

## **THE U.S. AND WORLD COTTON OUTLOOK**

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### **Abstract**

The U.S. and world cotton situation for the current season is one of extreme surplus. For 2002/03, lower world production and higher consumption will help to reduce world stocks. U.S. ending stocks are also forecast to fall, but the U.S. is likely to maintain a disproportionately large share of world stocks.

### **Introduction**

The world cotton situation for the current season, 2001/02, is one of record production and stagnant demand (figure 1). World stocks are forecast to climb 5 million bales to equal nearly half of world consumption. World prices have responded by falling to a low of 37 cents in October, the lowest monthly price since August 1986. All this means that the 2002/03 season will start from a position of extreme surplus. But “the best cure for low prices is low prices,” and the market will try to do the job of reducing stocks. Adjustments can be made either on the supply side, through lower production, or on the demand side, through higher consumption. If these adjustments are not sufficient, then prices cannot return to historical averages. So the question of how the market will restore balance to the balance sheet is uppermost in the minds of many of you right now.

I want to begin my presentation with the current world cotton situation, before focusing on the U.S. situation, including effects on domestic prices and farm income. Following that, I will make several predictions about the 2002/03 season and then analyze the likely effects of those predictions on the U.S. and world balance sheets. This outlook reflects the collective thinking of USDA’s Interagency Cotton Estimates Committee and I want to thank committee members for providing insights, analysis, and review for this paper.

### **World Cotton Situation, 2001/02**

World cotton planted area rose substantially—nearly 7 percent—in 2001, despite the fact that prices were declining rapidly. Lags in the transmission of price information, government programs supporting production, and the expanded use of Bt cotton have all contributed to higher area. Area increased 9 percent in the northern and equatorial countries, with China and the U.S. accounting for much of the increase (figure 2). While pests have hampered production on the Indian subcontinent, weather has been good, and yields are above average in most countries. More recently, area has fallen sharply in South America and Australia, mainly in response to price lows this fall. The corresponding reductions in production will partially offset increases in the rest of the world. However, on a net basis, production is still expected to rise about 9 percent.

World consumption will be static for the second consecutive season in 2001/02 due to the recent economic downturn (figure 3). U.S. consumers use more than 20 percent of the world’s cotton, so the U.S. recession and its ripple effects on the world economy will hurt cotton consumption. However, very low cotton prices will partially compensate for the demand effect by raising cotton’s fiber share. Foreign consumption is expected to rise this season, mainly in the countries of China, Turkey, Uzbekistan, and Pakistan.

China’s cotton situation is impacting the world market only marginally this season, after several years of wide swings in trade and stocks. But profound changes continue to transform China’s production and distribution system. China’s mill-delivered price held at about 65 cents per pound for most of the 2000/01 season, despite the rapid decline in world prices that began in January 2001 (figure 4). Demand exceeded production, but government policies restricted supplies by: (1) rationing cotton released from stocks via the auction system; and (2) placing strict limits on imports. The high internal price, combined with the spread of Bt cotton and low grain prices, encouraged production in the spring of 2001. Area rose 20 percent, with most of the increase in the eastern provinces, and production totaled an estimated 24.4 million bales, a 4.1-million-bale increase from the 2000 crop.

With the larger 2001 crop, Chinese officials anticipated that production would meet or exceed consumption and acted in the early fall to move the new crop into marketing channels. Procurement prices fell to market-clearing levels everywhere but in Xinjiang, where local authorities established a price floor. The government also authorized some private companies to procure cotton from farmers and restricted the flow of government-backed credit. These policies, combined with the larger production, have been effective in bringing China’s prices in line with world prices. Moreover, China officially joined the WTO in December of 2001, and is processing administrative changes to open a tariff rate quota for raw cotton of nearly 3.8 million bales for calendar year

2002. However, since Chinese prices are now competitive with world prices, it is unlikely that large quantities will be imported during the 2001/02 marketing year (figure 5).

These estimates indicate an increase in world stocks to about 44 million bales, the largest level in 3 years. The increase in U.S. stocks accounts about half of the change and China's stocks are also expected to rise (figure 6). The pressure of low prices and aggressive U.S. export sales will increase stock-holding in both foreign cotton-producing and -consuming countries, and stocks outside of China are forecast to rise to a record level of 23.5 million bales.

### **U.S. Cotton Situation, 2001/02**

A large carry-in of about 6.0 million bales, combined with record crop production, is raising U.S. cotton supplies to their highest levels since the mid-1960's. The U.S. 2001 crop is likely to equal about 20 million bales, due to a combination of larger area and good yields. Cotton prices were falling in the spring of 2001, but alternative crop prices were also low, and the CCC loan and crop insurance programs made cotton production relatively attractive. Favorable springtime weather also encouraged cotton planting, and total area reached 15.8 million acres, the second largest in nearly 40 years (figure 7). A substantial shift to cotton occurred in the Delta states, where area rose more than 20 percent from the preceding year.

