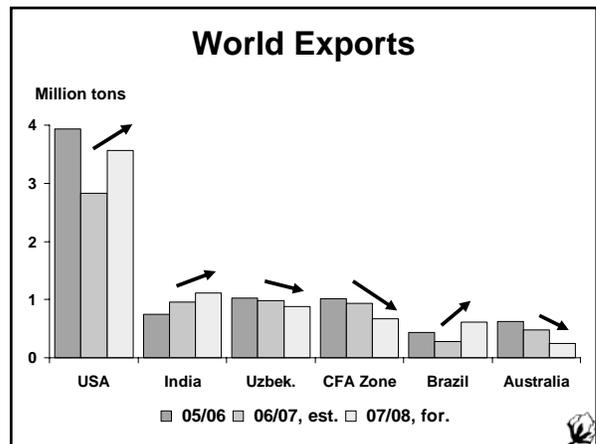
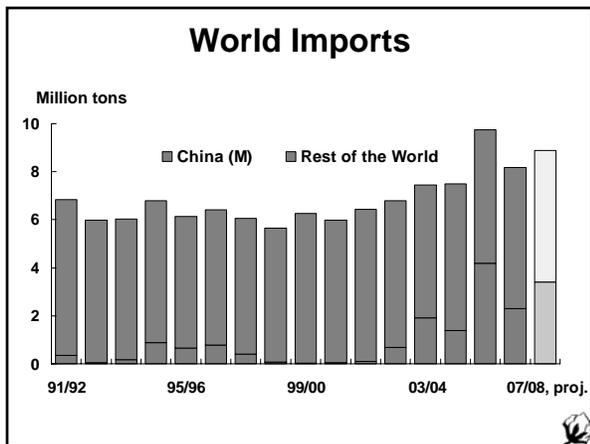
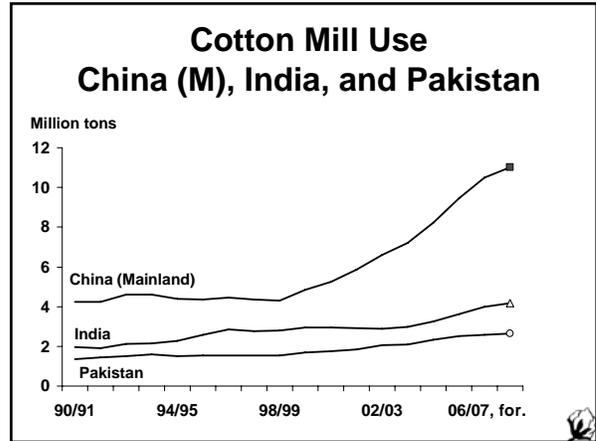
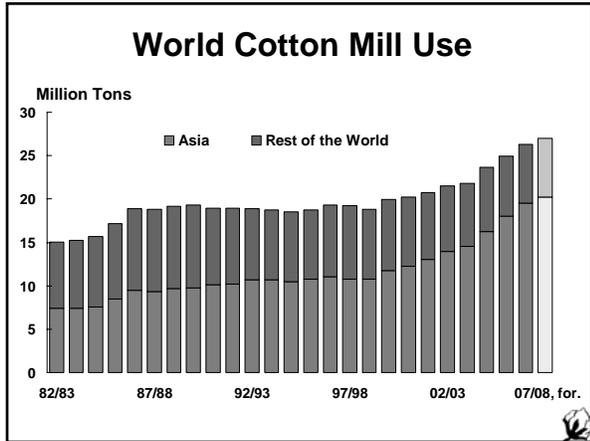
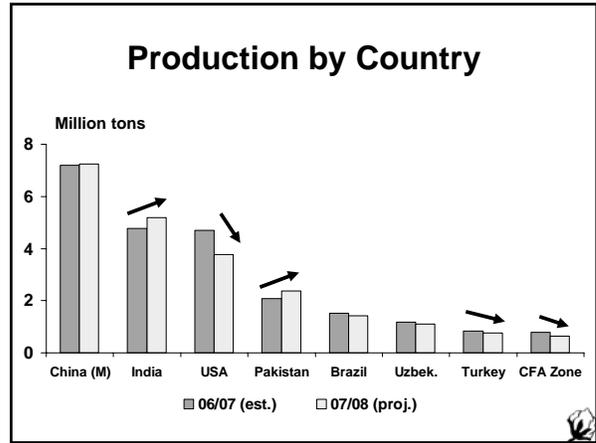
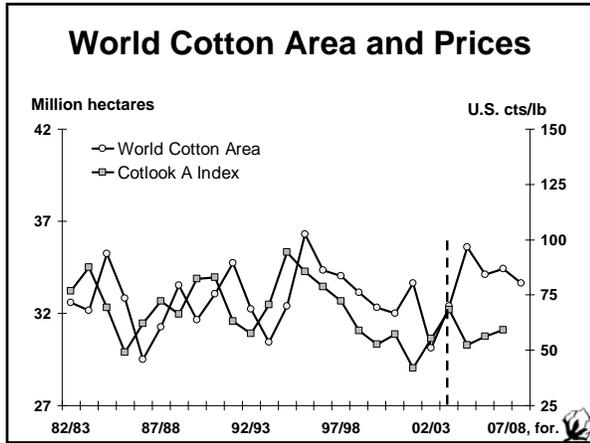


World Cotton Yield



Biotech Cotton





ICAC Price Model 1988

- Predicts season-average Cotlook A Index
- Variables:
 - S/U ratio in world-less-China (M)
 - Net imports by China (M) as a % of mill use in the rest of the world
- Predicted prices 2 years in advance
- Worked relatively well until 2003/04

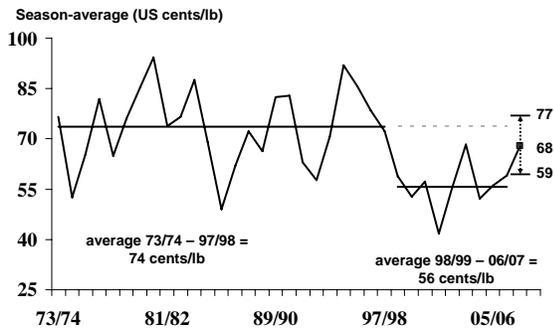


ICAC Price Model 2007

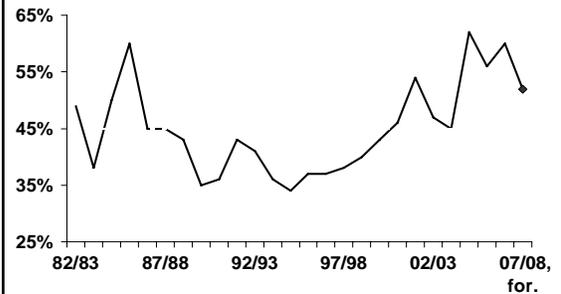
- Predicts season-average Cotlook A Index
- Variables:
 - S/MU ratio in World-less-China (M) = most important
 - S/MU ratio in China (M)
- Predicts prices one year in advance (ex: April 2008 for 2008/09 season-average)
- Monthly adjustment of forecast according to actual prices up to that date



Cotlook A Index



Stocks-to-Mill Use Ratio: World-less-China (M)



International Cotton Advisory Committee