Cotton growing conditions were favorable in all regions except the Southwest, where drought reduced the acres harvested and depressed yields. More than 20 percent of Texas planted area was abandoned, raising the national abandonment level to about 14 percent. With good weather in most other areas, and the loss of a significant percentage of lower-yielding acreage, the national average yield per harvested acre is the highest in five years (figure 8).

Domestic mill use of cotton is expected to decline about 14 percent from the 2000/01 season, due to the gradual loss of the domestic apparel industry and competition from textile imports. The downward trend was exacerbated by the currency devaluations that began with the 1997 Asian financial crisis. The strength of the dollar has made it increasingly difficult for U.S. textile and apparel plants to compete with their foreign counterparts. Still further losses have resulted from the economic downturn which eroded consumer demand during most of calendar 2001. The ATMI estimates that, since January 2001, 63,000 jobs have been lost in the textile industry, or about 12 percent.

This season's mill use has been hurt both by lower retail use and by the loss of market share to foreign mills (figure 9). U.S. consumers used an estimated 20.7 million bales of cotton during the 1999/2000 season, declining to 20.0 million in 2000/01. This season will mark the second consecutive year of decline, with consumers expected to use only about 19.6 million bales. Growth rates for both textile imports and textile exports of cotton are likely to fall, but imports will still exceed exports and the textile trade deficit will continue to rise (figure 10). Mill use is forecast at 7.7 million bales for the season, slightly above the average for the season to date (figure 11). A modest recovery in retail demand, combined with the current very low cotton prices, is expected to improve mill use in the second half of the year.

With more than 9.0 million bales of export sales on the books, USDA is forecasting total shipments of 9.8 million bales, the largest in 75 years. Factors boosting this season's exports include: (1) large beginning stocks and production, combined with declining mill use, result in a U.S. exportable supply that is the largest in 35 years (figure 12); (2) aggressive early-season sales by U.S. merchants, which were supported by the expiration of about 2.0 million bales of 2000-crop CCC loans (figure 13); (3) the marketing loan program, which has permitted market prices to fall in tandem with world prices while maintaining U.S. farmers' income; and (4) the reluctance of some foreign producers to sell at prices below their cost of production.

U.S. ending stocks of 8.6 million bales are forecast this season, nearly 50 percent of total use and the largest since 1985/86 (Table 1). At this stock level, the U.S. would carry almost 20 percent of world stocks, compared with a normal level of about 10 percent.

Spot prices fell to a low of 28.4 cents per pound in October, and have risen since then to their current level of about 32 cents (figure 14). The rebound resulted from a general sense that prices had become too low, rather than any apparent change in the outlook. For example, at prices approaching the mid-20's and relatively low interest rates, the option of storing cotton until next season was gaining appeal. The AWP reached its low on November 1, following which a substantial quantity of cotton was released from the CCC loan.

Very low cotton prices are also taking their toll on market returns, but government expenditures, combined with favorable yields, will raise farm income to near average levels this season. Upland cotton gross farm income is forecast at about \$7.6 billion for the 2001 crop, up 17 percent from the preceding year (figure 15). Income from the government program will double, reaching \$3.7 billion, as very low world prices are generating large expenditures for the marketing loan program. Net returns over variable

costs are estimated at about \$175 per planted acre, \$40 above last year but \$25 below the 5-year average (figure 16). If market income alone were measured, a net loss of more than \$50 per planted acre would result.

### **World and U.S. Outlook for 2002/03**

Although some of you are just weeks away from planting your 2002 cotton crops, it is very early to be making projections that will cover a season that ends in July of 2003. I am sure you remember last year, when most forecasters failed to predict the combination of circumstances that resulted in historically low prices. All we can give you at this early date is a framework in which to monitor and interpret events as they unfold. Our preliminary USDA outlook is based on some assumptions which may or may not materialize. First, we assume normal weather and growing conditions. Our demand forecasts are based on economic turn-around beginning in mid-2002 and accelerating into 2003. And our policy assumptions are continuation of the current U.S. farm program for the 2002 crop.

Having said that, there are predictions about next season that we at USDA feel have a good probability of occurring. I would like to present these predictions and then show you what the U.S. balance sheet might look like if they are realized.

#### **Prediction #1: World production will decline by about 8.0 million bales, including about 3.5 million in China, about 2.5 million in the U.S., and about 2.0 million (net) in other countries.**

World production is forecast to decline to about 88.5 million bales, from 96.6 million this season. China will account for about 3.5 million bales of this reduction, producing about 21 million bales. The 30-percent decline in China's internal cotton price during calendar 2001 is likely to discourage cotton area in the spring of 2002.

In the U.S., area will decline by nearly to a range of 14.5-15.0 million acres, due to a variety of factors. Relative to a year ago, cotton prices are lower cotton compared with corn and soybeans. Producers also face a sharply lower crop insurance election price. And a return to normal weather conditions from last year's excellent planting weather is likely to reduce area devoted to cotton. With normal yields, production would fall to 17.5-18.0 million bales.

Other countries, especially India and the African franc zone countries, are also likely to reduce area this spring. If the production response in the northern hemisphere is effective in reducing the world's cotton surplus, then the southern-hemisphere producing countries could increase area in the fall from the extreme lows of 2001. In the aggregate, production in countries other than the U.S. and China is expected to decline by about 2 million bales.

#### **Prediction #2: World consumption will rise 1.5-2.0 percent in 2002/03, due to economic recovery and the lingering effects of current low cotton prices.**

Our macroeconomic forecasts indicate world GDP growth relatively flat at 1.2 percent in calendar 2002, rising to about 3.5 percent in calendar 2003 (figure 17). Consumption in the 2002/03 marketing year will benefit both from a worldwide economic recovery and from the accumulation of cotton purchases made at below-average prices. Our preliminary world consumption forecast is 93.5 million bales.

#### **Prediction #3: With lower production, rising consumption, and large TRQ's under the WTO, China's net imports could reach 2.0 million bales or more.**

China is likely to be a net importer on a larger scale in 2002/03, owing to reduced production and continued growth in consumption (figure 18). Under the new TRQ system, government of China will no longer have the right to restrict imports, as it has in recent years. Our preliminary estimate of China's net imports is about 2.0 million bales. Even with imports at this level, China's stocks are likely to decline.

#### **Prediction #4: U.S. mill use will remain in the 7.5-8.0 million bale range.**

Economic recovery is likely to promote growth in retail use of cotton, after two years of decline. However, growth in textile trade will continue to diminish the share of U.S. mills, and mill use is likely to be stable in the 7.5-8.0 million bale range (figure 19).

#### **Prediction #5: U.S. exports will be large and are likely to exceed this year's 9.8 million bales.**

This year's exports have been boosted by surplus supplies and competitive pricing under the marketing loan program, both factors which--thanks to large beginning stocks--are likely to be present again next season. In addition, lower foreign production and higher foreign consumption will expand the window of opportunity for U.S. cotton sales, especially if China becomes a significant importer. And early-season competitiveness is likely to be enhanced by large quantities of 2001-crop cotton held in the CCC loan which will expire early in the fall of 2002. Our preliminary range for 2002/03 U.S. exports is 10-11 million bales.

## Conclusions

These are relatively bullish predictions but, if we evaluate the effect on the U.S. balance sheet, we see that they are not sufficient to eliminate U.S. surplus stocks by the end of 2002/03. At the mid-point of the U.S. forecast ranges, stocks would fall to about 8.0 million bales, or just under 45 percent of total use (Table 2). Taking the most optimistic approach of combining the minimum estimates for production and the maximum estimates for offtake results in a stocks reduction of about 1.5 million bales, to about 7.0 million, which is about 35 percent of use. Put another way, the reductions in production and increases in offtake projected are not sufficient to liquidate very large stocks. Returning stocks to an equilibrium level—which would be less than 30 percent of total use—would require lower production or larger mill use and exports than we are now forecasting, or some combination.

The world balance sheet fares better, due to its more significant reductions in supply (Table 3). World stocks are forecast to fall to 39.0 million bales, down 12 percent from last year. The world has held stocks above 41 million in four of the past five years, but China carried large surpluses in the first three of these years (figure 20). The U.S. share of world stocks has risen as China's has declined—based on these projections, nearly 20 percent of world stocks would be held in the U.S. again at the end of 2002/03 (figure 21).

**Table 1. U.S. Cotton Supply-Demand Estimates**  
mil. bales

	<u>2000/01</u>	<u>2001/02</u>
<b>Beg. Stocks</b>	<b>3.9</b>	<b>6.0</b>
<b>Production</b>	<b>17.2</b>	<b>20.1</b>
<b>Imports</b>	<b><u>0.0</u></b>	<b><u>0.0</u></b>
<b>Total Supply</b>	<b>21.1</b>	<b>25.6</b>
<b>Mill Use</b>	<b>8.9</b>	<b>7.7</b>
<b>Exports</b>	<b><u>6.8</u></b>	<b><u>9.8</u></b>
<b>Total Use</b>	<b>15.7</b>	<b>17.7</b>
<b>Ending Stocks</b>	<b>6.0</b>	<b>8.6</b>

**Table 2. Preliminary 2002/03  
U.S. Cotton Balance Sheet  
(mil. bales)**

	<u>2001/02</u>	<u>2002/03</u>
<b>Beg. Stocks</b>	<b>6.0</b>	<b>8.6</b>
<b>Production</b>	<b>20.1</b>	<b>17.5-18.0</b>
<b>Imports</b>	<b><u>0.0</u></b>	<b><u>0.0</u></b>
<b>Total Supply</b>	<b>26.1</b>	<b>26.1-26.6</b>
<b>Mill Use</b>	<b>7.7</b>	<b>7.5-8.0</b>
<b>Exports</b>	<b><u>9.8</u></b>	<b><u>10.0-11.0</u></b>
<b>Total Use</b>	<b>17.7</b>	<b>17.5-19.0</b>
<b>Ending Stks</b>	<b>8.6</b>	<b>7.1-9.1</b>

**Table 3. Preliminary 2002/03  
World Cotton Balance Sheet  
(mil. bales)**

	<u>2001/02</u>	<u>2002/03</u>	<u>Change</u>
<b>Beg. stocks</b>	<b>39.0</b>	<b>44.1</b>	<b>+13 %</b>
<b>Production</b>	<b>96.7</b>	<b>88.5</b>	<b>-9%</b>
<b>Imports</b>	<b><u>28.7</u></b>	<b><u>29.7</u></b>	
<b>Total Supply</b>	<b>164.3</b>	<b>162.0</b>	
<b>Consumption</b>	<b>91.8</b>	<b>93.5</b>	<b>+2%</b>
<b>Exports</b>	<b><u>28.4</u></b>	<b><u>29.4</u></b>	
<b>Total Use</b>	<b>120.2</b>	<b>122.9</b>	
<b>Ending Stocks</b>	<b>44.1</b>	<b>39.0</b>	<b>-12%</b>

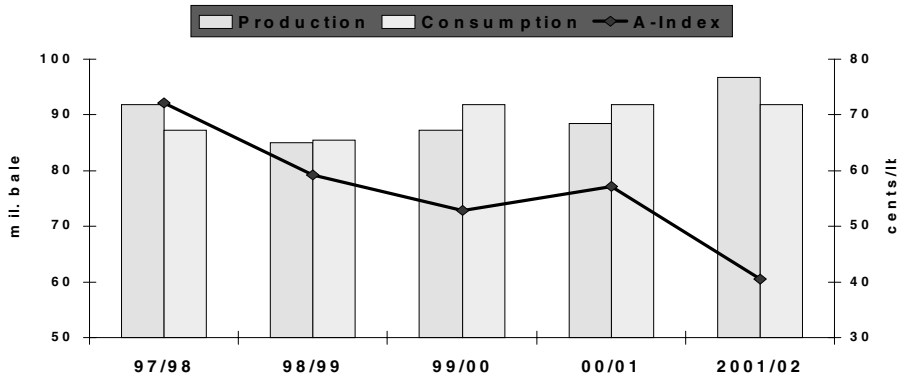


Figure 1. World Production, Consumption, and Prices, 1997/98 to Date.

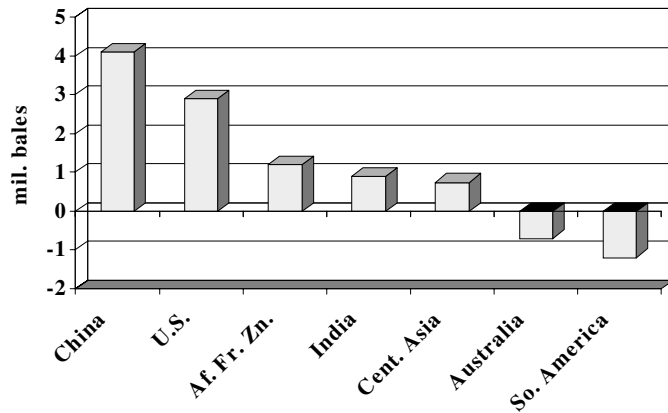


Figure 2. Major Changes in World Production, 2001/02 from 2000/01.

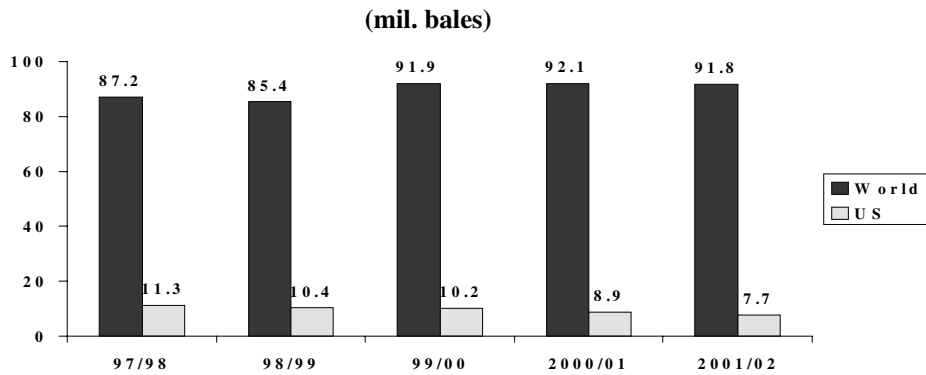


Figure 3. World and U.S. Consumption, 1997/98 to date.

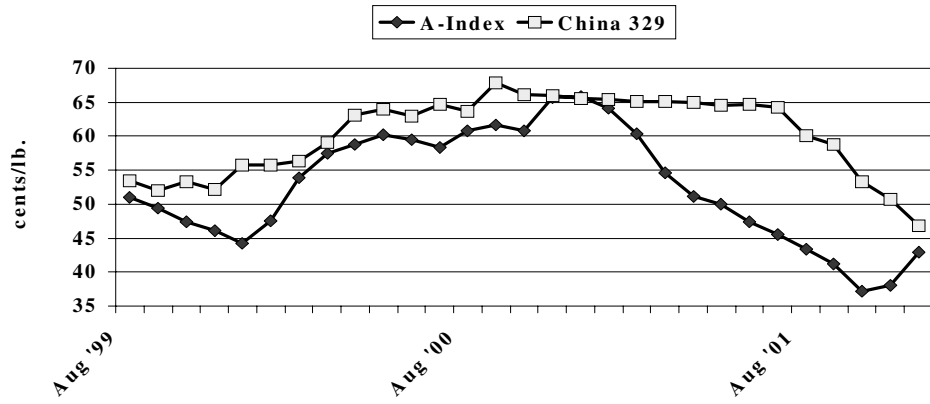


Figure 4. A-Index and China 329 Mill Price.

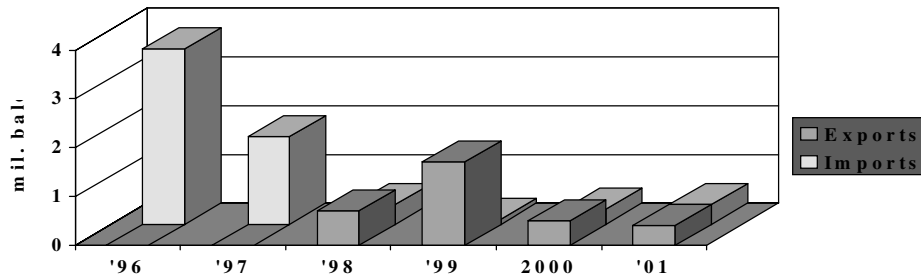


Figure 5. China's Import and Export Projections through 2001/02.

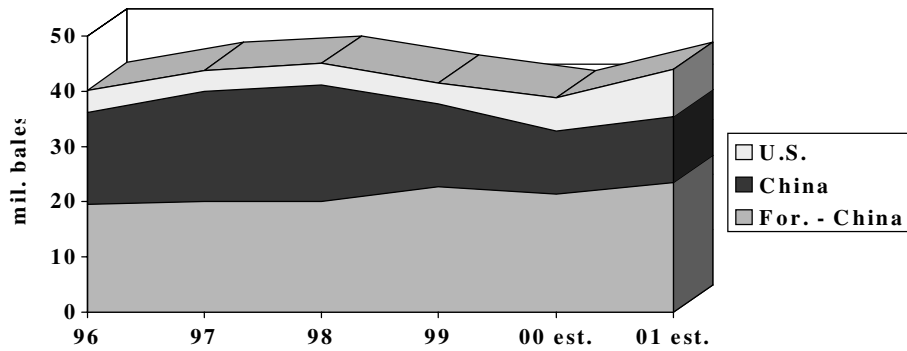


Figure 6. U.S., China, and Other Foreign Stocks through 2001/02.

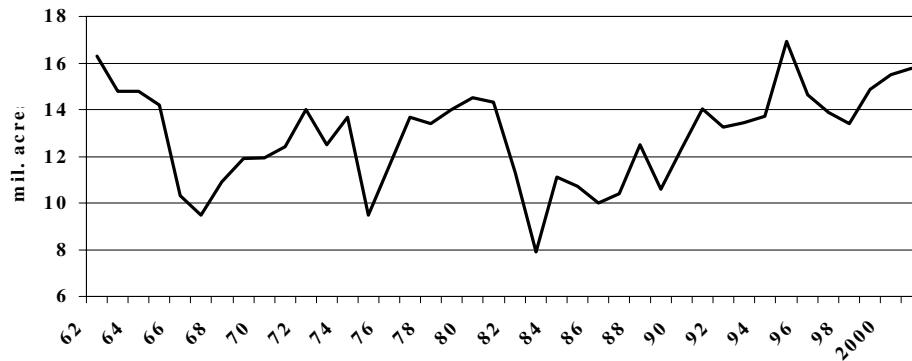


Figure 7. 2001 U.S. Planted Area Second Highest since 1962.

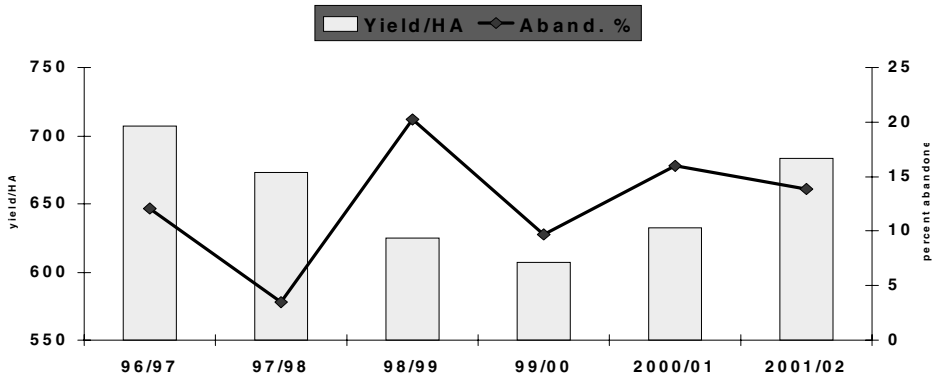


Figure 8. U.S. Abandonment and Yield/Harvested Acre 1997/98 to date.

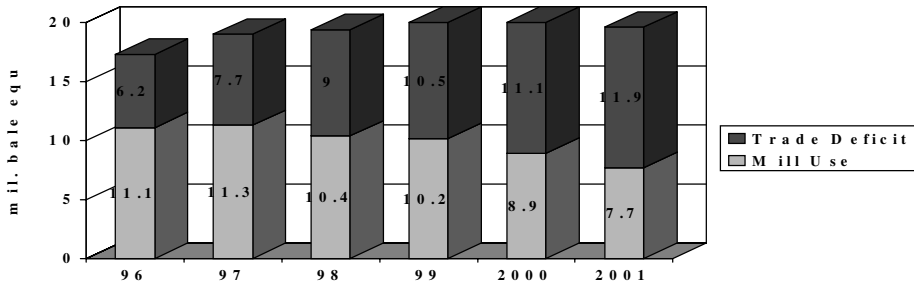


Figure 9. U.S. Mill Use Loses Share of Retail Cotton Consumption.

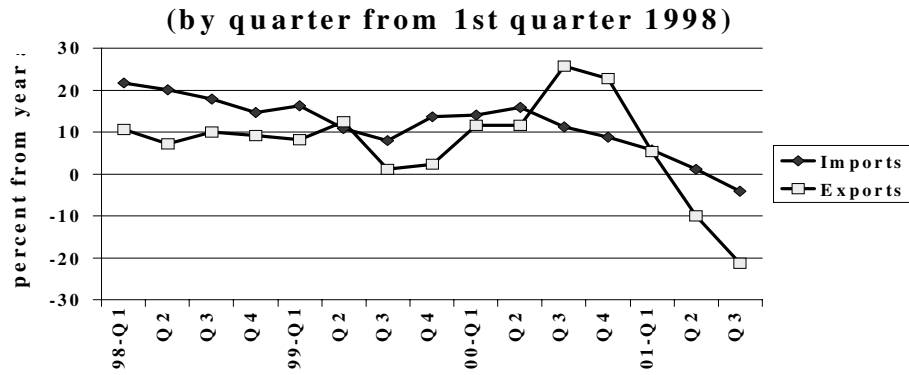


Figure 10. Textile Trade Growth Rates Reflect Slowdown.

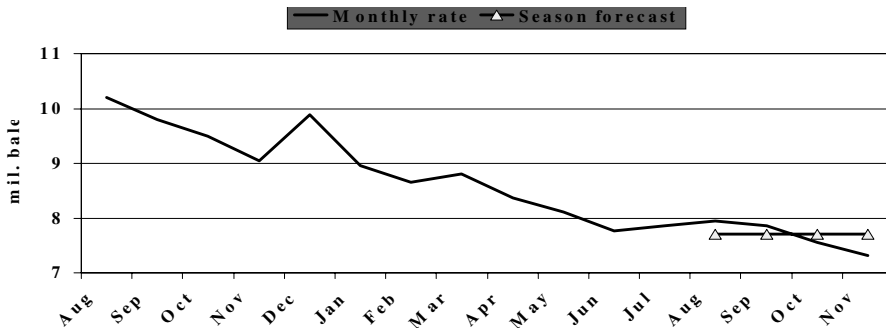


Figure 11. Seasonally Adjusted Annual Mill Use Rates by month since August 2000.



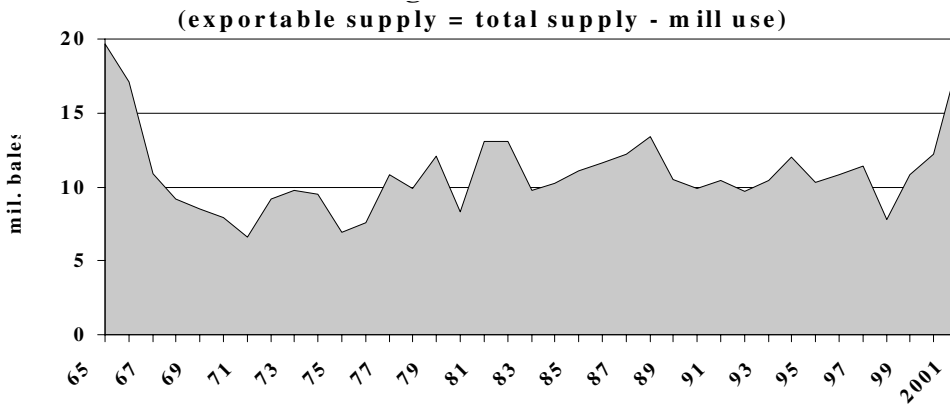


Figure 12. U.S. Exportable Supply the Largest in 35 Years.

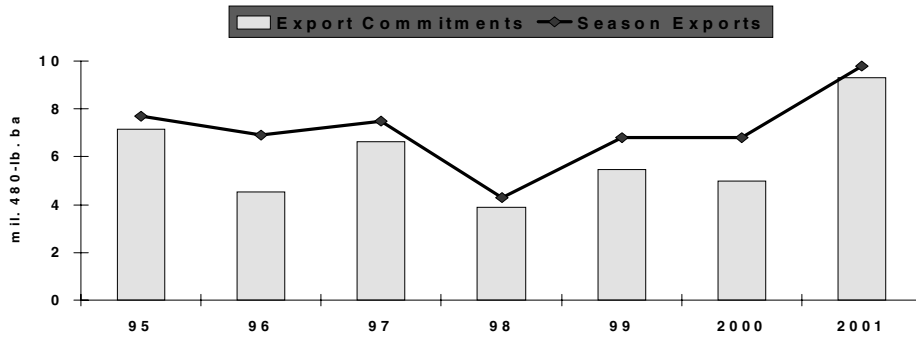


Figure 13. U.S. Export Commitments as of end-December, 1995 through 2001.

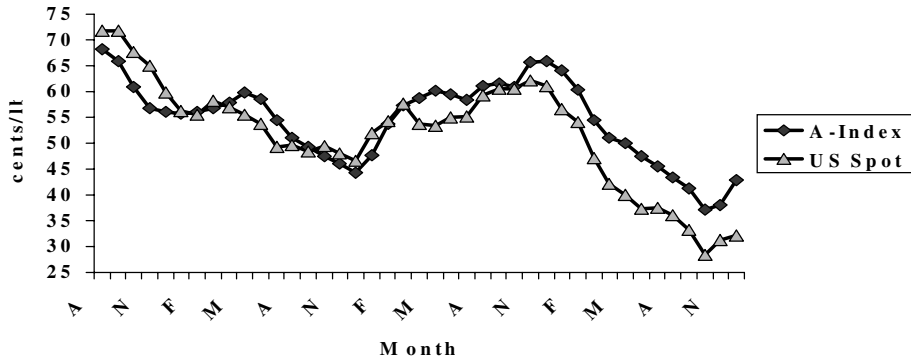


Figure 14. World and U.S. Spot Cotton Prices August 1998 to date.

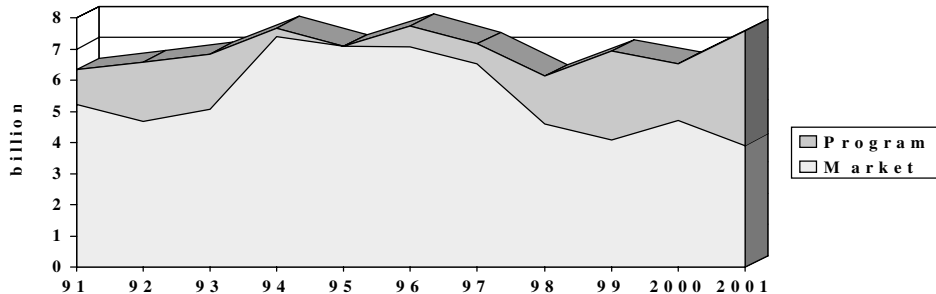


Figure 15. Gross Cotton Farm Income 1991/92 through 2001/02.

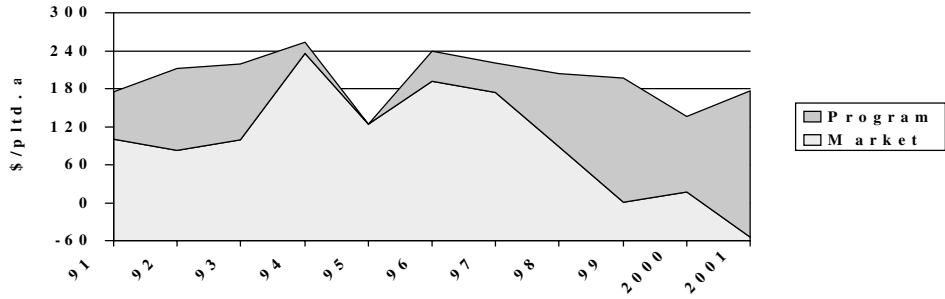


Figure 16. Net Returns/Acre over Variable Costs Program and Market 1991 thru 2001 est.

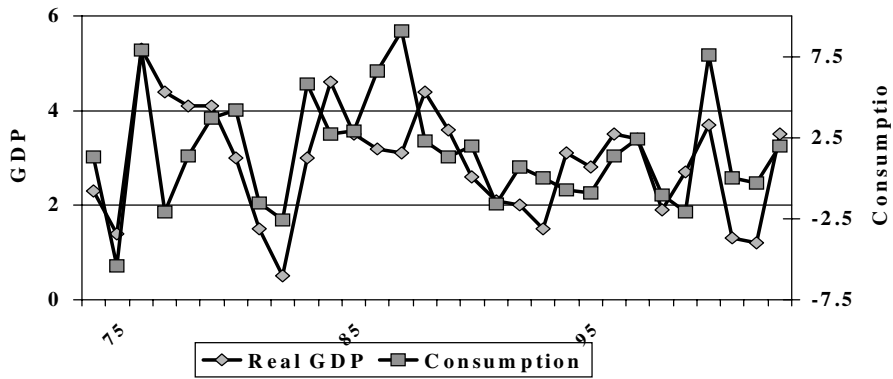


Figure 17. World Consumption Will Increase 1.5 - 2.0%.

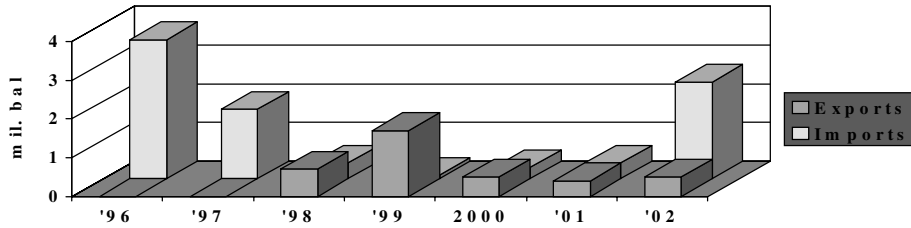


Figure 18. China's Imports Will Rise Significantly.

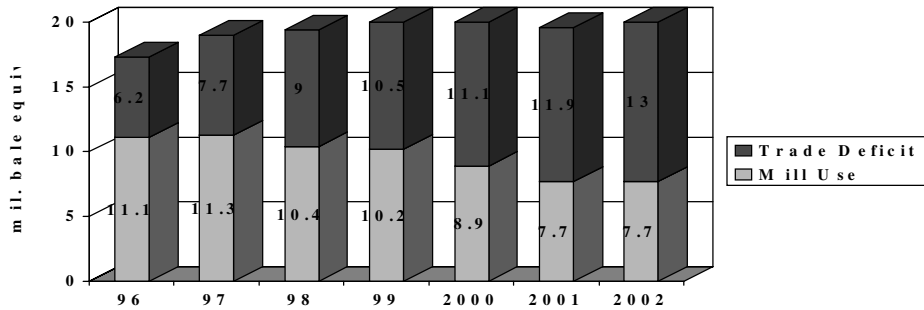


Figure 19. U.S. Mill Use Stable With End Use Rising.

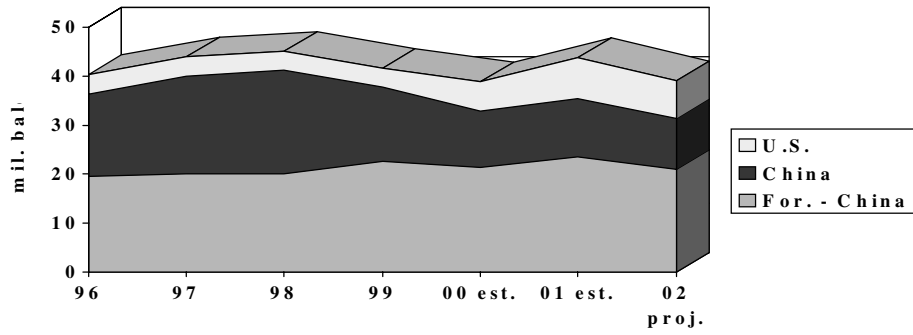


Figure 20. U.S., China and Other Foreign Stocks through 2002/03.

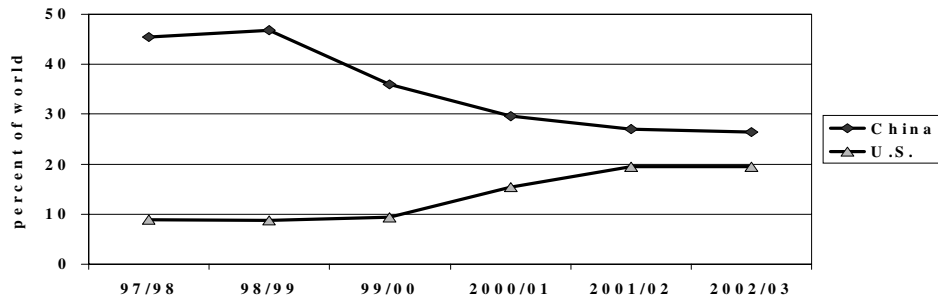


Figure 21. U.S. and China Share of World Stocks 1997/98 to 2002/03 proj.